
Thermal Edge Inc.™
5-YEAR
WARRANTY

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

CATALOG SECTIONS

Thank you for receiving our catalog. We look forward to working with your company to remedy heat related issues inside your electrical enclosures. Please do not hesitate to call us for product assistance or application sizing.

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

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MADE IN AMERICA MATTERS...

CONTACT THERMAL EDGE

If you have questions that you cannot find answers to in our catalog, we have in-house customer care, technical services, design engineers, and application sales specialist that will be able to answer any questions that you may have regarding Thermal Edge cooling products.

FEEL FREE TO CONTACT US!
Thermal Edge Inc.
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Irving, Texas 75038

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FAX: (972) 580-0277
OFFICE HOURS:
Monday-Friday
8:00AM-5:00PM (Central)

WE ARE CLOSED
FOR THE FOLLOWING HOLIDAYS:
New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Eve
Christmas Day

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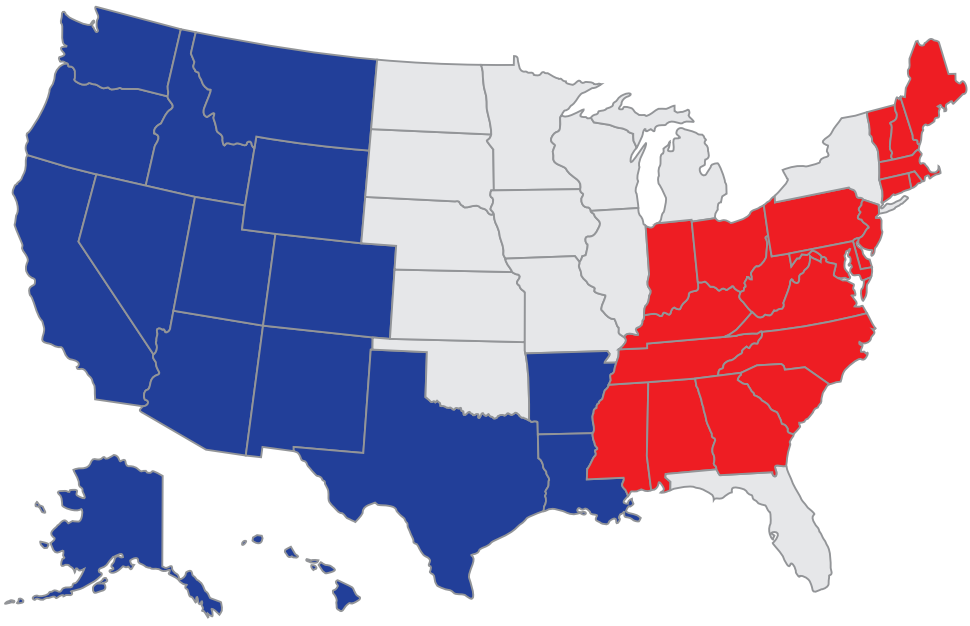


To locate a Sales Representative in your State please visit our website at: https://thermaledge.com/contact-us/sales-team/

NEED SOME HELP?
EMAIL: SUPPORT@THERMALEDGE.COM

If you need technical support, please email for prompt attention, and a case reference number will be generated and emailed back to you.

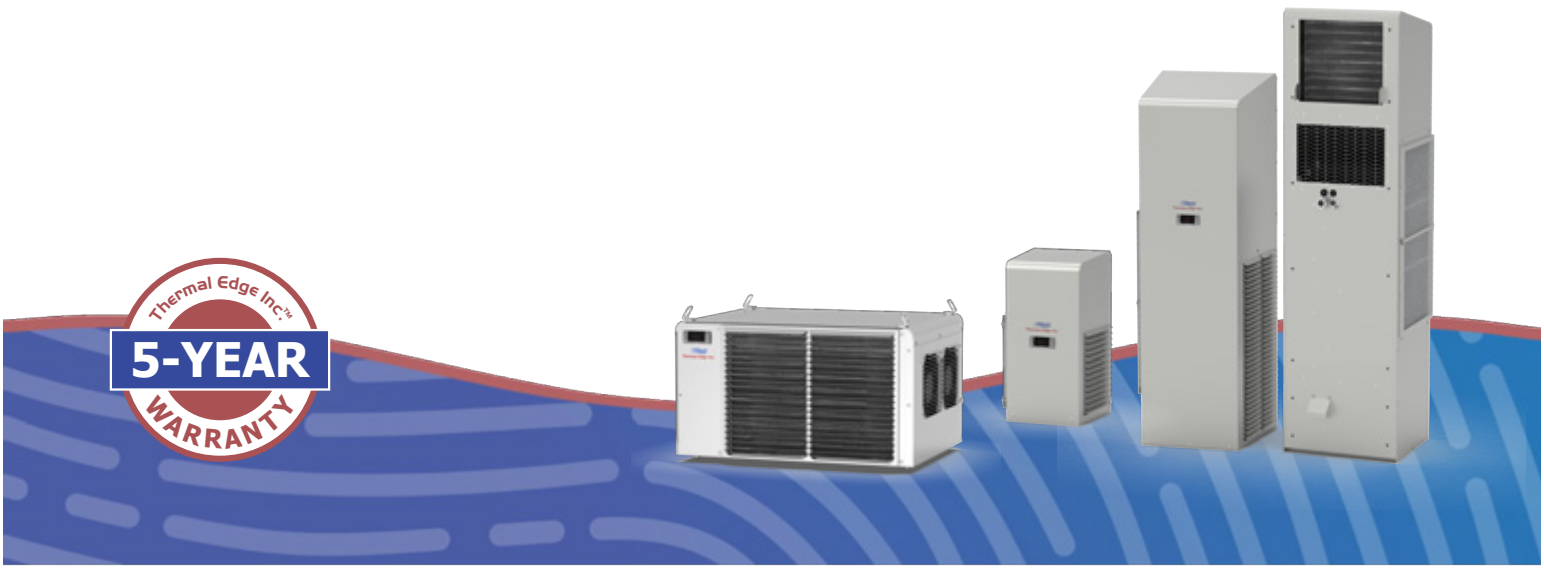
Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

UL LISTED ENCLOSURE AIR CONDITIONERS

Fully Integrated Condensate Evaporation Package
Programmable Digital Controller
Thermal Expansion Valve
Narrow Design To Fit Onto A 12" Enclosure
Energy Efficient - Low Running Amps
50 Hz Enclosure Air Conditioners
60 Hz Hazardous Locations Enclosure Air Conditioners
50 Hz Hazardous Locations Enclosure Air Conditioners

MADE IN AMERICA MATTERS...



Thermal Edge Inc.™

1/27/2025

WHAT MAKES AN AIR CONDITIONER A THERMAL EDGE AIR CONDITIONER?

There are three critical features that make a Thermal Edge Enclosure Air Conditioner different from any other line of air conditioners. Standard on Every Unit:

DRIP-FREE CONDENSATE REMOVAL IS NOT OPTIONAL

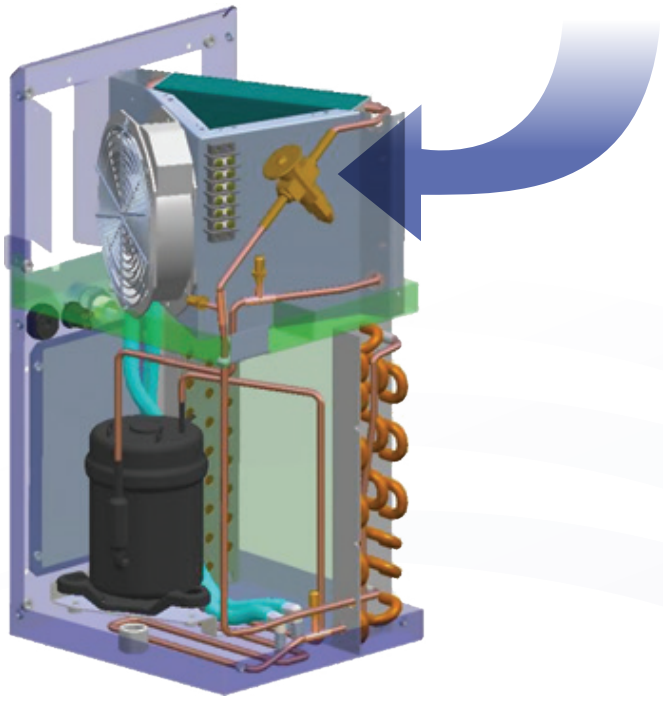
Condensate Evaporation Is Standard On Every Unit... NO DRAIN TUBE IS NEEDED

DIGITAL, PROGRAMMABLE CONTROLLER:

- Built in alarms and alerts
- Will operate heating & cooling
- Ethernet, Modbus RTU and EtherNet/IP communication options
- Remote controller option places controller inside cabinet

THERMAL EXPANSION VALVE CONTROLS THE FLOW

Thermal Expansion Valves balance and modulate the refrigerant flow to the heat load by sensing the temperature of the refrigerant leaving the evaporator.



NO WATER DRIPS FROM THERMAL EDGE ENCLOSURE AIR CONDITIONERS

CS SERIES AIR CONDITIONERS

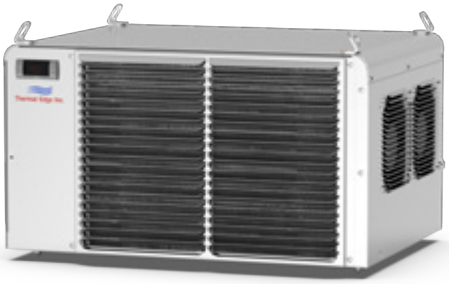
Smallest 2000 BTUH available

- Active Condensate Evaporation is standard
- Fits on a 7" or 10" deep enclosure
- Available in UL Types 12, 4, 4X
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 115V, 230V, 48VDC in 1000 BTUH
- 1000 BTUH
- 2000 BTUH

TM SERIES AIR CONDITIONERS

Top Mounted Enclosure Air Conditioners

- Active Condensate Evaporation is standard
- Available in UL Types 12, 4, 4X
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 115V, 230V, 460V
- 6000 BTUH
- 8000 BTUH



NE SERIES AIR CONDITIONERS

Active Condensate Evaporation is standard

- Fits on a 12" deep enclosure
- Available in UL Types 12, 4, 4X and Hazardous Environment applications
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 115V, 230V, 460V, 48VDC in 4000 BTUH
- 1000 BTUH
- 1500 BTUH
- 2000 BTUH
- 3000 BTUH
- 4000 BTUH
- 5000 BTUH
- 6000 BTUH
- 8000 BTUH

HC SERIES AIR CONDITIONERS

Active Condensate Evaporation is standard

- Available in UL Types 12, 4, 4X and Hazardous Environment applications
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 115V, 230V, 460V
- 10,000 BTUH
- 12,000 BTUH
- 15,000 BTUH
- 20,000 BTUH
- 20,000 BTUH

AIR CONDITIONER PRODUCT LINE

Model	BTU/Hour	Voltage/ Phase/Hz	Running Amps	Max. Ambient Temp	Max. Integrated Heat (Watts)	H x W x D	Unit Weight
CS011D48	1,000	48 VDC	3.5	131°F	NA	17" x 7" x 7"	31
CS011126	1,000	120/1/60	2.7	131°F	350	17" x 7" x 7"	31
NE010126	1,000	120/1/60	3.44	125°F	NA	22" x 11.8" x 8.5"	51
NE010236	1,000	230/1/60	2.67	125°F	NA	22" x 11.8" x 8.5"	53
NE015126	1,500	120/1/60	3.44	125°F	NA	22" x 11.8" x 8.5"	51
NE015236	1,500	230/1/60	2.67	125°F	NA	22" x 11.8" x 8.5"	53
CS020126	2,000	120/1/60	4.1	131°F	500	20" x 10" x 10"	44
CS020236	2,000	230/1/60	2.0	131°F	500	20" x 10" x 10"	49
NE020D48	2,000	48 VDC	5.7	131°F	NA	35.27" x 11.8" x 9.5"	103
NE020126	2,000	120/1/60	3.3	134°F	1000	32" x 11.8" x 9.5"	60
NE020236	2,000	230/1/60	3.07	125°F	1000	32" x 11.8" x 9.5"	72
NE02S486	2,000	480/1/60	0.87	134°F	1000	32" x 11.8" x 15.1"	94
NE020486	2,000	480/1/60	0.87	134°F	1000	38" x 11.8" x 9.5"	94
NE030D48	3,000	48 VDC	8.7	131°F	NA	35.27" x 11.8" x 9.5"	103
NE030126	3,000	120/1/60	4.86	140°F	1000	32" x 11.8" x 9.5"	70
NE030236	3,000	230/1/60	3.07	125°F	1000	32" x 11.8" x 9.5"	72
NE03S486	3,000	480/1/60	1.28	140°F	1000	32" x 11.8" x 15.1"	103
NE030486	3,000	480/1/60	1.28	140°F	1000	38" x 11.8" x 9.5"	103
NE040D48	4,000	48 VDC	17.5	131°F	NA	35.27" x 11.8" x 9.5"	103
NE040126	4,000	120/1/60	6.76	125°F	1000	32" x 11.8" x 9.5"	70
NE040236	4,000	230/1/60	3.07	125°F	1000	32" x 11.8" x 9.5"	72
NE04S486	4,000	480/1/60	1.69	125°F	1000	32" x 11.8" x 15.1"	103
NE040486	4,000	480/1/60	1.69	125°F	1000	38" x 11.8" x 9.5"	103
NE050126	5,000	120/1/60	6.14	140°F	1000	36" x 11.8" x 15.1"	97
NE050236	5,000	230/1/60	3.76	140°F	1000	36" x 11.8" x 15.1"	92
NE050486	5,000	480/1/60	1.9	140°F	1000	44.63" x 11.8" x 15.1"	136
NE060126	6,000	120/1/60	7.83	125°F	1000	36" x 11.8" x 15.1"	97
NE060236	6,000	230/1/60	4.8	125°F	1000	36" x 11.8" x 15.1"	98
NE060486	6,000	480/1/60	2.4	125°F	1000	44.63" x 11.8" x 15.1"	142

AIR CONDITIONER PRODUCT LINE

(CONTINUED)

Model	BTU/Hour	Voltage/ Phase/Hz	Running Amps	Max. Ambient Temp	Max. Integrated Heat (Watts)	H x W x D	Unit Weight
TM061126	6,000	120/1/60	10.6	131°F	1000	15.6" x 26.3" x 20.2"	111
TM061236	6,000	230/1/60	6.0	131°F	1000	15.6" x 26.3" x 20.2"	111
TM061486	6,000	480/1/60	2.9	131°F	1000	15.6" x 26.3" x 20.2"	154
NE080126	8,000	120/1/60	7.83	125°F	1000	36“ x 11.8“ x 15.1"	102
NE080236	8,000	230/1/60	4.8	125°F	1000	36“ x 11.8“ x 15.1"	103
NE080486	8,000	480/1/60	2.4	125°F	1000	44.63" x 11.8" x 15.1"	142
TM081126	8,000	120/1/60	11.6	131°F	1000	15.6" x 26.3" x 20.2"	111
TM081236	8,000	230/1/60	7.0	131°F	1000	15.6" x 26.3" x 20.2"	111
TM081486	8,000	480/1/60	3.5	131°F	1000	15.6" x 26.3" x 20.2"	154
HC101126	10,000	120/1/60	19.4	131°F	1500	48" x 15.9" x 15.1"	162
HC101236	10,000	230/1/60	8.2	131°F	1500	48" x 15.9" x 15.1"	166
HC101486	10,000	480/1/60	4.1	131°F	1500	57.6" x 15.9" x 15.1"	232
HC121126	12,000	120/1/60	19.4	131°F	1500	48" x 15.9" x 15.1"	167
HC121236	12,000	230/1/60	8.2	131°F	1500	48" x 15.9" x 15.1"	163
HC121486	12,000	480/1/60	4.1	131°F	1500	57.6" x 15.9" x 15.1"	237
HC151236	15,000	230/1/60	9.93	140°F	1500	48" x 15.9" x 15.1"	170
HC151486	15,000	480/1/60	5.21	140°F	1500	57.6" x 15.9" x 15.1"	247
HC20C236	20,000	230/1/60	12.47	140°F	1500	48" x 15.86" x 15.03"	170
HC20C486	20,000	480/1/60	6.3	140°F	1500	57.6" x 15.86" x 15.03"	247

Thermal Edge Inc.™

CS011D48

1/27/2025

1000 BTUH 48 VOLT DC POWERED AIR CONDITIONER
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Telecom Outside Plant, Off-Grid Solar, Wind & other Battery Powered Electrical Cabinets. The CS011 uses a unique 3 coil design providing high capacity cooling while utilizing air intake from either side. Dual intake allows for mounting on a wall mounted enclosure on the right or left side of your enclosure.

Digital Temperature Controller
- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System
- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 8" enclosure
- Filter free design

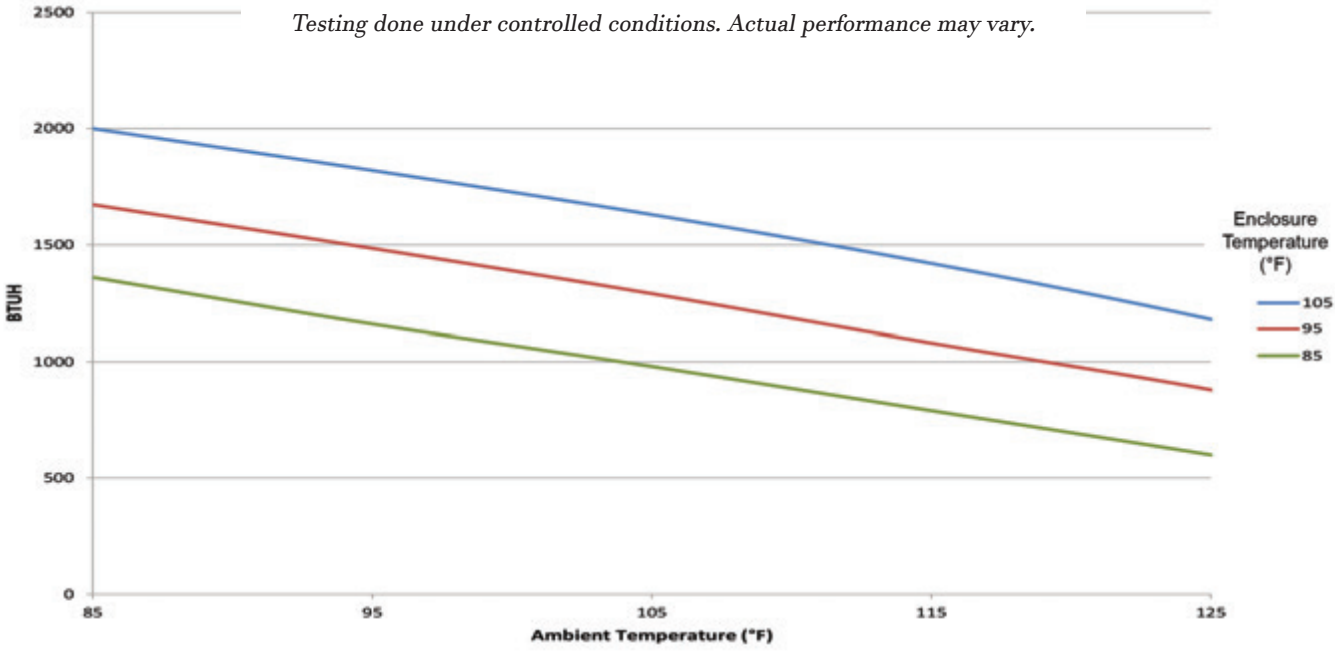
Unit Efficiency
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

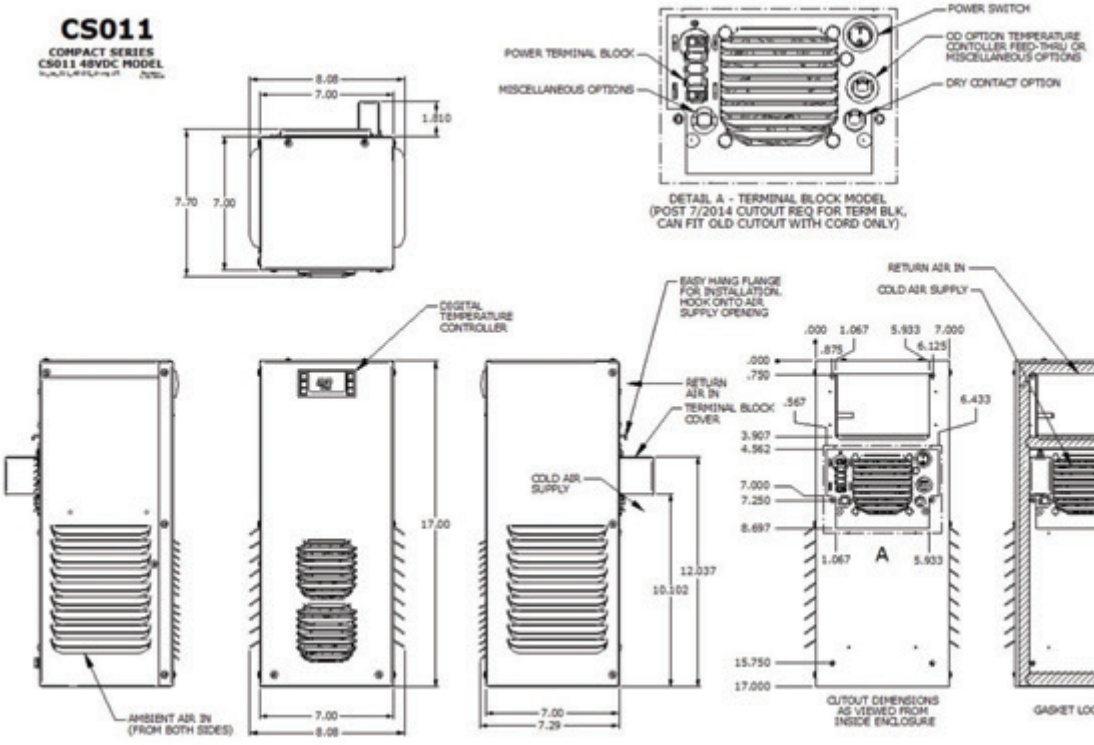
Compressor Protection System
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor motor drive controller eliminates power inrush, saves energy and increases compressor life

OPTIONS:
- High Ambient
- Remote Controller
- Corrosion Protection
- Dry Contact
- Controller Programming
- Open Door Kill Switch
- Custom Finish
- Extended Temp. Probe
- Remote Control/Monitor

Model	UL Type	BTU/Hour	Material	Voltage	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
CS011D4812	12	1000	Powder coated steel	48 VDC	3.5	131°F	17" x 7" x 7"	31
CS011D4804	4	1000	Powder coated steel	48 VDC	3.5	131°F	17" x 7" x 7"	31
CS011D484X	4X	1000	Stainless steel	48 VDC	3.5	131°F	17" x 7" x 7"	31
CS011D484XL6	4X	1000	Mill finish aluminum	48 VDC	3.5	131°F	17" x 7" x 7"	23

Testing done under controlled conditions. Actual performance may vary.





ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

CS011

1/27/2025

1000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics. The CS011 uses a unique 3 coil design providing high capacity cooling while utilizing air intake from either side. Dual intake allows for mounting on a wall mounted enclosure on the right or left side of your enclosure.

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Unit Efficiency

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- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

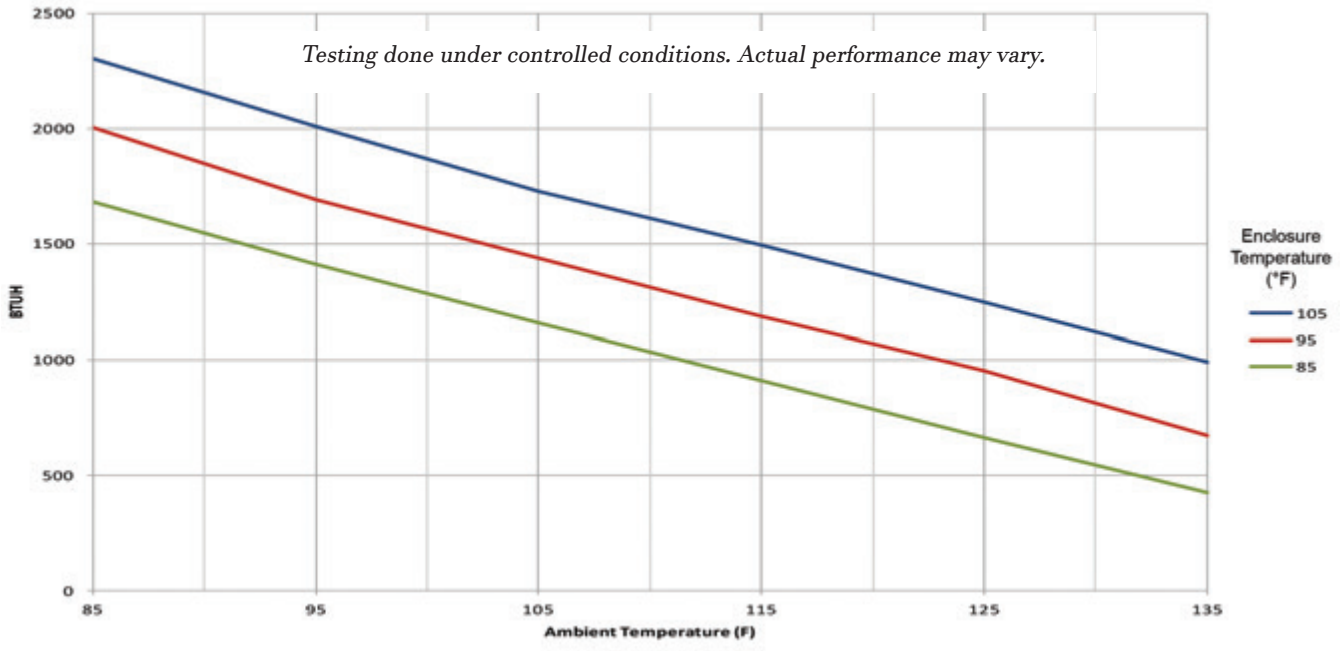
Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor motor drive controller eliminates power inrush, saves energy and increases compressor life

OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Remote Control/Monitor
- Heater
- Dry Contact
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
CS01112612	12	1000	Powder coated steel	115/1/60	2.7	131°F	17" x 7" x 7"	31
CS01112604	4	1000	Powder coated steel	115/1/60	2.7	131°F	17" x 7" x 7"	31
CS0111264X	4X	1000	Stainless steel	115/1/60	2.7	131°F	17" x 7" x 7"	31
CS0111264XL4	4X	1000	Mill finish aluminum	115/1/60	2.7	131°F	17" x 7" x 7"	24



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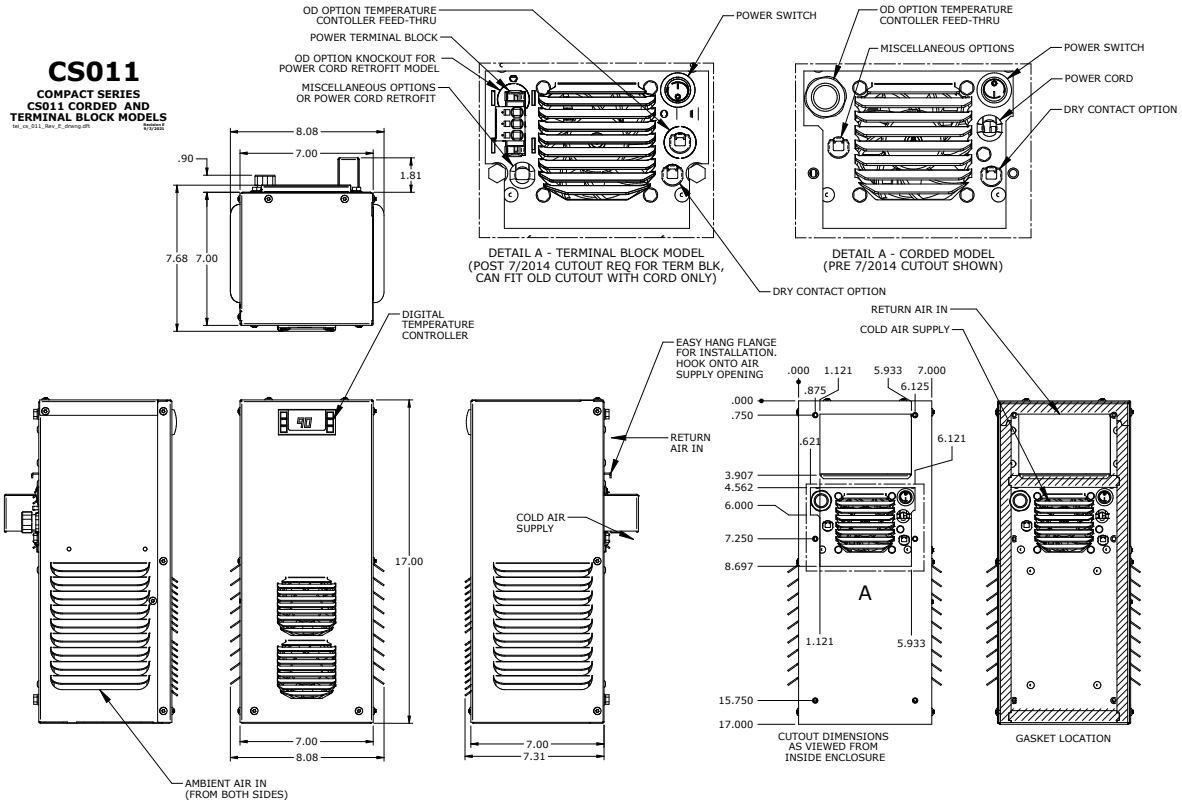

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Thermal Edge Inc.™

NE010

1/27/2025

1000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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OPTIONS:

- High Ambient
- Remote Controller
- Corrosion Protection
- Controller Programming
- Open Door Kill Switch
- Remote Control/Monitor
- Extended Temp. Probe
- Heater
- Dry Contact
- Custom Finish
- Diagnostics

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
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Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
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Unit Efficiency

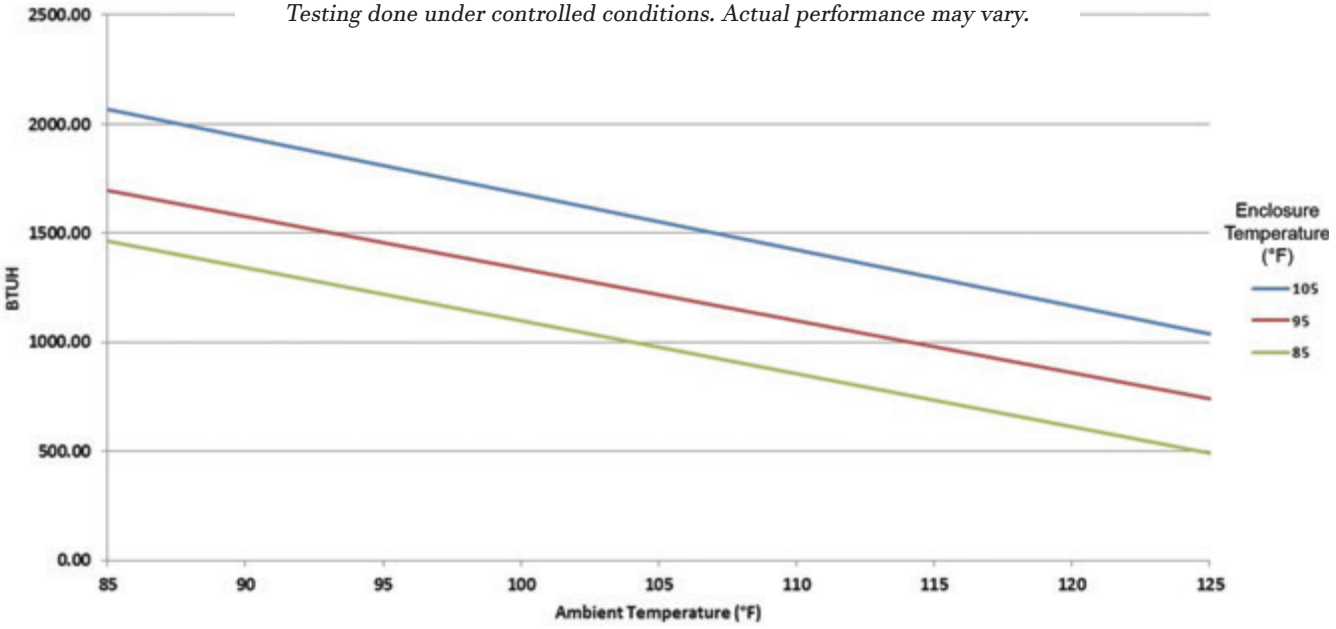
- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

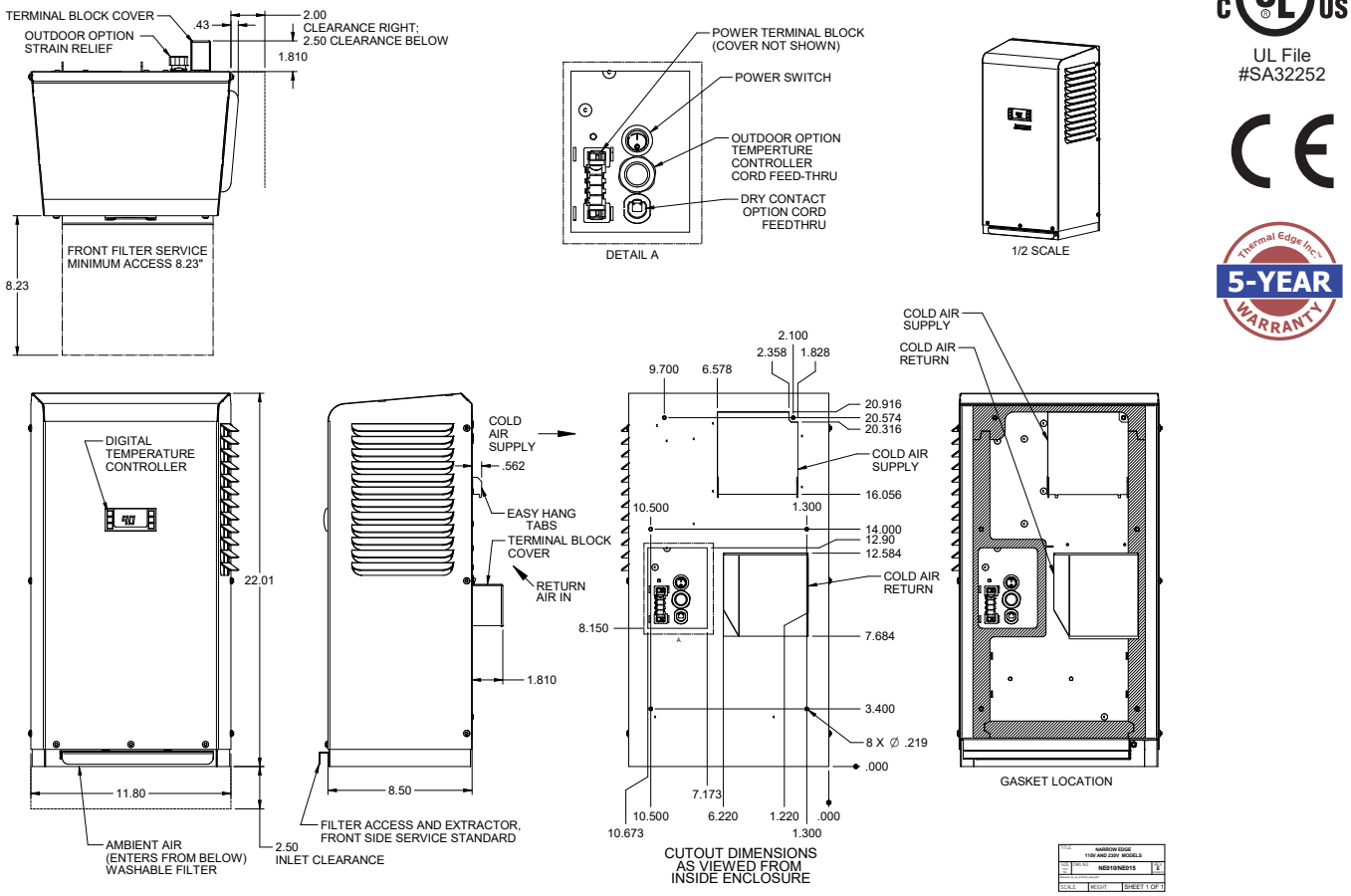
Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE01012612	12	1000	Powder coated steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE01012604	4	1000	Powder coated steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE0101264X	4X	1000	Stainless steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE0101264XL4	4X	1000	Mill finish aluminum	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	41
NE01023612	12	1000	Powder coated steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE01023604	4	1000	Powder coated steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE0102364X	4X	1000	Stainless steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE0102364XL4	4X	1000	Mill finish aluminum	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	43

Testing done under controlled conditions. Actual performance may vary.





UL File #SA32252

5-YEAR WARRANTY

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Thermal Edge Inc.™

NE015

1/27/2025

1500 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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OPTIONS:

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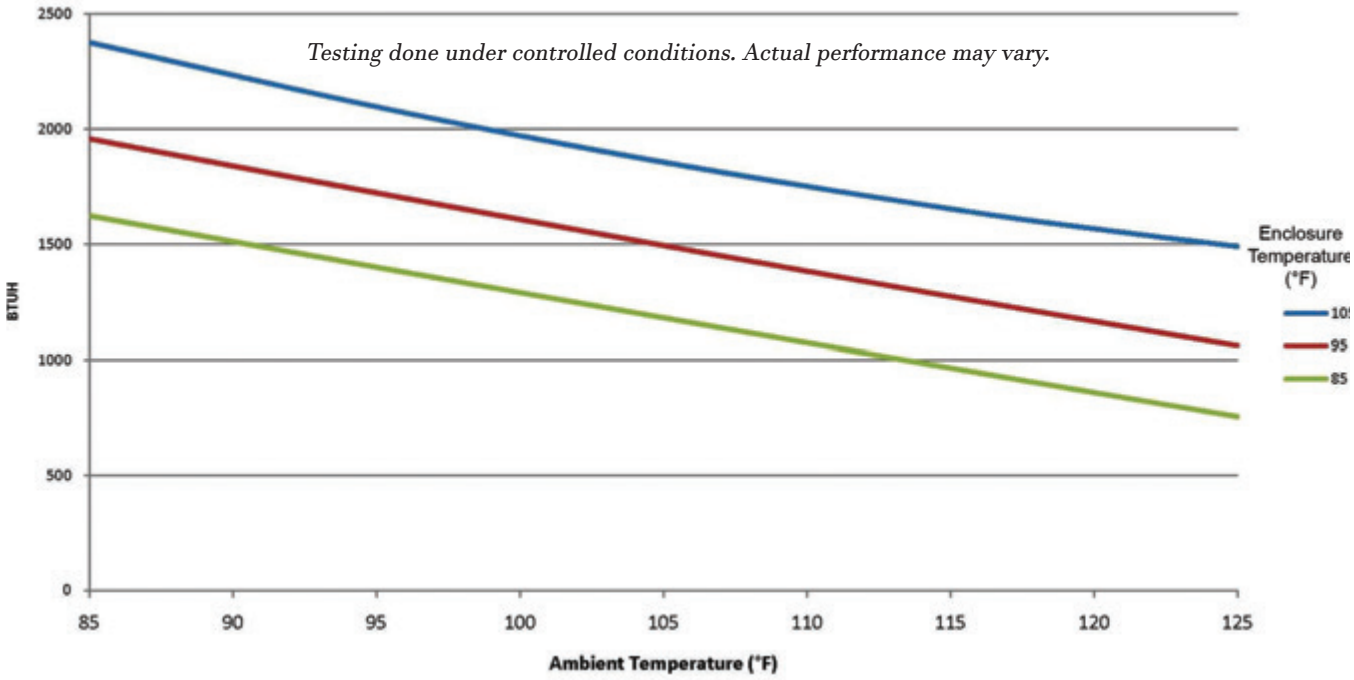
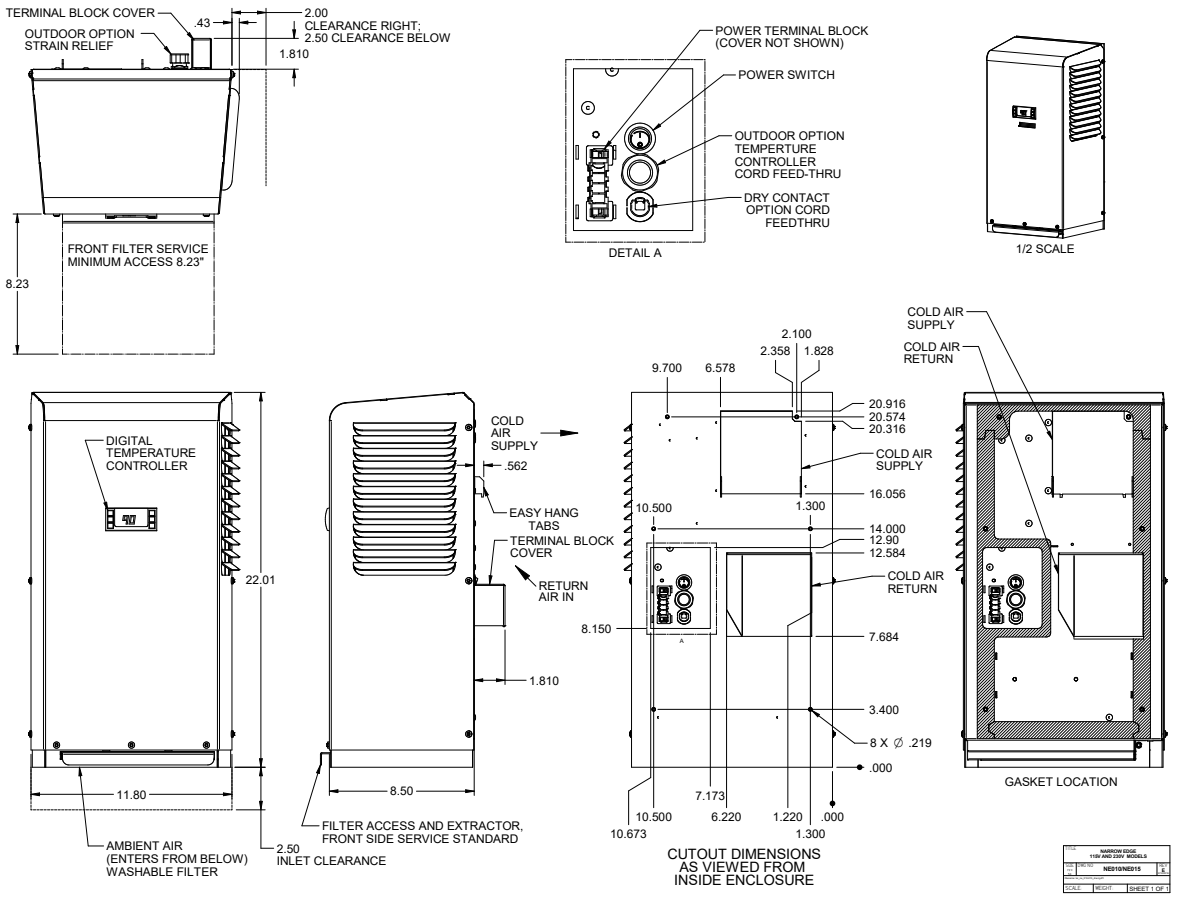
Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE01512612	12	1500	Powder coated steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE01512604	4	1500	Powder coated steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE0151264X	4X	1500	Stainless steel	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	51
NE0151264XL4	4X	1500	Mill finish aluminum	115/1/60	3.44	125°F	22" x 11.8" x 8.5"	41
NE01523612	12	1500	Powder coated steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE01523604	4	1500	Powder coated steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE0152364X	4X	1500	Stainless steel	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	53
NE0152364XL4	4X	1500	Mill finish aluminum	230/1/60	2.67	125°F	22" x 11.8" x 8.5"	43





UL File #SA32252

5-YEAR WARRANTY

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

CS020

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 10" deep enclosure

Unit Efficiency

- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

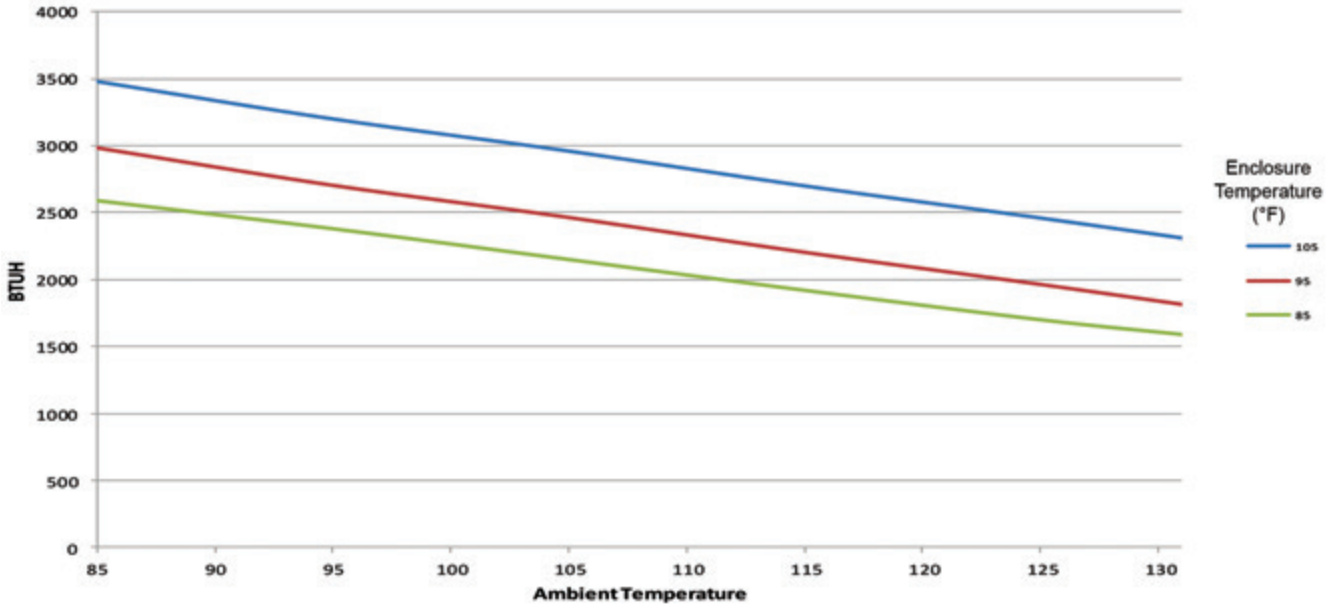
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

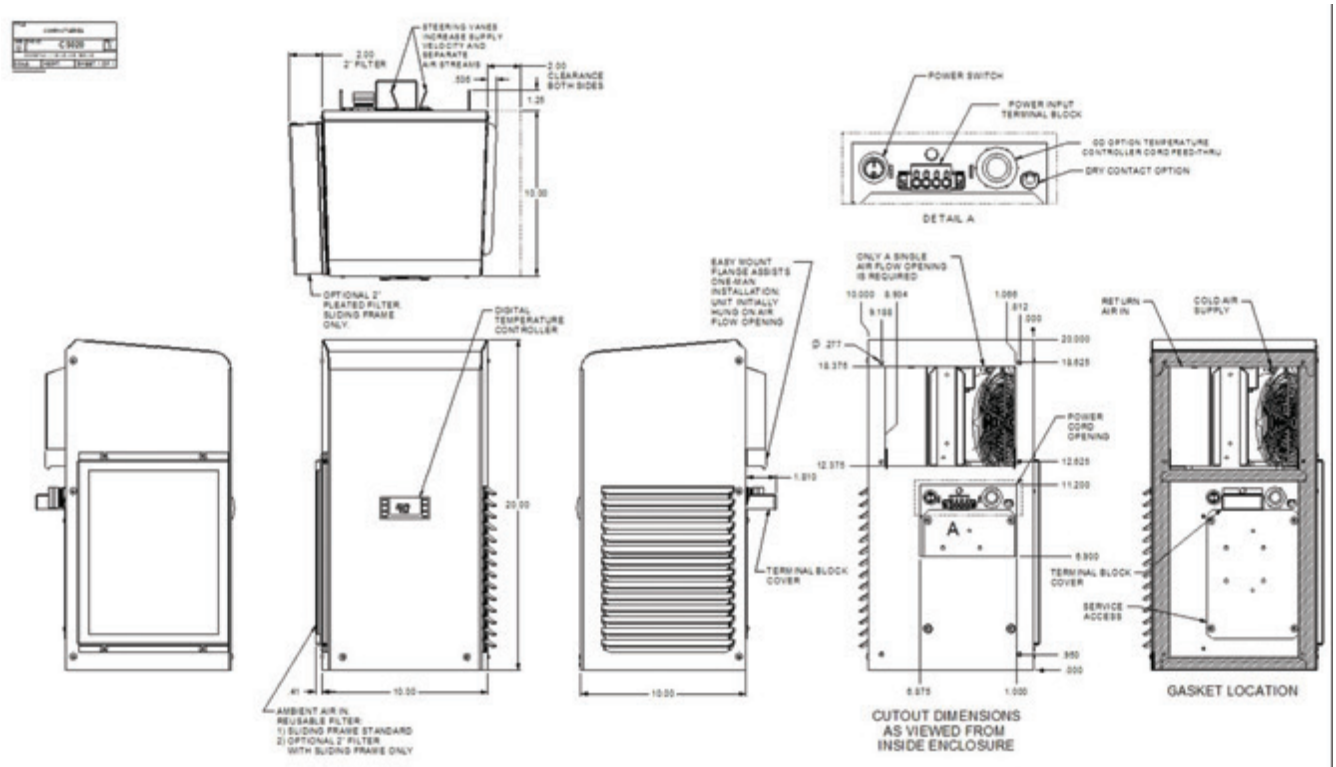
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Controller Programming
- Open Door Kill Switch
- Remote Control/Monitor
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Filter/Filter Frame
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
CS02012612	12	2000	Powder coated steel	115/1/60	4.1	131°F	20" x 10" x 10"	44
CS02012604	4	2000	Powder coated steel	115/1/60	4.1	131°F	20" x 10" x 10"	44
CS0201264X	4X	2000	Stainless steel	115/1/60	4.1	131°F	20" x 10" x 10"	44
CS0201264XL4	4X	2000	Mill finish aluminum	115/1/60	4.1	131°F	20" x 10" x 10"	34
CS02023612	12	2000	Powder coated steel	230/1/60	2.0	131°F	20" x 10" x 10"	49
CS02023604	4	2000	Powder coated steel	230/1/60	2.0	131°F	20" x 10" x 10"	49
CS0202364X	4X	2000	Stainless steel	230/1/60	2.0	131°F	20" x 10" x 10"	49
CS0202364XL4	4X	2000	Mill finish aluminum	230/1/60	2.0	131°F	20" x 10" x 10"	39

Testing done under controlled conditions. Actual performance may vary.





UL File #SA32252

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Thermal Edge Inc.™

NE020D48

1/27/2025

2000 BTUH 48 VOLT DC POWERED AIR CONDITIONER
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

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Active Condensate Evaporation System

- Constant elimination of condensate
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Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

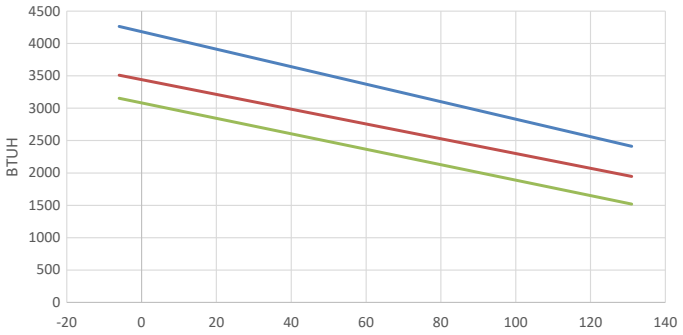
OPTIONS:

- High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Controller Programming
- Open Door Kill Switch
- Remote Control/Monitor
- Dry Contact
- Filter/Filter Frame
- Custom Finish
- Vibration Resistant
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE020D4812	12	2000	Powder coated steel	48 VDC	5.7	131°F	35.27" x 11.8" x 9.5"	103
NE020D4804	4	2000	Powder coated steel	48 VDC	5.7	131°F	35.27" x 11.8" x 9.5"	103
NE020D484X	4X	2000	Stainless steel	48 VDC	5.7	131°F	35.27" x 11.8" x 9.5"	103
NE020D484XL6	4X	2000	Mill finish aluminum	48 VDC	5.7	131°F	35.27" x 11.8" x 9.5"	93

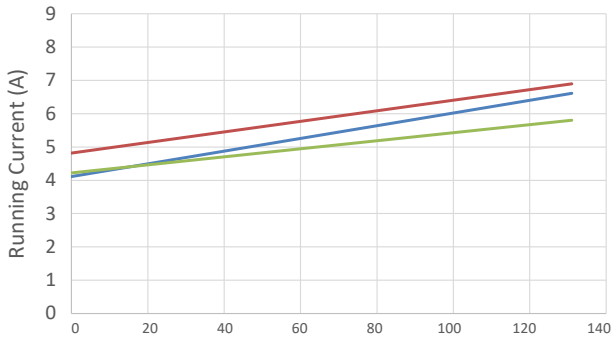
Testing done under controlled conditions. Actual performance may vary.

- **NE020D48**

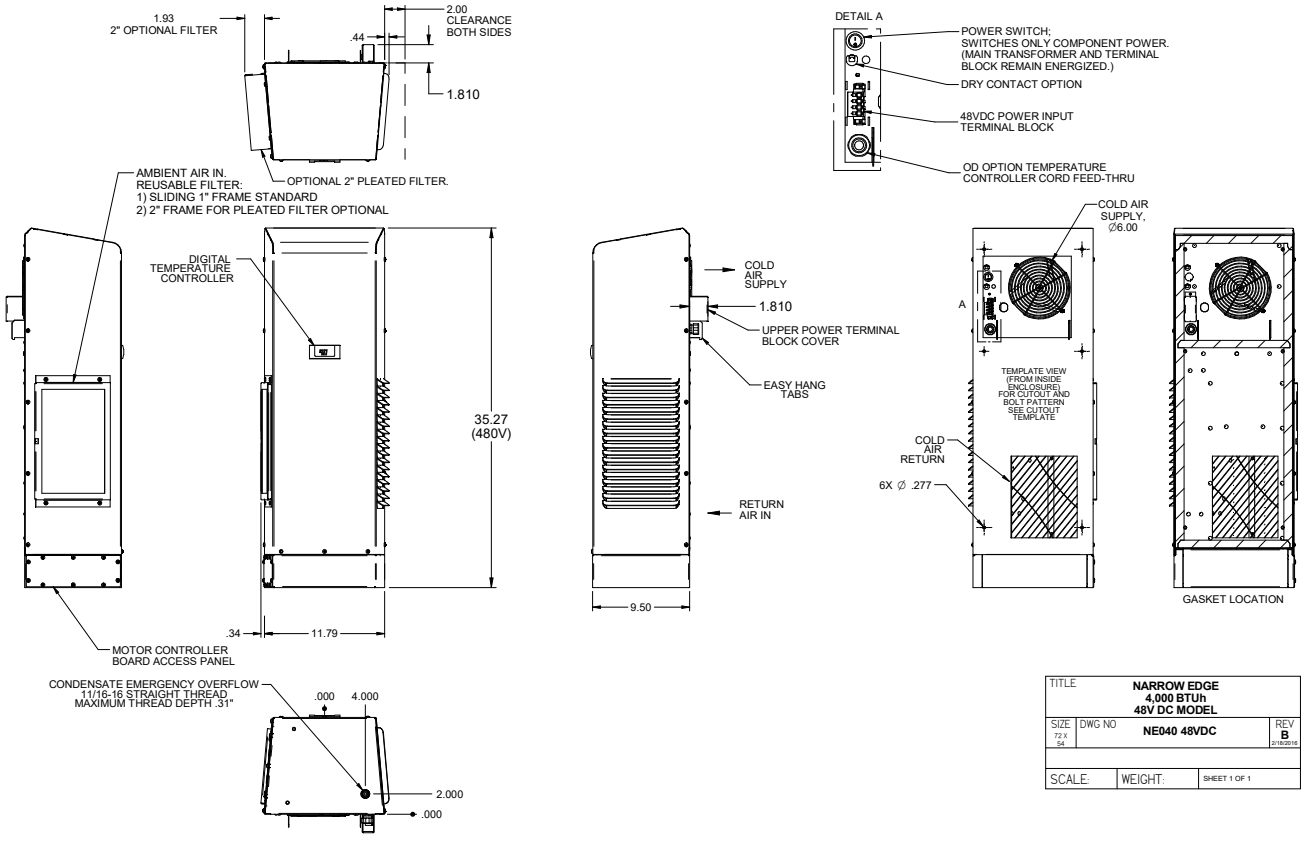


- **Temperature (°F)**

- **NE020D48 Running Amps**



- **Ambient Temperature (°F)**



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Thermal Edge Inc.™

NE020

1/27/2025

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OPTIONS:

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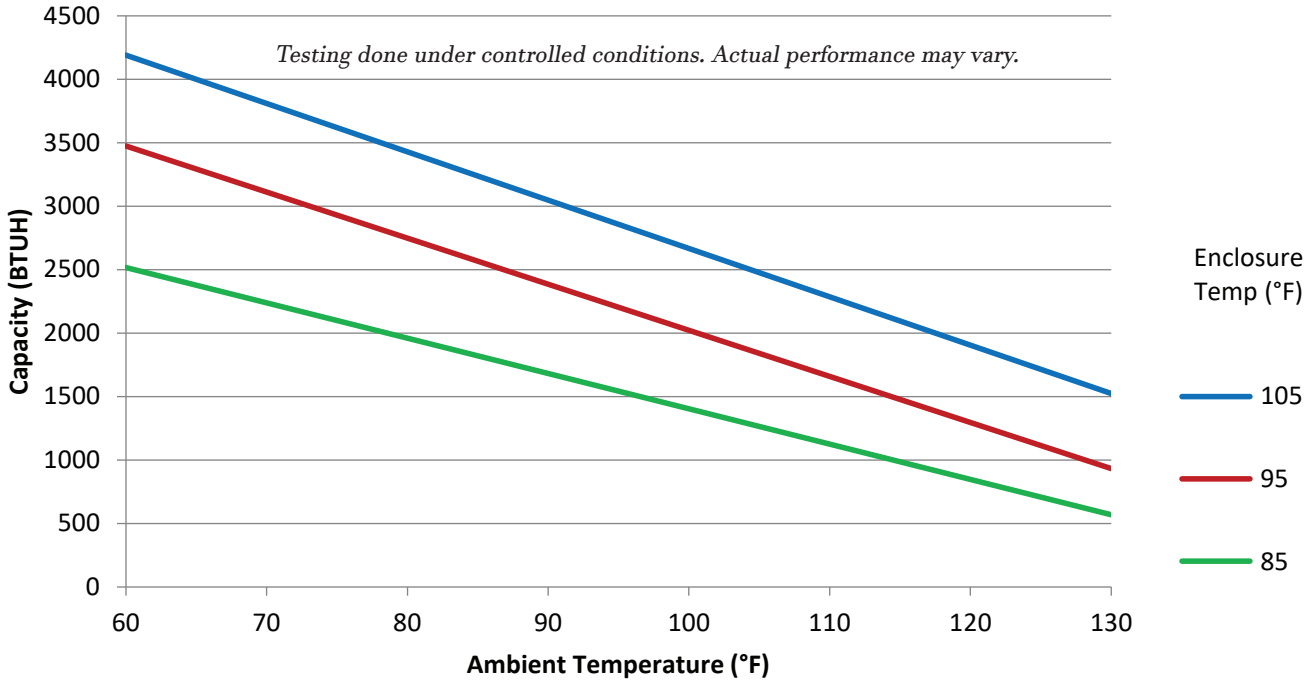
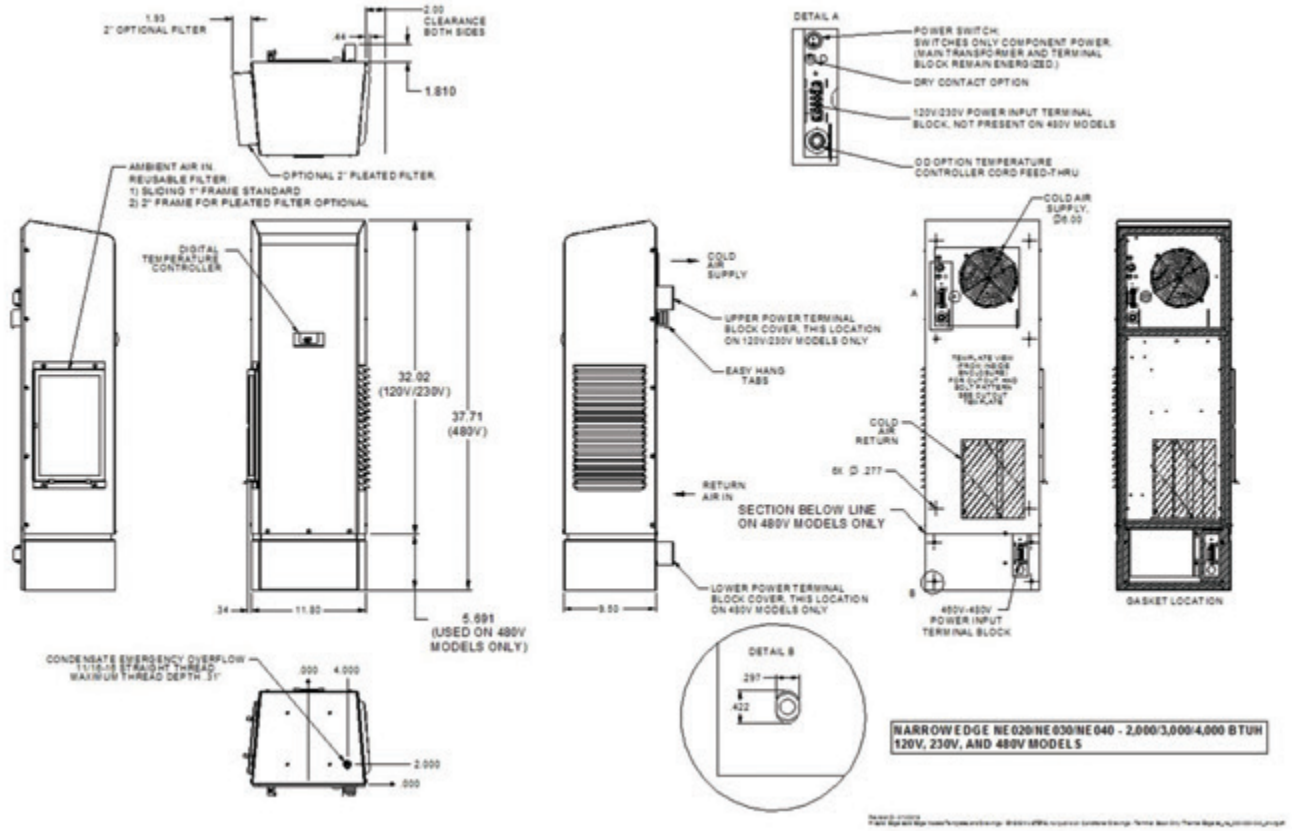
- Remote Control/Monitor
- Controller Programming
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Filter/Filter Frame
- Custom Finish
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE02012612	12	2000	Powder coated steel	115/1/60	3.3	134°F	32" x 11.8" x 9.5"	60
NE02012604	4	2000	Powder coated steel	115/1/60	3.3	134°F	32" x 11.8" x 9.5"	60
NE0201264X	4X	2000	Stainless steel	115/1/60	3.3	134°F	32" x 11.8" x 9.5"	60
NE0201264XL4	4X	2000	Mill finish aluminum	115/1/60	3.3	134°F	32" x 11.8" x 9.5"	50
NE02023612	12	2000	Powder coated steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE02023604	4	2000	Powder coated steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE0202364X	4X	2000	Stainless steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE0202364XL4	4X	2000	Mill finish aluminum	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	62
NE02048612	12	2000	Powder coated steel	460/1/60	0.87	134°F	38" x 11.8" x 9.5"	94
NE02048604	4	2000	Powder coated steel	460/1/60	0.87	134°F	38" x 11.8" x 9.5"	94
NE0204864X	4X	2000	Stainless steel	460/1/60	0.87	134°F	38" x 11.8" x 9.5"	94
NE0204864XL5	4X	2000	Mill finish aluminum	460/1/60	0.87	134°F	38" x 11.8" x 9.5"	84





UL File #SA32252

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Thermal Edge Inc.™

NE02S486

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

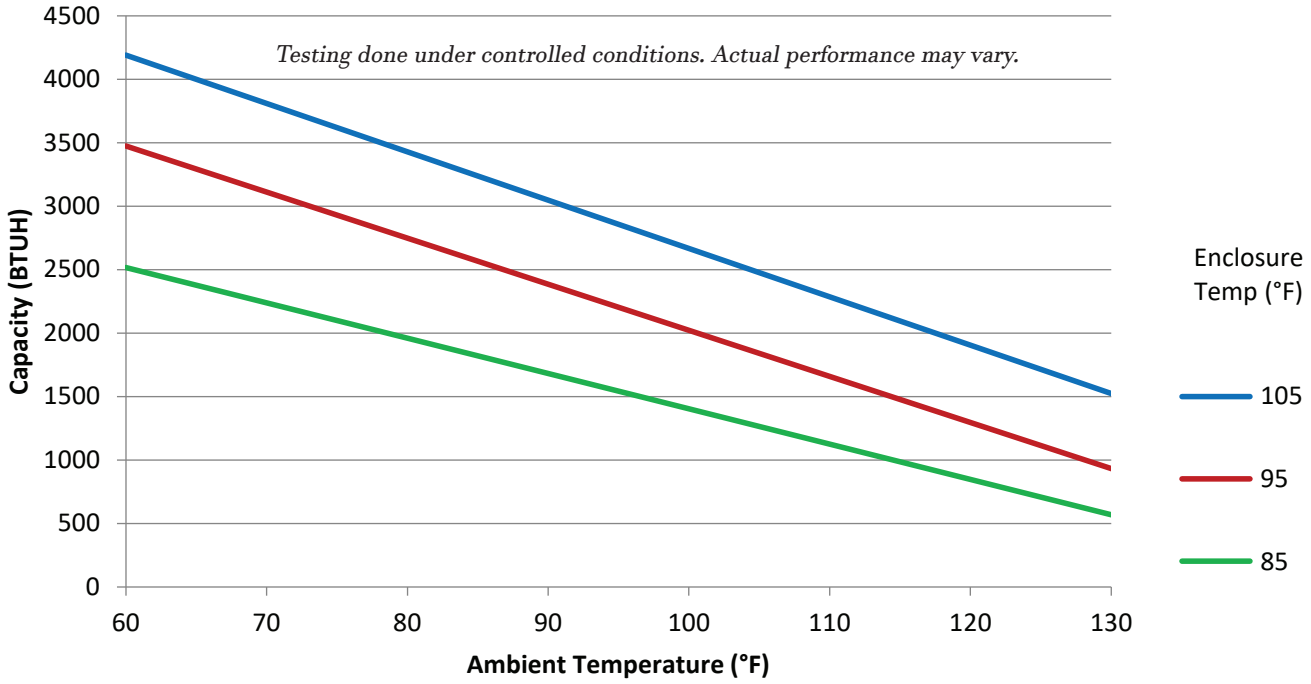
Compressor Protection System

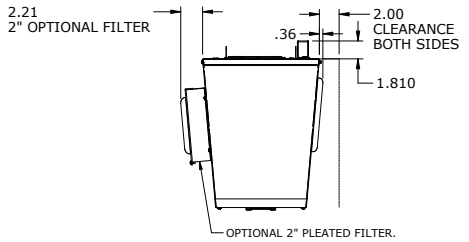
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

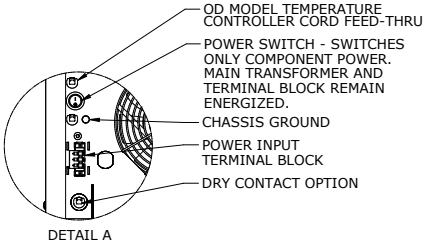
OPTIONS:

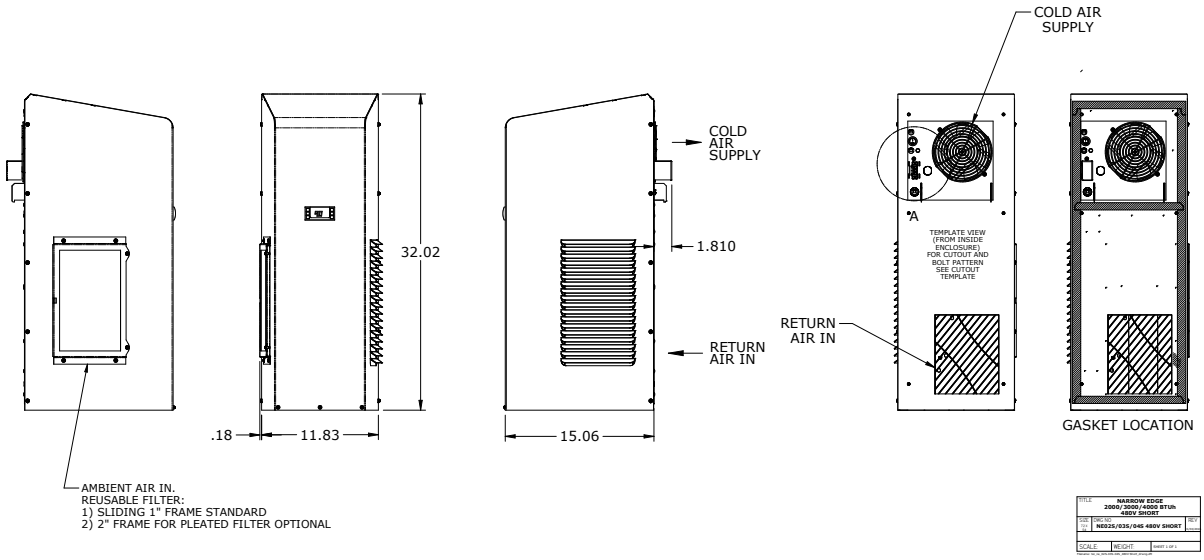
- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Extended Temp. Probe
- Open Door Kill Switch
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Filter/Filter Frame
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE02S48612	12	2000	Powder coated steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94
NE02S48604	4	2000	Powder coated steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94
NE02S4864X	4X	2000	Stainless steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94
NE02S4864XL5	4X	2000	Mill finish aluminum	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	84









UL File #SA32252

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Thermal Edge Inc.™

NE030D48

1/27/2025

3000 BTUH 48 VOLT DC POWERED AIR CONDITIONER
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

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Active Condensate Evaporation System

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Key Design Features

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- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

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- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

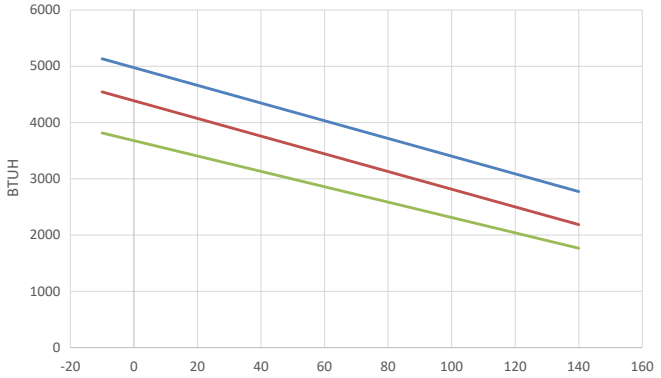
OPTIONS:

- High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Extended Temp. Probe
- Open Door Kill Switch
- Dry Contact
- Custom Finish
- Filter/Filter Frame
- Vibration Resistant
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE030D4812	12	3000	Powder coated steel	48 VDC	8.7	131°F	35.27" x 11.8" x 9.5"	103
NE030D4804	4	3000	Powder coated steel	48 VDC	8.7	131°F	35.27" x 11.8" x 9.5"	103
NE030D484X	4X	3000	Stainless steel	48 VDC	8.7	131°F	35.27" x 11.8" x 9.5"	103
NE030D484XL6	4X	3000	Mill finish aluminum	48 VDC	8.7	131°F	35.27" x 11.8" x 9.5"	93

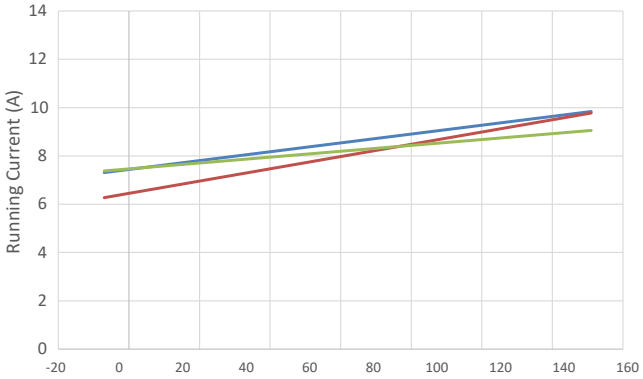
Testing done under controlled conditions. Actual performance may vary.

- **NE030D48**

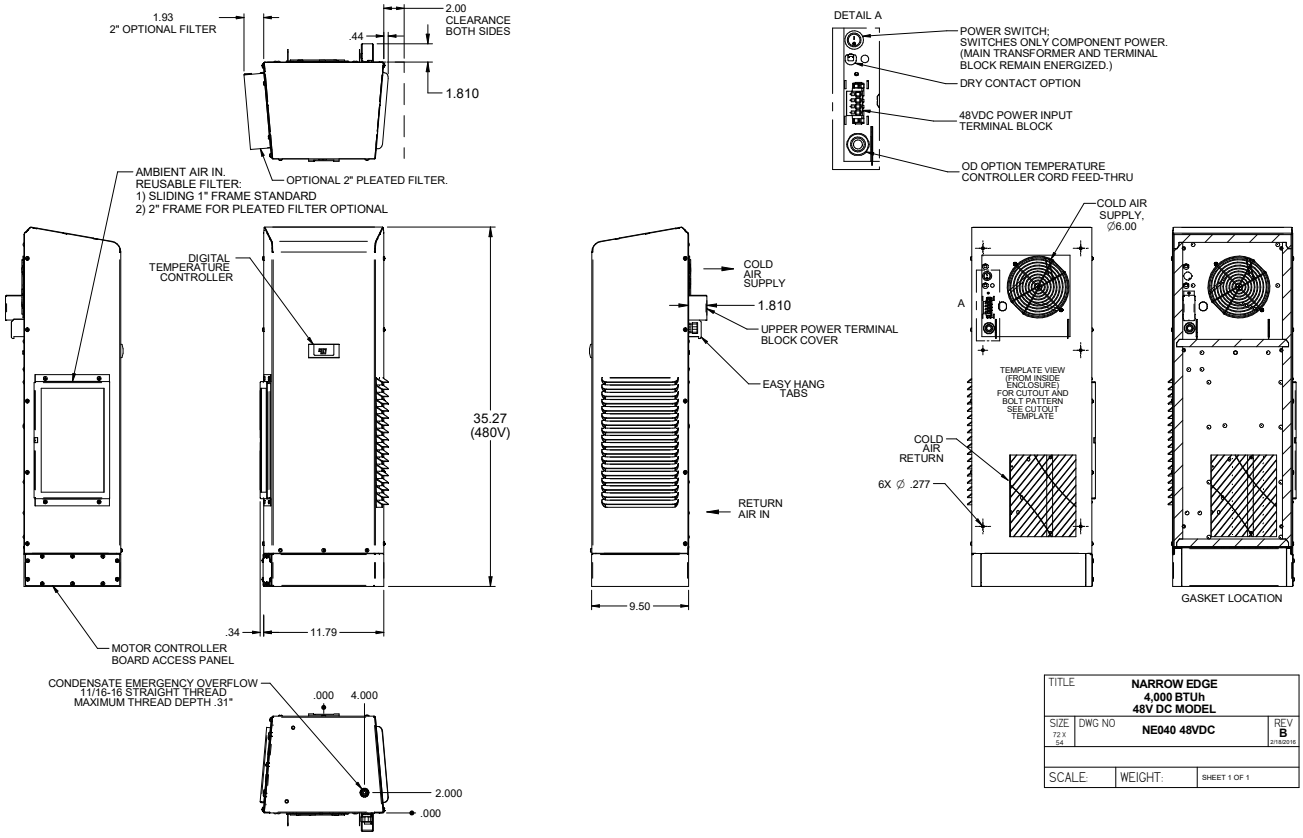


- **Temperature (°F)**

- **NE030D48 Running Amps**



- **Ambient Temperature (°F)**



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Thermal Edge Inc.™

NE030

1/27/2025

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Compressor Protection System

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OPTIONS:

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- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Filter/Filter Frame
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE03012612	12	3000	Powder coated steel	115/1/60	4.86	140°F	32" x 11.8" x 9.5"	70
NE03012604	4	3000	Powder coated steel	115/1/60	4.86	140°F	32" x 11.8" x 9.5"	70
NE0301264X	4X	3000	Stainless steel	115/1/60	4.86	140°F	32" x 11.8" x 9.5"	70
NE0301264XL4	4X	3000	Mill finish aluminum	115/1/60	4.86	140°F	32" x 11.8" x 9.5"	60
NE03023612	12	3000	Powder coated steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
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NE0302364XL4	4X	3000	Mill finish aluminum	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	62
NE03048612	12	3000	Powder coated steel	460/1/60	1.28	140°F	38" x 11.8" x 9.5"	103
NE03048604	4	3000	Powder coated steel	460/1/60	1.28	140°F	38" x 11.8" x 9.5"	103
NE0304864X	4X	3000	Stainless steel	460/1/60	1.28	140°F	38" x 11.8" x 9.5"	103
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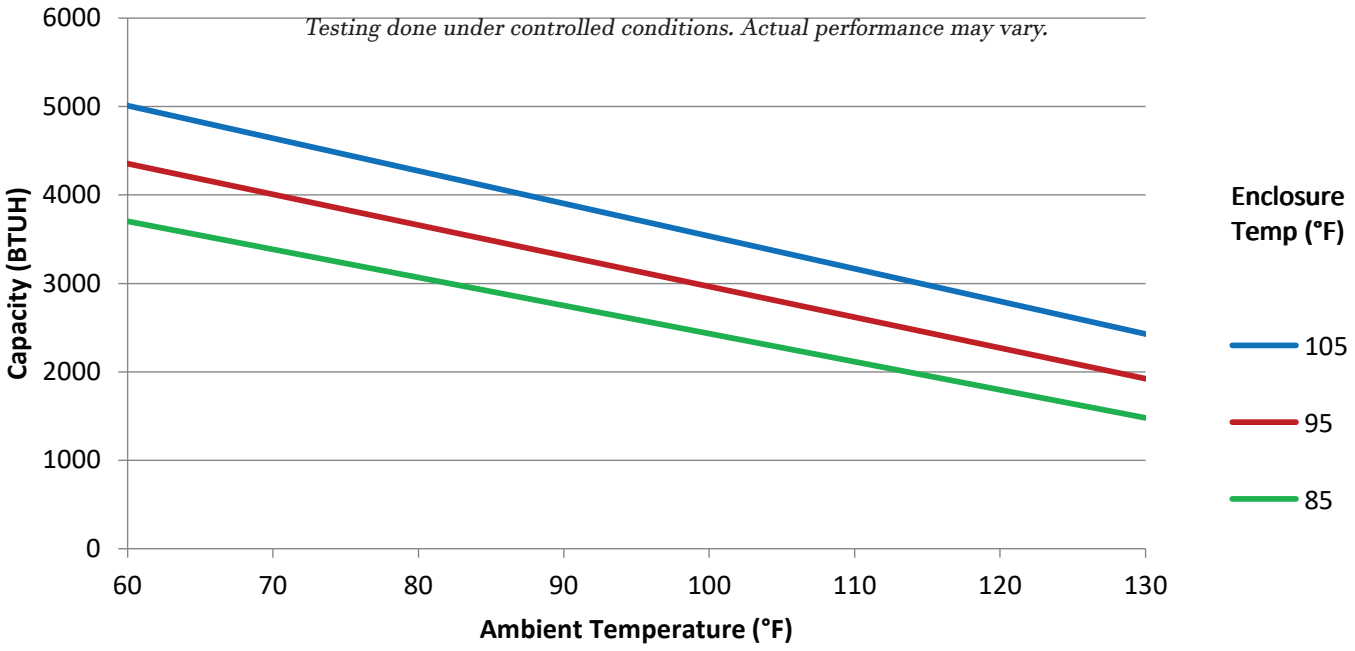

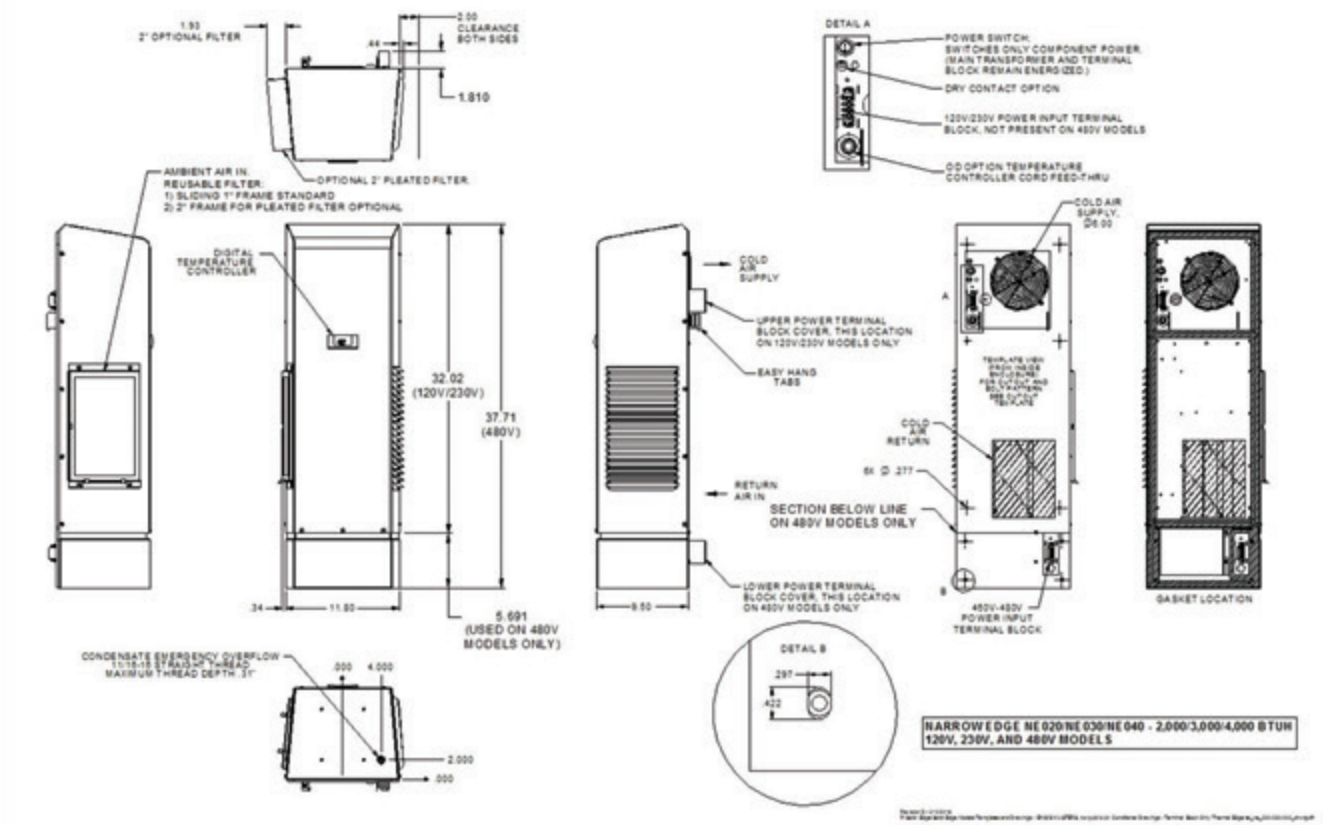

UL File #SA32252

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Thermal Edge Inc.™

NE03S486

1/27/2025

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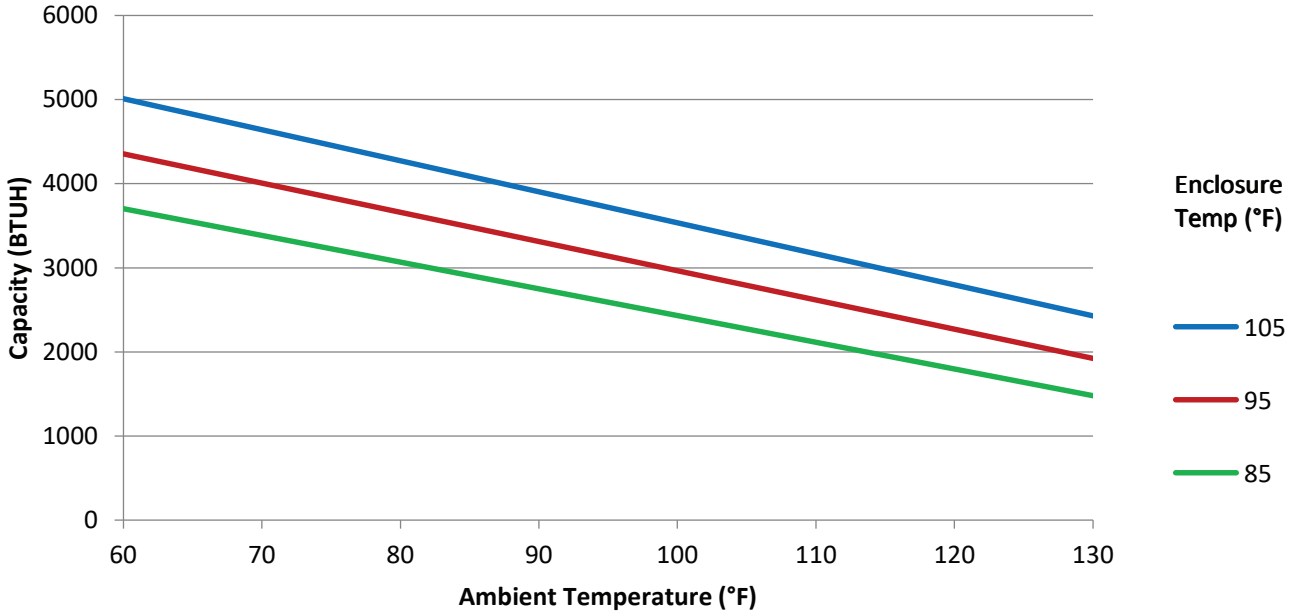
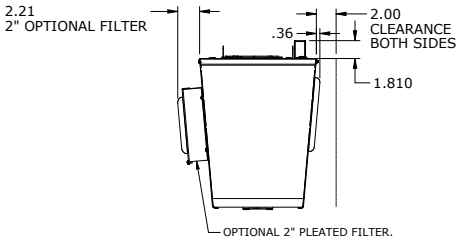
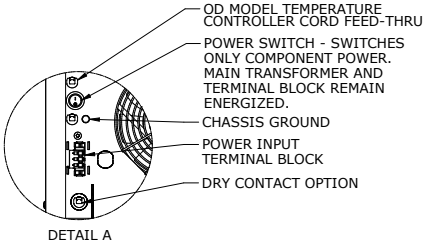
- Vibration Resistant

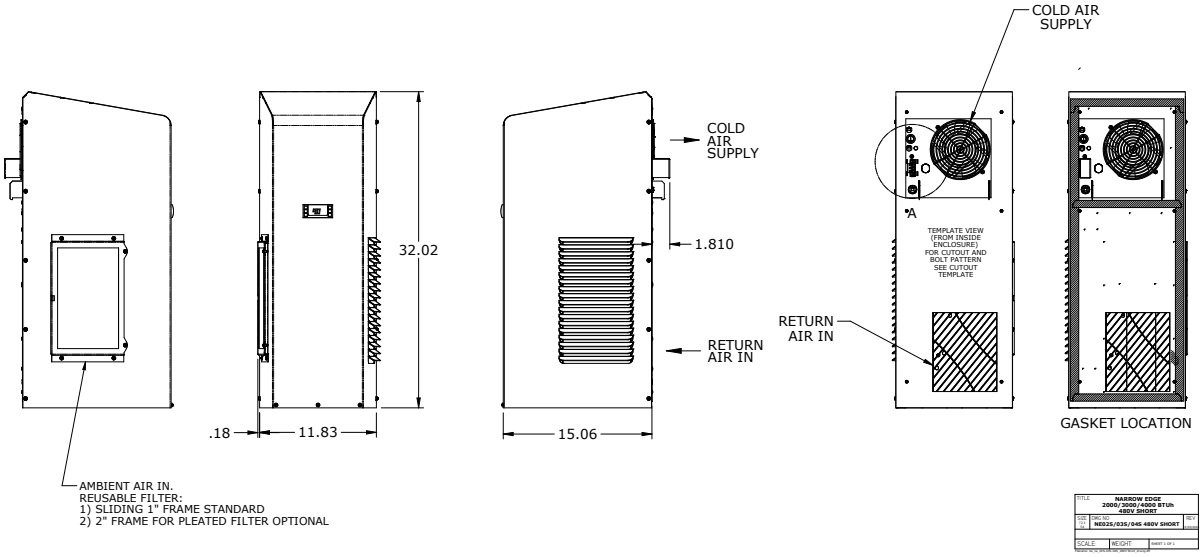
Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE03S48612	12	3000	Powder coated steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103
NE03S48604	4	3000	Powder coated steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103
NE03S4864X	4X	3000	Stainless steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103
NE03S486XL5	4X	3000	Mill finish aluminum	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	93

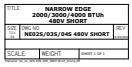
Testing done under controlled conditions. Actual performance may vary.











UL File #SA32252

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Thermal Edge Inc.™

NE040D48

1/27/2025

4000 BTUH 48 VOLT DC POWERED AIR CONDITIONER
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Telecom Outside Plant, Off-Grid Solar, Wind & other Battery Powered Electrical Cabinets.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

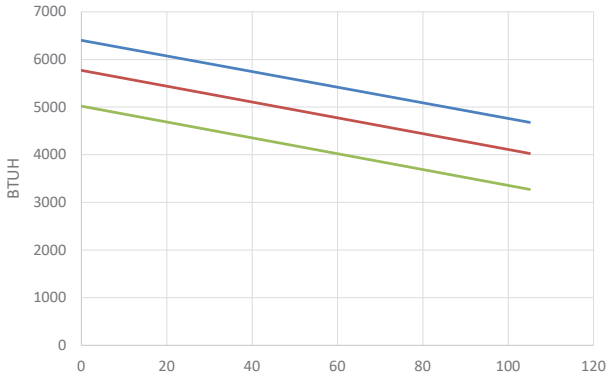
OPTIONS:

- High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Dry Contact
- Custom Finish
- Filter/Filter Frame
- Vibration Resistant
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE040D4812	12	4000	Powder coated steel	48 VDC	17.5	131°F	35.27" x 11.8" x 9.5"	103
NE040D4804	4	4000	Powder coated steel	48 VDC	17.5	131°F	35.27" x 11.8" x 9.5"	103
NE040D484X	4X	4000	Stainless steel	48 VDC	17.5	131°F	35.27" x 11.8" x 9.5"	103
NE040D484XL6	4X	4000	Mill finish aluminum	48 VDC	17.5	131°F	35.27" x 11.8" x 9.5"	93

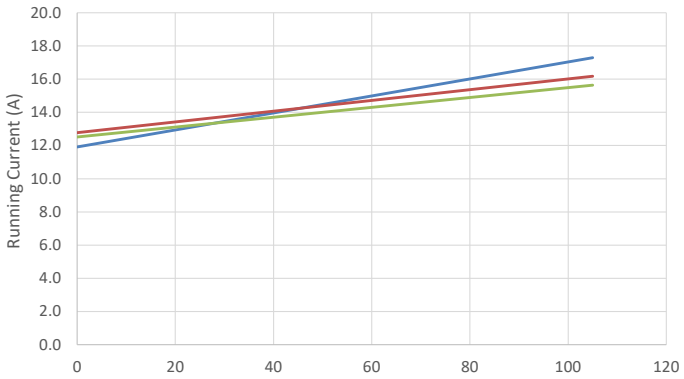
Testing done under controlled conditions. Actual performance may vary.

- **NE040D48**

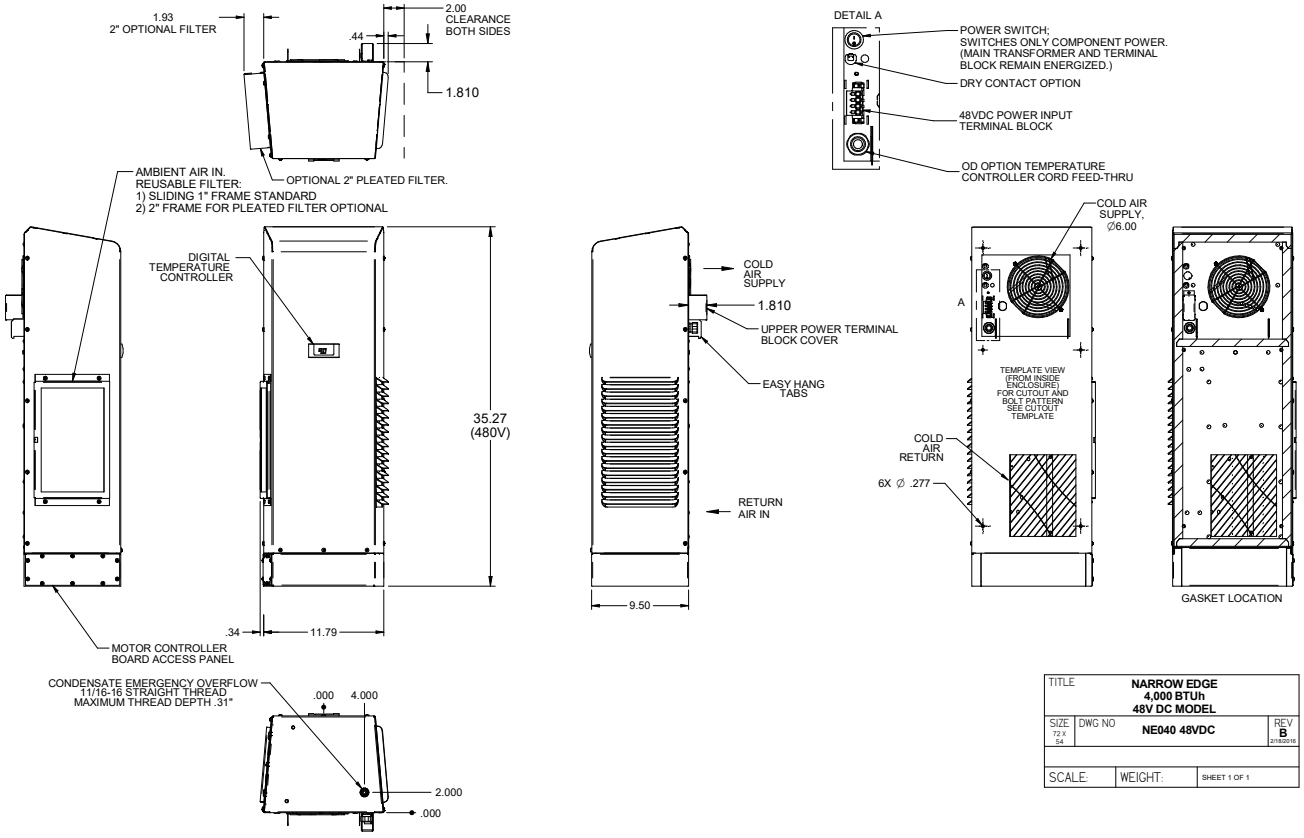


- **Temperature (°F)**

- **NE040D48 Running Amps**



- **Ambient Temperature (°F)**



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Thermal Edge Inc.™

NE040

1/27/2025

4000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

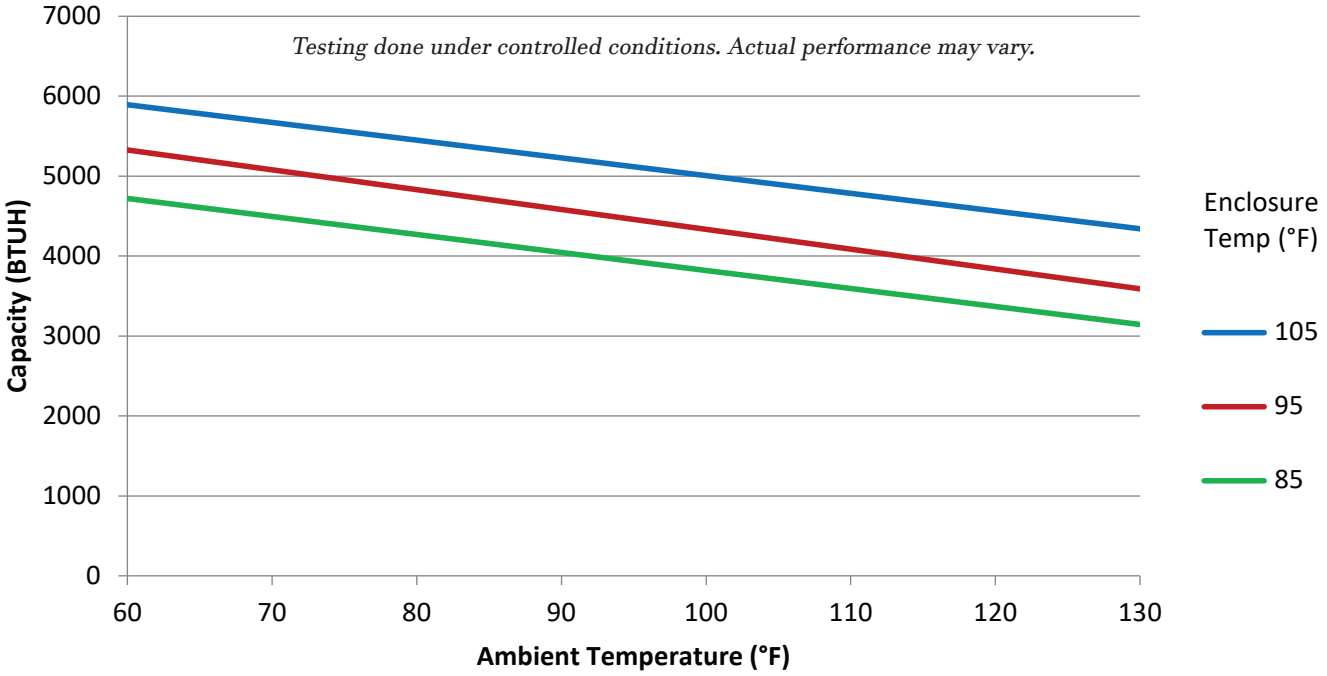
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

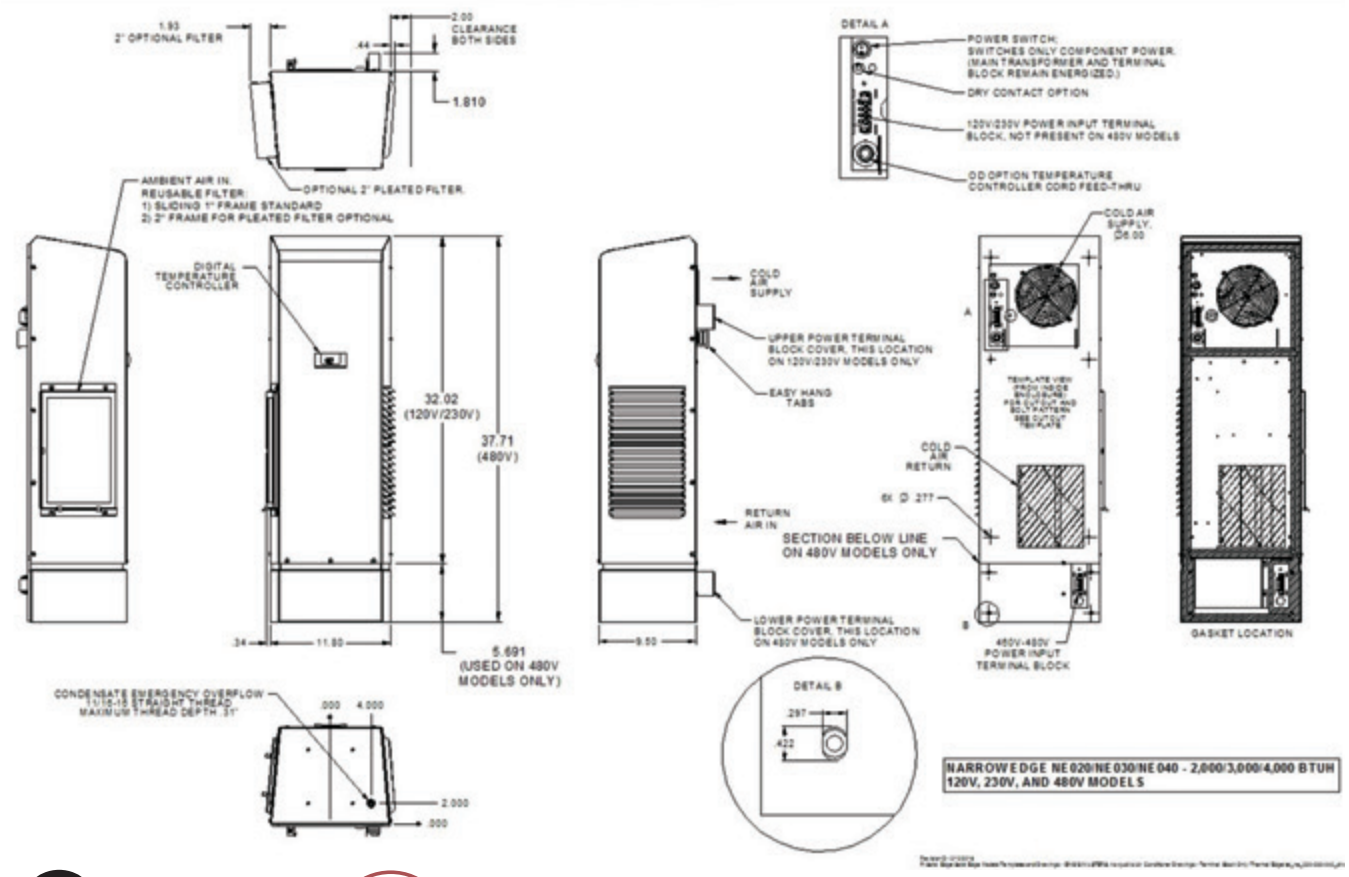
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Filter/Filter Frame
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE04012612	12	4000	Powder coated steel	115/1/60	6.76	125°F (131°F*)	32" x 11.8" x 9.5"	70
NE04012604	4	4000	Powder coated steel	115/1/60	6.76	125°F (131°F*)	32" x 11.8" x 9.5"	70
NE0401264X	4X	4000	Stainless steel	115/1/60	6.76	125°F (131°F*)	32" x 11.8" x 9.5"	70
NE0401264XL4	4X	4000	Mill finish aluminum	115/1/60	6.76	125°F (131°F*)	32" x 11.8" x 9.5"	60
NE04023612	12	4000	Powder coated steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE04023604	4	4000	Powder coated steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE0402364X	4X	4000	Stainless steel	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	72
NE0402364XL4	4X	4000	Mill finish aluminum	230/1/60	3.07	125°F	32" x 11.8" x 9.5"	62
NE04048612	12	4000	Powder coated steel	460/1/60	1.69	125°F (131°F*)	38" x 11.8" x 9.5"	103
NE04048604	4	4000	Powder coated steel	460/1/60	1.69	125°F (131°F*)	38" x 11.8" x 9.5"	103
NE0404864X	4X	4000	Stainless steel	460/1/60	1.69	125°F (131°F*)	38" x 11.8" x 9.5"	103
NE0404864XL5	4X	4000	Mill finish aluminum	460/1/60	1.69	125°F (131°F*)	38" x 11.8" x 9.5"	93

** Must be ordered with the high ambient A3 option*





UL File #SA32252

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Thermal Edge Inc.™

NE04S486

1/27/2025

4000 BTUH
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller
- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System
- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

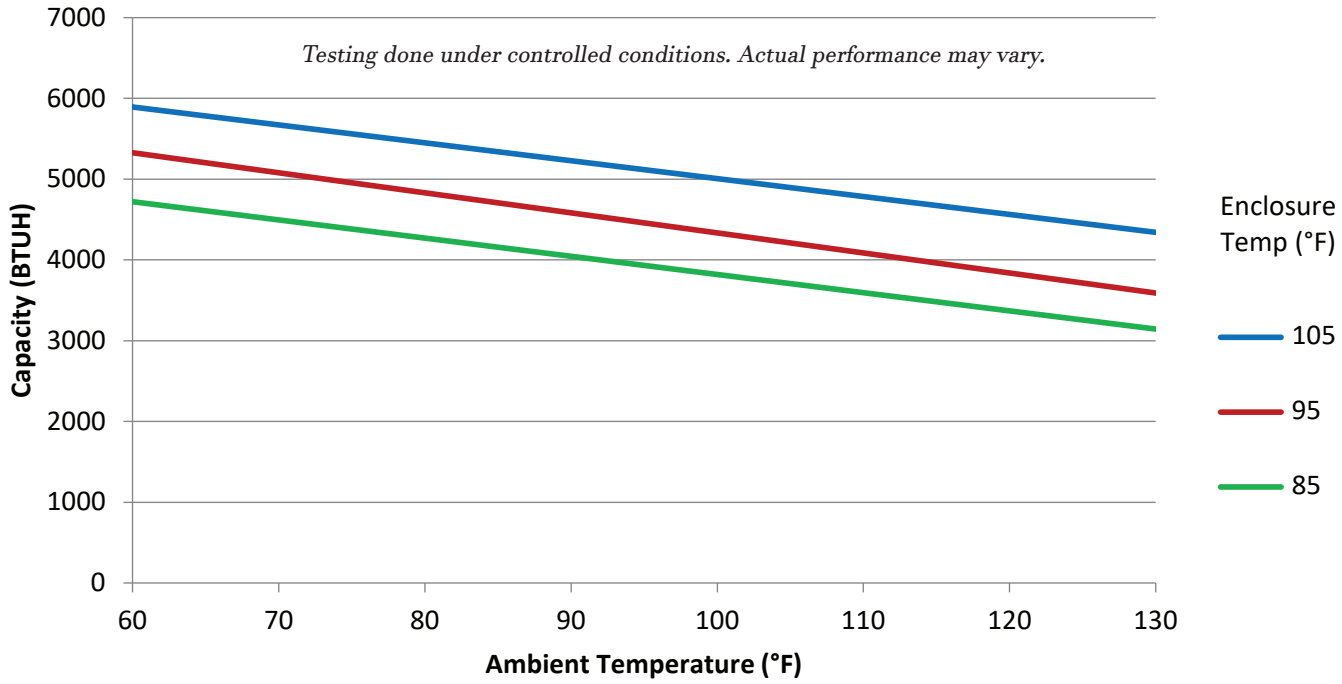
Key Design Features
- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

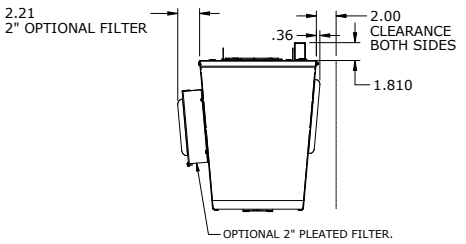
Unit Efficiency
- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

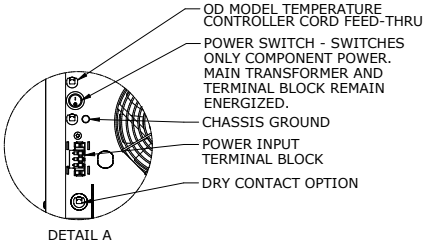
Compressor Protection System
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

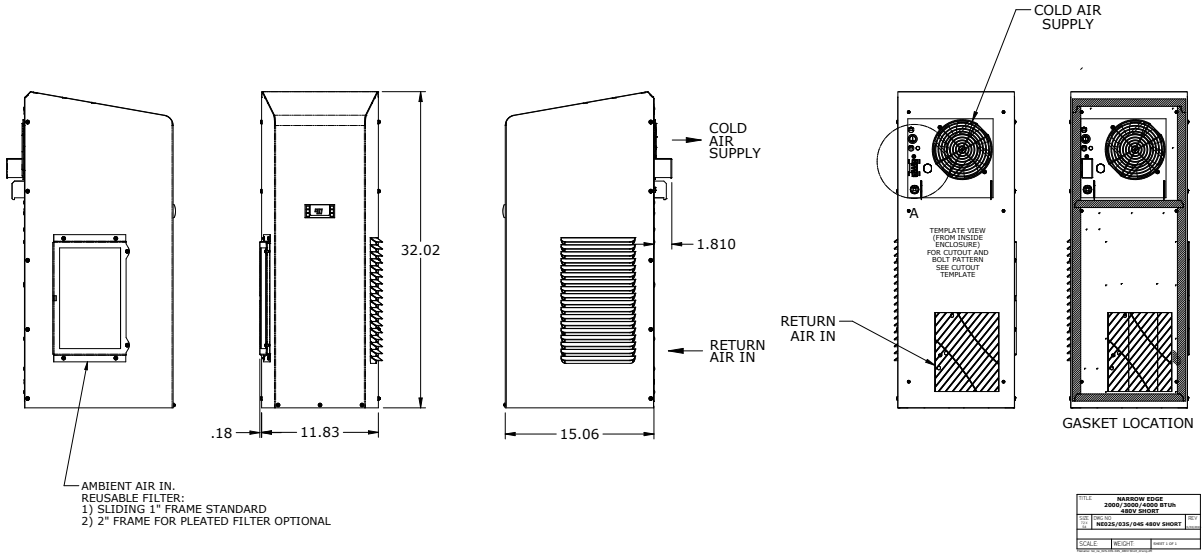
OPTIONS:
- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Filter/Filter Frame
- Custom Finish
- Vibration Resistant

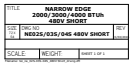
Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE04S48612	12	4000	Powder coated steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103
NE04S48604	4	4000	Powder coated steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103
NE04S4864X	4X	4000	Stainless steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103
NE04S4864XL5	4X	4000	Mill finish aluminum	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	93











UL File #SA32252

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Thermal Edge Inc.™

NE050

1/27/2025

5000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

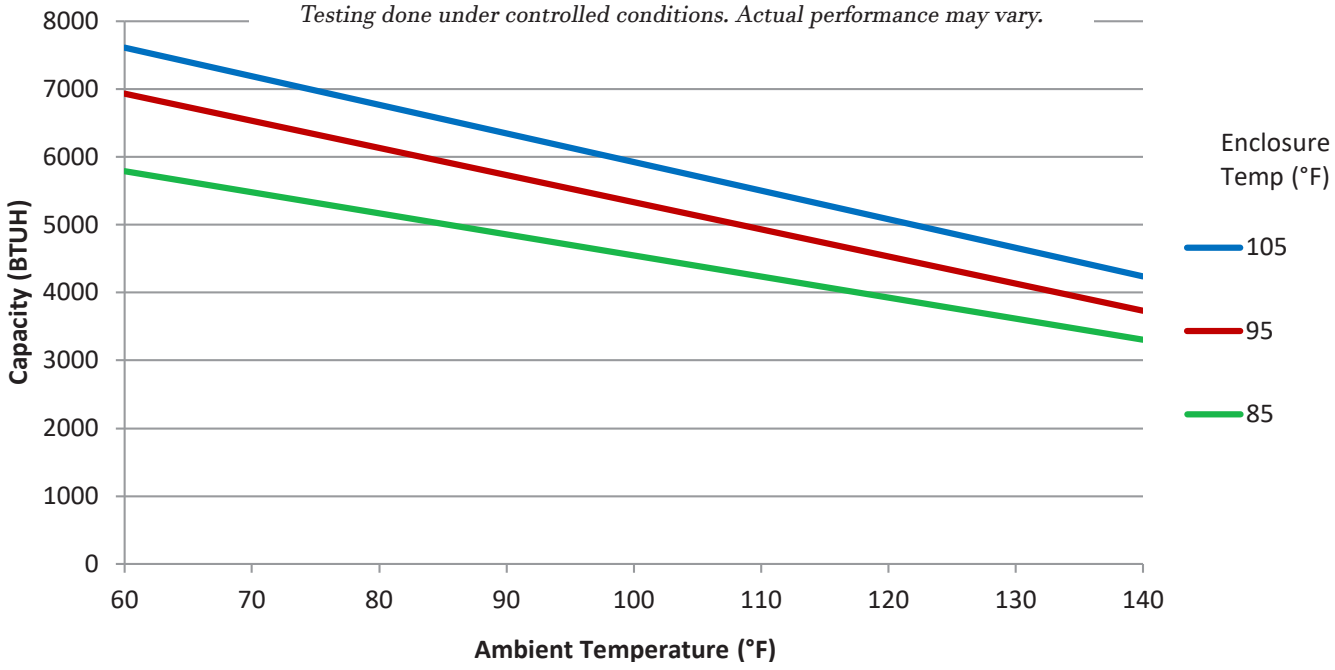
Compressor Protection System

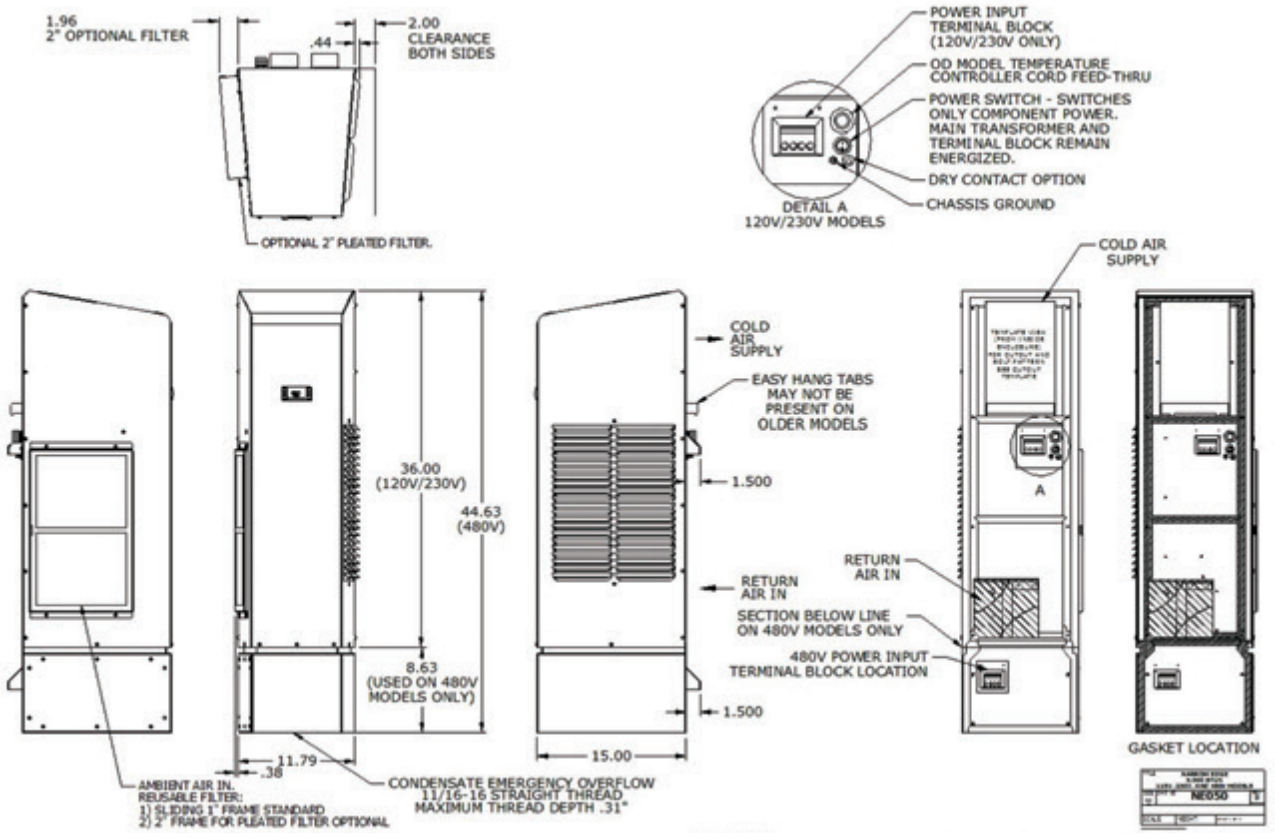
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Vibration Resistant
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE05012612	12	5000	Powder coated steel	115/1/60	6.14	140°F	36" x 11.8" x 15.02"	97
NE05012604	4	5000	Powder coated steel	115/1/60	6.14	140°F	36" x 11.8" x 15.02"	97
NE0501264X	4X	5000	Stainless steel	115/1/60	6.14	140°F	36" x 11.8" x 15.02"	97
NE0501264XL4	4X	5000	Mill finish aluminum	115/1/60	6.14	140°F	36" x 11.8" x 15.02"	87
NE05023612	12	5000	Powder coated steel	230/1/60	3.76	140°F	36" x 11.8" x 15.02"	92
NE05023604	4	5000	Powder coated steel	230/1/60	3.76	140°F	36" x 11.8" x 15.02"	92
NE0502364X	4X	5000	Stainless steel	230/1/60	3.76	140°F	36" x 11.8" x 15.02"	92
NE0502364XL4	4X	5000	Mill finish aluminum	230/1/60	3.76	140°F	36" x 11.8" x 15.02"	82
NE05048612	12	5000	Powder coated steel	460/1/60	1.9	140°F	44.63" x 11.8" x 15.02"	136
NE05048604	4	5000	Powder coated steel	460/1/60	1.9	140°F	44.63" x 11.8" x 15.02"	136
NE0504864X	4X	5000	Stainless steel	460/1/60	1.9	140°F	44.63" x 11.8" x 15.02"	136
NE0504864XL5	4X	5000	Mill finish aluminum	460/1/60	1.9	140°F	44.63" x 11.8" x 15.02"	126





UL File #SA32252

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Thermal Edge Inc.™

NE060

1/27/2025

6000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

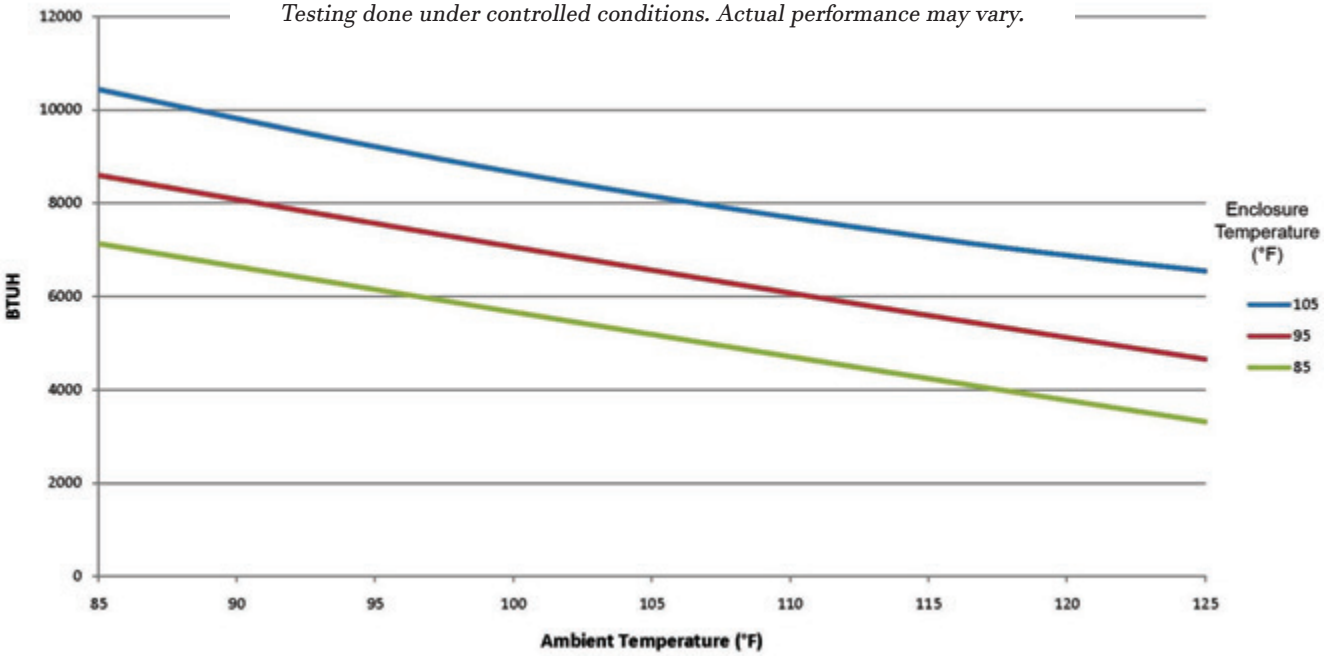
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

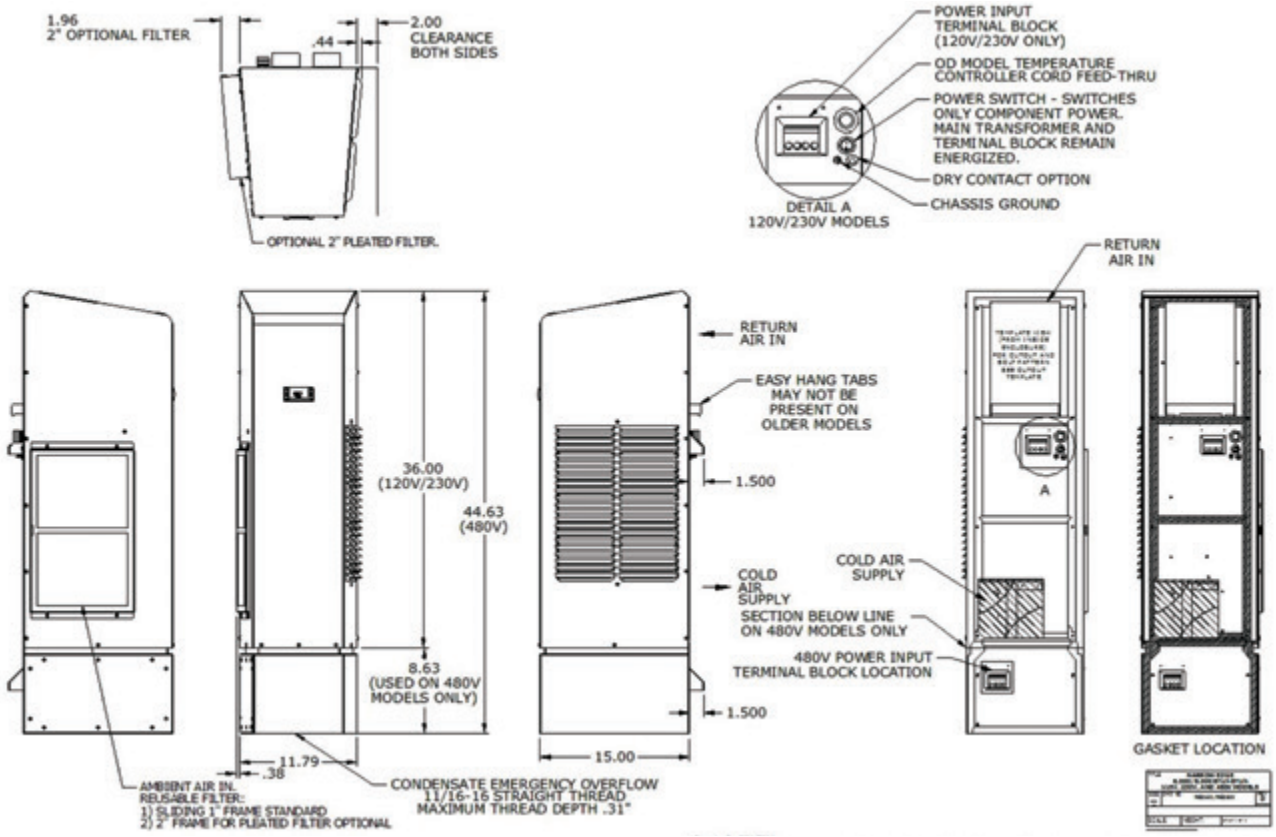
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Vibration Resistant
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE06012612	12	6000	Powder coated steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	97
NE06012604	4	6000	Powder coated steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	97
NE0601264X	4X	6000	Stainless steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	97
NE0601264XL4	4X	6000	Mill finish aluminum	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	87
NE06023612	12	6000	Powder coated steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	98
NE06023604	4	6000	Powder coated steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	98
NE0602364X	4X	6000	Stainless steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	98
NE0602364XL4	4X	6000	Mill finish aluminum	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	88
NE06048612	12	6000	Powder coated steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE06048604	4	6000	Powder coated steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE0604864X	4X	6000	Stainless steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE0604864XL5	4X	6000	Mill finish aluminum	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	132

Testing done under controlled conditions. Actual performance may vary.





UL File
#SA32252

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Thermal Edge Inc.™

TM061

1/27/2025

6000 BTUH TOP MOUNT | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Integrated lifting eyes

Unit Efficiency

- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

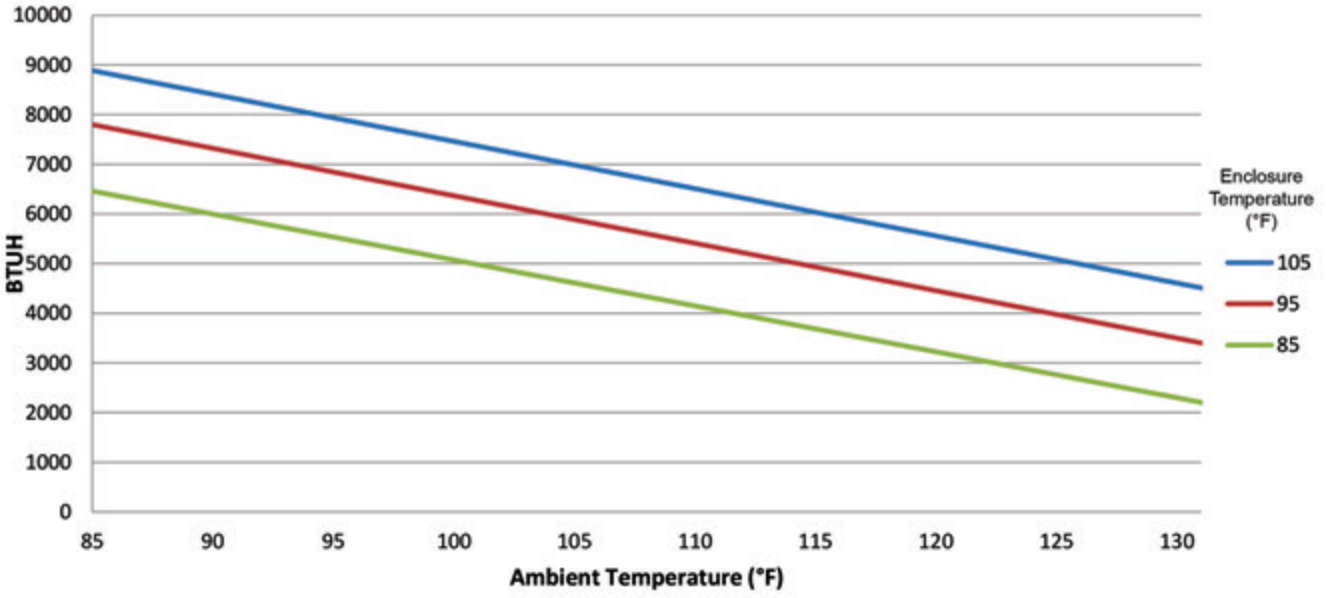
Filter Free Operation

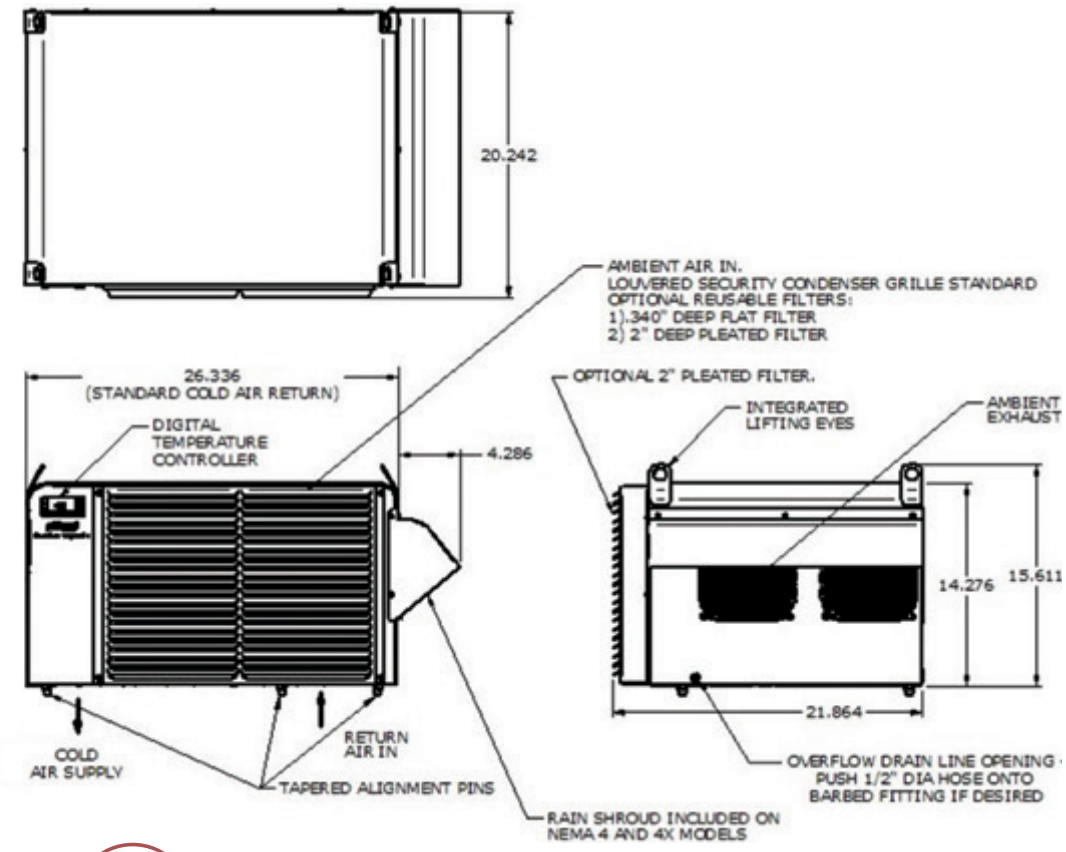
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
TM06112612	12	6000	Powder coated steel	115/1/60	10.6	131°F	15.6" x 26.3" x 20.2"	111
TM06112604	4	6000	Powder coated steel	115/1/60	10.6	131°F	15.6" x 30.6" x 20.2"	111
TM0611264X	4X	6000	Stainless steel	115/1/60	10.6	131°F	15.6" x 30.6" x 20.2"	111
TM0611264XL4	4X	6000	Mill finish aluminum	115/1/60	10.6	131°F	15.6" x 30.6" x 20.2"	101
TM06123612	12	6000	Powder coated steel	230/1/60	6.0	131°F	15.6" x 26.3" x 20.2"	111
TM06123604	4	6000	Powder coated steel	230/1/60	6.0	131°F	15.6" x 30.6" x 20.2"	111
TM0612364X	4X	6000	Stainless steel	230/1/60	6.0	131°F	15.6" x 30.6" x 20.2"	111
TM0612364XL4	4X	6000	Mill finish aluminum	230/1/60	6.0	131°F	15.6" x 30.6" x 20.2"	101
TM06148612	12	6000	Powder coated steel	460/1/60	2.9	131°F	15.6" x 26.3" x 20.2"	154
TM06148604	4	6000	Powder coated steel	460/1/60	2.9	131°F	15.6" x 30.6" x 20.2"	154
TM0614864X	4X	6000	Stainless steel	460/1/60	2.9	131°F	15.6" x 30.6" x 20.2"	154
TM0614864XL4	4X	6000	Mill finish aluminum	460/1/60	2.9	131°F	15.6" x 30.6" x 20.2"	144

Testing done under controlled conditions. Actual performance may vary.





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UL File #SA32252

CE

Thermal Edge Inc's 5-YEAR WARRANTY

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE080

1/27/2025

8000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

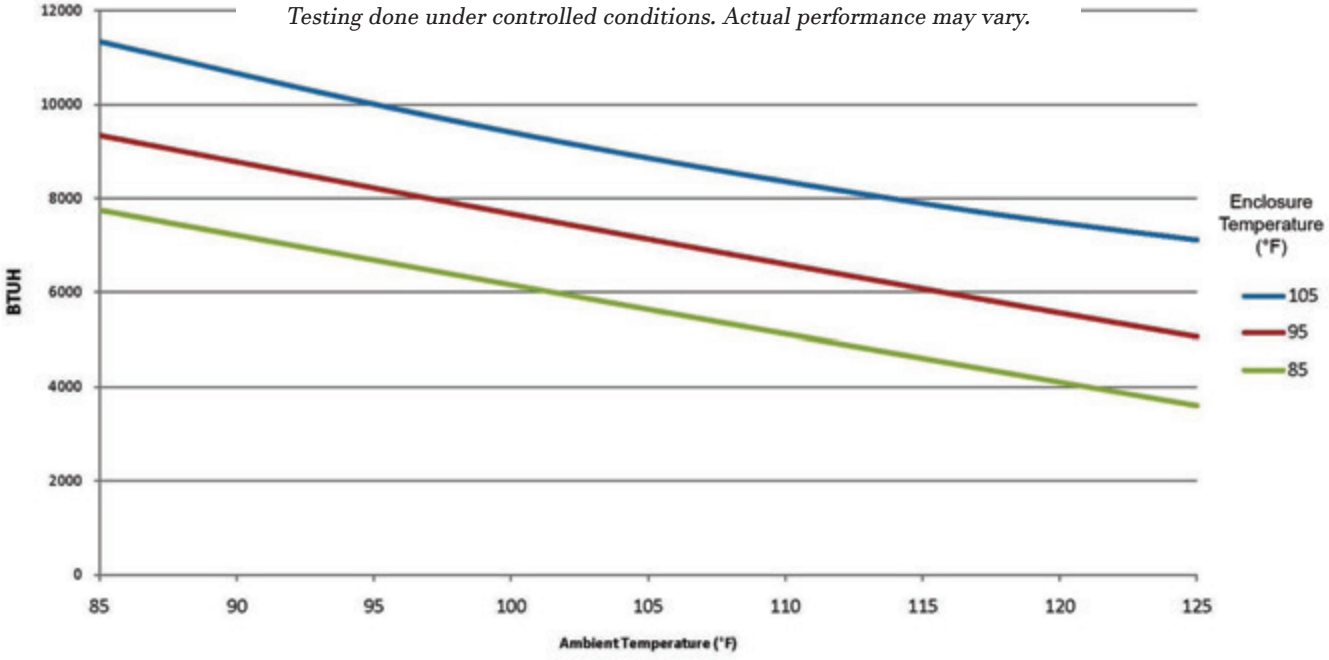
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

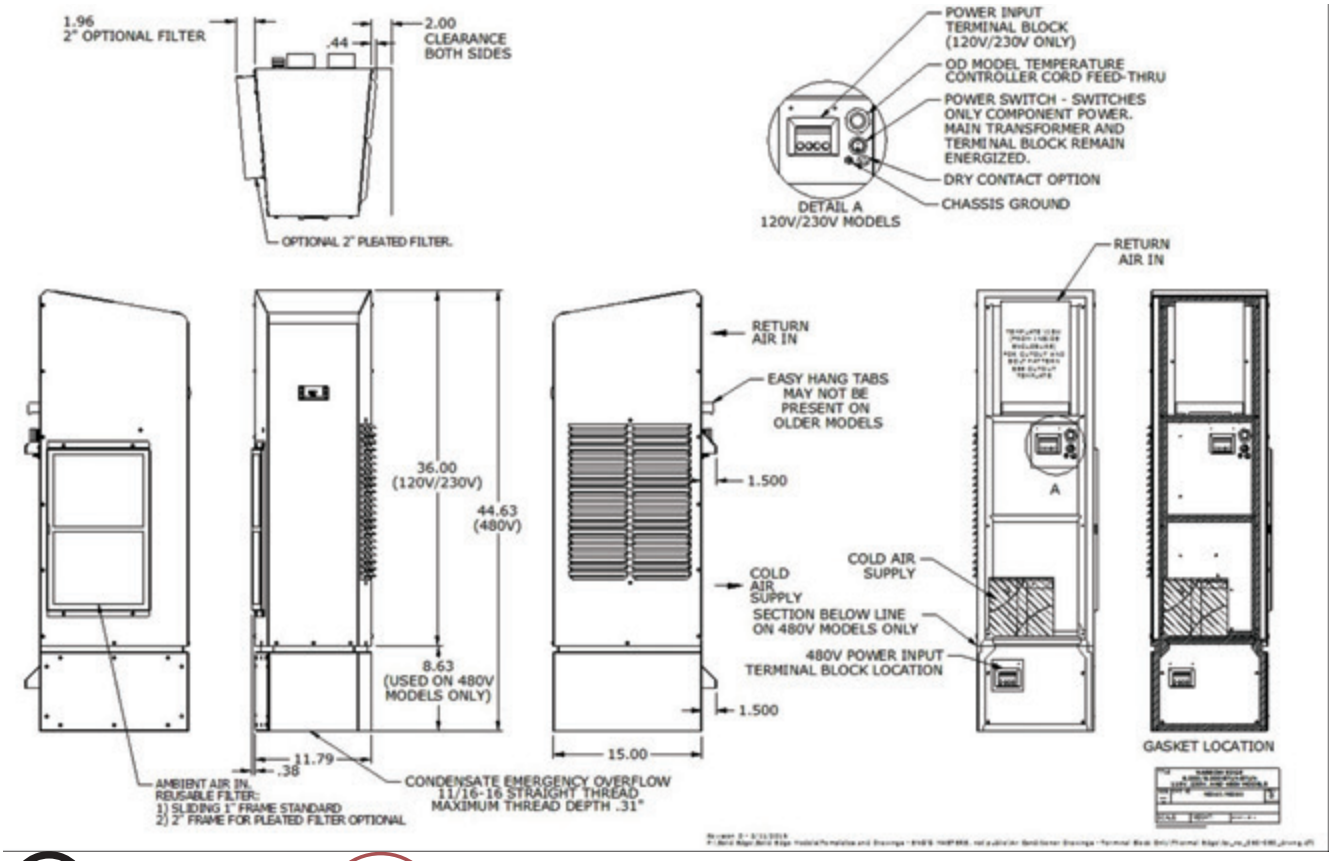
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE08012612	12	8000	Powder coated steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	102
NE08012604	4	8000	Powder coated steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	102
NE0801264X	4X	8000	Stainless steel	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	102
NE0801264XL4	4X	8000	Mill finish aluminum	115/1/60	7.83	125°F	36" x 11.8" x 15.02"	92
NE08023612	12	8000	Powder coated steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	103
NE08023604	4	8000	Powder coated steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	103
NE0802364X	4X	8000	Stainless steel	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	103
NE0802364XL4	4X	8000	Mill finish aluminum	230/1/60	4.8	125°F	36" x 11.8" x 15.02"	93
NE08048612	12	8000	Powder coated steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE08048604	4	8000	Powder coated steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE0804864X	4X	8000	Stainless steel	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	142
NE0804864XL5	4X	8000	Mill finish aluminum	460/1/60	2.4	125°F	44.63" x 11.8" x 15.02"	132

Testing done under controlled conditions. Actual performance may vary.





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UL File
#SA32252

CE

5-YEAR WARRANTY

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

TM081

1/27/2025

8000 BTUH TOP MOUNT | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Integrated lifting eyes

Unit Efficiency

- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

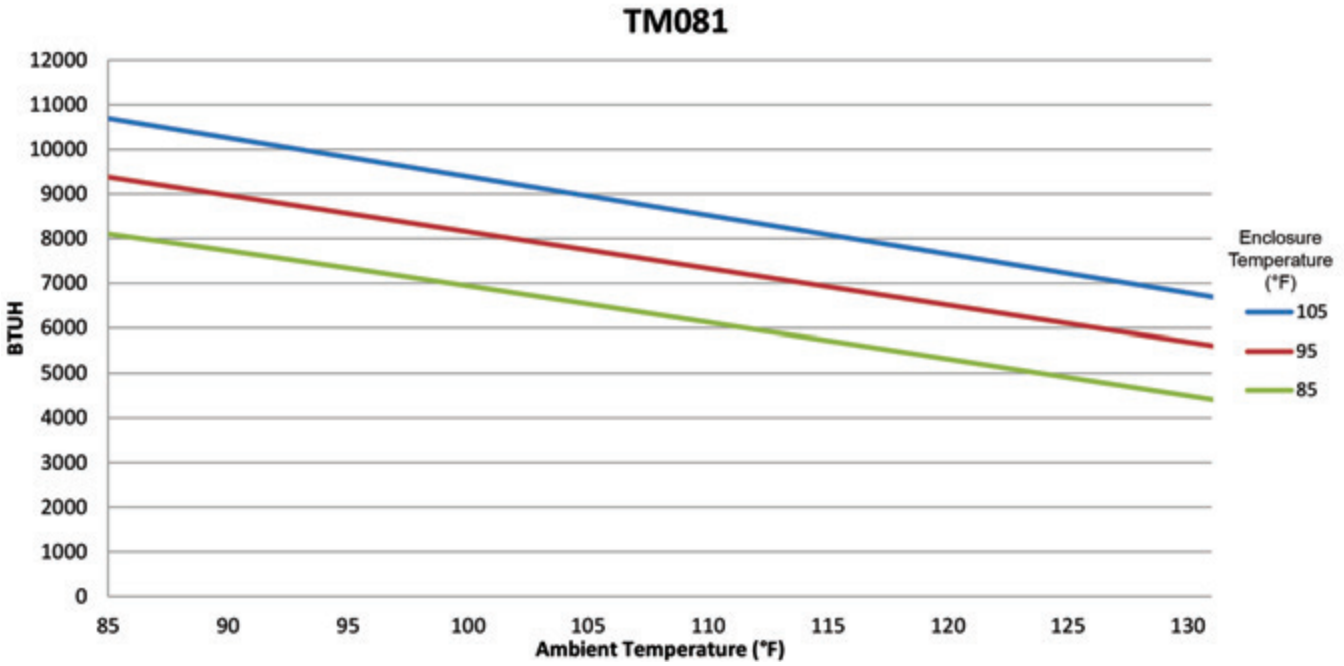
Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

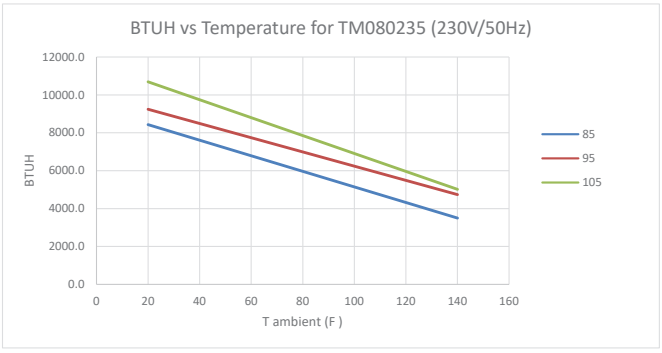
Filter Free Operation

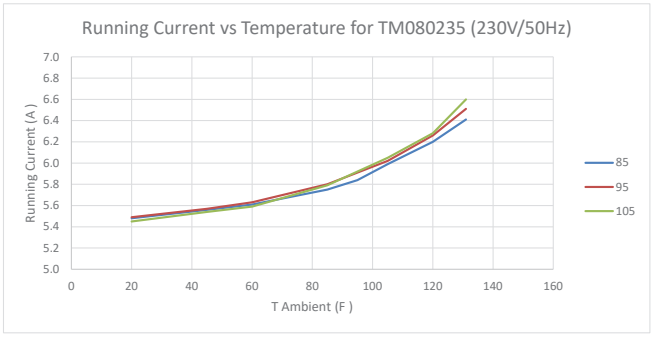
Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
TM08112612	12	8000	Powder coated steel	115/1/60	11.6	131°F	15.6" x 26.3" x 20.2"	111
TM08112604	4	8000	Powder coated steel	115/1/60	11.6	131°F	15.6" x 30.6" x 20.2"	111
TM0811264X	4X	8000	Stainless steel	115/1/60	11.6	131°F	15.6" x 30.6" x 20.2"	111
TM0811264XL4	4X	8000	Mill finish aluminum	115/1/60	11.6	131°F	15.6" x 30.6" x 20.2"	101
TM08123612	12	8000	Powder coated steel	230/1/60	7.0	131°F	15.6" x 26.3" x 20.2"	111
TM08123604	4	8000	Powder coated steel	230/1/60	7.0	131°F	15.6" x 30.6" x 20.2"	111
TM0812364X	4X	8000	Stainless steel	230/1/60	7.0	131°F	15.6" x 30.6" x 20.2"	111
TM0812364XL4	4X	8000	Mill finish aluminum	230/1/60	7.0	131°F	15.6" x 30.6" x 20.2"	101
TM08148612	12	8000	Powder coated steel	460/1/60	3.5	131°F	15.6" x 26.3" x 20.2"	154
TM08148604	4	8000	Powder coated steel	460/1/60	3.5	131°F	15.6" x 30.6" x 20.2"	154
TM0814864X	4X	8000	Stainless steel	460/1/60	3.5	131°F	15.6" x 30.6" x 20.2"	154
TM0814864XL4	4X	8000	Mill finish aluminum	460/1/60	3.5	131°F	15.6" x 30.6" x 20.2"	144

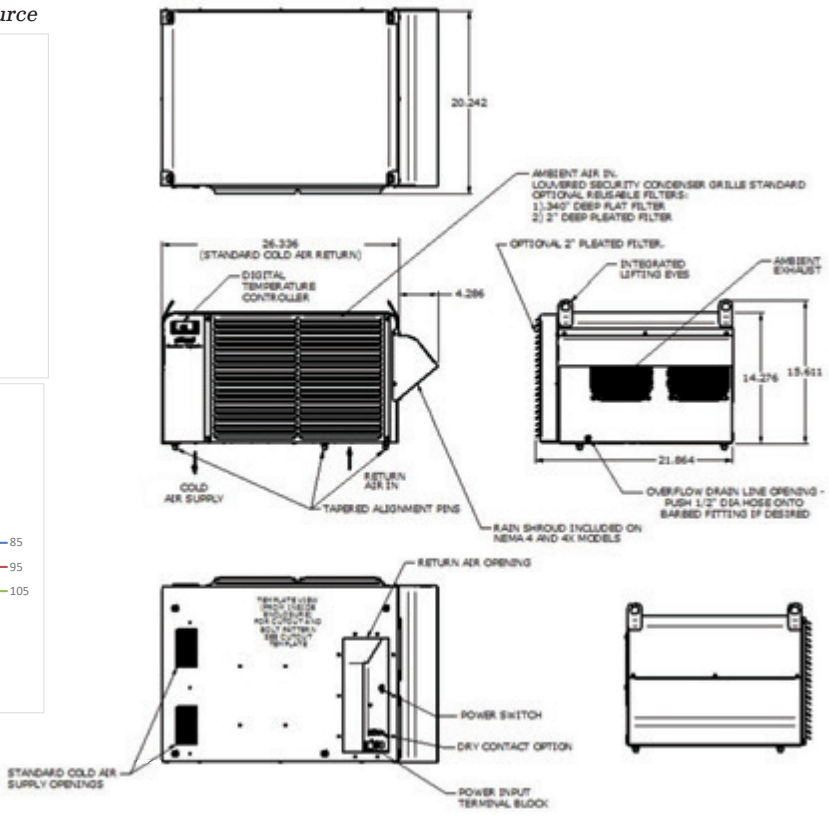
Testing done under controlled conditions. Actual performance may vary.



TM081 60 Hz unit test results running on 50 Hz power source







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UL File #SA32252

CE

5-YEAR WARRANTY

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Thermal Edge Inc.™

HC101

1/27/2025

10,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

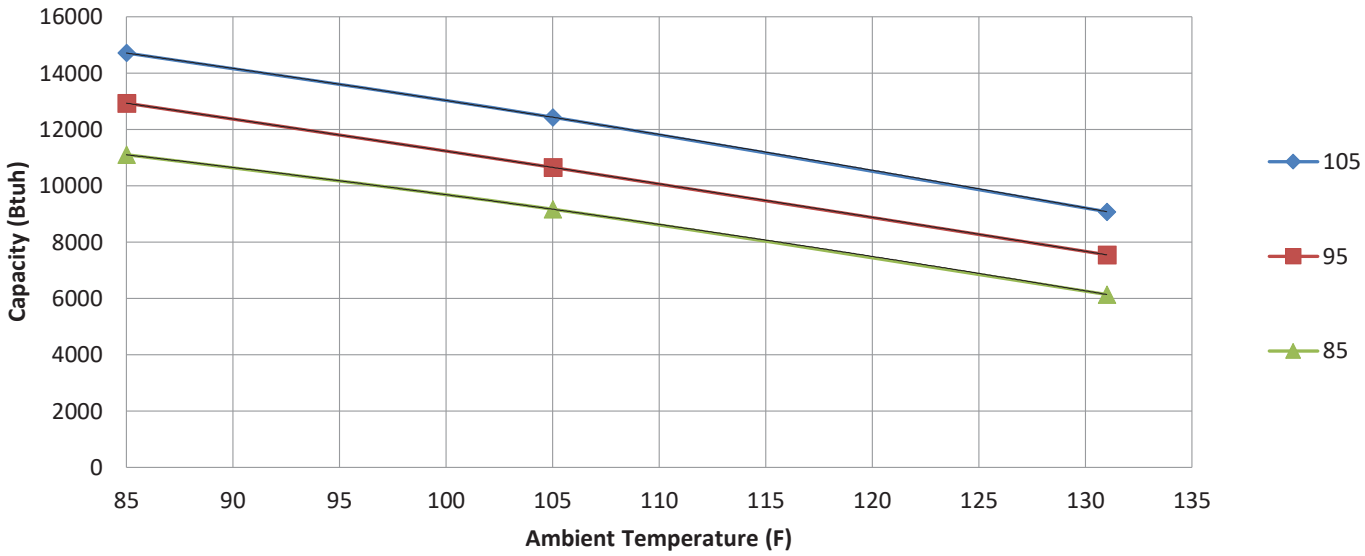
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

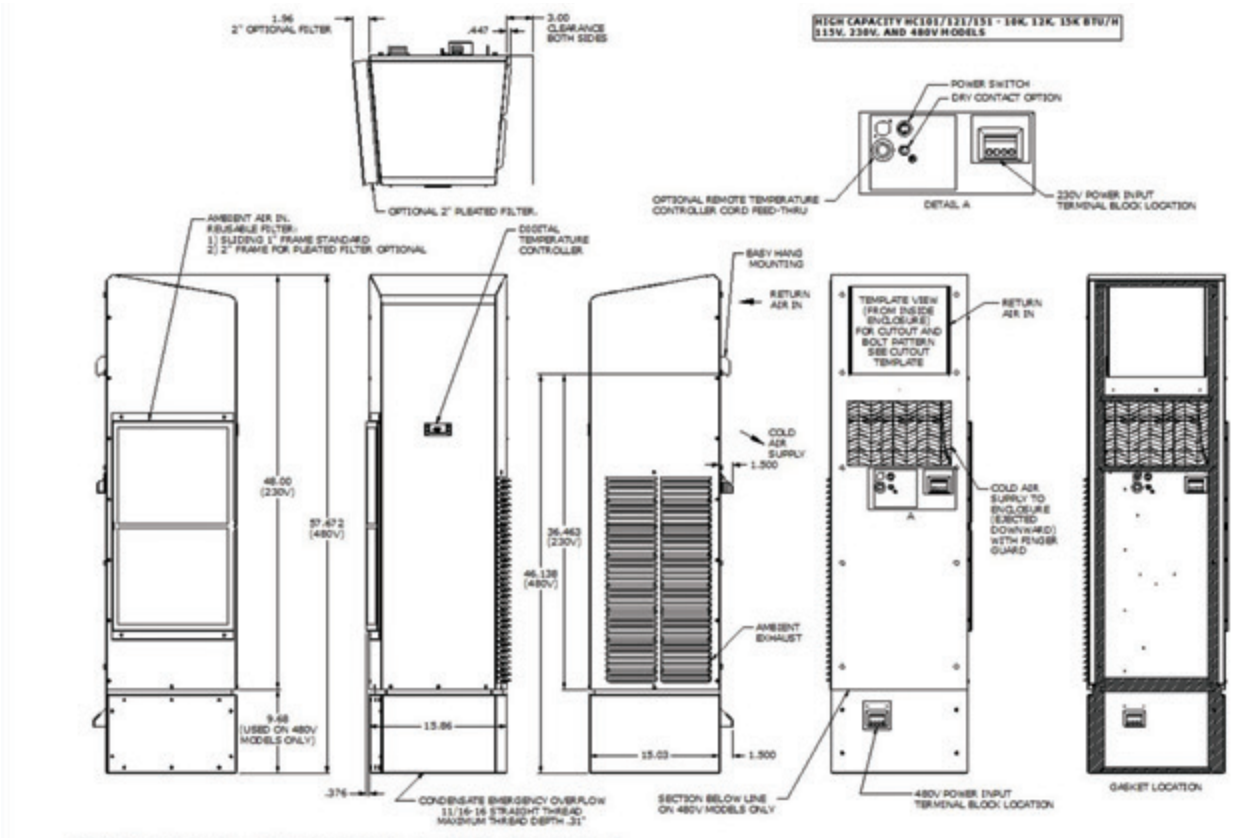
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC10112612	12	10,000	Powder coated steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	162
HC10112604	4	10,000	Powder coated steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	162
HC1011264X	4X	10,000	Stainless steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	162
HC1011264XL4	4X	10,000	Mill finish aluminum	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	152
HC10123612	12	10,000	Powder coated steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	166
HC10123604	4	10,000	Powder coated steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	166
HC1012364X	4X	10,000	Stainless steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	166
HC1012364XL4	4X	10,000	Mill finish aluminum	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	156
HC10148612	12	10,000	Powder coated steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	232
HC10148604	4	10,000	Powder coated steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	232
HC1014864X	4X	10,000	Stainless steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	232
HC1014864XL5	4X	10,000	Mill finish aluminum	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	222

Testing done under controlled conditions. Actual performance may vary.





UL File #SA32252

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Thermal Edge Inc.™

HC121

1/27/2025

12,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

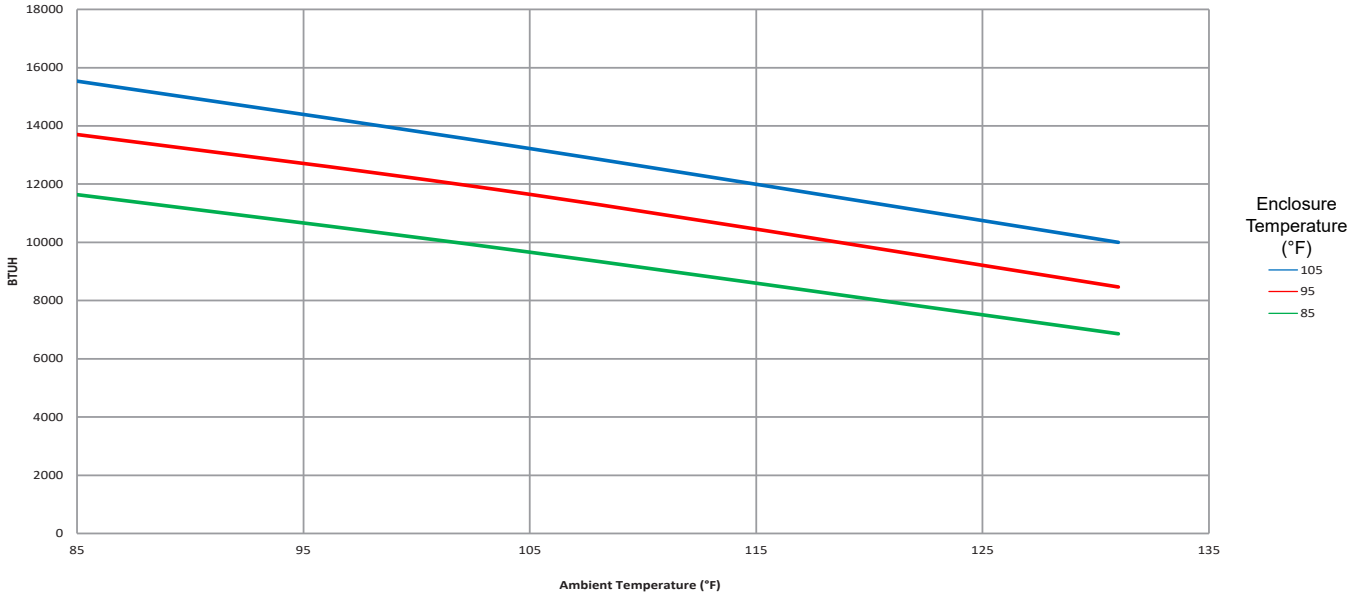
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

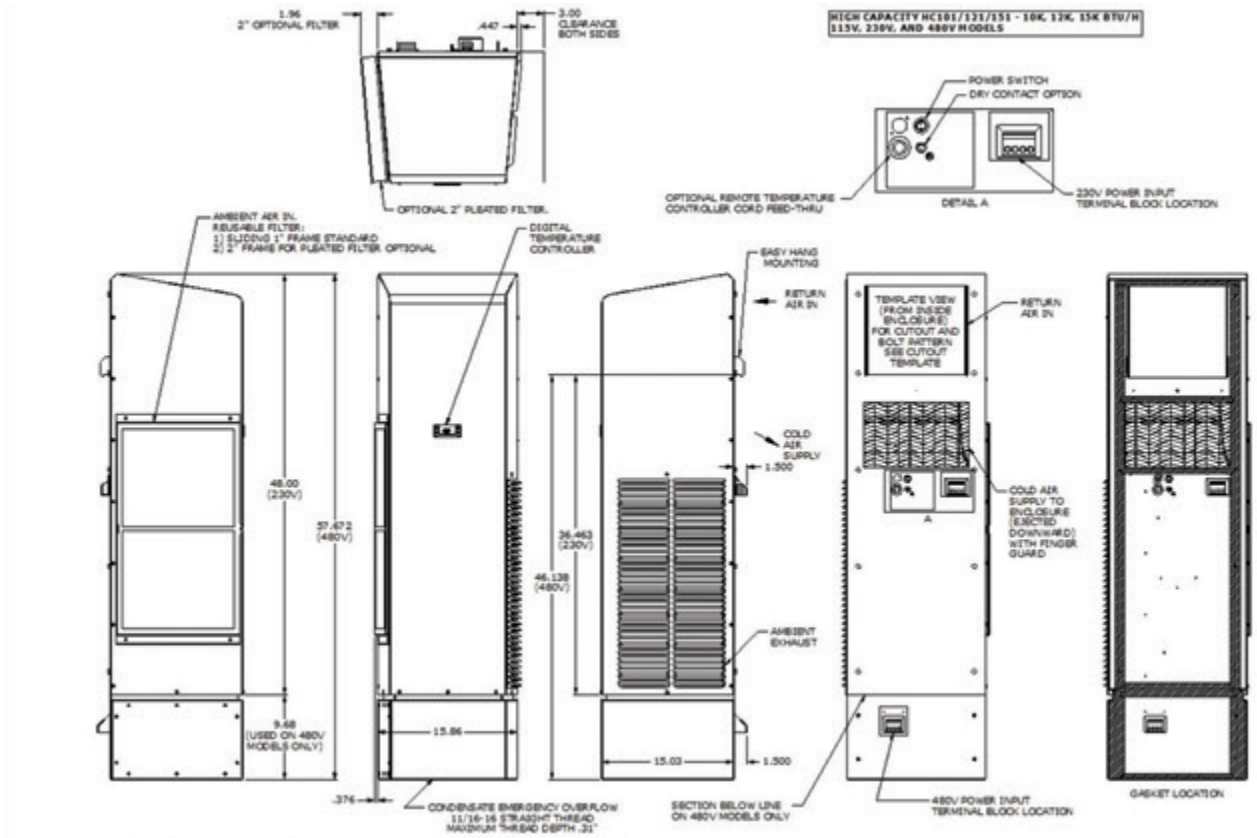
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC12112612	12	12,000	Powder coated steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	167
HC12112604	4	12,000	Powder coated steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	167
HC1211264X	4X	12,000	Stainless steel	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	167
HC1211264XL4	4X	12,000	Mill finish aluminum	115/1/60	19.4	131°F	48" x 15.86" x 15.03"	157
HC12123612	12	12,000	Powder coated steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	163
HC12123604	4	12,000	Powder coated steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	163
HC1212364X	4X	12,000	Stainless steel	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	163
HC1212364XL4	4X	12,000	Mill finish aluminum	230/1/60	8.2	131°F	48" x 15.86" x 15.03"	153
HC12148612	12	12,000	Powder coated steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	237
HC12148604	4	12,000	Powder coated steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	237
HC1214864X	4X	12,000	Stainless steel	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	237
HC1214864XL5	4X	12,000	Mill finish aluminum	460/1/60	4.1	131°F	57.6" x 15.86" x 15.03"	227

Testing done under controlled conditions. Actual performance may vary.





UL File #SA32252

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Thermal Edge Inc.™

HC151

1/27/2025

15,000 BTUH

INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

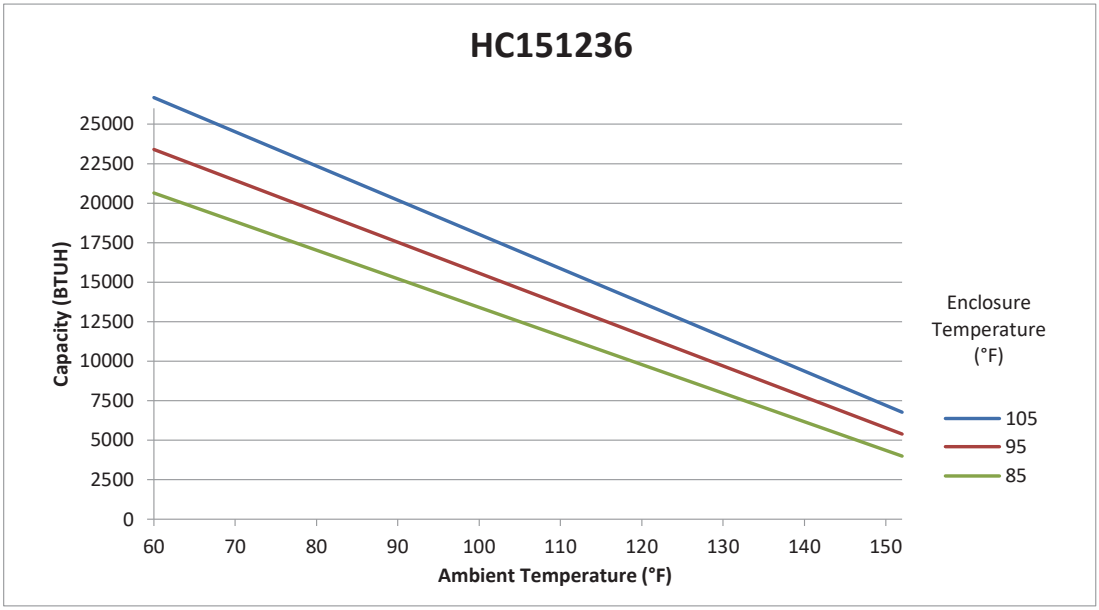
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

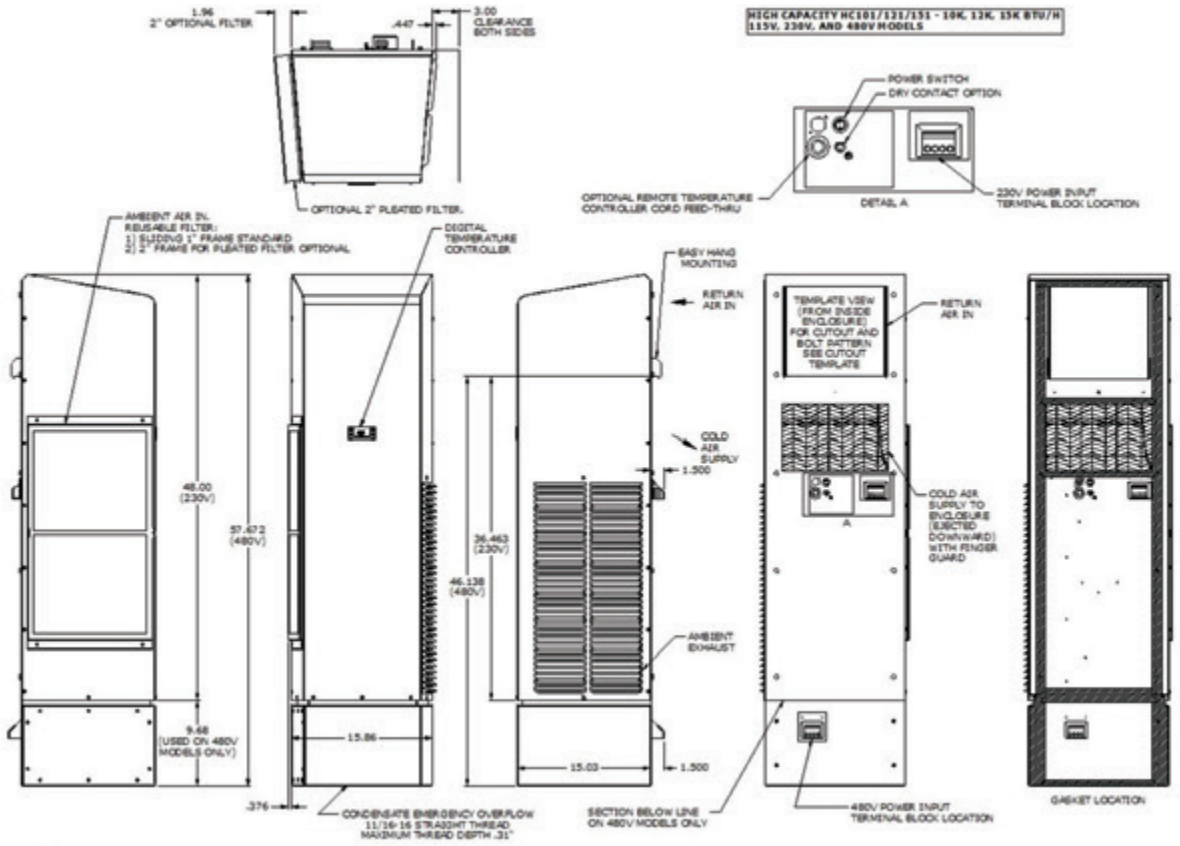
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC15123612	12	15,000	Powder coated steel	230/1/60	9.93	140°F	48" x 15.86" x 15.03"	170
HC15123604	4	15,000	Powder coated steel	230/1/60	9.93	140°F	48" x 15.86" x 15.03"	170
HC1512364X	4X	15,000	Stainless steel	230/1/60	9.93	140°F	48" x 15.86" x 15.03"	170
HC1512364XL4	4X	15,000	Mill finish aluminum	230/1/60	9.93	140°F	48" x 15.86" x 15.03"	160
HC15148612	12	15,000	Powder coated steel	460/1/60	5.21	140°F	57.6" x 15.86" x 15.03"	247
HC15148604	4	15,000	Powder coated steel	460/1/60	5.21	140°F	57.6" x 15.86" x 15.03"	247
HC1514864X	4X	15,000	Stainless steel	460/1/60	5.21	140°F	57.6" x 15.86" x 15.03"	247
HC1514864XL5	4X	15,000	Mill finish aluminum	460/1/60	5.21	140°F	57.6" x 15.86" x 15.03"	237

Testing done under controlled conditions. Actual performance may vary.





UL File #SA32252

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Thermal Edge Inc.™

HC20C

1/27/2025

20,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

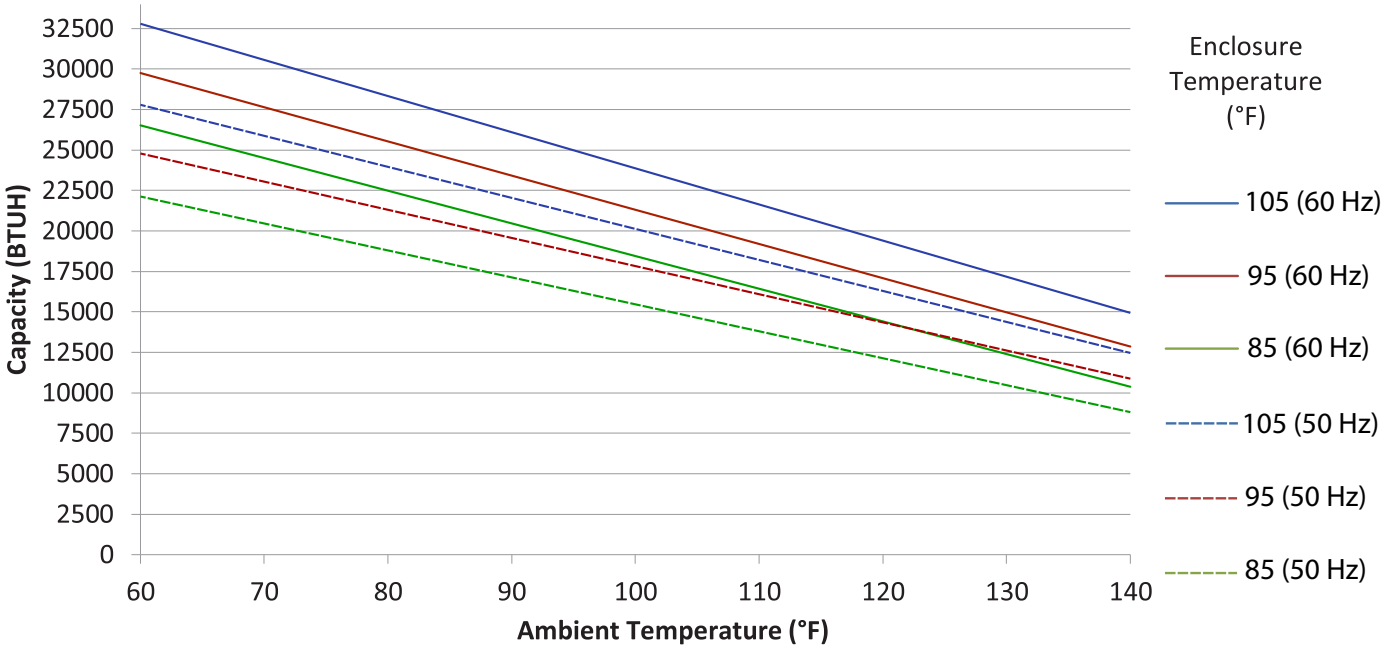
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Redundant System
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Filter/Filter Frame
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit
- Will run on 50 Hz Power

Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC20C23612	12	Powder coated steel	230/1/60	12.47	140°F	48" x 15.86" x 15.03"	170
HC20C23604	4	Powder coated steel	230/1/60	12.47	140°F	48" x 15.86" x 15.03"	170
HC20C2364X	4X	Stainless steel	230/1/60	12.47	140°F	48" x 15.86" x 15.03"	170
HC20C2364XL4	4X	Mill finish aluminum	230/1/60	12.47	140°F	48" x 15.86" x 15.03"	160
HC20C48612	12	Powder coated steel	460/1/60	6.3	140°F	57.6" x 15.86" x 15.03"	247
HC20C48604	4	Powder coated steel	460/1/60	6.3	140°F	57.6" x 15.86" x 15.03"	247
HC20C4864X	4X	Stainless steel	460/1/60	6.3	140°F	57.6" x 15.86" x 15.03"	247
HC20C4864XL5	4X	Mill finish aluminum	460/1/60	6.3	140°F	57.6" x 15.86" x 15.03"	237

HC20C 240V (50/60 Hz)

Testing done under controlled conditions. Actual performance may vary.



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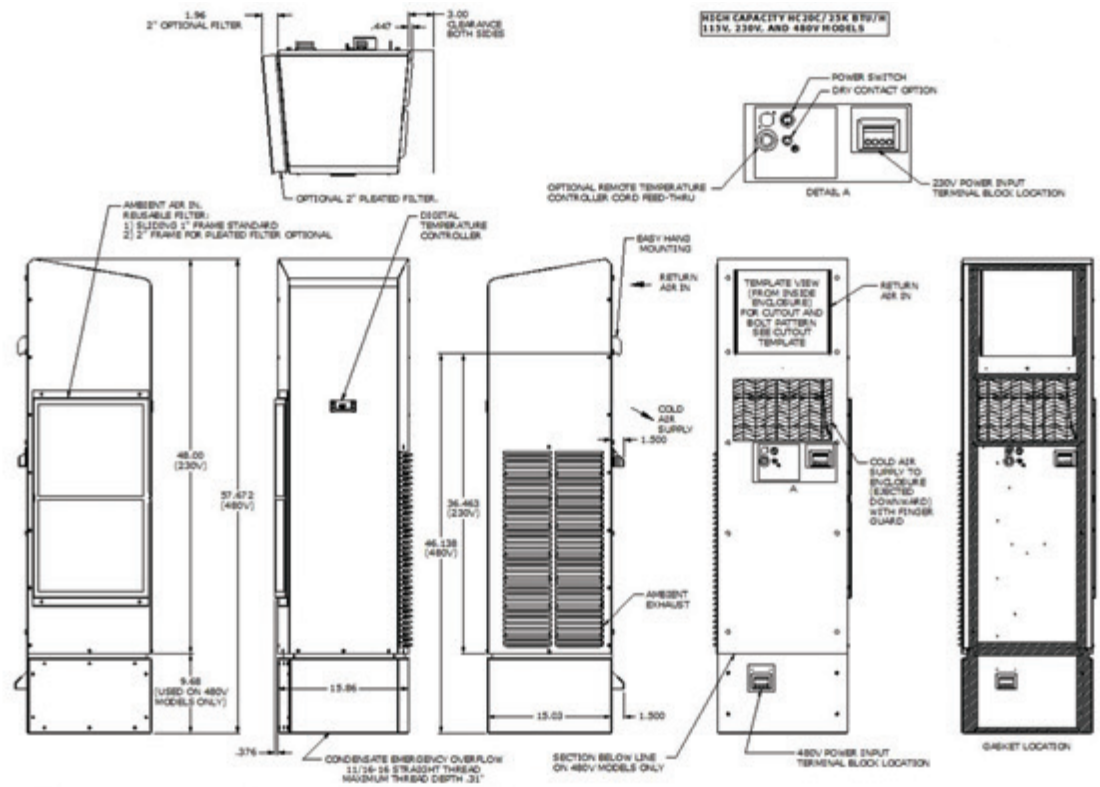

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1/27/2025

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

50 HZ ENCLOSURE AIR CONDITIONERS

- Fully Integrated Condensate Evaporation Package
- Programmable Digital Controller
- Thermal Expansion Valve
- Narrow Design To Fit Onto A 12" Enclosure
- Energy Efficient - Low Running Amps

MADE IN AMERICA MATTERS...

RESOURCES

HTTPS://THERMALEDGE.COM/RESOURCES/

Browse the wide selection of online resources available on the Thermal Edge website to assist you in learning about and understanding our products.

STANDARDS & CERTIFICATIONS

Learn more about Thermal Edge standards & certifications.

www.thermaledge.com/resource-type/standards-certifications/

SALES

Find your Thermal Edge sales specialist or a local representative by state. A link is available to open a new credit account.

www.thermaledge.com/contact-us/sales-team/

ETM CALCULATOR

Ensure that you select the right product for your electrical enclosure by using this calculator.

www.thermaledge.com/enclosure-temperature-management-calculator/

LITERATURE AND USER MANUALS

Learn more about Thermal Edge products by downloading our product brochures, templates, drawings, manuals and much more.

www.thermaledge.com/resources/literature/

SUPPORT

Visit our support center to submit a support request or speak to a support representative.

www.thermaledge.com/contact-us/support-team/

CASE STUDIES

Learn how Thermal Edge enclosure cooling systems have given customers a more reliable and efficient method for their electrical cooling needs.

www.thermaledge.com/resource-type/case-studies/

VIDEOS

Learn more about technology behind Thermal Edge cooling solutions by watching our online videos. We have videos that demonstrate our closed loop cooling technology, condensate management and more.

www.thermaledge.com/resources/videos/

CONTACT THERMAL EDGE

If you have questions that you cannot find answers to on our website, we have in-house customer care, technical services, design engineers, and application sales specialists that will be able to answer any questions that you may have regarding Thermal Edge products.

www.thermaledge.com/contact-us/

WHITE PAPERS

Learn about electrical enclosure cooling solutions by downloading our white papers. If you are still searching for the right enclosure cooling system for your application, we have a white paper just for you.

www.thermaledge.com/resource-type/white-papers/

WHAT MAKES AN AIR CONDITIONER A THERMAL EDGE AIR CONDITIONER?

There are three critical features that make a Thermal Edge Enclosure Air Conditioner different from any other line of air conditioners. Standard on Every Unit:

DRIP-FREE CONDENSATE REMOVAL IS NOT OPTIONAL

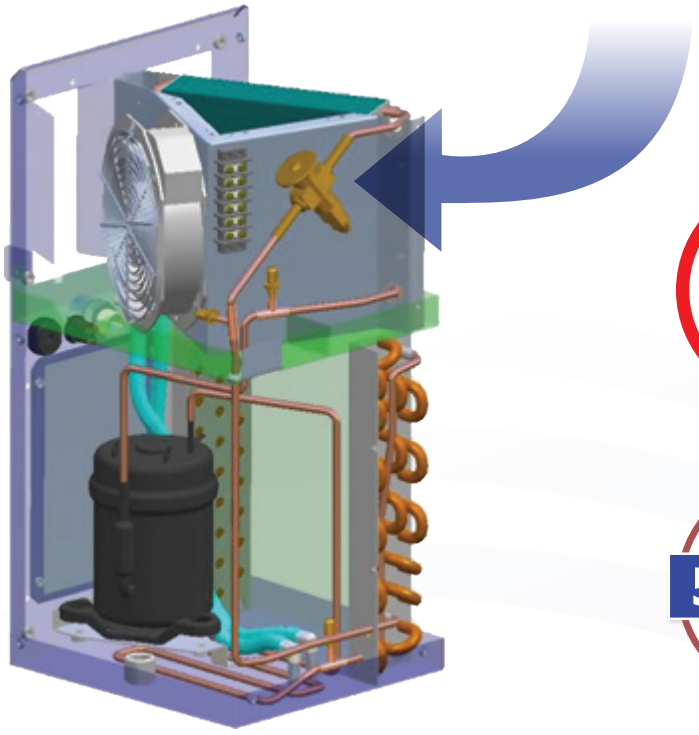
Condensate Evaporation Is Standard On Every Unit... NO DRAIN TUBE IS NEEDED

DIGITAL, PROGRAMMABLE CONTROLLER:

- Built in alarms and alerts
- Will operate heating & cooling
- Ethernet, Modbus RTU and EtherNet/IP communication options
- Remote controller option places controller inside cabinet

THERMAL EXPANSION VALVE CONTROLS THE FLOW

Thermal Expansion Valves balance and modulate the refrigerant flow to the heat load by sensing the temperature of the refrigerant leaving the evaporator.



NO WATER DRIPS FROM THERMAL EDGE ENCLOSURE AIR CONDITIONERS

ENGINEERED AND MANUFACTURED

to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper and Pulp and Plastics.

CS SERIES AIR CONDITIONERS

Smallest 2000 BTUH available

- Active Condensate Evaporation is standard
- Fits on a 7" or 10" deep enclosure
- Available in UL Types 12, 4, 4X
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner

CE

NE SERIES AIR CONDITIONERS

Active Condensate Evaporation is standard

- Fits on a 12" deep enclosure
- Available in UL Types 12, 4, 4X and Hazardous Environment applications
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 1000 BTUH
- 1500 BTUH
- 2000 BTUH
- 3000 BTUH
- 5000 BTUH
- 6000 BTUH

CE

HC SERIES AIR CONDITIONERS

Active Condensate Evaporation is standard

- Available in UL Types 12, 4, 4X and Hazardous Environment applications
- Fully programmable digital controller with temperature and pressure monitors for a smarter air conditioner
- 115V, 230V, 460V
- 8000 BTUH
- 10,000 BTUH
- 12,000 BTUH
- 20,000 BTUH

CE

50 HZ AIR CONDITIONER PRODUCT LINE

Model	BTU/Hour	Voltage/ Phase/Hz	Running Amps	Max. Ambient Temp	Max. Integrated Heat (Watts)	H x W x D	Unit Weight
CS011105	1,000	100/1/50	2.7	125°F	350	17" x 7" x 7"	31
NE010105	1,000	100/1/50	2.3	125°F	NA	22" x 11.8" x 8.5"	53
NE010205	1,000	200/1/50	1.9	125°F	NA	22" x 11.8" x 8.5"	53
NE015105	1,500	100/1/50	2.4	125°F	NA	22" x 11.8" x 8.5"	53
NE015205	1,500	200/1/50	1.9	125°F	NA	22" x 11.8" x 8.5"	53
CS020235	2,000	230/1/50	1.7	131°F	500	20" x 10" x 10"	49
NE020105	2,000	100/1/50	5.2	125°F	1000	32" x 11.8" x 9.5"	65
NE020235	2,000	230/1/50	1.7	125°F	1000	32" x 11.8" x 9.5"	65
NE020385	2,000	380/1/50	1.4	125°F	1000	32" x 11.8" x 9.5"	99
NE020405	2,000	400/1/50	1.3	125°F	1000	38" x 11.8" x 9.5"	99
NE020415	2,000	415/1/50	1.25	125°F	1000	38" x 11.8" x 9.5"	99
NE030105	3,000	100/1/50	5.0	125°F	1000	38" x 11.8" x 9.5"	66
NE030205	3,000	200/1/50	3.07	125°F	1000	38" x 11.8" x 9.5"	99
NE030385	3,000	380/1/50	1.32	125°F	1000	38" x 11.8" x 9.5"	99
NE030405	3,000	400/1/50	1.28	125°F	1000	38" x 11.8" x 9.5"	99
NE030415	3,000	415/1/50	1.2	125°F	1000	38" x 11.8" x 9.5"	99
NE050237	5,000	230/1/50-60	4.0/3.1	131°F	1000	44.63" x 11.8" x 15.1"	170
NE050235	5,000	230/1/50	3.4	131°F	1000	36" x 11.8" x 15.1"	92
NE050385	5,000	380/1/50	2.1	131°F	1000	44.63" x 11.8" x 15.1"	136
NE050405	5,000	400/1/50	1.9	131°F	1000	44.63" x 11.8" x 15.1"	136
NE050415	5,000	415/1/50	1.9	131°F	1000	44.63" x 11.8" x 15.1"	136

50 HZ AIR CONDITIONER PRODUCT LINE

(CONTINUED)

Model	BTU/Hour	Voltage/ Phase/Hz	Running Amps	Max. Ambient Temp	Max. Integrated Heat (Watts)	H x W x D	Unit Weight
NE060237	6,000	230/1/50-60	4.2/3.7	131°F	1000	44.63" x 11.8" x 15.1"	170
NE060235	6,000	230/1/50	4.0	131°F	1000	36" x 11.8" x 15.1"	98
NE060385	6,000	380/1/50	2.4	131°F	1000	44.63" x 11.8" x 15.1"	142
NE060405	6,000	400/1/50	2.3	131°F	1000	44.63" x 11.8" x 15.1"	142
NE060415	6,000	415/1/50	2.2	131°F	1000	44.63" x 11.8" x 15.1"	142
HC080235	8,000	230/1/50	7.1	125°F	1000	48" x 15.9" x 15.1"	166
HC080385	8,000	380/1/50	4.3	125°F	1000	57.6" x 15.9" x 15.1"	232
HC080405	8,000	400/1/50	4.1	125°F	1000	57.6" x 15.9" x 15.1"	232
HC080415	8,000	415/1/50	3.8	125°F	1000	57.6" x 15.9" x 15.1"	232
HC101235	10,000	230/1/50	6.4	131°F	1500	48" x 15.9" x 15.1"	166
HC101385	10,000	380/1/50	3.9	131°F	1500	57.6" x 15.9" x 15.1"	232
HC101405	10,000	400/1/50	3.7	131°F	1500	57.6" x 15.9" x 15.1"	232
HC101415	10,000	415/1/50	3.6	131°F	1500	57.6" x 15.9" x 15.1"	232
HC121235	12,000	230/1/50	8.6	131°F	1500	48" x 15.9" x 15.1"	163
HC121385	12,000	380/1/50	5.2	131°F	1500	57.6" x 15.9" x 15.1"	237
HC121405	12,000	400/1/50	4.9	131°F	1500	57.6" x 15.9" x 15.1"	237
HC121415	12,000	415/1/50	4.8	131°F	1500	57.6" x 15.9" x 15.1"	237

Thermal Edge Inc.™

CS011 (50 HZ)

1/27/2025

1000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics. The CS011 uses a unique 3 coil design providing high capacity cooling while utilizing air intake from either side. Dual intake allows for mounting on a wall mounted enclosure on the right or left side of your enclosure.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 8" deep enclosure
- Filter free design

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

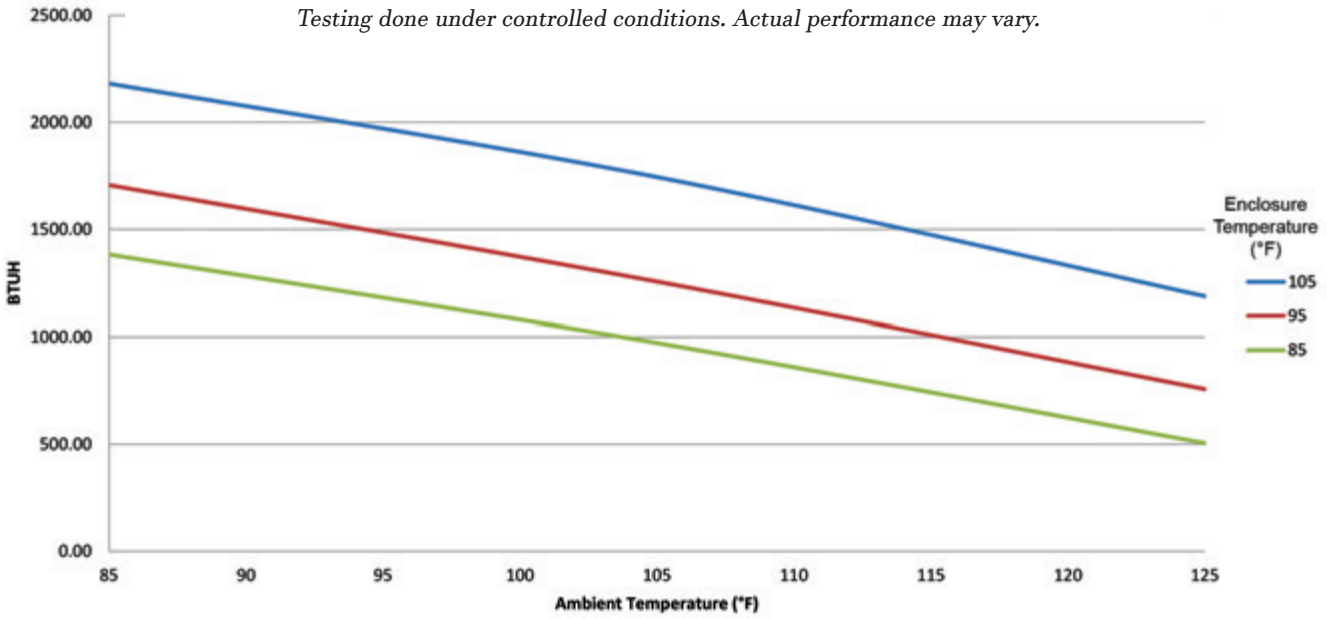
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

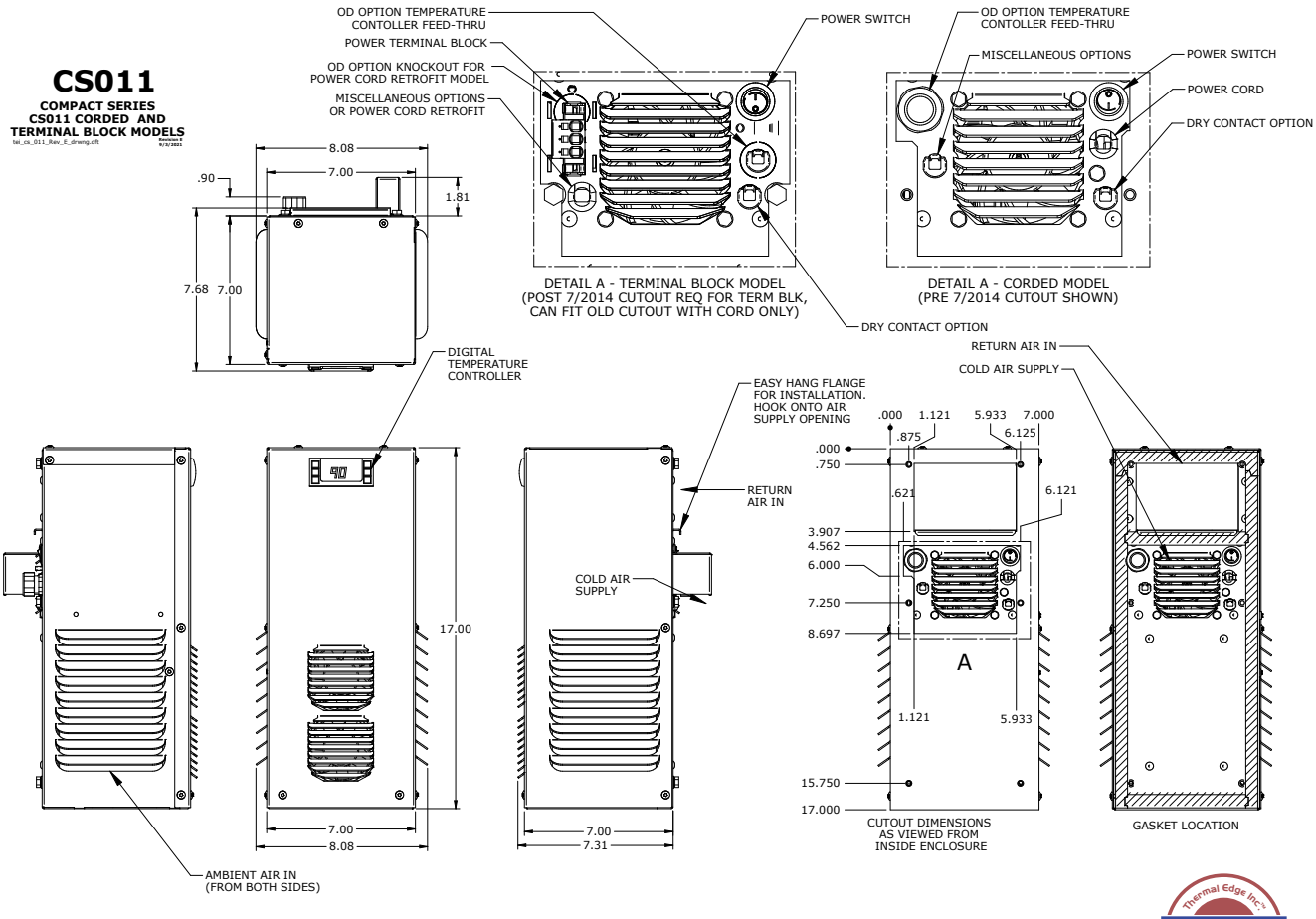
OPTIONS:

- Low/High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
CS01110512	12	1000	Powder coated steel	100/1/50	2.7	125°F	17" x 7" x7"	31 / 45
CS01110504	4	1000	Powder coated steel	100/1/50	2.7	125°F	17" x 7" x7"	31 / 45
CS0111054X	4X	1000	Stainless steel	100/1/50	2.7	125°F	17" x 7" x7"	31 / 45
CS0111054XL4	4X	1000	Mill finish aluminum	100/1/50	2.7	125°F	17" x 7" x7"	24 / 38

Testing done under controlled conditions. Actual performance may vary.





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Thermal Edge Inc.™

NE010 (50 HZ)

1/27/2025

1000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

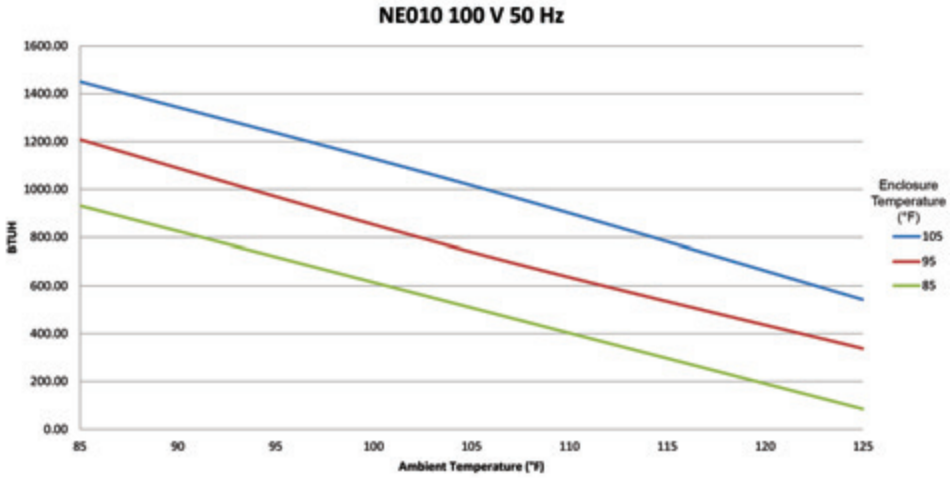
Compressor Protection System

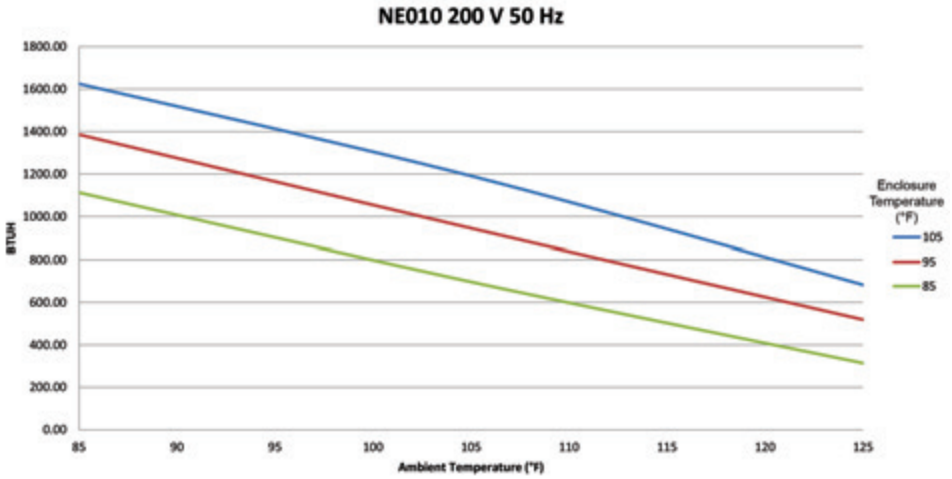
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

OPTIONS:

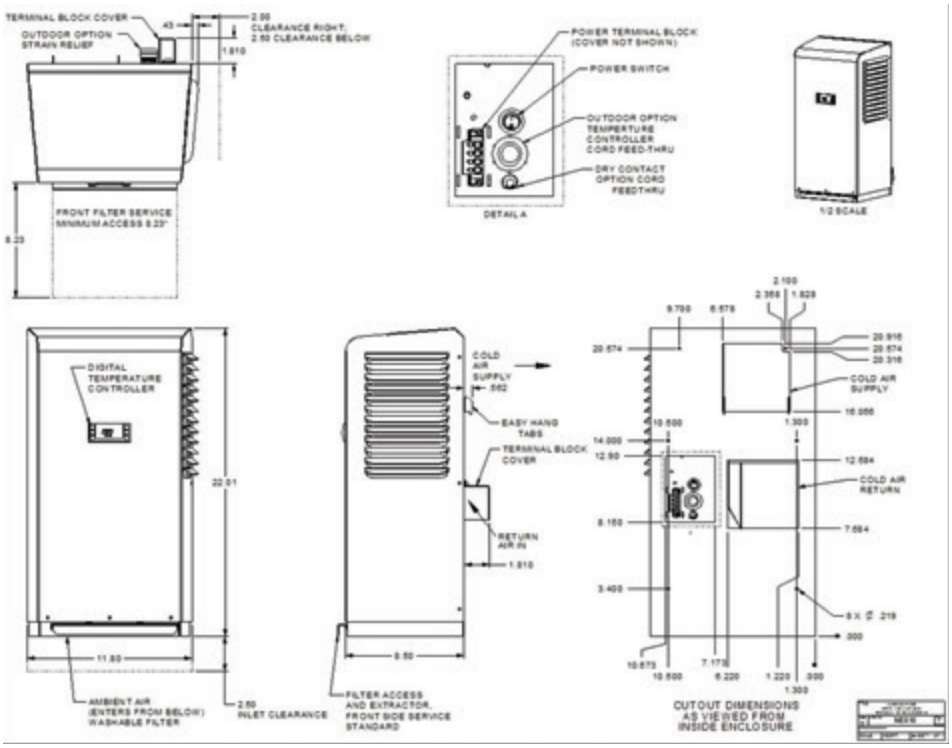
- High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE01010512	12	1000	Powder coated steel	100/1/50	2.3	125°F	22" x 11.8" x 8.5"	53 / 65
NE01010504	4	1000	Powder coated steel	100/1/50	2.3	125°F	22" x 11.8" x 8.5"	53 / 65
NE0101054X	4X	1000	Stainless steel	100/1/50	2.3	125°F	22" x 11.8" x 8.5"	53 / 65
NE0101054XL4	4X	1000	Mill finish aluminum	100/1/50	2.3	125°F	22" x 11.8" x 8.5"	43 / 55
NE01020512	12	1000	Powder coated steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE01020504	4	1000	Powder coated steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE0102054X	4X	1000	Stainless steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE0102054XL4	4X	1000	Mill finish aluminum	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	43 / 57





Testing done under controlled conditions. Actual performance may vary.



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Thermal Edge Inc.™

NE015 (50 HZ)

1/27/2025

1500 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

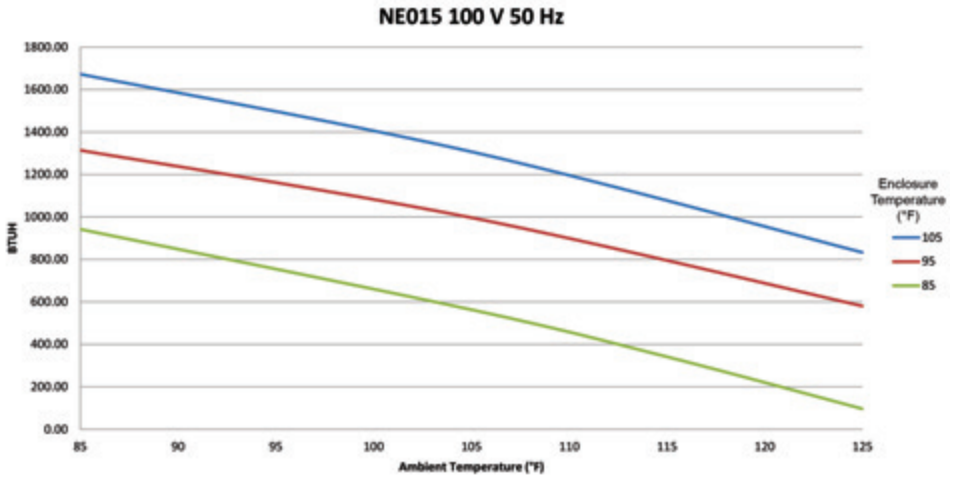
Compressor Protection System

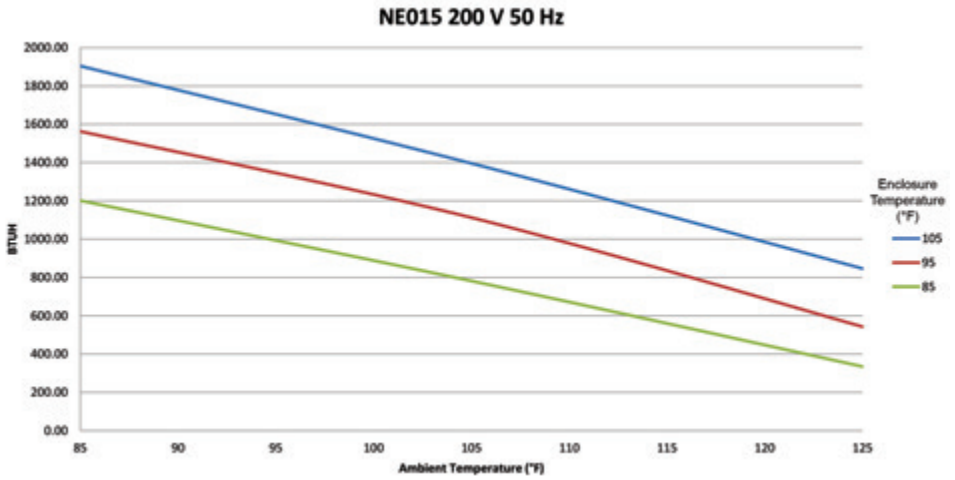
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

OPTIONS:

- High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE01510512	12	1500	Powder coated steel	100/1/50	2.4	125°F	22" x 11.8" x 8.5"	53 / 65
NE01510504	4	1500	Powder coated steel	100/1/50	2.4	125°F	22" x 11.8" x 8.5"	53 / 65
NE0151054X	4X	1500	Stainless steel	100/1/50	2.4	125°F	22" x 11.8" x 8.5"	53 / 65
NE0151054XL4	4X	1500	Mill finish aluminum	100/1/50	2.4	125°F	22" x 11.8" x 8.5"	43 / 55
NE01520512	12	1500	Powder coated steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE01520504	4	1500	Powder coated steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE0152054X	4X	1500	Stainless steel	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	53 / 67
NE0152054XL4	4X	1500	Mill finish aluminum	200/1/50	1.9	125°F	22" x 11.8" x 8.5"	43 / 57





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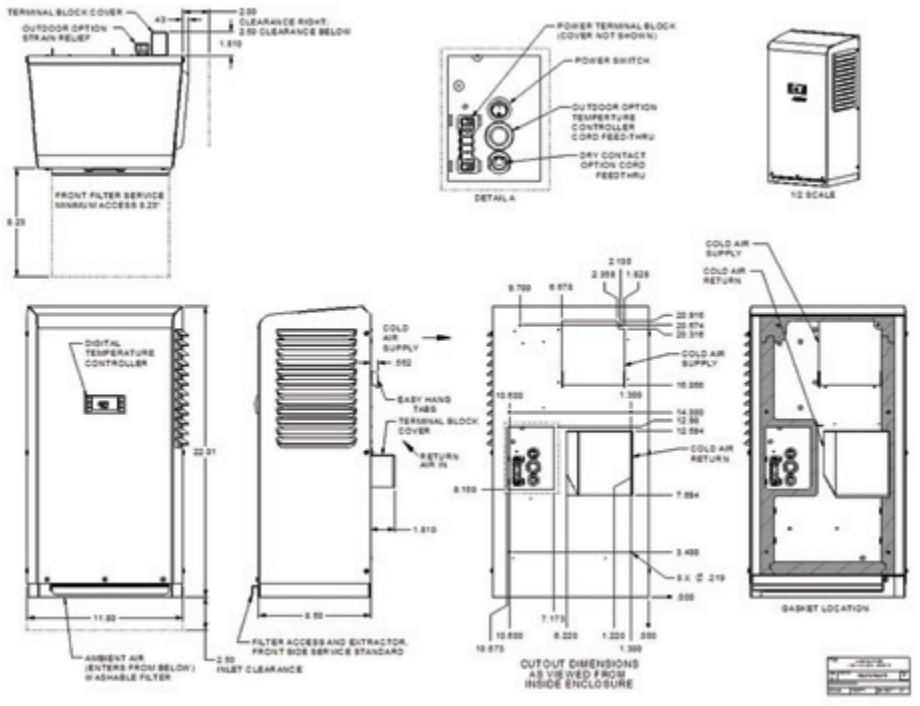

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Thermal Edge Inc.™

CS020 (50 HZ)

1/27/2025

2000 BTUH

INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 10" deep enclosure

Unit Efficiency

- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

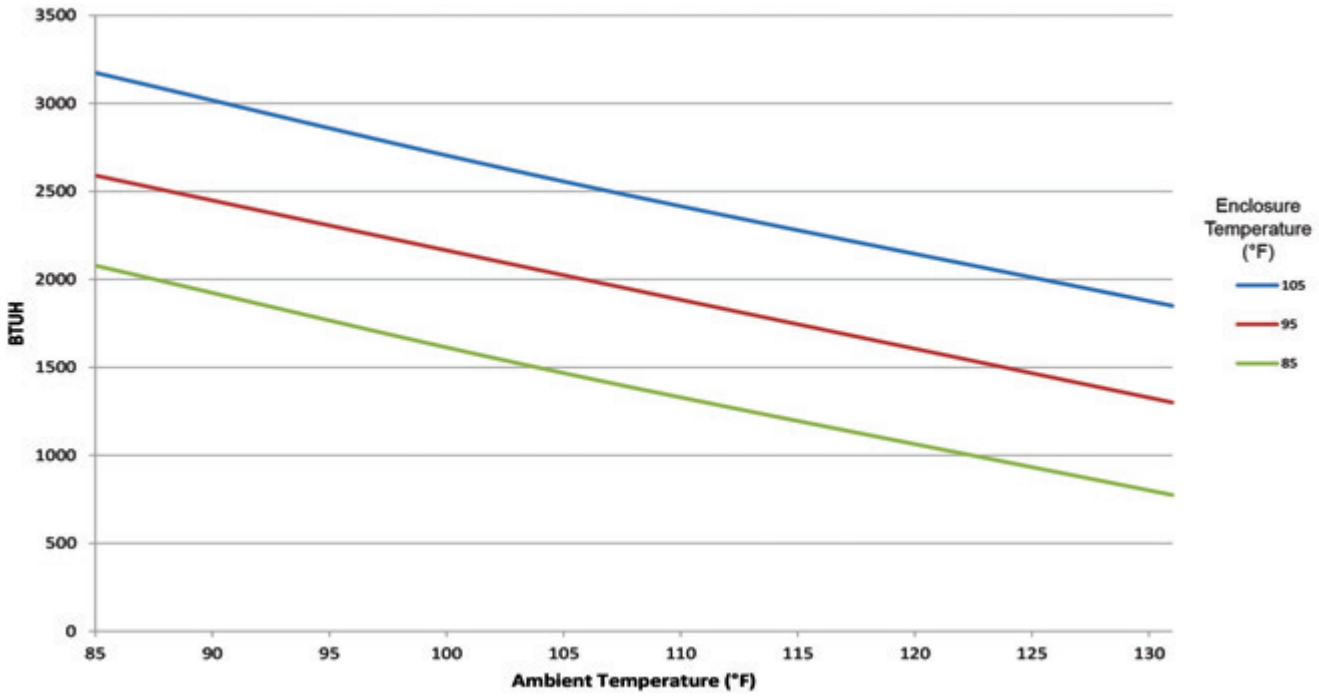
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

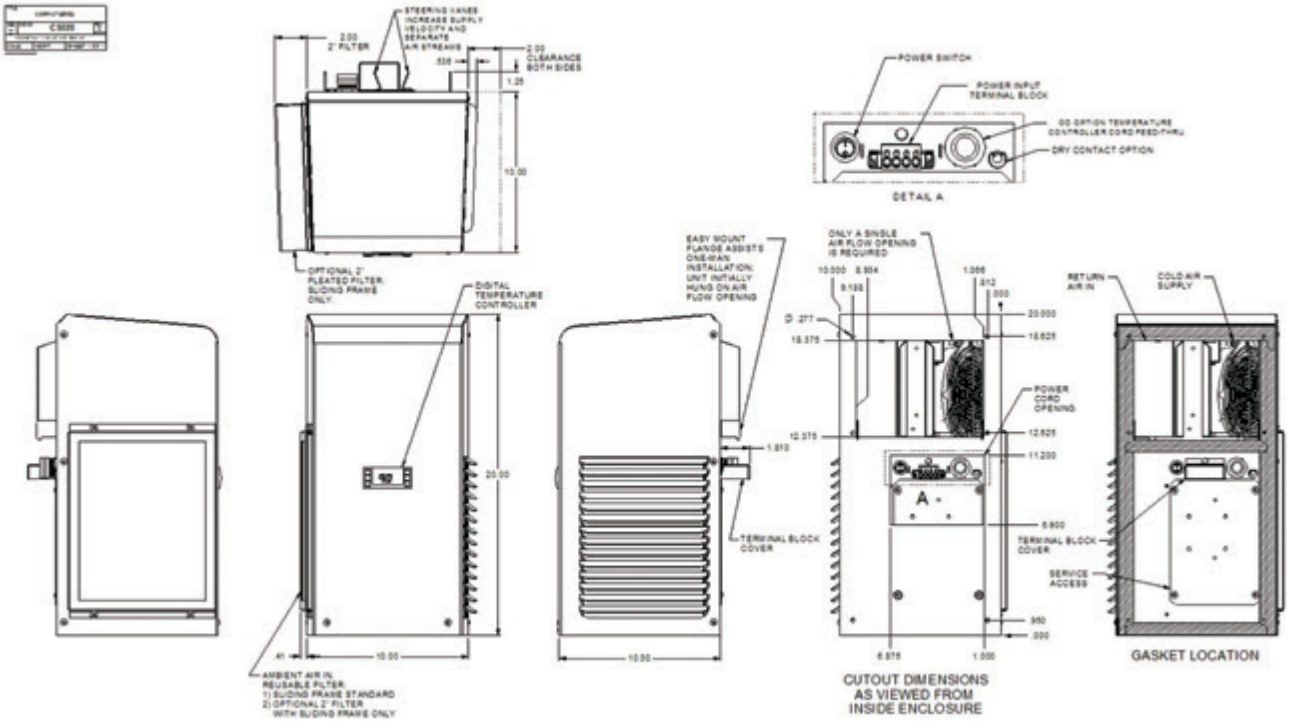
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
CS02023512	12	2000	Powder coated steel	230/1/50	1.7	131°F	20" x 10" x 10"	49 / 63
CS02023504	4	2000	Powder coated steel	230/1/50	1.7	131°F	20" x 10" x 10"	49 / 63
CS0202354X	4X	2000	Stainless steel	230/1/50	1.7	131°F	20" x 10" x 10"	49 / 63
CS0202354XL4	4X	2000	Mill finish aluminum	230/1/50	1.7	131°F	20" x 10" x 10"	39 / 53

Testing done under controlled conditions. Actual performance may vary.





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Thermal Edge Inc.™

NE020 (50 HZ)

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

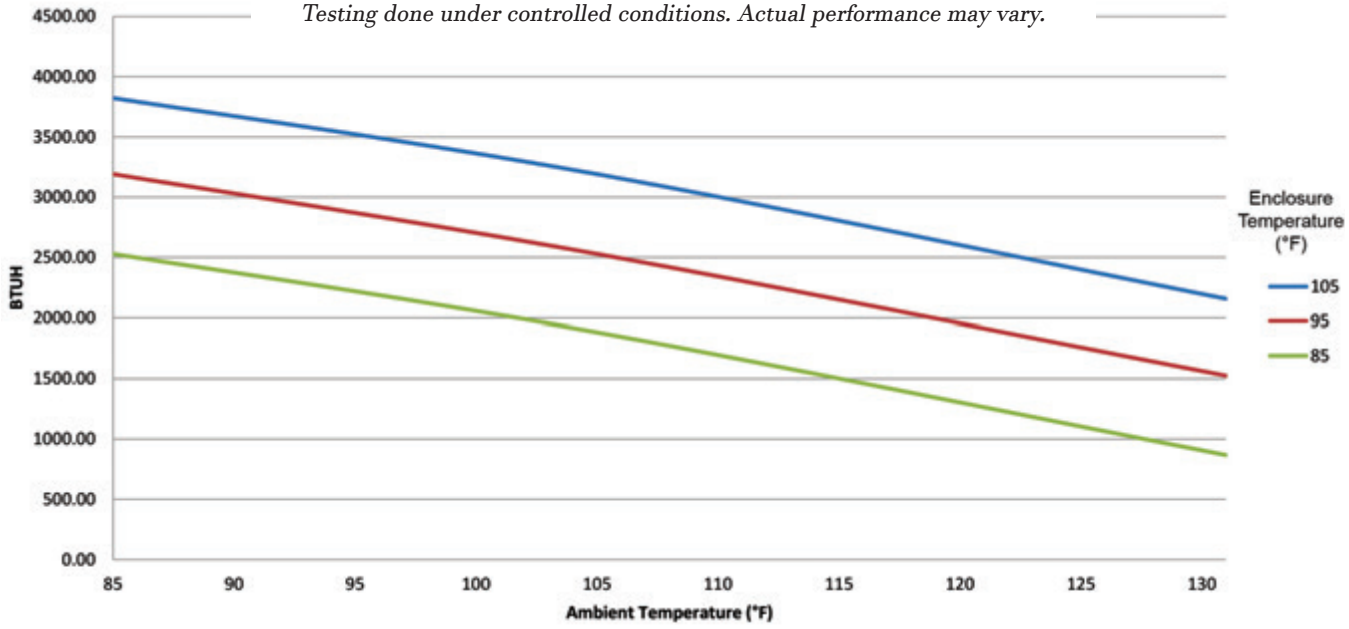
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

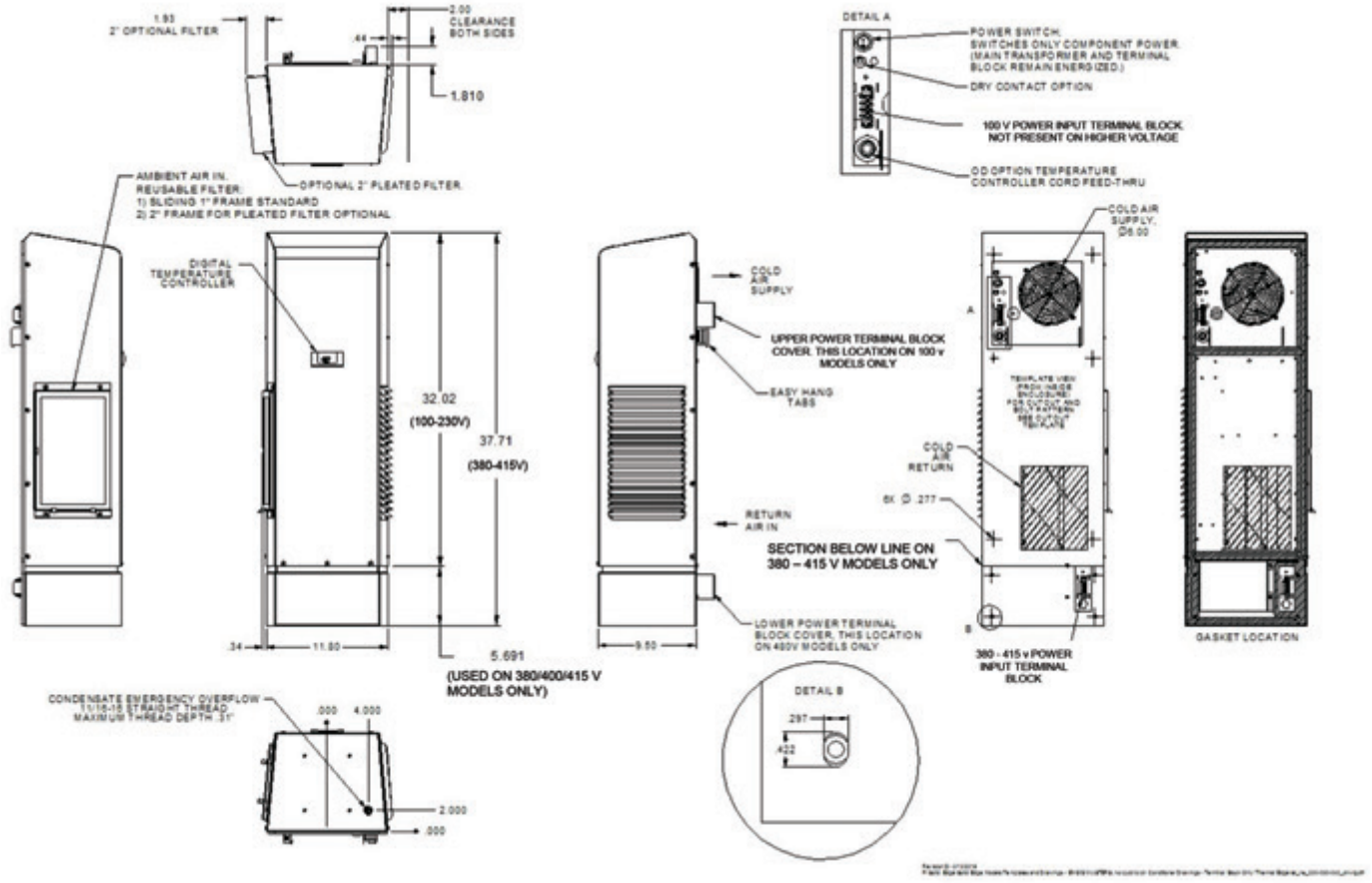
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE02010512	12	2000	Powder coated steel	100/1/50	5.2	125°F	32" x 11.8" x 9.5"	65 / 79
NE02010504	4	2000	Powder coated steel	100/1/50	5.2	125°F	32" x 11.8" x 9.5"	65 / 79
NE0201054X	4X	2000	Stainless steel	100/1/50	5.2	125°F	32" x 11.8" x 9.5"	65 / 79
NE0201054XL4	4X	2000	Mill finish aluminum	100/1/50	5.2	125°F	32" x 11.8" x 9.5"	55 / 64
NE02023512	12	2000	Powder coated steel	230/1/50	1.7	125°F	32" x 11.8" x 9.5"	65 / 86
NE02023504	4	2000	Powder coated steel	230/1/50	1.7	125°F	32" x 11.8" x 9.5"	65 / 86
NE0202354X	4X	2000	Stainless steel	230/1/50	1.7	125°F	32" x 11.8" x 9.5"	65 / 86
NE0202354XL4	4X	2000	Mill finish aluminum	230/1/50	1.7	125°F	32" x 11.8" x 9.5"	55 / 71
NE02038512	12	2000	Powder coated steel	380/1/50	1.4	125°F	38" x 11.8" x 9.5"	99 / 113
NE02038504	4	2000	Powder coated steel	380/1/50	1.4	125°F	38" x 11.8" x 9.5"	99 / 113
NE0203854X	4X	2000	Stainless steel	380/1/50	1.4	125°F	38" x 11.8" x 9.5"	99 / 113
NE0203854XL5	4X	2000	Mill finish aluminum	380/1/50	1.4	125°F	38" x 11.8" x 9.5"	89 / 96

Testing done under controlled conditions. Actual performance may vary.





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5-YEAR WARRANTY

CE

Thermal Edge Inc.™

NE030 (50 HZ)

1/27/2025

3000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
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Key Design Features

- Sloped top to allow for water runoff
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- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

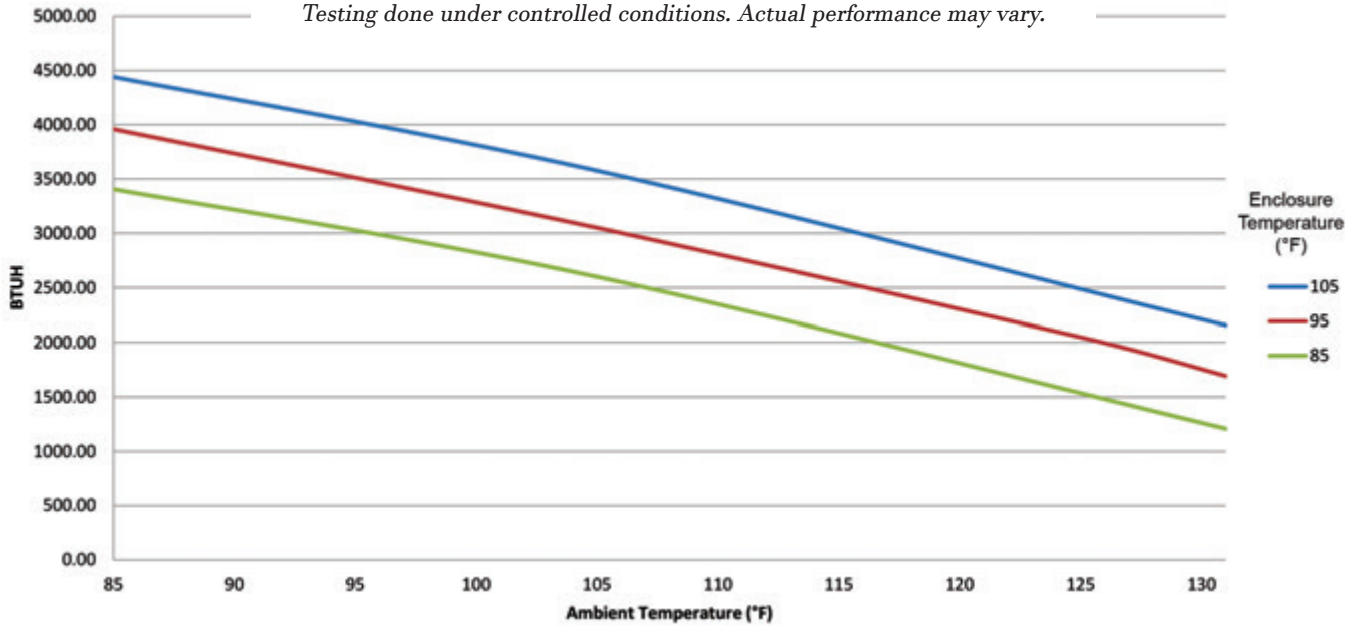
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

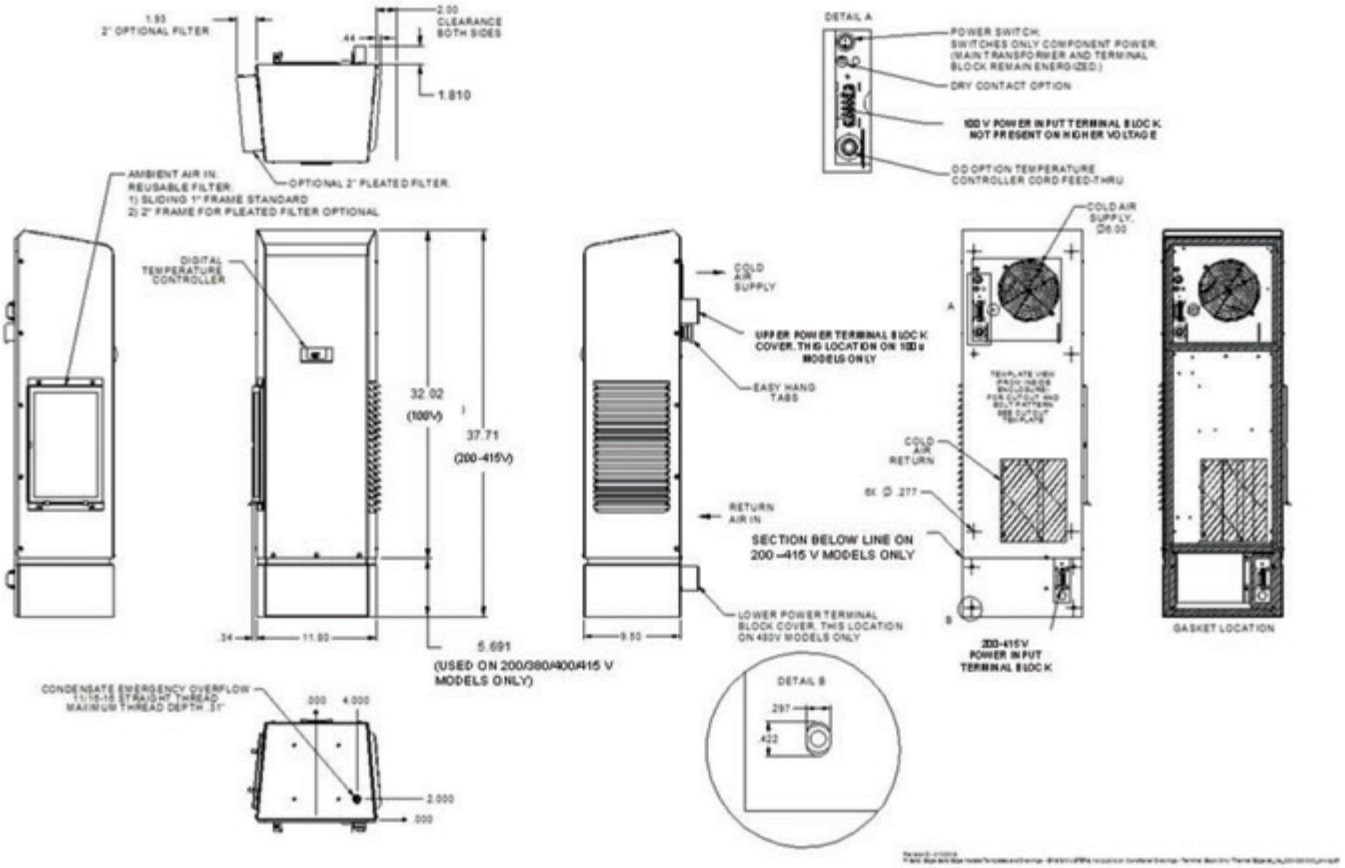
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE03010512	12	3,000	Powder coated steel	100/1/50	5	125°F	32" x 11.8" x 9.5"	66 / 80
NE03010504	4	3,000	Powder coated steel	100/1/50	5	125°F	32" x 11.8" x 9.5"	66 / 80
NE0301054X	4X	3,000	Stainless steel	100/1/50	5	125°F	32" x 11.8" x 9.5"	66 / 80
NE0301054XL4	4X	3,000	Mill finish aluminum	100/1/50	5	125°F	32" x 11.8" x 9.5"	56 / 65
NE03020512	12	3,000	Powder coated steel	200/1/50	3.07	125°F	38" x 11.8" x 9.5"	99 / 113
NE03020504	4	3,000	Powder coated steel	200/1/50	3.07	125°F	38" x 11.8" x 9.5"	99 / 113
NE0302054X	4X	3,000	Stainless steel	200/1/50	3.07	125°F	38" x 11.8" x 9.5"	99 / 113
NE0302054XL4	4X	3,000	Mill finish aluminum	200/1/50	3.07	125°F	38" x 11.8" x 9.5"	89 / 96
NE03038512	12	3,000	Powder coated steel	380/1/50	1.32	125°F	38" x 11.8" x 9.5"	99 / 113
NE03038504	4	3,000	Powder coated steel	380/1/50	1.32	125°F	38" x 11.8" x 9.5"	99 / 113
NE0303854X	4X	3,000	Stainless steel	380/1/50	1.32	125°F	38" x 11.8" x 9.5"	99 / 113
NE0303854XL5	4X	3,000	Mill finish aluminum	380/1/50	1.32	125°F	38" x 11.8" x 9.5"	89 / 96

Testing done under controlled conditions. Actual performance may vary.





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5-YEAR WARRANTY

CE

Thermal Edge Inc.™

NE050 (50 HZ)

1/27/2025

5000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

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Key Design Features

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- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

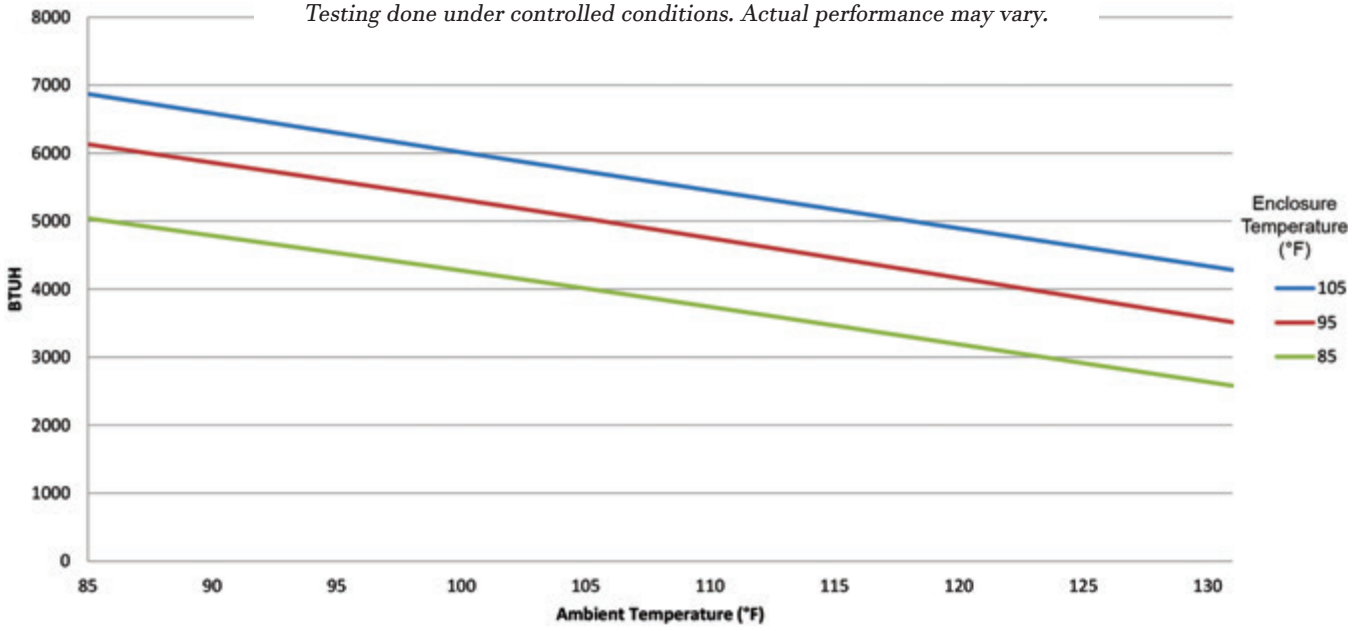
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

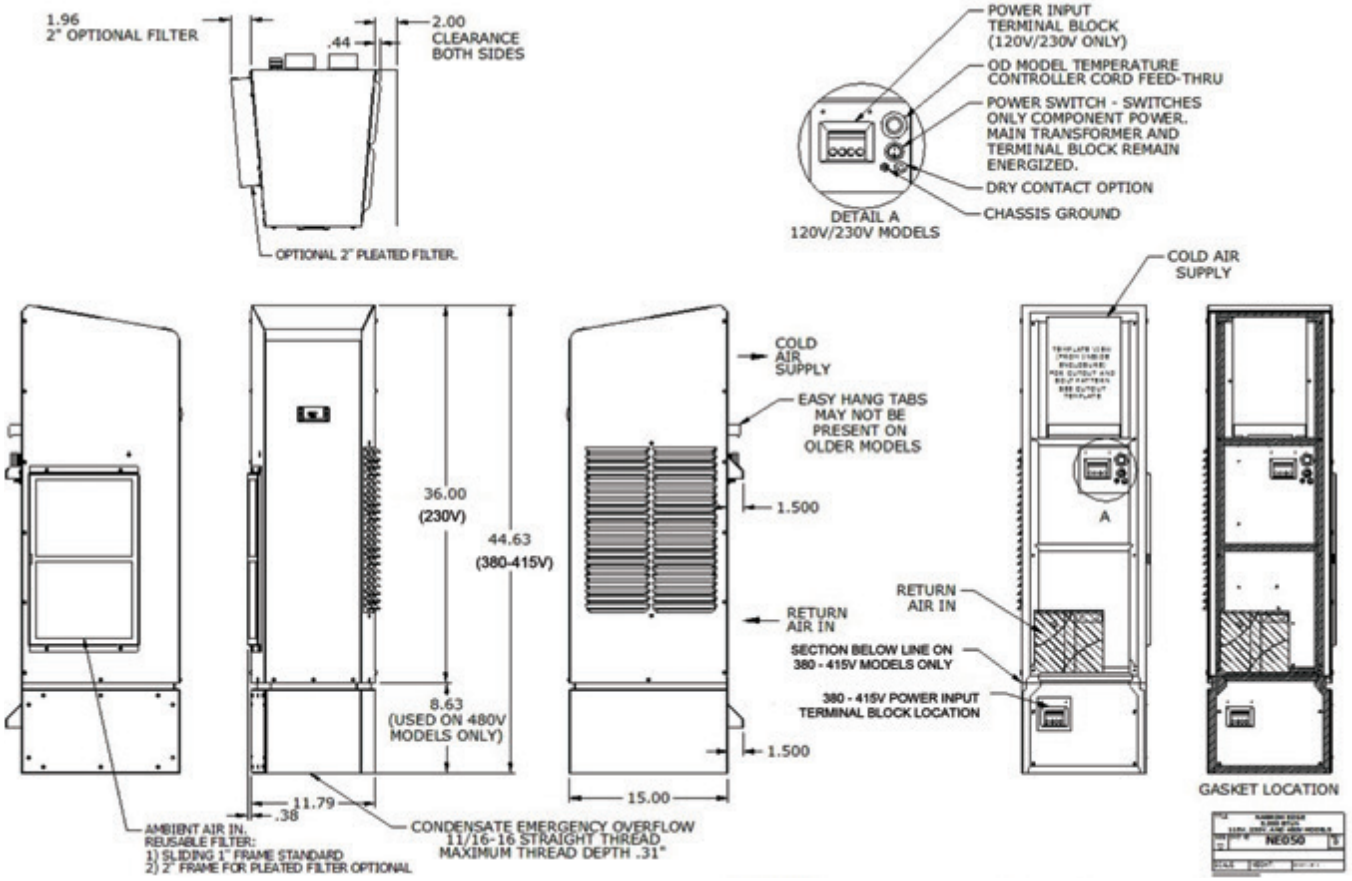
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE05023512	12	5000	Powder coated steel	230/1/50	3.4	131°F	36" x 11.8" x 15.02"	92 / 106
NE05023504	4	5000	Powder coated steel	230/1/50	3.4	131°F	36" x 11.8" x 15.02"	92 / 106
NE0502354X	4X	5000	Stainless steel	230/1/50	3.4	131°F	36" x 11.8" x 15.02"	92 / 106
NE0502354XL4	4X	5000	Mill finish aluminum	230/1/50	3.4	131°F	36" x 11.8" x 15.02"	82 / 86
NE05038512	12	5000	Powder coated steel	380/1/50	2.1	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE05038504	4	5000	Powder coated steel	380/1/50	2.1	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE0503854X	4X	5000	Stainless steel	380/1/50	2.1	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE0503854XL5	4X	5000	Mill finish aluminum	380/1/50	2.1	131°F	44.63" x 11.8" x 15.02"	126 / 140
NE05040512	12	5,000	Powder coated steel	400/1/50	1.9	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE05040504	4	5,000	Powder coated steel	400/1/50	1.9	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE0504054X	4X	5,000	Stainless steel	400/1/50	1.9	131°F	44.63" x 11.8" x 15.02"	136 / 150
NE0504054XL5	4X	5,000	Mill finish aluminum	400/1/50	1.9	131°F	44.63" x 11.8" x 15.02"	126 / 140

Testing done under controlled conditions. Actual performance may vary.





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Thermal Edge Inc. 5-YEAR WARRANTY

CE

NE050237 (50/60 HZ)

5000 BTUH 230V | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance
- Narrow body style fits on 12" enclosure

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

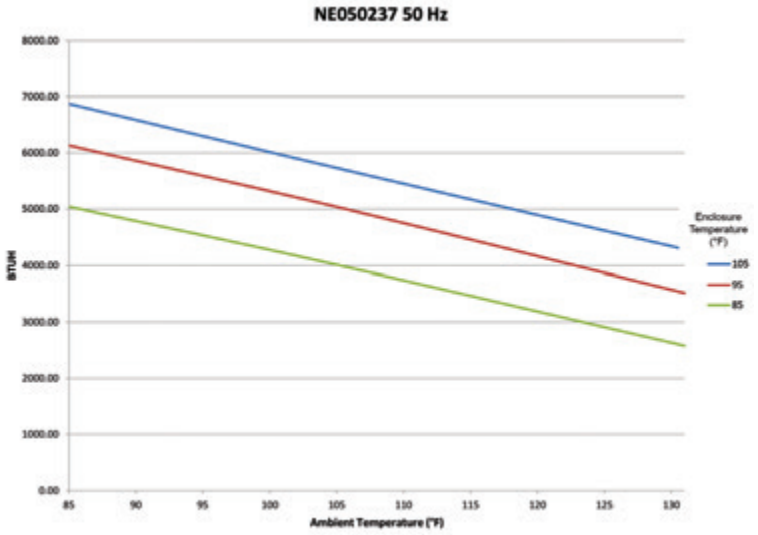
Compressor Protection System

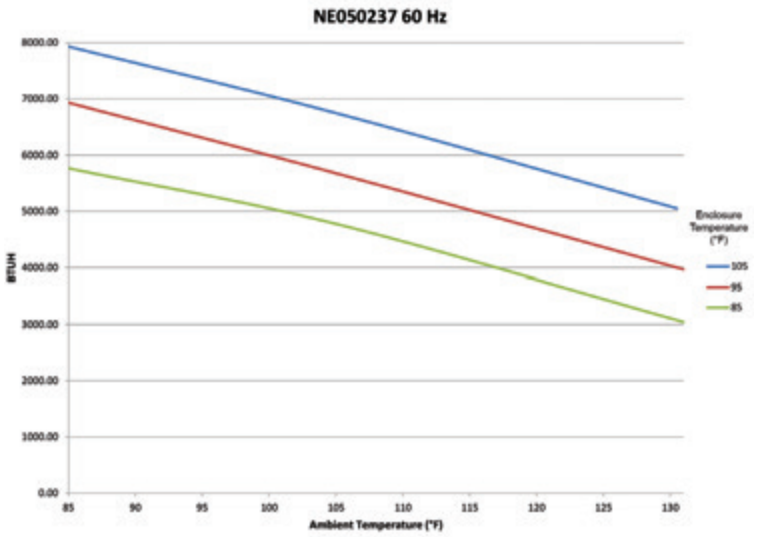
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE05023712	12	5000	Powder coated steel	230/1/50 230/1/60	3.1 4.0	131°F	44.36" x 11.8" x 15"	170/ 195
NE05023704	4	5000	Powder coated steel	230/1/50 230/1/60	3.1 4.0	131°F	44.36" x 11.8" x 15"	170/ 195
NE0502374X	4X	5000	Stainless steel	230/1/50 230/1/60	3.1 4.0	131°F	44.36" x 11.8" x 15"	170/ 195
NE0502374XL4	4X	5000	Mill finish aluminum	230/1/50 230/1/60	3.1 4.0	131°F	44.36" x 11.8" x 15"	160/ 185





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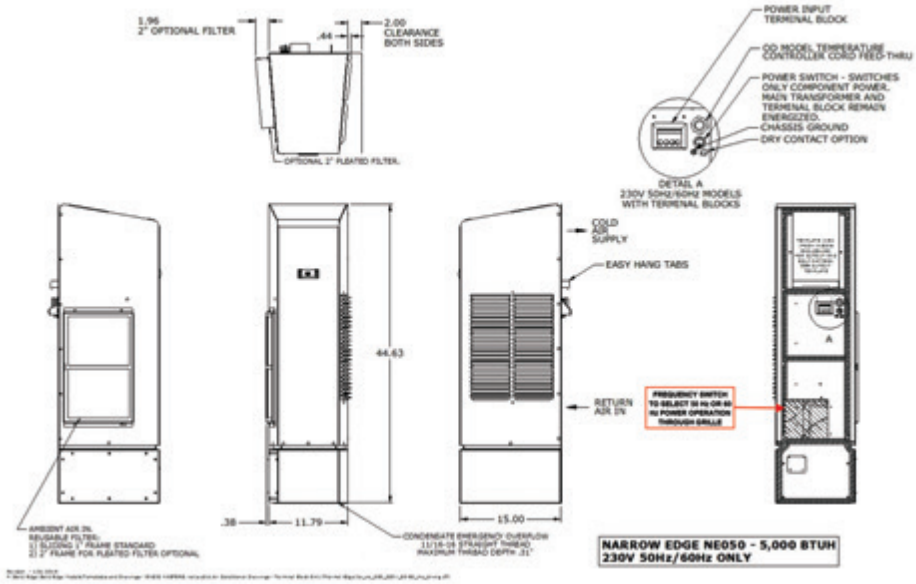

5-YEAR WARRANTY

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UL File # SA32252

CE

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Thermal Edge Inc.™

NE060 (50 HZ)

1/27/2025

6000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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Unit Efficiency

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Compressor Protection System

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- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
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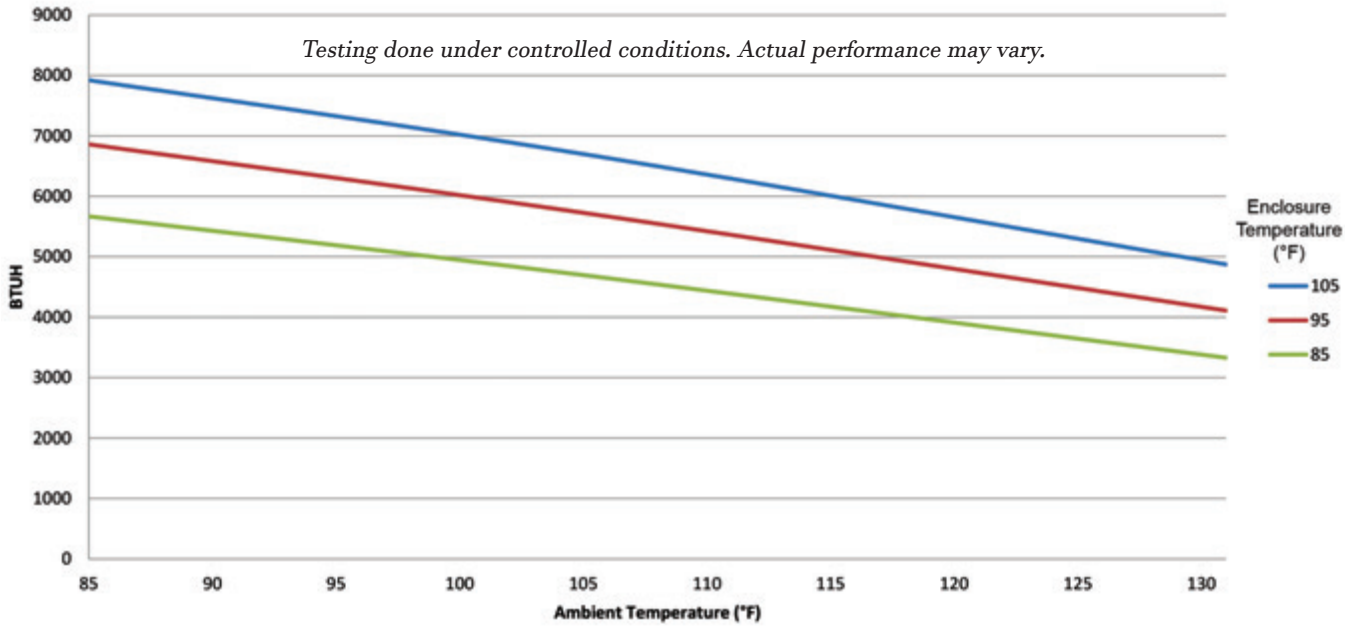
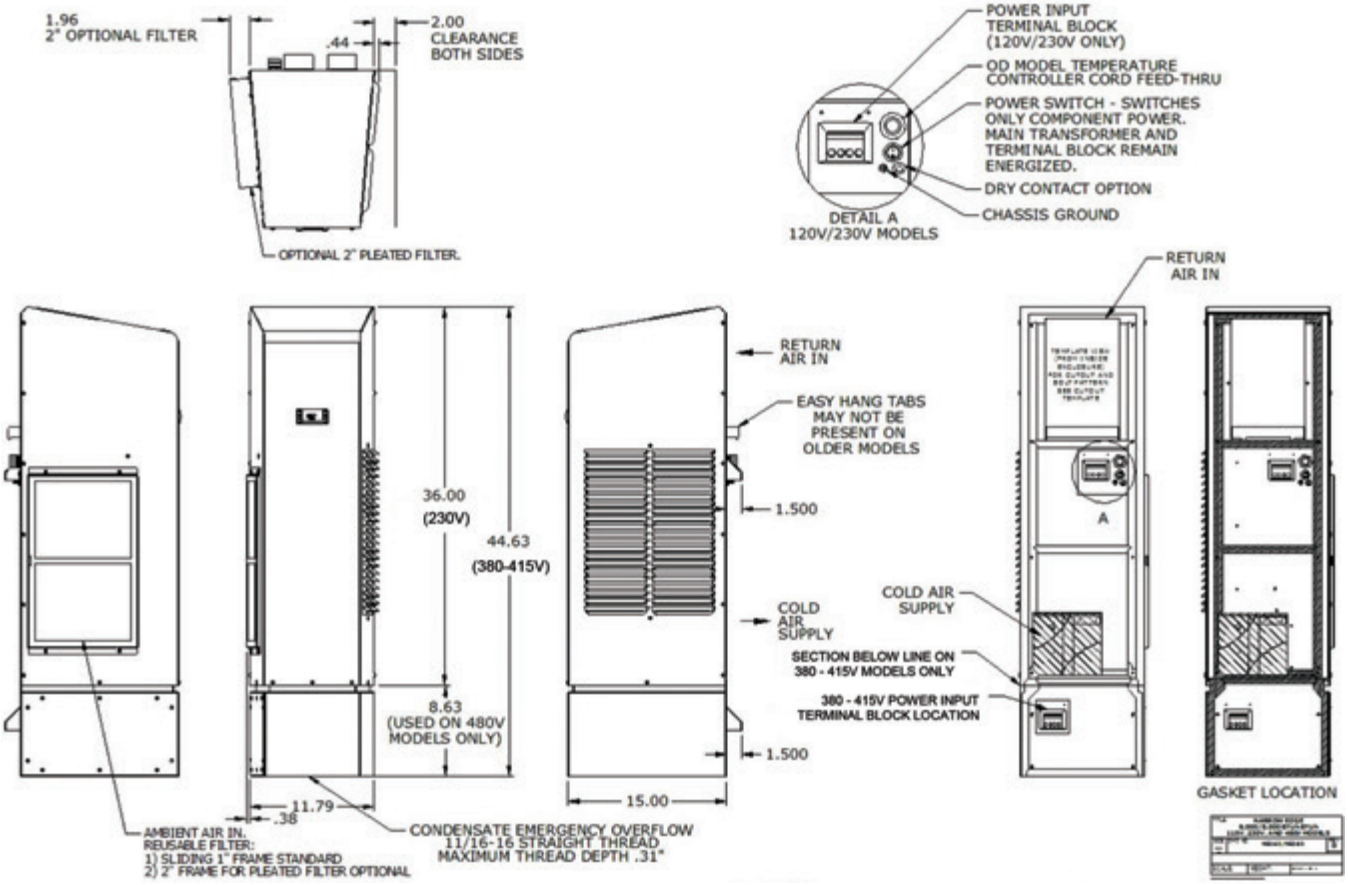
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE06023512	12	6000	Powder coated steel	230/1/50	3.99	131°F	36" x 11.8" x 15.02"	98 / 112
NE06023504	4	6000	Powder coated steel	230/1/50	3.99	131°F	36" x 11.8" x 15.02"	98 / 112
NE0602354X	4X	6000	Stainless steel	230/1/50	3.99	131°F	36" x 11.8" x 15.02"	98 / 112
NE0602354XL4	4X	6000	Mill finish aluminum	230/1/50	3.99	131°F	36" x 11.8" x 15.02"	88 / 102
NE06038512	12	6000	Powder coated steel	380/1/50	2.4	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE06038504	4	6000	Powder coated steel	380/1/50	2.4	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE0603854X	4X	6000	Stainless steel	380/1/50	2.4	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE0603854XL5	4X	6000	Mill finish aluminum	380/1/50	2.4	131°F	44.63" x 11.8" x 15.02"	117 / 146
NE06040512	12	6,000	Powder coated steel	400/1/50	2.3	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE06040504	4	6,000	Powder coated steel	400/1/50	2.3	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE0604054X	4X	6,000	Stainless steel	400/1/50	2.3	131°F	44.63" x 11.8" x 15.02"	142 / 156
NE0604054XL5	4X	6,000	Mill finish aluminum	400/1/50	2.3	131°F	44.63" x 11.8" x 15.02"	132 / 146





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Thermal Edge Inc.™

NE060237 (50/60 HZ)

1/27/2025

6000 BTUH 230V

INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

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OPTIONS:

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- Redundant System
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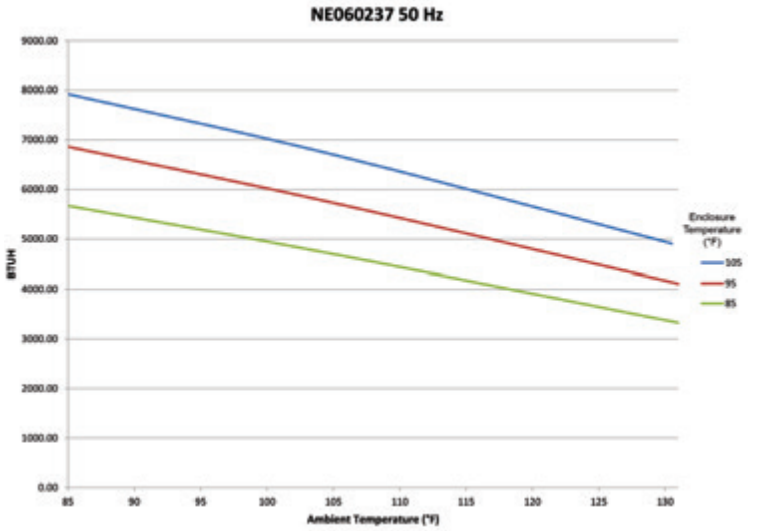
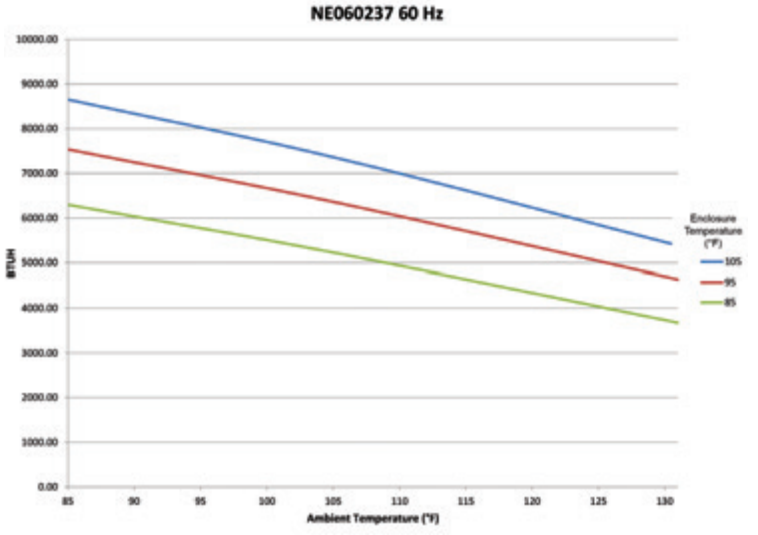
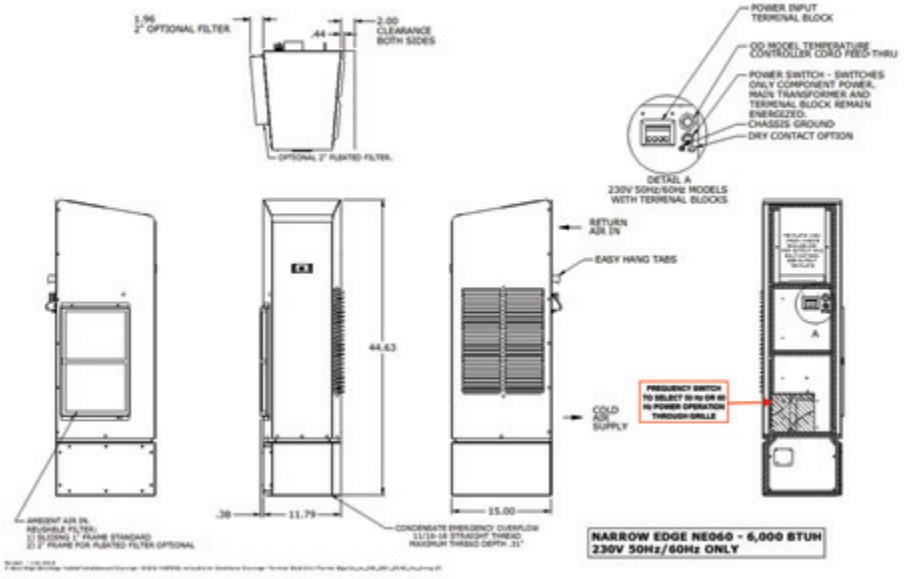
- Vibration Resistant

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE06023712	12	6000	Powder coated steel	230/1/50 230/1/60	3.7 4.2	131°F	44.36" x 11.8" x 15"	170 / 195
NE06023704	4	6000	Powder coated steel	230/1/50 230/1/60	3.7 4.2	131°F	44.36" x 11.8" x 15"	170 / 195
NE0602374X	4X	6000	Stainless steel	230/1/5 230/1/60	3.7 4.2	131°F	44.36" x 11.8" x 15"	170 / 195
NE0602374XL4	4X	6000	Mill finish aluminum	230/1/50 230/1/60	3.7 4.2	131°F	44.36" x 11.8" x 15"	160 / 185





Testing done under controlled conditions. Actual performance may vary.



UL File # SA32252

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

HC080 (50 HZ)

1/27/2025

8000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

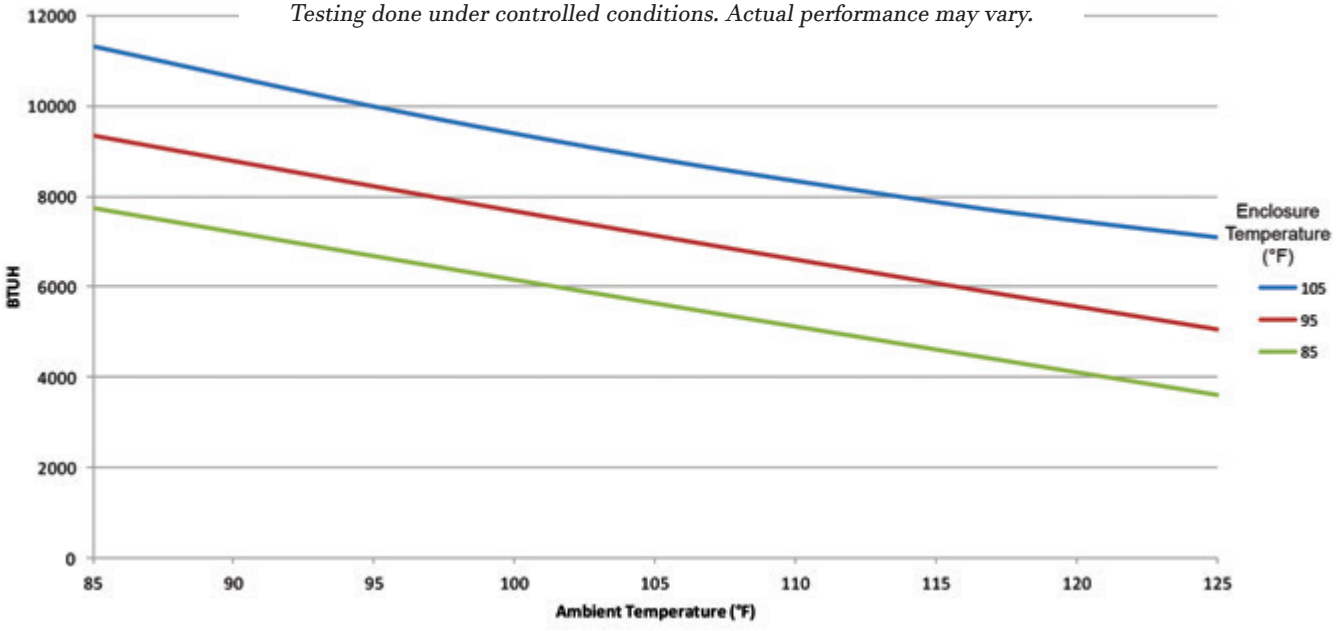
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

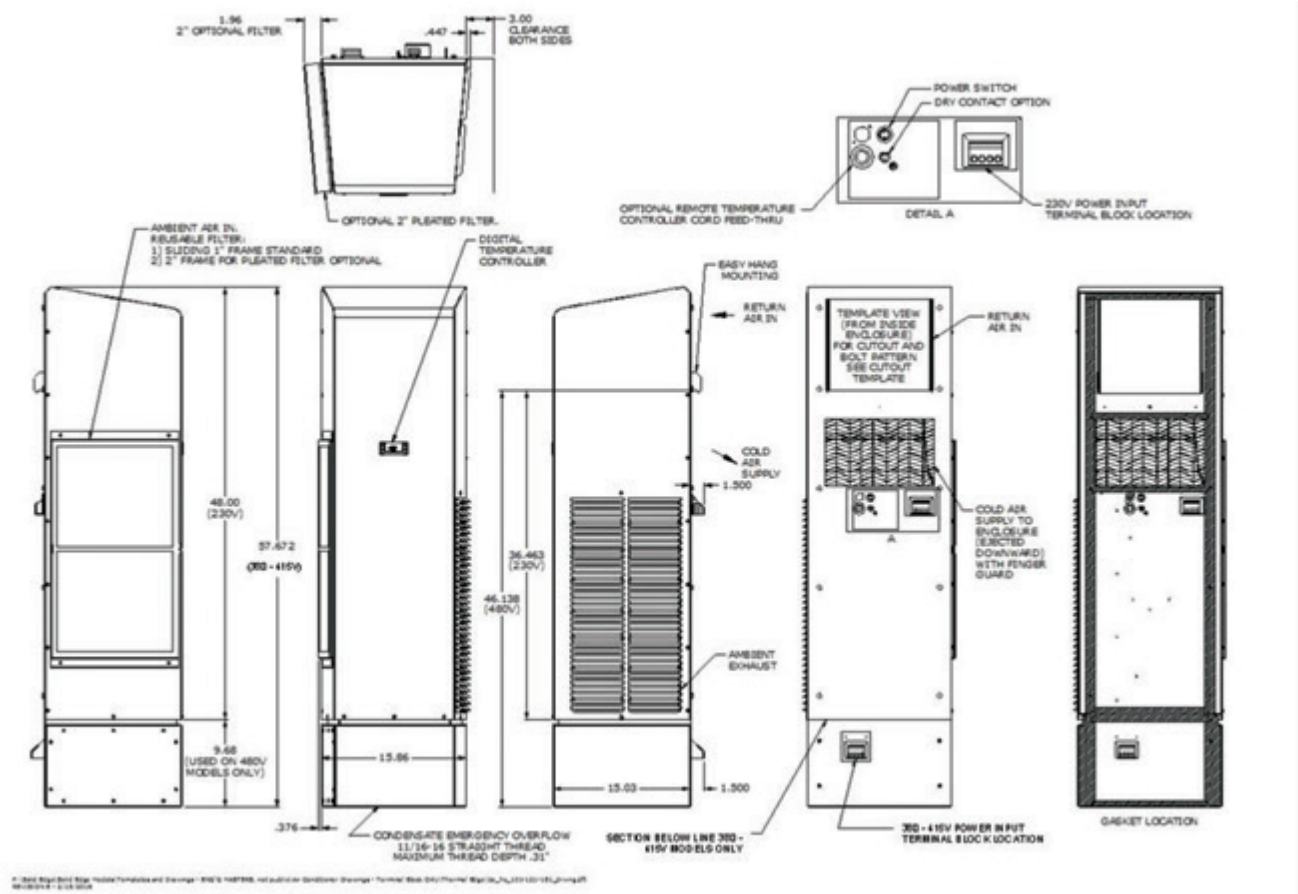
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC08023512	12	8,000	Powder coated steel	230/1/50	7.1	125°F	48" x 15.86" x 15"	166 / 186
HC08023504	4	8,000	Powder coated steel	230/1/50	7.1	125°F	48" x 15.86" x 15"	166 / 186
HC0802354X	4X	8,000	Stainless steel	230/1/50	7.1	125°F	48" x 15.86" x 15"	166 / 186
HC0802354XL4	4X	8,000	Mill finish aluminum	230/1/50	7.1	125°F	48" x 15.86" x 15"	156 / 176
HC08038512	12	8,000	Powder coated steel	380/1/50	4.3	125°F	57.6" x 15.86" x 15"	232 / 275
HC08038504	4	8,000	Powder coated steel	380/1/50	4.3	125°F	57.6" x 15.86" x 15"	232 / 275
HC0803854X	4X	8,000	Stainless steel	380/1/50	4.3	125°F	57.6" x 15.86" x 15"	232 / 275
HC0803854XL5	4X	8,000	Mill finish aluminum	380/1/50	4.3	125°F	57.6" x 15.86" x 15"	222 / 265
HC08040512	12	8,000	Powder coated steel	400/1/50	4.1	125°F	57.6" x 15.86" x 15"	232 / 275
HC08040504	4	8,000	Powder coated steel	400/1/50	4.1	125°F	57.6" x 15.86" x 15"	232 / 275
HC0804054X	4X	8,000	Stainless steel	400/1/50	4.1	125°F	57.6" x 15.86" x 15"	232 / 275
HC0804054XL5	4X	8,000	Mill finish aluminum	400/1/50	4.1	125°F	57.6" x 15.86" x 15"	222 / 265

Testing done under controlled conditions. Actual performance may vary.





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Thermal Edge Inc.™

HC101 (50 HZ)

1/27/2025

10,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

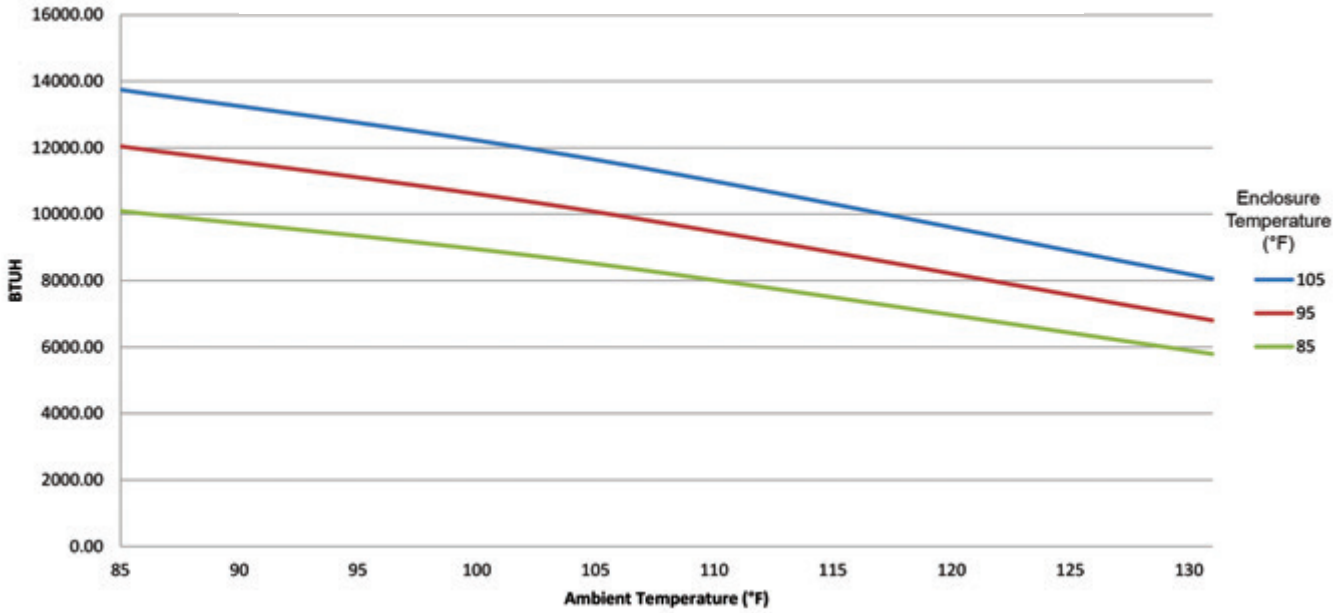
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

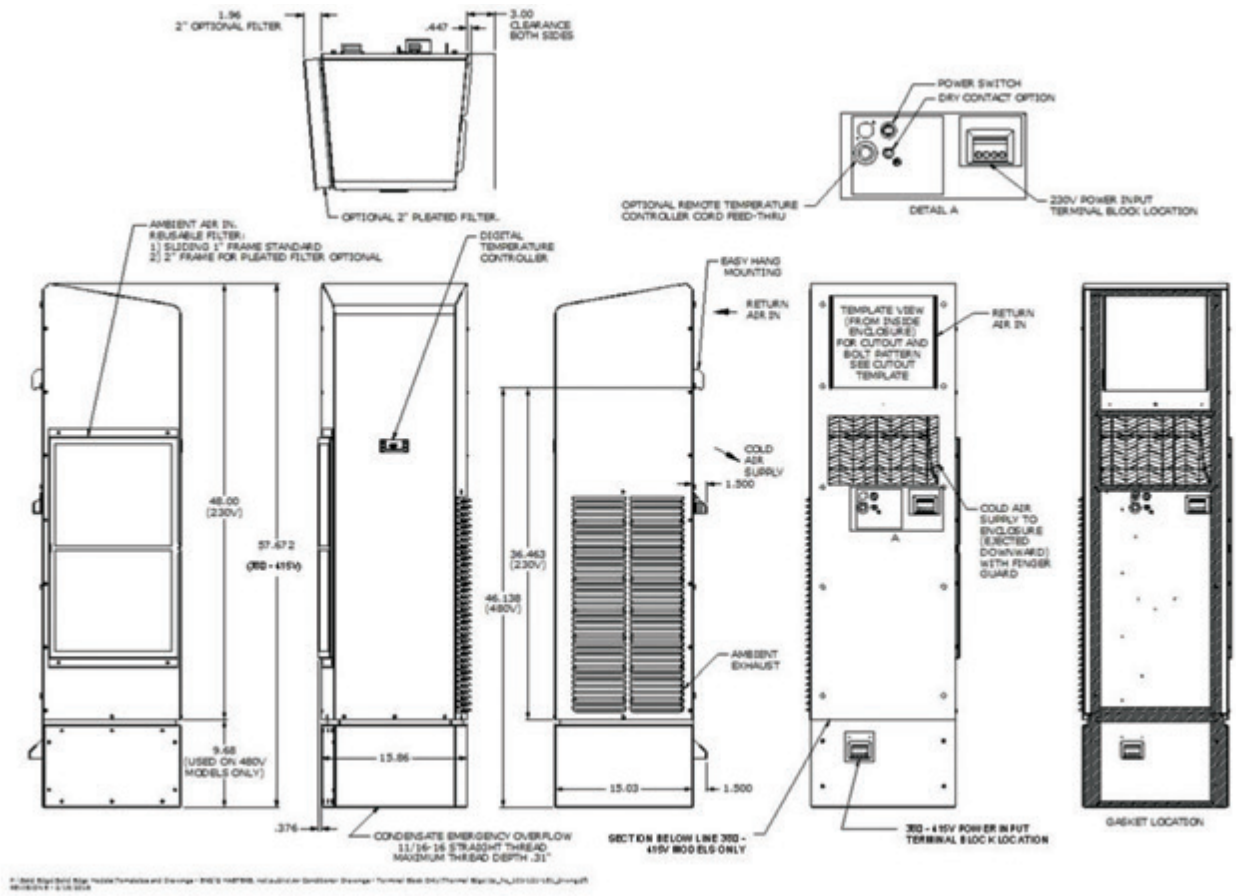
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC10123512	12	10,000	Powder coated steel	230/1/50	6.4	131°F	48" x 15.86" x 15"	166 / 186
HC10123504	4	10,000	Powder coated steel	230/1/50	6.4	131°F	48" x 15.86" x 15"	166 / 186
HC1012354X	4X	10,000	Stainless steel	230/1/50	6.4	131°F	48" x 15.86" x 15"	166 / 186
HC1012354XL4	4X	10,000	Mill finish aluminum	230/1/50	6.4	131°F	48" x 15.86" x 15"	156 / 176
HC10138512	12	10,000	Powder coated steel	380/1/50	3.9	131°F	57.6" x 15.86" x 15"	232 / 275
HC10138504	4	10,000	Powder coated steel	380/1/50	3.9	131°F	57.6" x 15.86" x 15"	232 / 275
HC1013854X	4X	10,000	Stainless steel	380/1/50	3.9	131°F	57.6" x 15.86" x 15"	232 / 275
HC1013854XL5	4X	10,000	Mill finish aluminum	380/1/50	3.9	131°F	57.6" x 15.86" x 15"	222 / 265
HC10140512	12	10,000	Powder coated steel	400/1/50	3.7	131°F	57.6" x 15.86" x 15"	232 / 275
HC10140504	4	10,000	Powder coated steel	400/1/50	3.7	131°F	57.6" x 15.86" x 15"	232 / 275
HC1014054X	4X	10,000	Stainless steel	400/1/50	3.7	131°F	57.6" x 15.86" x 15"	232 / 275
HC1014054XL5	4X	10,000	Mill finish aluminum	400/1/50	3.7	131°F	57.6" x 15.86" x 15"	222 / 265

Testing done under controlled conditions. Actual performance may vary.





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Thermal Edge Inc.™

HC121 (50 HZ)

1/27/2025

12,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Digital Temperature Controller

- Programmable set point and temperature controls
- Visible Error and/or alarm messaging
- System status indication & keypad lockout function

Active Condensate Evaporation System

- Constant elimination of condensate
- Increases unit efficiency by pre-cooling refrigerant

Key Design Features

- Sloped top to allow for water runoff
- Designed with rigid chassis and seam welded shroud
- Thoughtful interior design for easy maintenance

Unit Efficiency

- Temperature operated condenser fan reduces power inrush and saves energy
- Highly efficient rotary compressor
- Fully insulated & sealed cabinet
- Thermal Expansion Valve to maintain cooling capacity over a broad ambient temperature range

Compressor Protection System

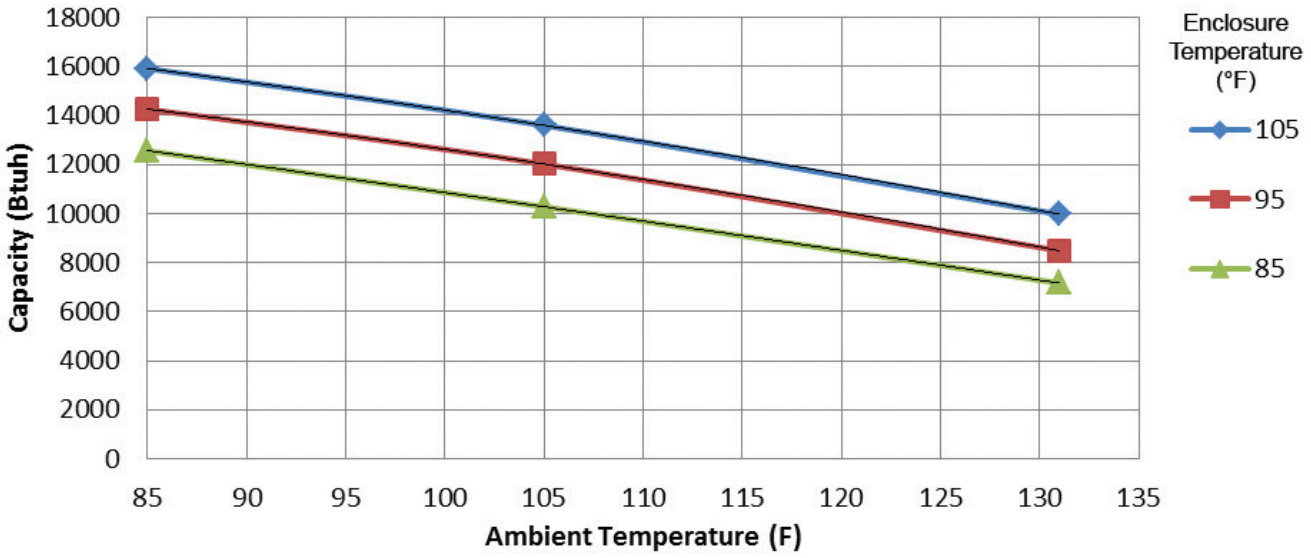
- High & Low refrigerant cutouts with fault indication
- Compressor anti short cycle protection
- Thermal overload protector
- Compressor run capacitors reduce power inrush, save energy and increase compressor life

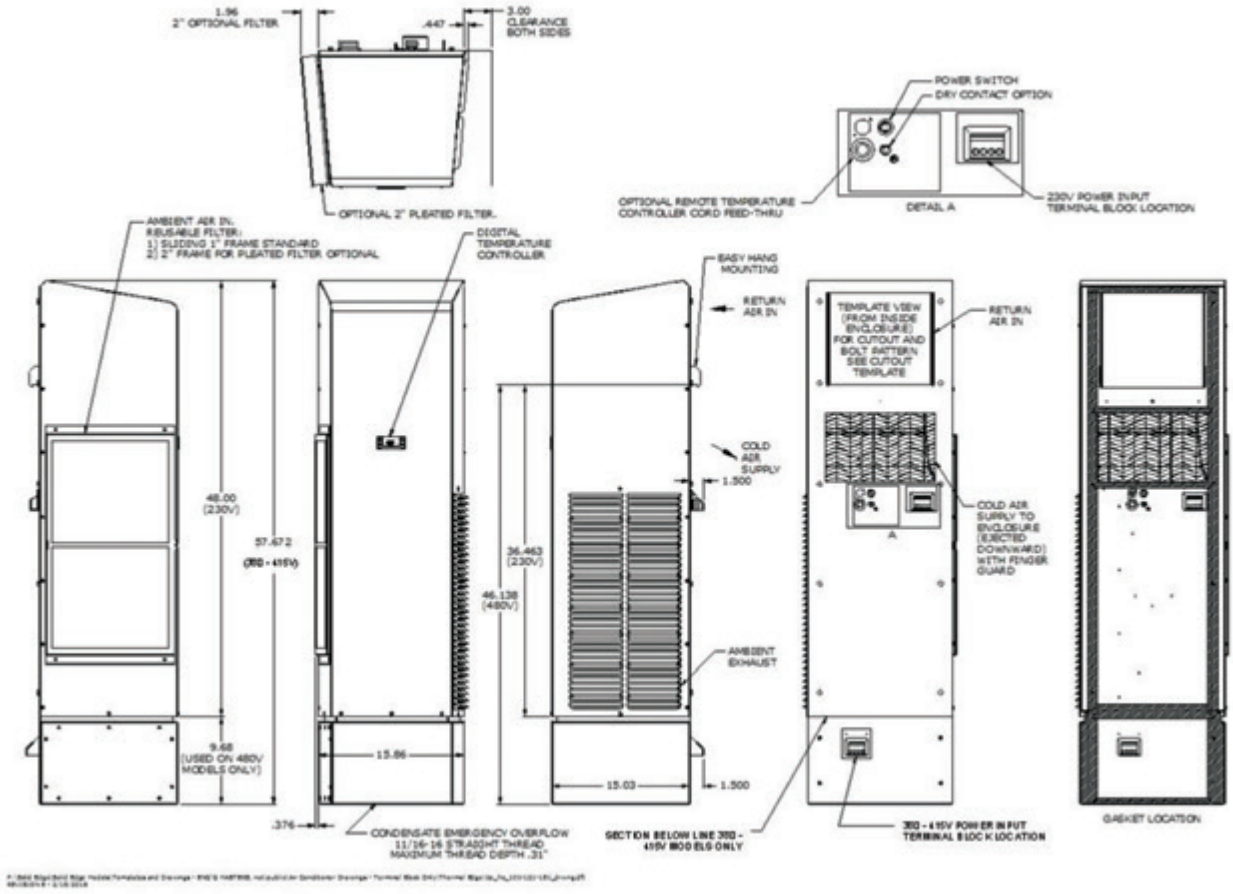
OPTIONS:

- Low and High Ambient
- Remote Controller
- Corrosion Protection
- Remote Control/Monitor
- Redundant System
- Filter/Filter Frame
- Controller Programming
- Open Door Kill Switch
- Extended Temp. Probe
- Heater
- Dry Contact
- Hazardous Location
- Custom Finish
- Diagnostics
- Hard Start Kit

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC12123512	12	12,000	Powder coated steel	230/1/50	8.6	131°F	48" x 15.86" x 15"	163 / 183
HC12123504	4	12,000	Powder coated steel	230/1/50	8.6	131°F	48" x 15.86" x 15"	163 / 183
HC1212354X	4X	12,000	Stainless steel	230/1/50	8.6	131°F	48" x 15.86" x 15"	163 / 183
HC1212354XL4	4X	12,000	Mill finish aluminum	230/1/50	8.6	131°F	48" x 15.86" x 15"	153 / 173
HC12138512	12	12,000	Powder coated steel	380/1/50	5.2	131°F	57.6" x 15.86" x 15"	237 / 280
HC12138504	4	12,000	Powder coated steel	380/1/50	5.2	131°F	57.6" x 15.86" x 15"	237 / 280
HC1213854X	4X	12,000	Stainless steel	380/1/50	5.2	131°F	57.6" x 15.86" x 15"	237 / 280
HC1213854XL5	4X	12,000	Mill finish aluminum	380/1/50	5.2	131°F	57.6" x 15.86" x 15"	227 / 270
HC12140512	12	12,000	Powder coated steel	400/1/50	4.9	131°F	57.6" x 15.86" x 15"	237 / 280
HC12140504	4	12,000	Powder coated steel	400/1/50	4.9	131°F	57.6" x 15.86" x 15"	237 / 280
HC1214054X	4X	12,000	Stainless steel	400/1/50	4.9	131°F	57.6" x 15.86" x 15"	237 / 280
HC1214054XL5	4X	12,000	Mill finish aluminum	400/1/50	4.9	131°F	57.6" x 15.86" x 15"	227 / 270

Testing done under controlled conditions. Actual performance may vary.





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1/27/2025

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

60 HZ HAZARDOUS LOCATIONS ENCLOSURE AIR CONDITIONERS

Fully Integrated Condensate Evaporation Package
Programmable Digital Controller
Thermal Expansion Valve
Narrow Design To Fit Onto A 12" Enclosure
Energy Efficient - Low Running Amps

MADE IN AMERICA MATTERS...

HAZARDOUS LOCATION ENCLOSURE AIR CONDITIONING SYSTEMS (J4)

Thermal Edge Hazardous Location air conditioners are in conformance with all requirements of ANSI/NFPA 70, NEC and CAN/CSA-C22.1, Part I for Class I, Division 2, Groups A, B, C, and D.

E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

SYSTEM FEATURES:

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built-in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically-sealed compressor, thermal overload protector
- Models range from 2,000 to 20,000 BTUH
- Available in UL types 12, 4 and 4X
- Top Mount and Side Mount*

Model	BTU/ Hour	Voltage/ Phase/Hz.	Max. Ambient Temp.	Temp. Code
CS020236J4	2000	230/1/60	118°F	T6
NE020126J4	2000	115/1/60	122°F	T4
NE020236J4	2000	230/1/60	122°F	T4
NE020486J4	2000	460/1/60	122°F	T4
NE02S486J4	2000	460/1/60	122°F	T4
NE030126J4	3000	115/1/60	122°F	T4
NE030236J4	3000	230/1/60	122°F	T4
NE030486J4	3000	460/1/60	122°F	T4
NE03S486J4	3000	460/1/60	122°F	T4
NE040126J4	4000	115/1/60	122°F	T4
NE040236J4	4000	230/1/60	122°F	T4
NE040486J4	4000	460/1/60	122°F	T4
NE04S486J4	4000	460/1/60	122°F	T4
NE050126J4	5000	115/1/60	122°F	T4
NE050236J4	5000	230/1/60	122°F	T4
NE050486J4	5000	460/1/60	122°F	T4
NE060126J4	6000	115/1/60	122°F	T4
NE060236J4	6000	230/1/60	122°F	T4
NE060486J4	6000	460/1/60	122°F	T4
TM061126J4	6000	115/1/60	122°F	T4
TM061236J4	6000	230/1/60	122°F	T4
TM061486J4	6000	460/1/60	122°F	T4
NE080126J4	8000	115/1/60	122°F	T4
NE080236J4	8000	230/1/60	122°F	T4
NE080486J4	8000	460/1/60	122°F	T4
TM081126J4	8000	115/1/60	122°F	T4
TM081236J4	8000	230/1/60	122°F	T4
TM081486J4	8000	460/1/60	122°F	T4
HC101126J4	10,000	115/1/60	122°F	T4
HC101236J4	10,000	230/1/60	122°F	T4
HC101486J4	10,000	460/1/60	122°F	T4
HC121126J4	12,000	115/1/60	122°F	T4
HC121236J4	12,000	230/1/60	122°F	T4
HC121486J4	12,000	460/1/60	122°F	T4
HC20C236J4	20,000	230/1/60	122°F	T4
HC20C486J4	20,000	460/1/60	122°F	T4

Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components. Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation will be approved.

Thermal Edge Inc.™

CS020J4
HAZARDOUS LOCATIONS

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge CS020 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, D Hazardous (Clasified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, D Hazardous (Clasified) Locations
- 0°C≤Ta≤+48°C

System Features

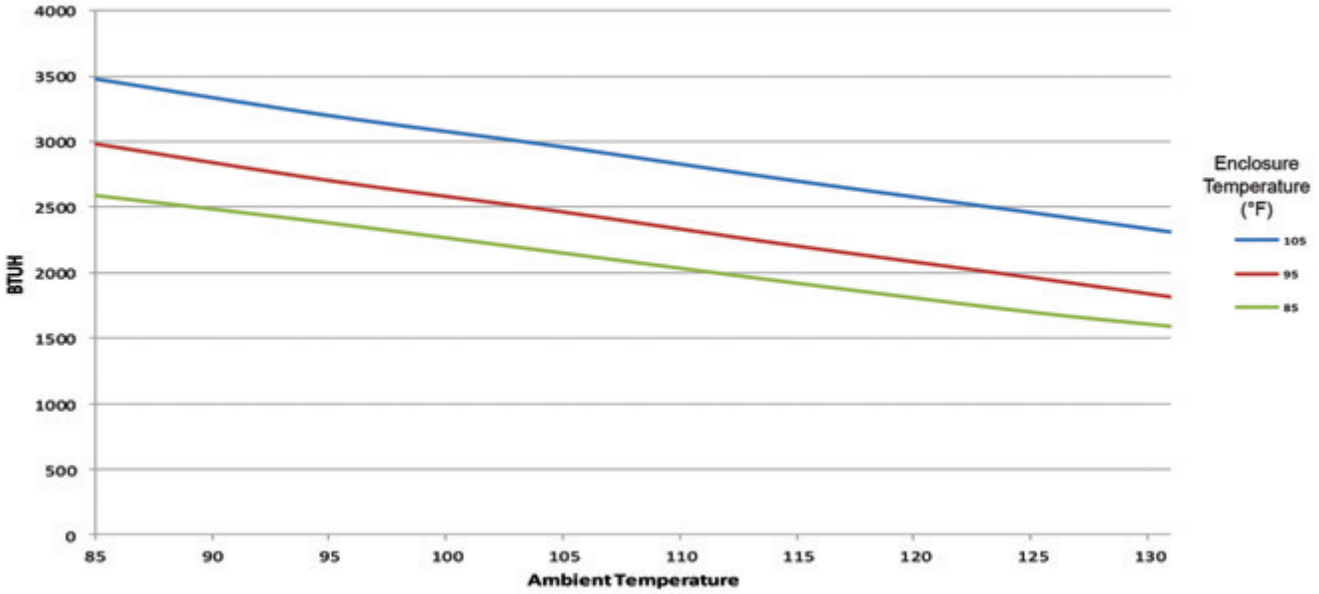
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 2000 BTUH
- Narrow body style fits on 10" enclosure
- Available in UL types 12, 4 and 4X

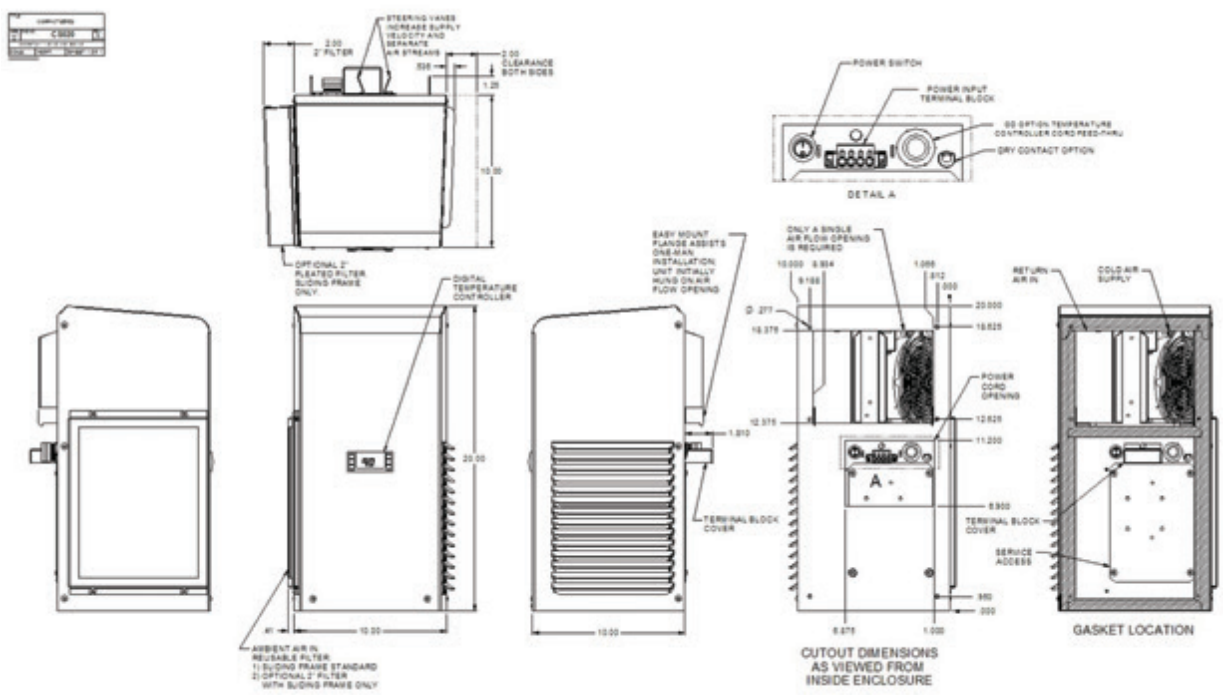
Unit Efficiency

- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
CS02012612J4	12	2,000	Powder coated steel	115/1/60	4.1	118°F	20" x 10" x 10"	44
CS02012604J4	4	2,000	Powder coated steel	115/1/60	4.1	118°F	20" x 10" x 10"	44
CS0201264XJ4	4X	2,000	Stainless steel	115/1/60	4.1	118°F	20" x 10" x 10"	44
CS02023612J4	12	2,000	Powder coated steel	230/1/60	2	118°F	20" x 10" x 10"	49
CS02023604J4	4	2,000	Powder coated steel	230/1/60	2	118°F	20" x 10" x 10"	49
CS0202364XJ4	4X	2,000	Stainless steel	230/1/60	2	118°F	20" x 10" x 10"	49

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

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Thermal Edge Inc.™

NE020J4
HAZARDOUS LOCATIONS

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE020 air conditioners for Hazardous Locations are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 2000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

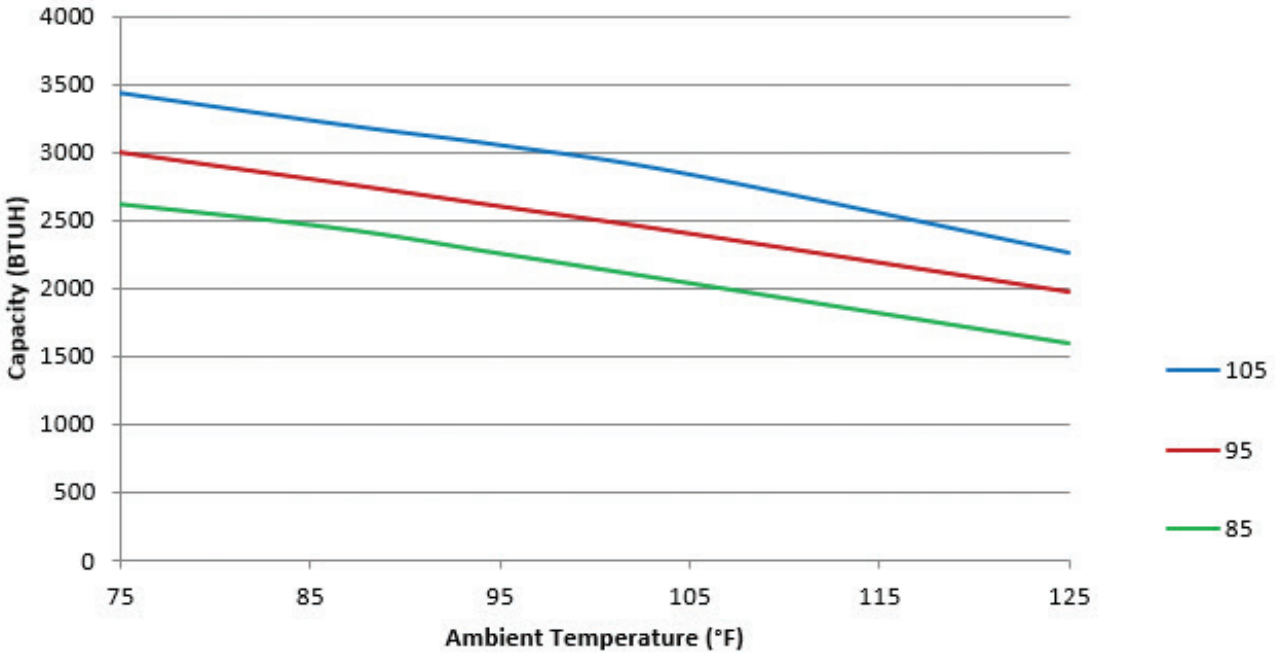
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

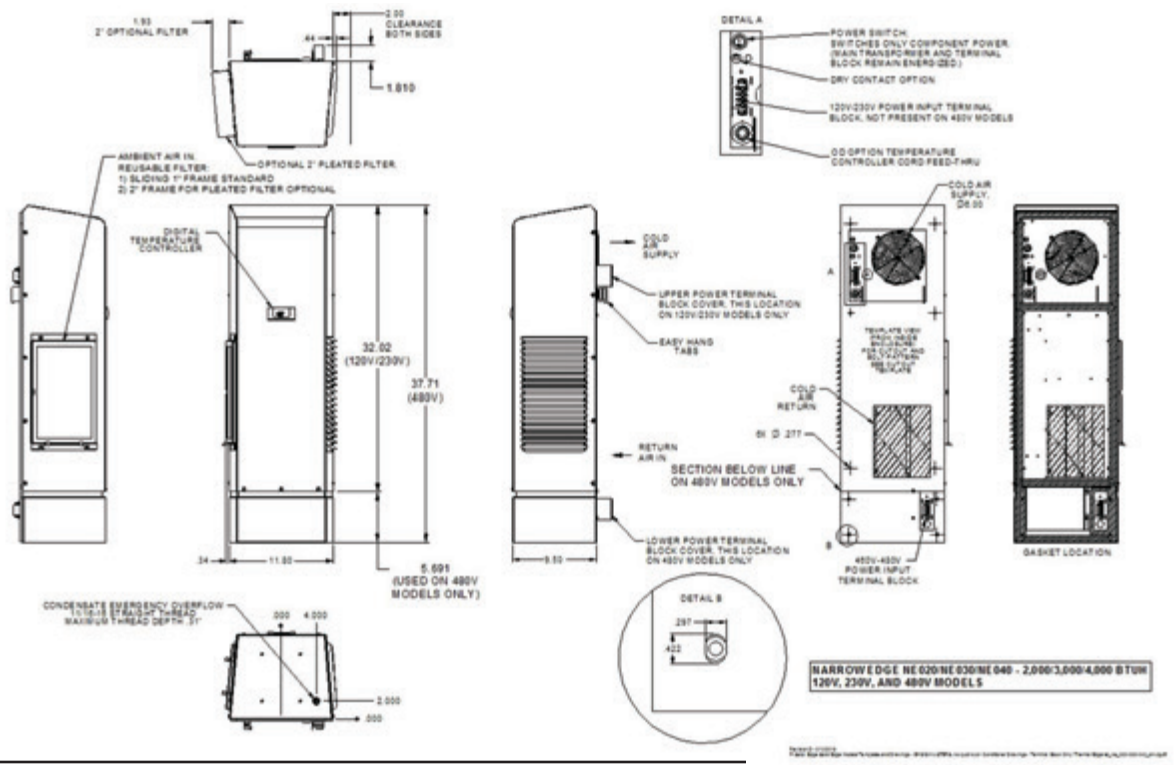
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE02012612J4	12	2000	Powder coated steel	115/1/60	3.2	122°F	32" x 11.8" x 9.5"	60
NE02012604J4	4	2000	Powder coated steel	115/1/60	3.2	122°F	32" x 11.8" x 9.5"	60
NE0201264XJ4	4X	2000	Stainless steel	115/1/60	3.2	122°F	32" x 11.8" x 9.5"	60
NE02023612J4	12	2000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE02023604J4	4	2000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE0202364XJ4	4X	2000	Stainless steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE02048612J4	12	2000	Powder coated steel	460/1/60	0.84	122°F	38" x 11.8" x 9.5"	94
NE02048604J4	4	2000	Powder coated steel	460/1/60	0.84	122°F	38" x 11.8" x 9.5"	94
NE0204864XJ4	4X	2000	Stainless steel	460/1/60	0.84	122°F	38" x 11.8" x 9.5"	94

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

** Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE02SJ4
HAZARDOUS LOCATIONS

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE02S air conditioners for Hazardous Locations are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 2000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

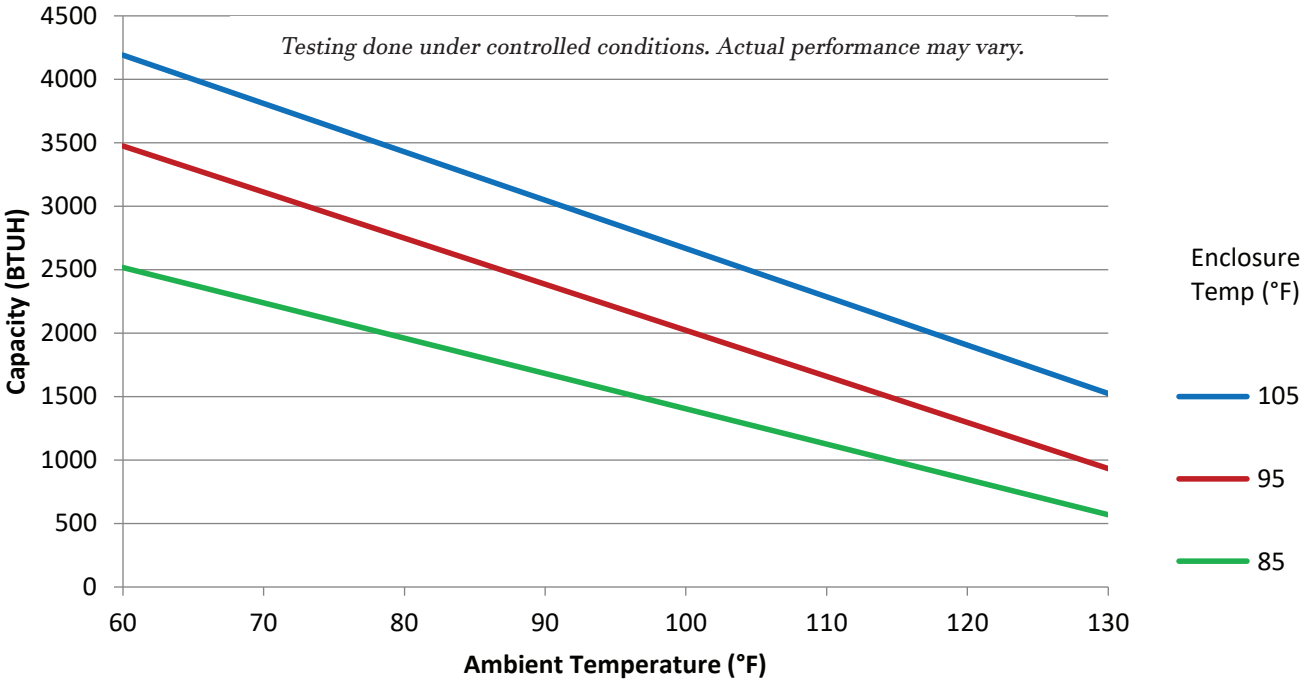
Unit Efficiency

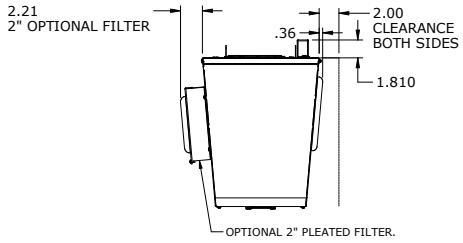
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

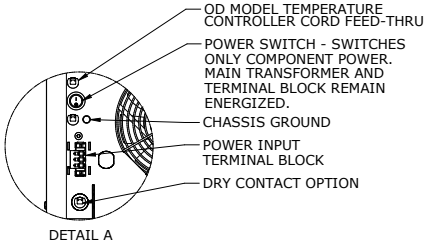
OPTIONS:

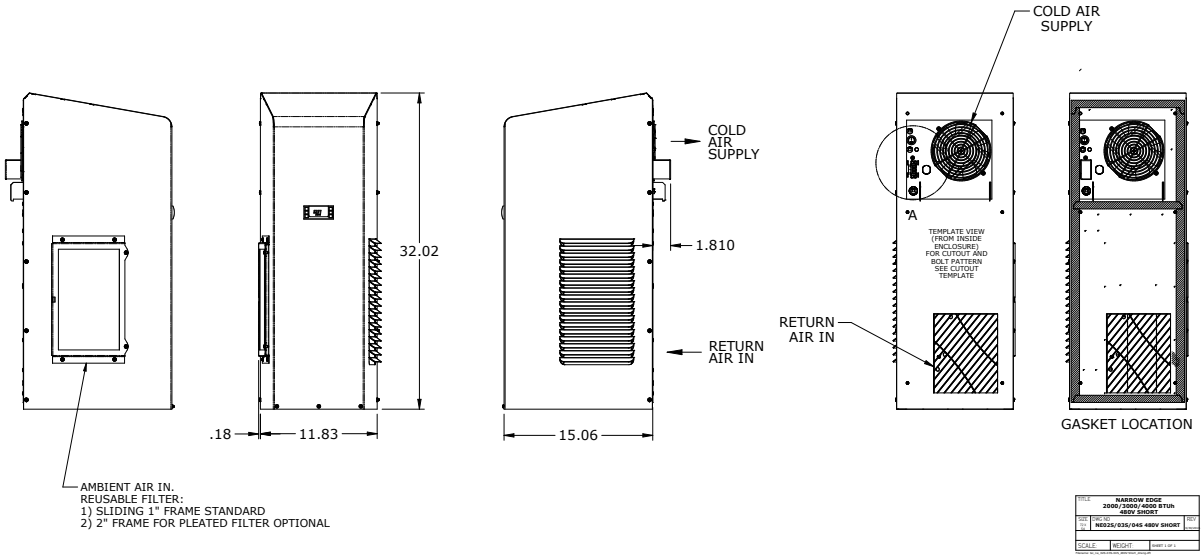
- Corrosion Protection
- Low Ambient
- Remote Controller
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Extended Temp. Probe
- Dry Contact
- Filter/Filter Frame
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE02S48612J4	12	2000	Powder coated steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94
NE02S48604J4	4	2000	Powder coated steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94
NE02S4864XJ4	4X	2000	Stainless steel	460/1/60	0.87	134°F	32.02" x 11.83" x 15.06"	94









NRTL LISTED
MET
c US
E113961
Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.
5-YEAR
WARRANTY

** Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE030J4

1/27/2025

HAZARDOUS LOCATIONS

3000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE030 air conditioners for Hazardous Locations are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 3000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

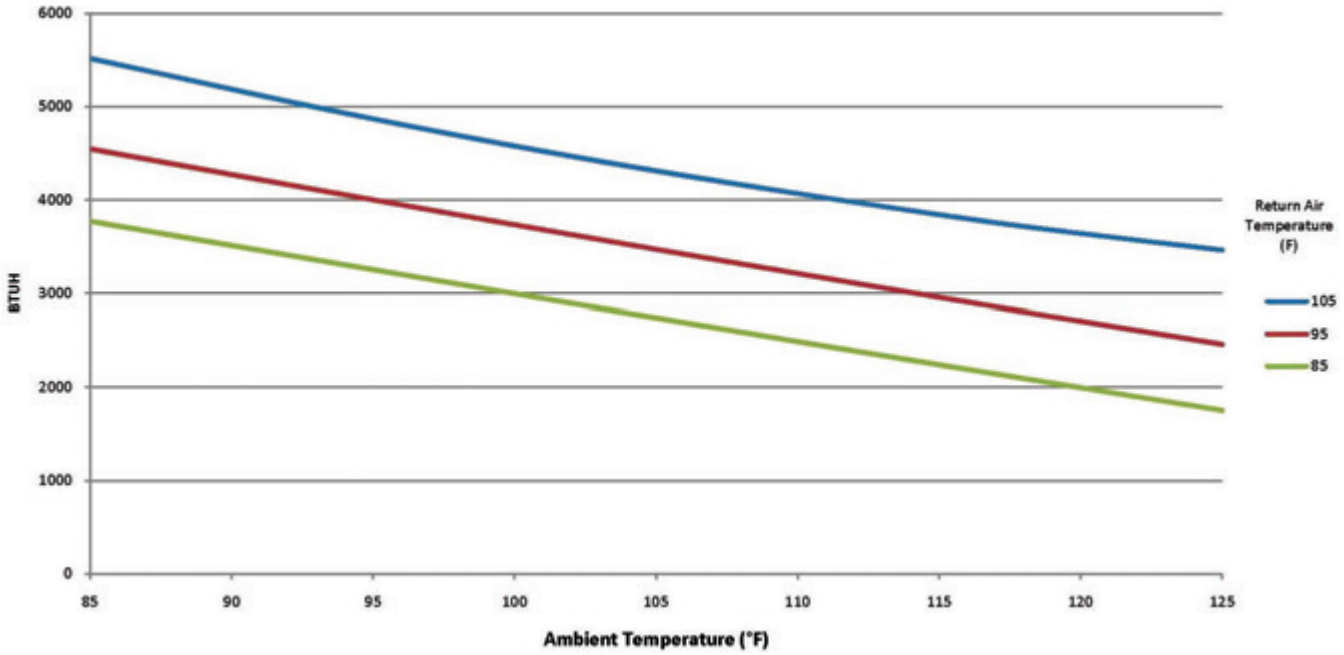
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

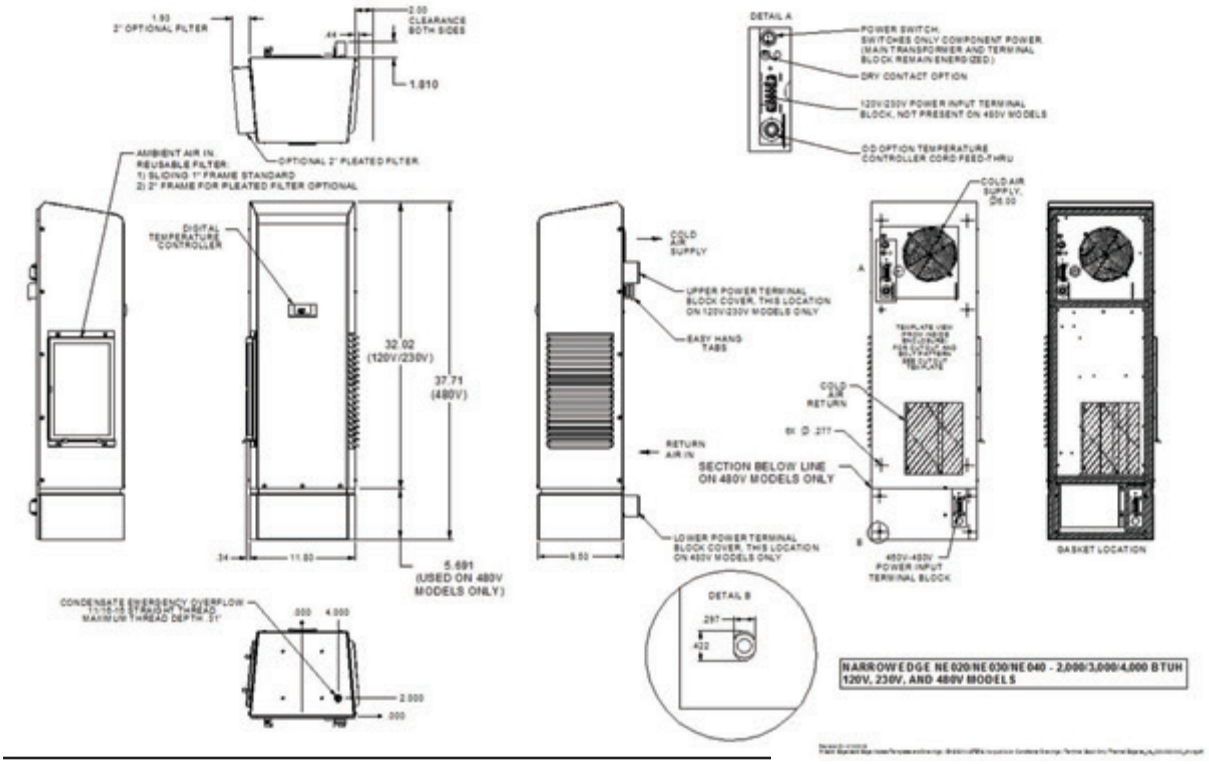
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE03012612J4	12	3,000	Powder coated steel	115/1/60	4.82	122°F	32" x 11.8" x 9.5"	70
NE03012604J4	4	3,000	Powder coated steel	115/1/60	4.82	122°F	32" x 11.8" x 9.5"	70
NE0301264XJ4	4X	3,000	Stainless steel	115/1/60	4.82	122°F	32" x 11.8" x 9.5"	70
NE03023612J4	12	3,000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE03023604J4	4	3,000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE0302364XJ4	4X	3,000	Stainless steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE03048612J4	12	3,000	Powder coated steel	460/1/60	1.15	122°F	38" x 11.8" x 9.5"	103
NE03048604J4	4	3,000	Powder coated steel	460/1/60	1.15	122°F	38" x 11.8" x 9.5"	103
NE0304864XJ4	4X	3,000	Stainless steel	460/1/60	1.15	122°F	38" x 11.8" x 9.5"	103

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET c US
E113961
Haz Loc Certification

c UL us
SA32252
Ord Loc Certification

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

** Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE03SJ4
HAZARDOUS LOCATIONS

1/27/2025

3000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE03S Hazardous Location air conditioners are certified compliant to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 3000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

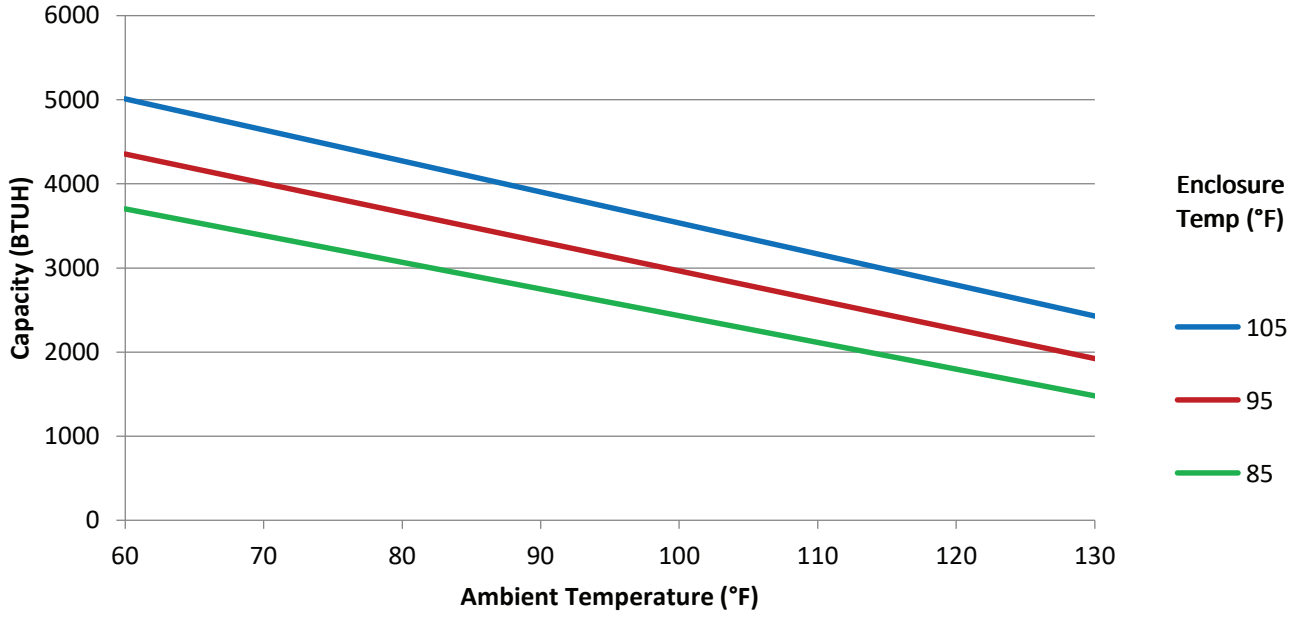
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

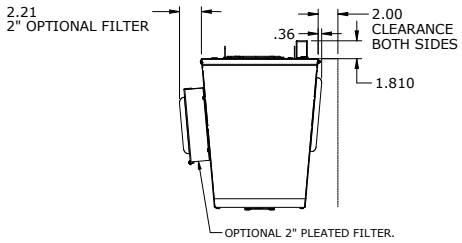
OPTIONS:

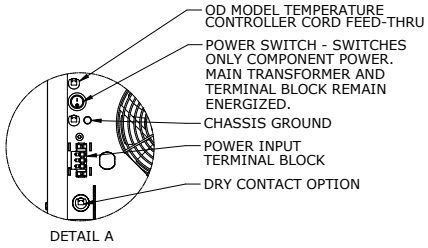
- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

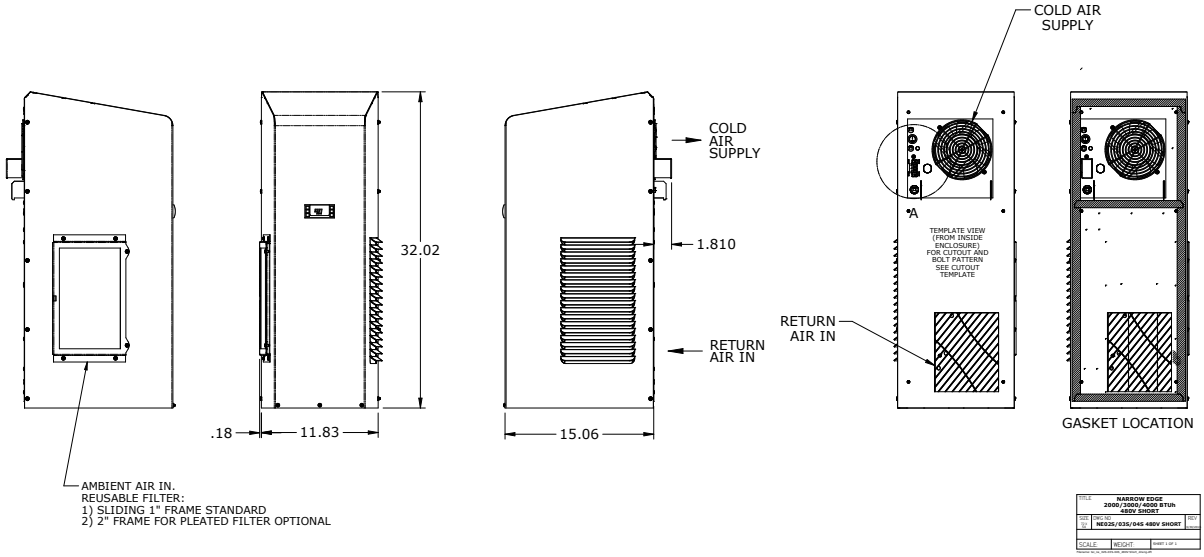
Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE03S48612J4	12	3000	Powder coated steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103
NE03S48604J4	4	3000	Powder coated steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103
NE03S4864XJ4	4X	3000	Stainless steel	460/1/60	1.28	140°F	32.02" x 11.83" x 15.06"	103

Testing done under controlled conditions. Actual performance may vary.









E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE040J4
HAZARDOUS LOCATIONS

1/27/2025

4000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE040 Hazardous Location air conditioners are certified compliant to the following standard(s):

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 4000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

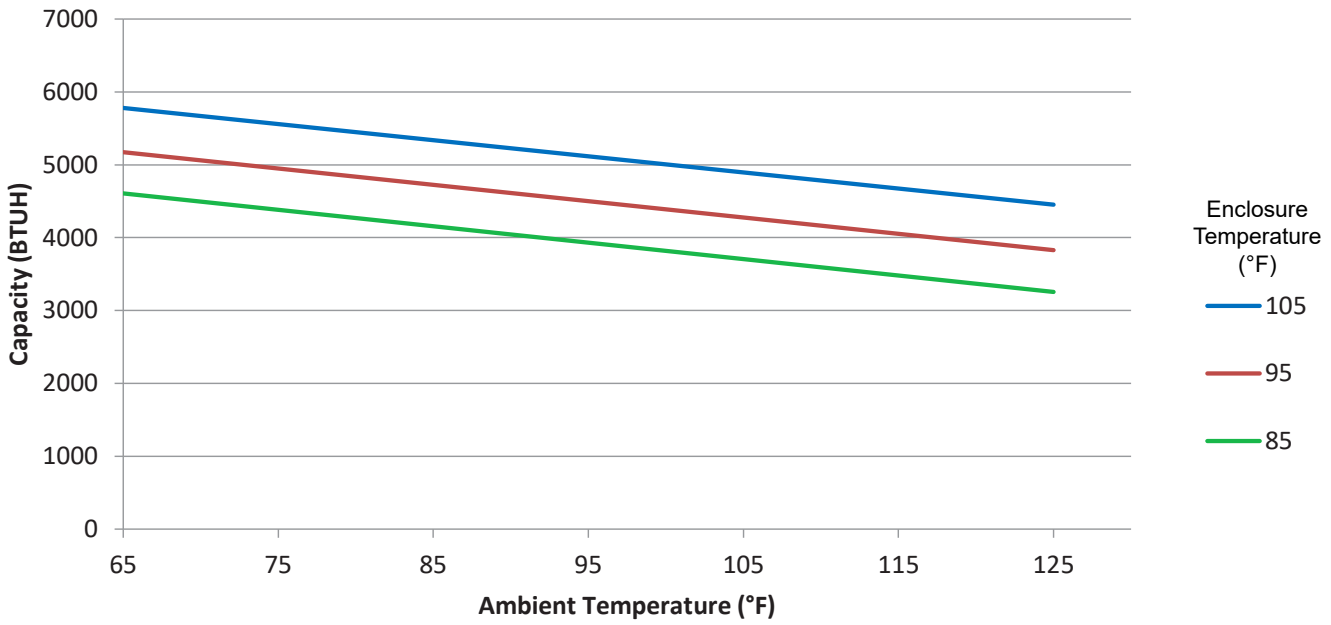
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

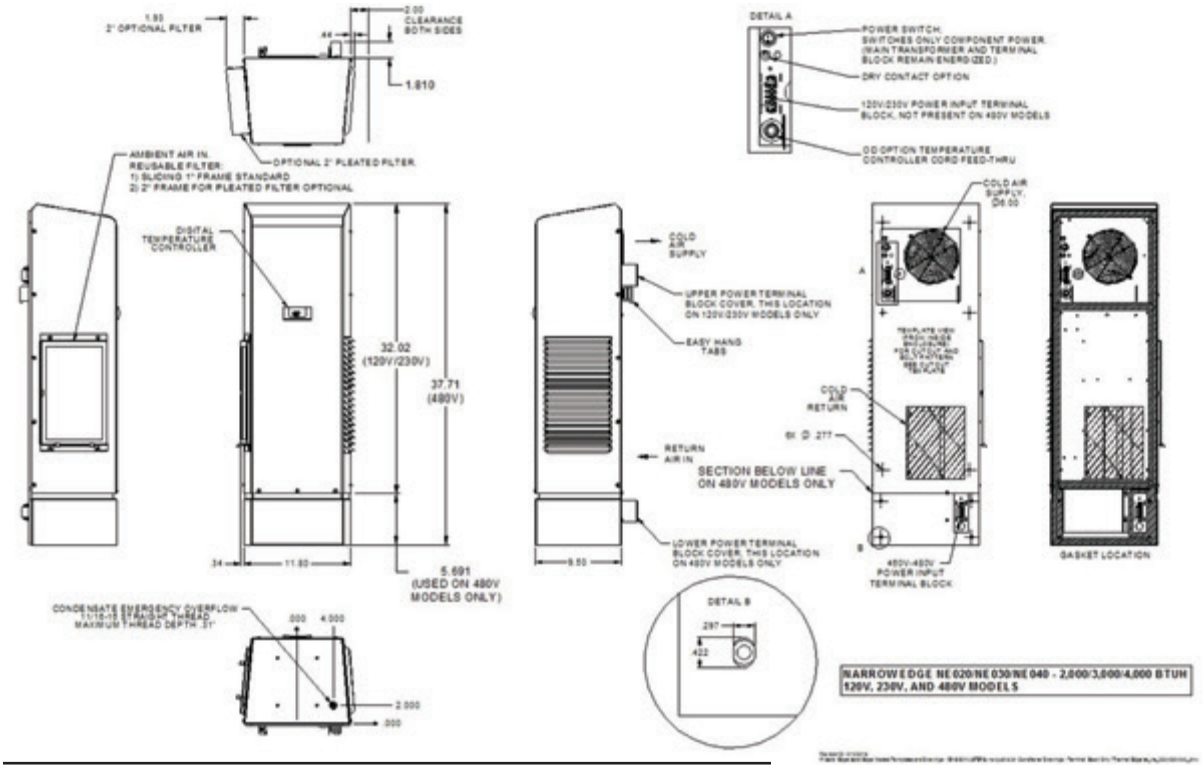
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE04012612J4	12	4,000	Powder coated steel	115/1/60	6.818	122°F	32" x 11.8" x 9.5"	60
NE04012604J4	4	4,000	Powder coated steel	115/1/60	6.818	122°F	32" x 11.8" x 9.5"	60
NE0401264XJ4	4X	4,000	Stainless steel	115/1/60	6.818	122°F	32" x 11.8" x 9.5"	60
NE04023612J4	12	4,000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE04023604J4	4	4,000	Powder coated steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE0402364XJ4	4X	4,000	Stainless steel	230/1/60	3.07	122°F	32" x 11.8" x 9.5"	72
NE04048612J4	12	4,000	Powder coated steel	460/1/60	1.704	122°F	38" x 11.8" x 9.5"	103
NE04048604J4	4	4,000	Powder coated steel	460/1/60	1.704	122°F	38" x 11.8" x 9.5"	103
NE0404864XJ4	4X	4,000	Stainless steel	460/1/60	1.704	122°F	38" x 11.8" x 9.5"	103

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

5-YEAR WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE04SJ4

1/27/2025

HAZARDOUS LOCATIONS

4000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge air conditioners will exceed environmental requirements in applications like Steel, Food Processing, Petro-Chemical, Cement, Paper & Pulp and Plastics.

Thermal Edge NE04S Hazardous Location air conditioners are certified compliant to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 3000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

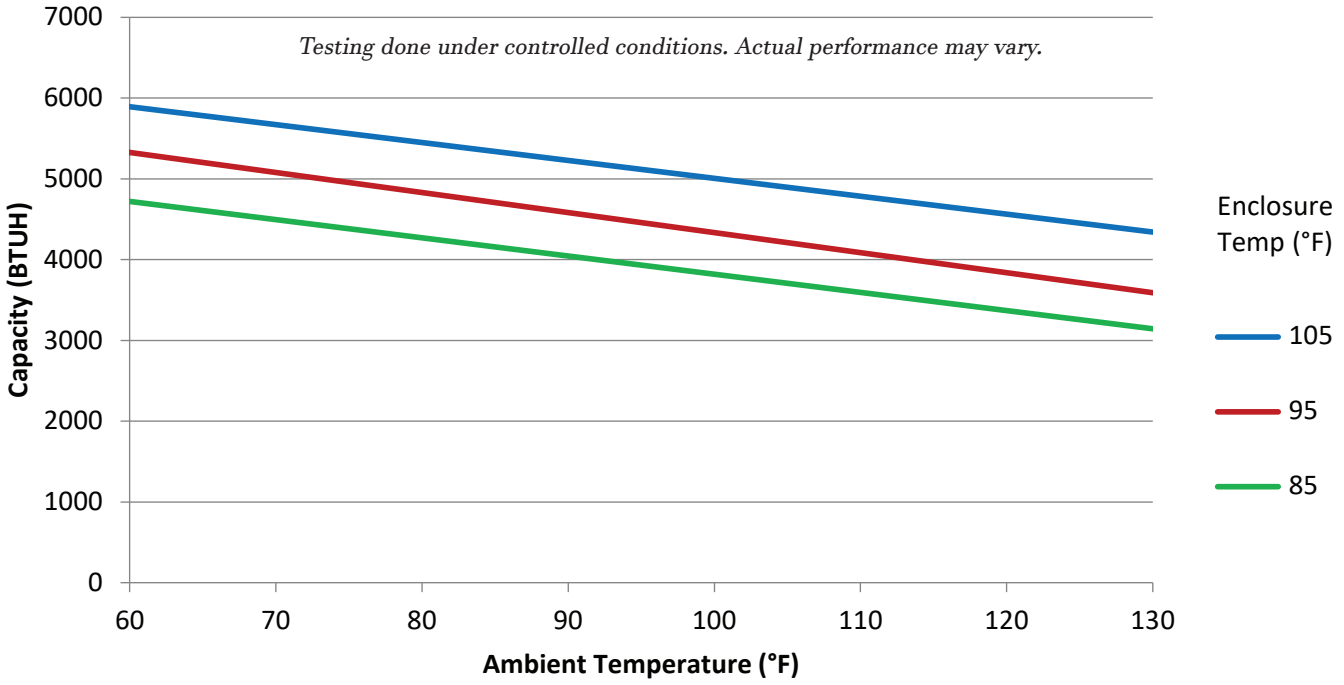
Unit Efficiency

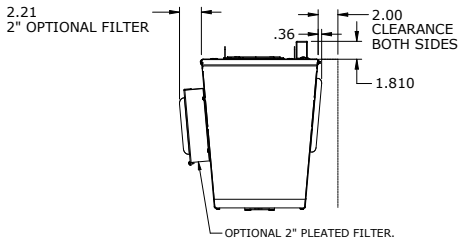
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

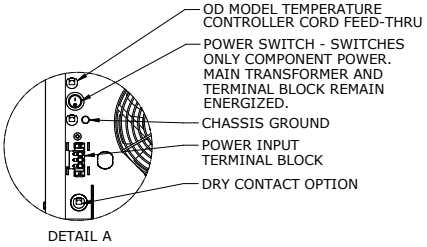
OPTIONS:

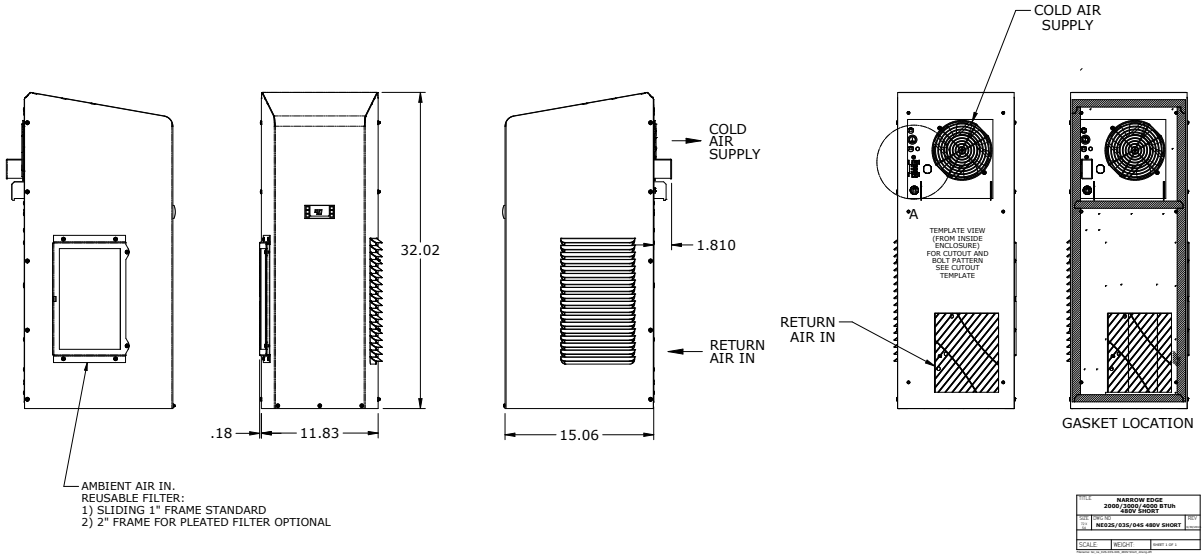
- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE04S48612J4	12	4000	Powder coated steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103
NE04S48604J4	4	4000	Powder coated steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103
NE04S4864XJ4	4X	4000	Stainless steel	460/1/60	1.69	125°F	32.02" x 11.83" x 15.06"	103









E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

5-YEAR WARRANTY

Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.

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Thermal Edge Inc.™

NE050J4
HAZARDOUS LOCATIONS

1/27/2025

5000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE050 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

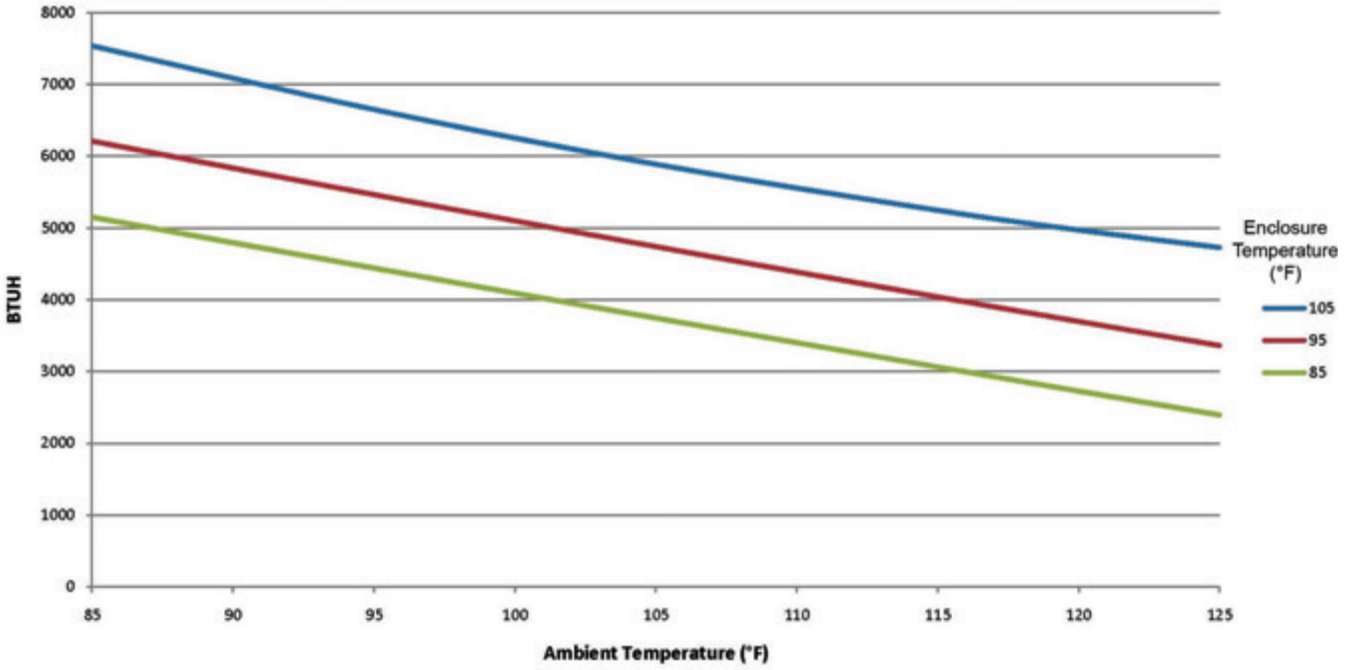
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 5000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

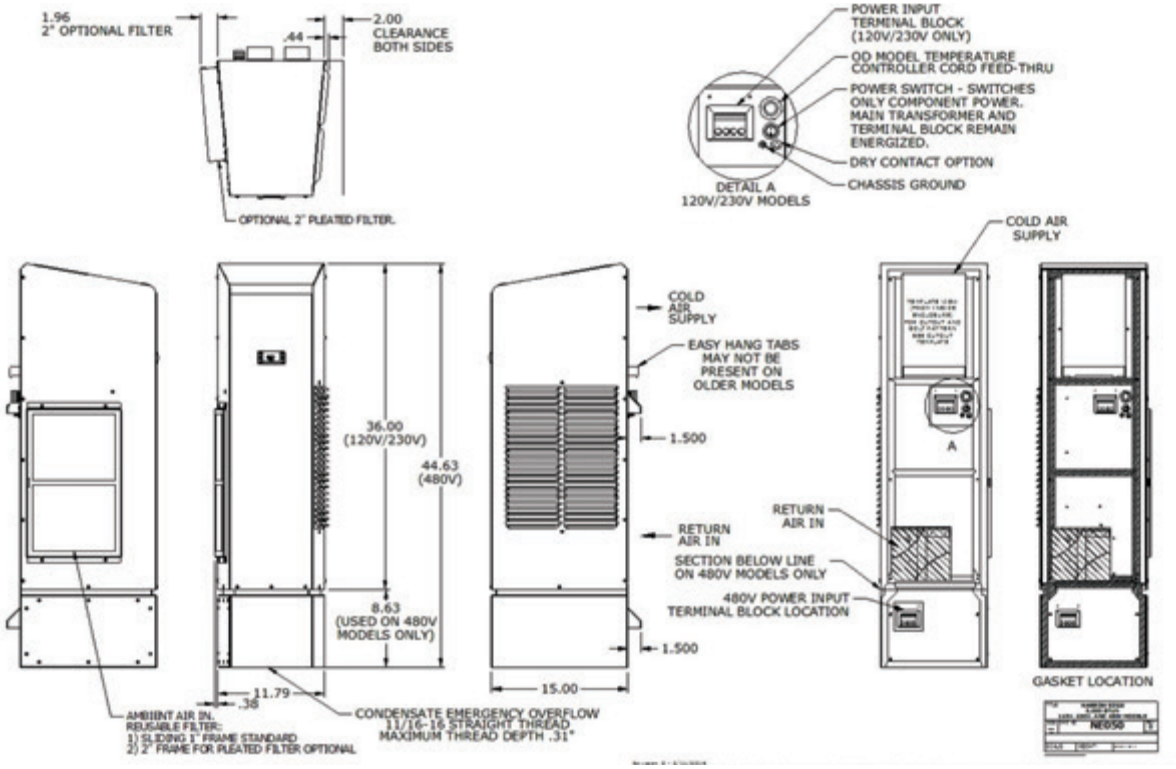
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE05012612J4	12	5,000	Powder coated steel	115/1/60	6.14	122°F	36" x 11.8" x 15.02"	97
NE05012604J4	4	5,000	Powder coated steel	115/1/60	6.14	122°F	36" x 11.8" x 15.02"	97
NE0501264XJ4	4X	5,000	Stainless steel	115/1/60	6.14	122°F	36" x 11.8" x 15.02"	97
NE05023612J4	12	5,000	Powder coated steel	230/1/60	3.76	122°F	36" x 11.8" x 15.02"	92
NE05023604J4	4	5,000	Powder coated steel	230/1/60	3.76	122°F	36" x 11.8" x 15.02"	92
NE0502364XJ4	4X	5,000	Stainless steel	230/1/60	3.76	122°F	36" x 11.8" x 15.02"	92
NE05048612J4	12	5,000	Powder coated steel	460/1/60	1.9	122°F	44.63" x 11.8" x 15.02"	136
NE05048604J4	4	5,000	Powder coated steel	460/1/60	1.9	122°F	44.63" x 11.8" x 15.02"	136
NE0504864XJ4	4X	5,000	Stainless steel	460/1/60	1.9	122°F	44.63" x 11.8" x 15.02"	136

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET C US
E113961
Haz Loc
Certification

C UL US
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

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Thermal Edge Inc.™

NE060J4
HAZARDOUS LOCATIONS

1/27/2025

6000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE060 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- $0°C \leq T_a \leq +50°C$

System Features

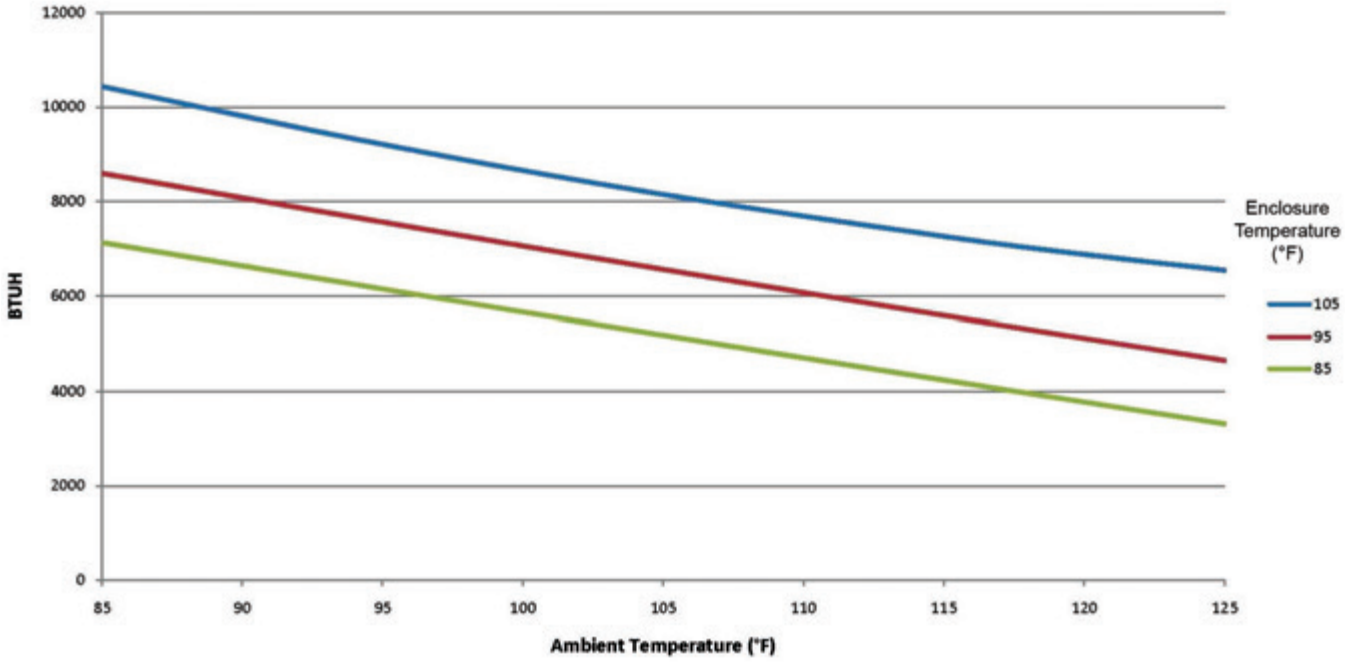
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 6000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

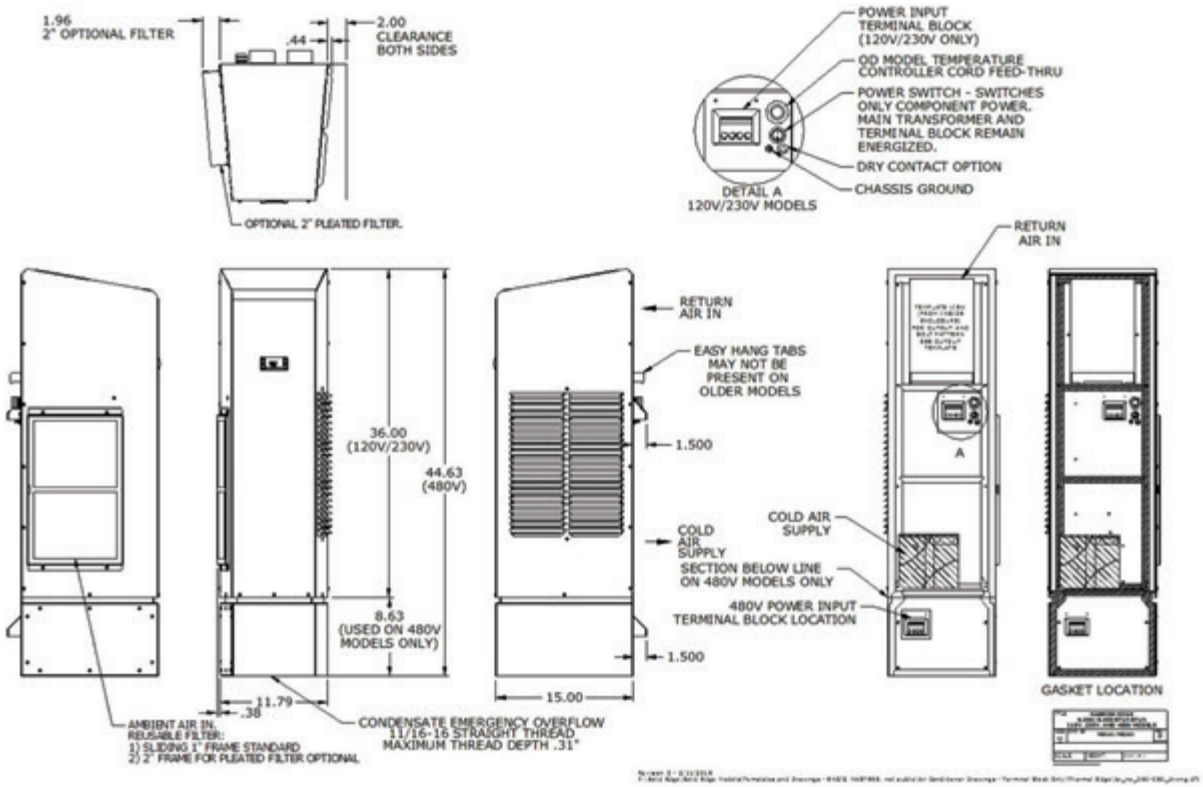
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE06012612J4	12	6,000	Powder coated steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	97
NE06012604J4	4	6,000	Powder coated steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	97
NE0601264XJ4	4X	6,000	Stainless steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	97
NE06023612J4	12	6,000	Powder coated steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	98
NE06023604J4	4	6,000	Powder coated steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	98
NE0602364XJ4	4X	6,000	Stainless steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	98
NE06048612J4	12	6,000	Powder coated steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142
NE06048604J4	4	6,000	Powder coated steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142
NE0604864XJ4	4X	6,000	Stainless steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET C US
E113961
Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

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Thermal Edge Inc.™

TM061J4
HAZARDOUS LOCATIONS

1/27/2025

6000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge TM061J4 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 6000 BTUH
- Mounts on top of the enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

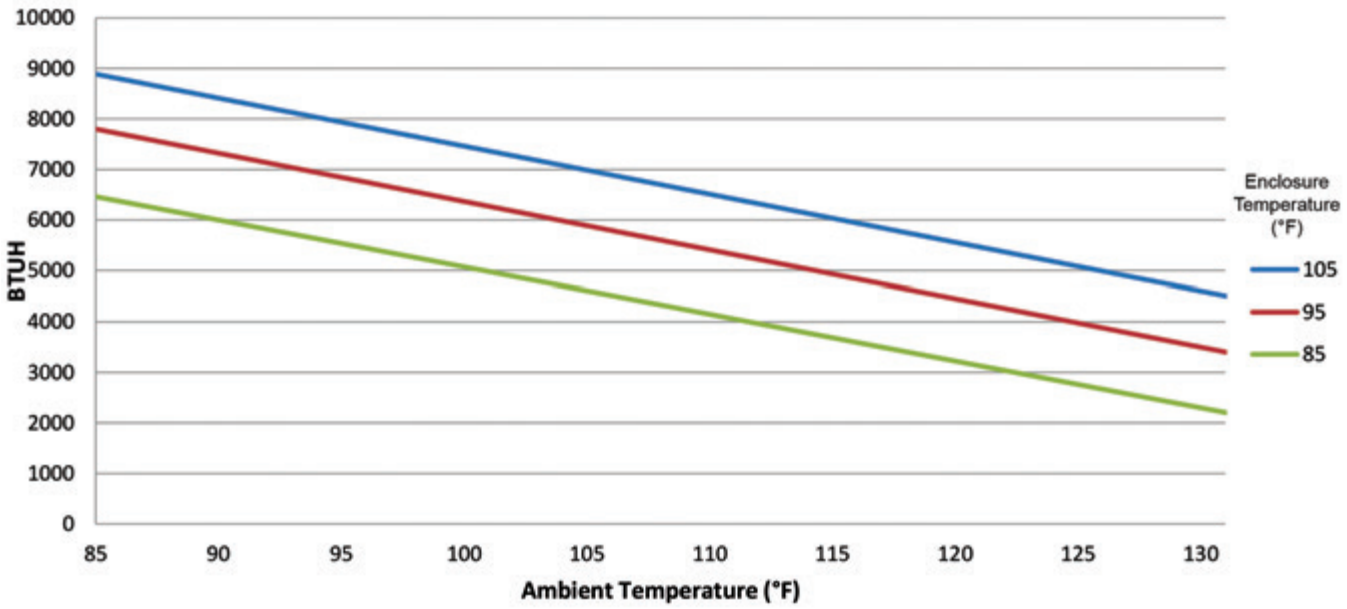
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

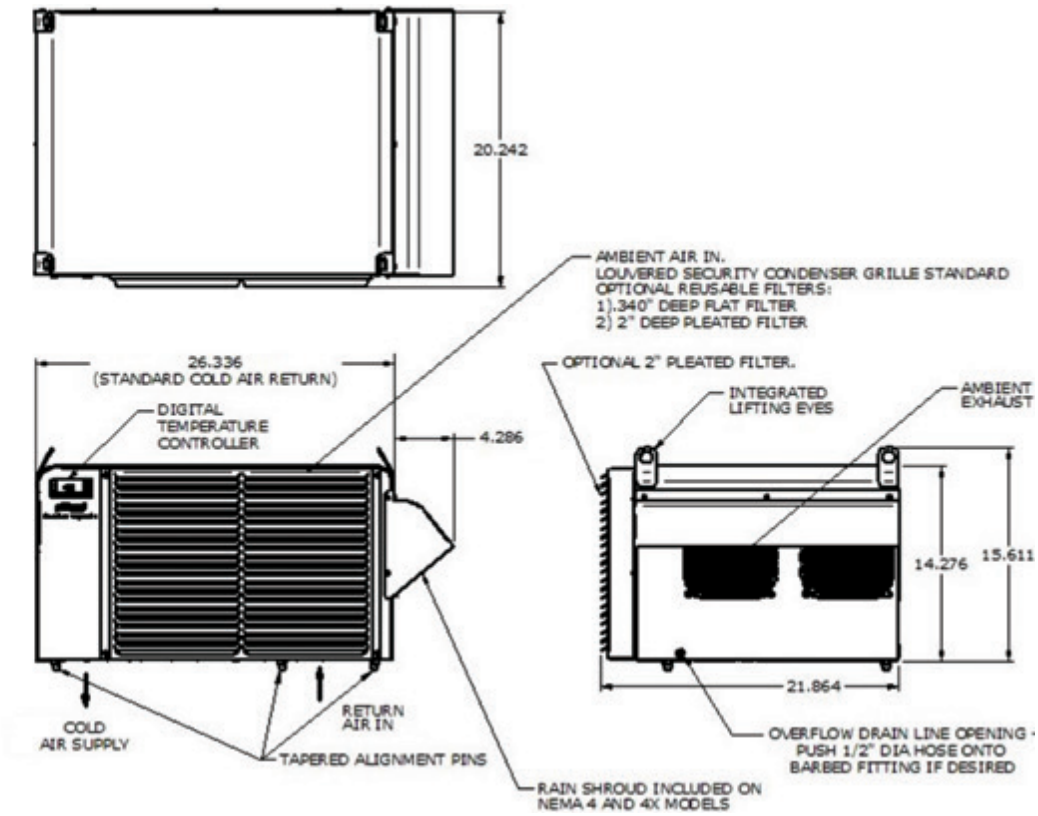
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
TM06112612J4	12	6,000	Powder coated steel	115/1/60	10.6	122°F	15.6" x 26.3" x 20.2"	111
TM06112604J4	4	6,000	Powder coated steel	115/1/60	10.6	122°F	15.6" x 30.6" x 20.2"	111
TM0611264XJ4	4X	6,000	Stainless steel	115/1/60	10.6	122°F	15.6" x 30.6" x 20.2"	111
TM06123612J4	12	6,000	Powder coated steel	230/1/60	6	122°F	15.6" x 26.3" x 20.2"	111
TM06123604J4	4	6,000	Powder coated steel	230/1/60	6	122°F	15.6" x 30.6" x 20.2"	111
TM0612364XJ4	4X	6,000	Stainless steel	230/1/60	6	122°F	15.6" x 30.6" x 20.2"	111
TM06148612J4	12	6,000	Powder coated steel	460/1/60	3	122°F	15.6" x 26.3" x 20.2"	154
TM06148604J4	4	6,000	Powder coated steel	460/1/60	3	122°F	15.6" x 30.6" x 20.2"	154
TM0614864XJ4	4X	6,000	Stainless steel	460/1/60	3	122°F	15.6" x 30.6" x 20.2"	154

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED
MET
c US
E113961
Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™
5-YEAR
WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

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Thermal Edge Inc.™

NE080J4
HAZARDOUS LOCATIONS

1/27/2025

8000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge NE080 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 8000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

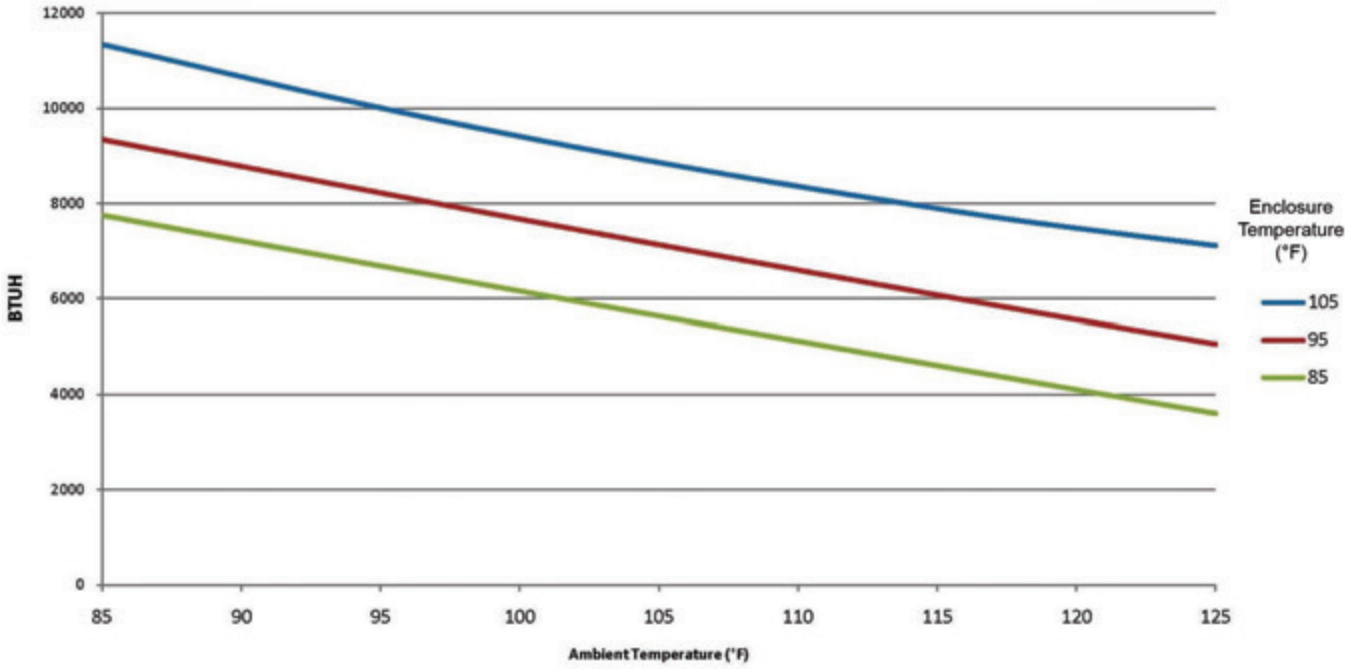
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

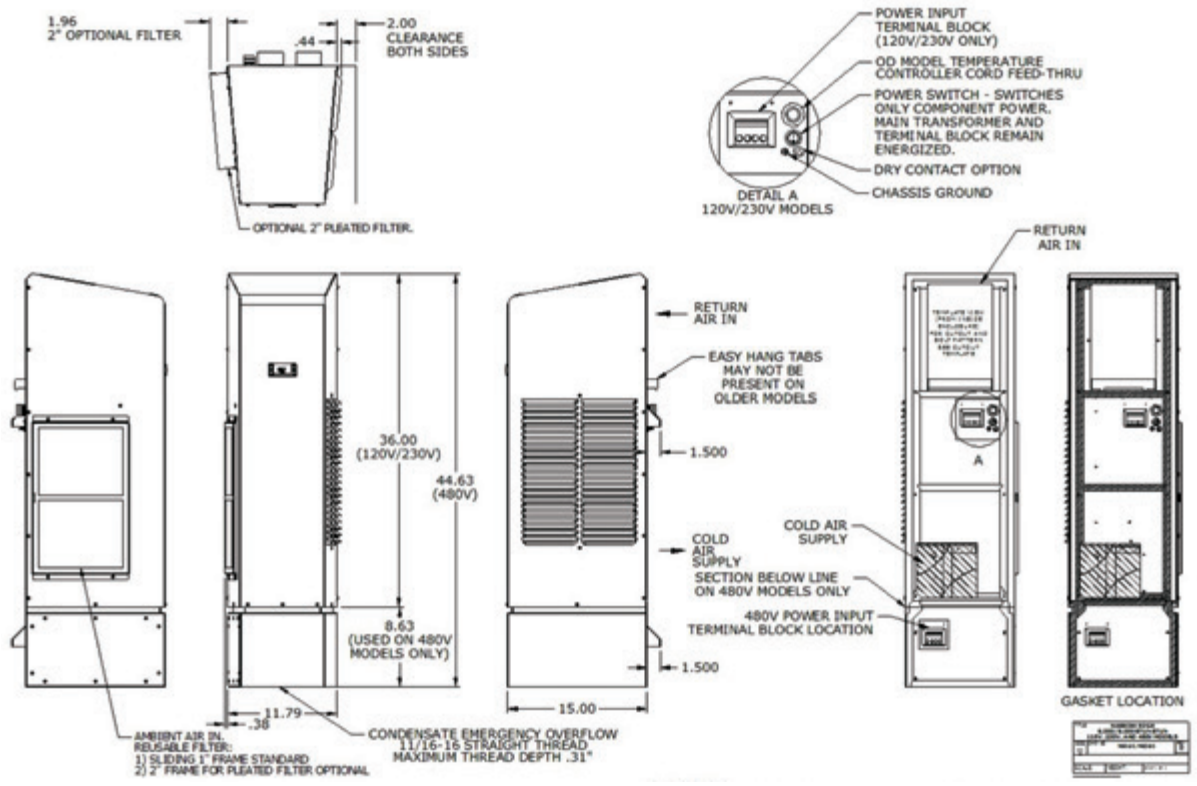
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
NE08012612J4	12	8,000	Powder coated steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	102
NE08012604J4	4	8,000	Powder coated steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	102
NE0801264XJ4	4X	8,000	Stainless steel	115/1/60	7.83	122°F	36" x 11.8" x 15.02"	102
NE08023612J4	12	8,000	Powder coated steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	103
NE08023604J4	4	8,000	Powder coated steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	103
NE0802364XJ4	4X	8,000	Stainless steel	230/1/60	4.8	122°F	36" x 11.8" x 15.02"	103
NE08048612J4	12	8,000	Powder coated steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142
NE08048604J4	4	8,000	Powder coated steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142
NE0804864XJ4	4X	8,000	Stainless steel	460/1/60	2.4	122°F	44.63" x 11.8" x 15.02"	142

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET c US
E113961
Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

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Thermal Edge Inc.™

TM081J4
HAZARDOUS LOCATIONS

1/27/2025

8000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge TM081J4 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 8000 BTUH
- Mounts on top of the enclosure
- Available in UL types 12, 4 and 4X

Unit Efficiency

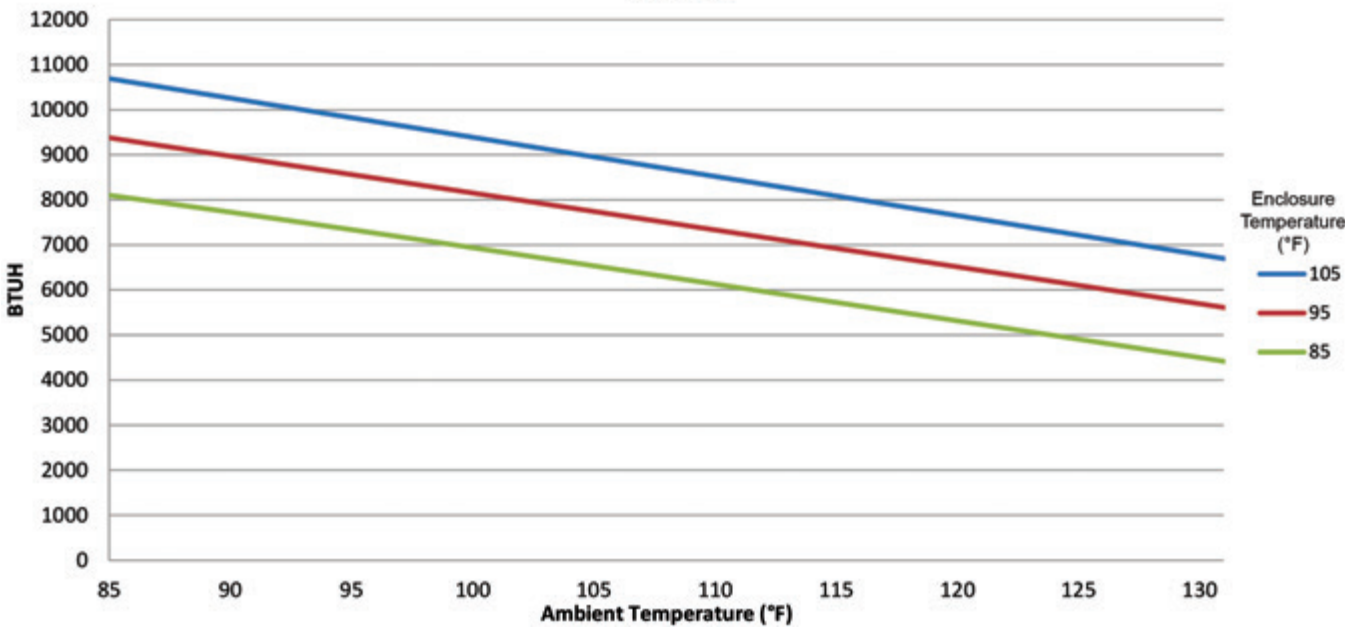
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

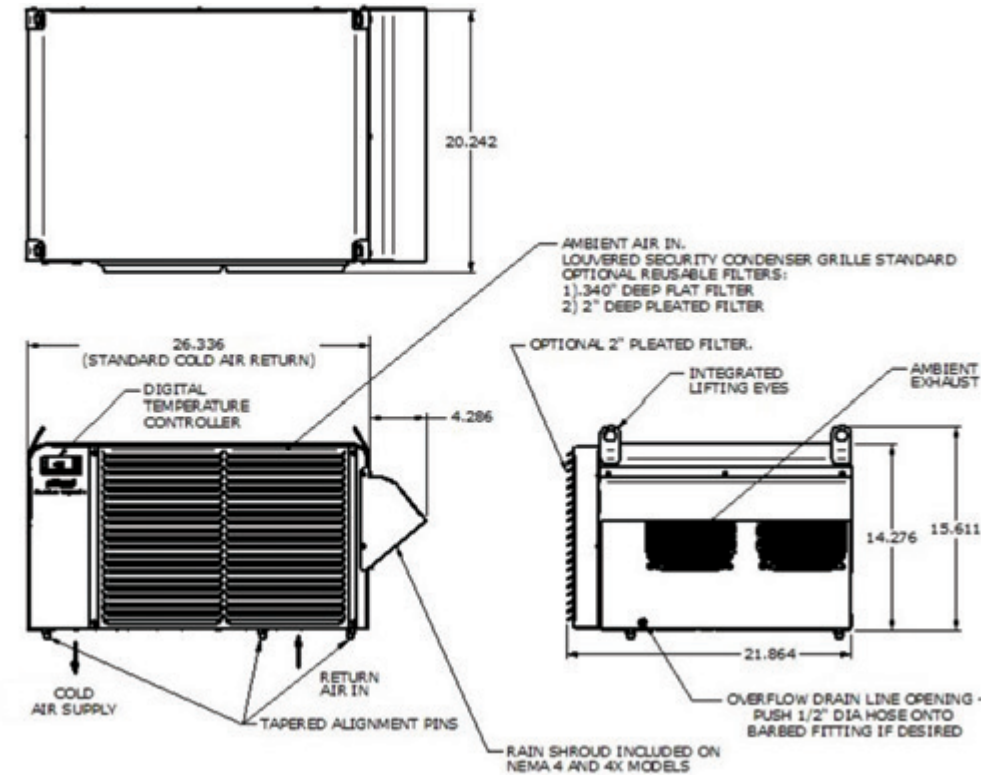
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
TM08112612J4	12	8,000	Powder coated steel	115/1/60	11.6	122°F	15.6" x 26.3" x 20.2"	111
TM08112604J4	4	8,000	Powder coated steel	115/1/60	11.6	122°F	15.6" x 30.6" x 20.2"	111
TM0811264XJ4	4X	8,000	Stainless steel	115/1/60	11.6	122°F	15.6" x 30.6" x 20.2"	111
TM08123612J4	12	8,000	Powder coated steel	230/1/60	7	122°F	15.6" x 26.3" x 20.2"	111
TM08123604J4	4	8,000	Powder coated steel	230/1/60	7	122°F	15.6" x 30.6" x 20.2"	111
TM0812364XJ4	4X	8,000	Stainless steel	230/1/60	7	122°F	15.6" x 30.6" x 20.2"	111
TM08148612J4	12	8,000	Powder coated steel	460/1/60	3.5	122°F	15.6" x 26.3" x 20.2"	154
TM08148604J4	4	8,000	Powder coated steel	460/1/60	3.5	122°F	15.6" x 30.6" x 20.2"	154
TM0814864XJ4	4X	8,000	Stainless steel	460/1/60	3.5	122°F	15.6" x 30.6" x 20.2"	154

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET C US
E113961
Haz Loc Certification

C UL US
SA32252
Ord Loc Certification

CE

Thermal Edge Inc. 5-YEAR WARRANTY

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Thermal Edge Inc.™

HC101J4
HAZARDOUS LOCATIONS

1/27/2025

10,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge HC101 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 10,000 BTUH
- Available in UL types 12, 4 and 4X

Unit Efficiency

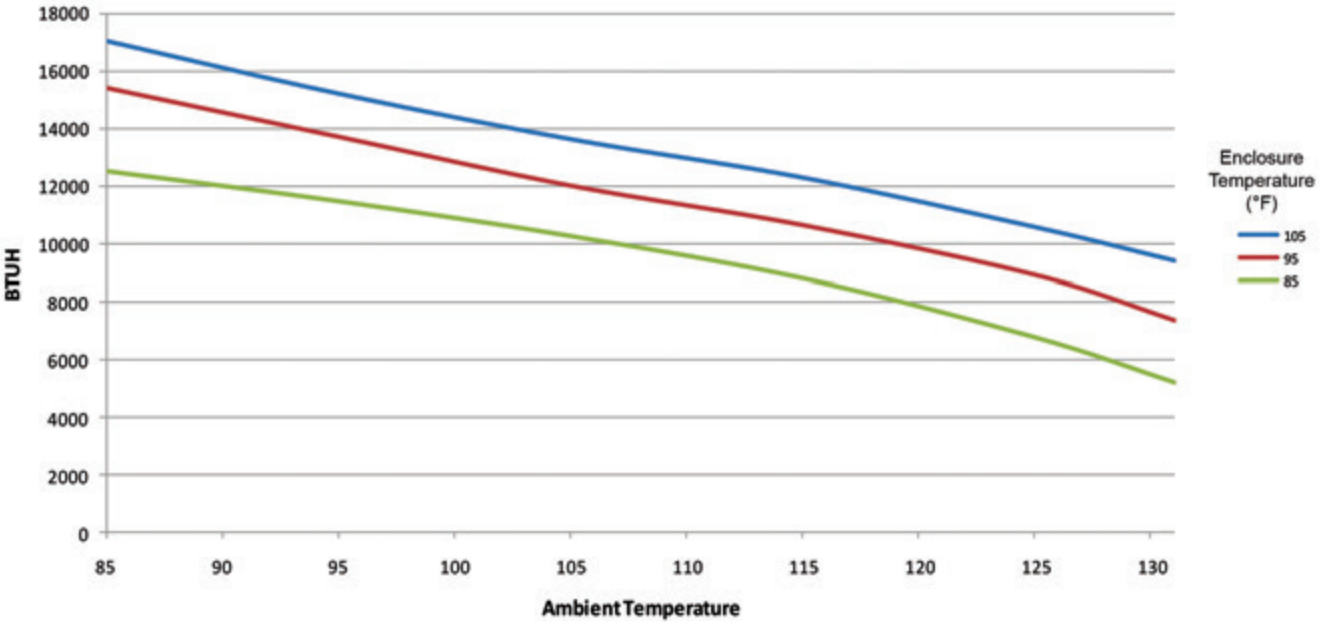
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

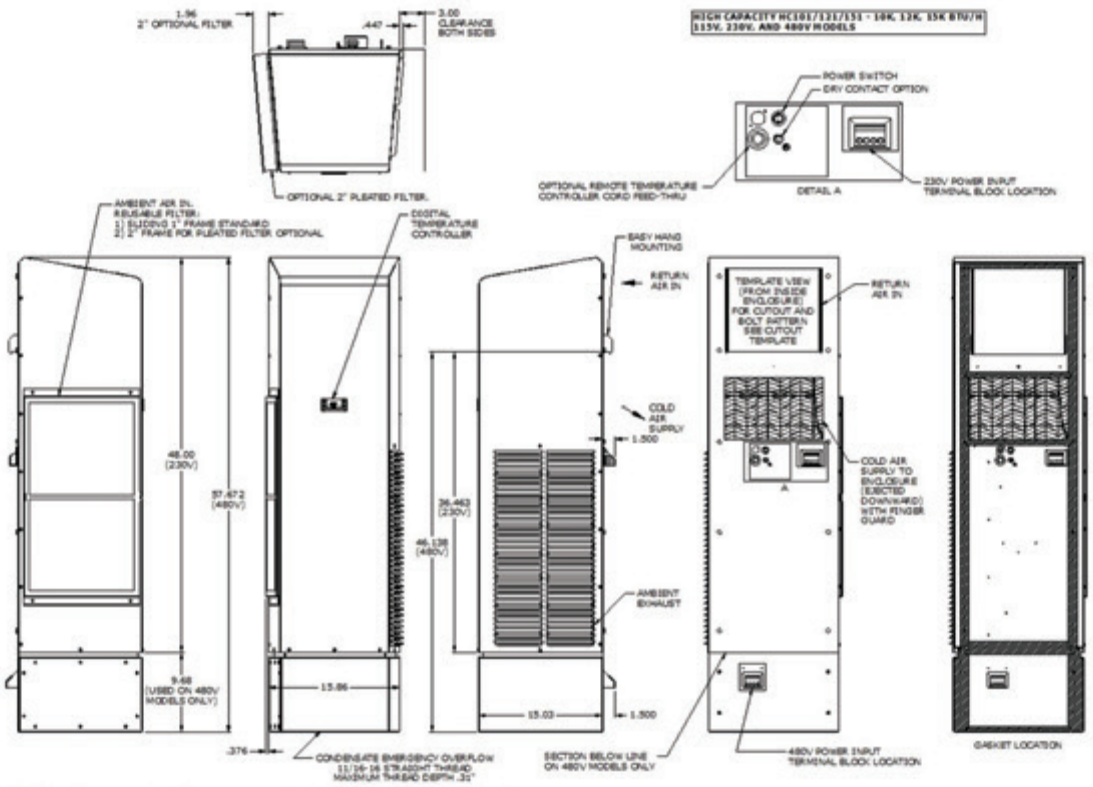
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC10112612J4	12	10,000	Powder coated steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	162
HC10112604J4	4	10,000	Powder coated steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	162
HC1011264XJ4	4X	10,000	Stainless steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	162
HC10123612J4	12	10,000	Powder coated steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	166
HC10123604J4	4	10,000	Powder coated steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	166
HC1012364XJ4	4X	10,000	Stainless steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	166
HC10148612J4	12	10,000	Powder coated steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	232
HC10148604J4	4	10,000	Powder coated steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	232
HC1014864XJ4	4X	10,000	Stainless steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	232

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

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Thermal Edge Inc.™

HC121J4
HAZARDOUS LOCATIONS

1/27/2025

12,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge HC121 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- $0°C \leq T_a \leq +50°C$

System Features

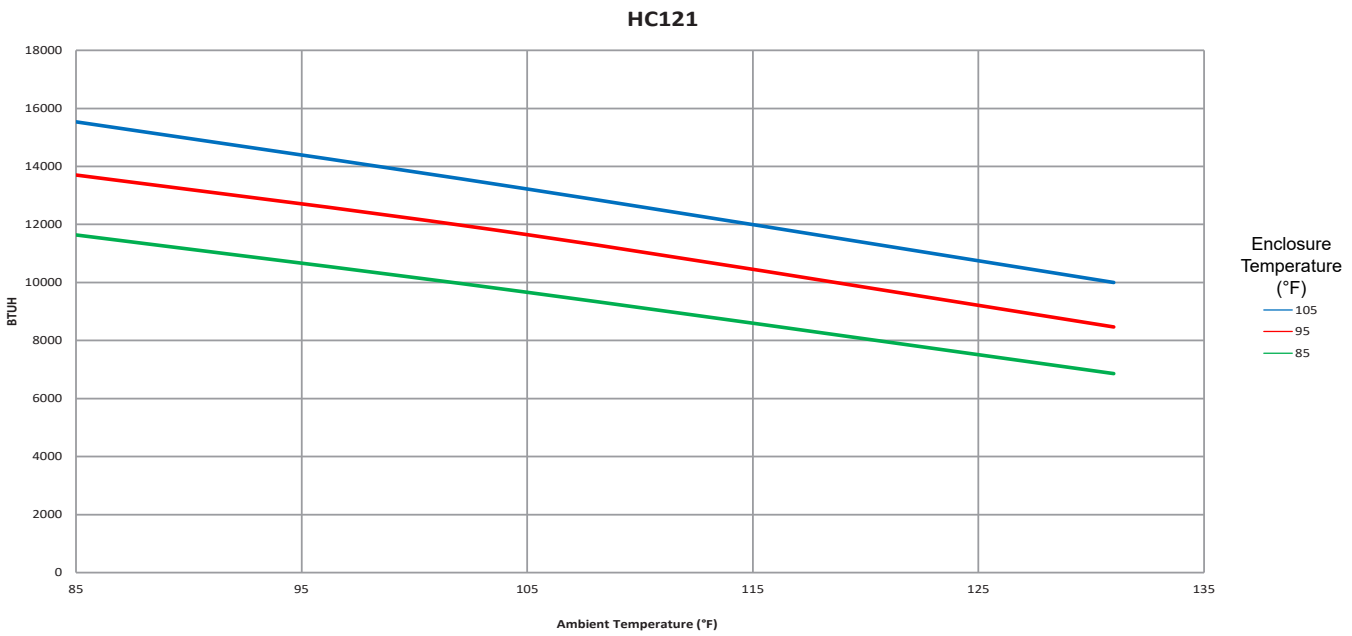
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 12,000 BTUH
- Available in UL types 12, 4 and 4X

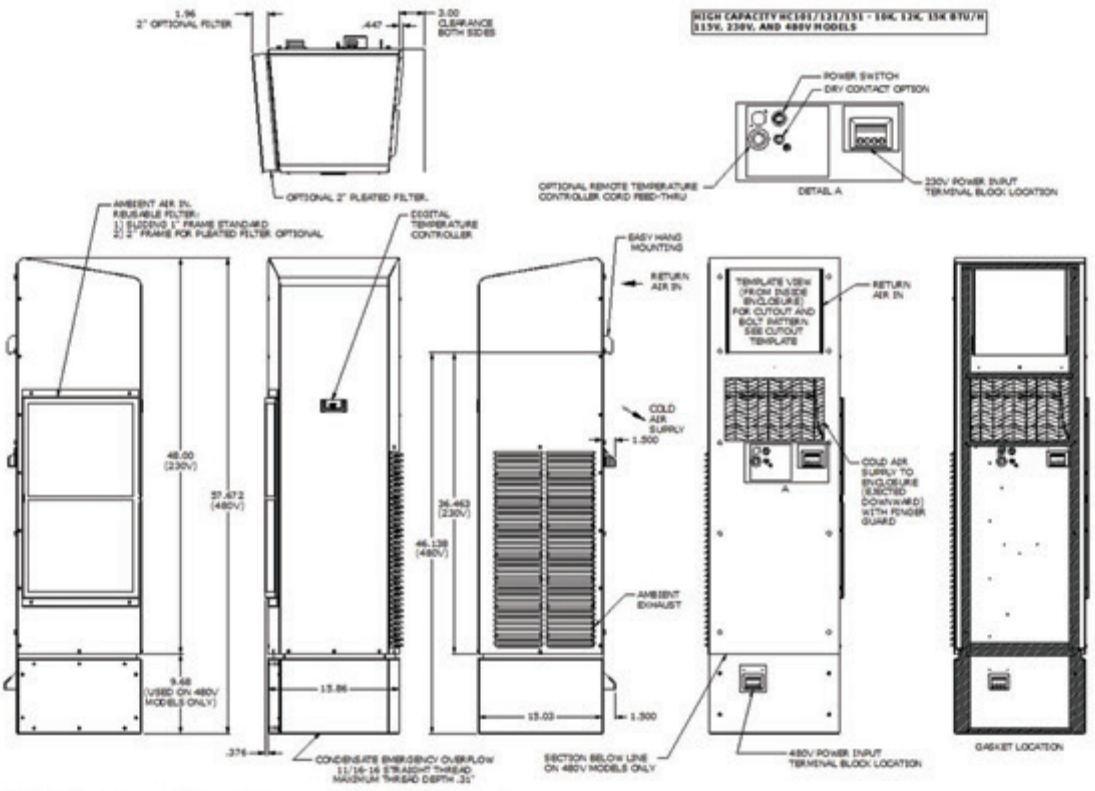
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC12112612J4	12	12,000	Powder coated steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	167
HC12112604J4	4	12,000	Powder coated steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	167
HC1211264XJ4	4X	12,000	Stainless steel	115/1/60	19.4	122°F	48" x 15.86" x 15.03"	167
HC12123612J4	12	12,000	Powder coated steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	163
HC12123604J4	4	12,000	Powder coated steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	163
HC1212364XJ4	4X	12,000	Stainless steel	230/1/60	8.2	122°F	48" x 15.86" x 15.03"	163
HC12148612J4	12	12,000	Powder coated steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	237
HC12148604J4	4	12,000	Powder coated steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	237
HC1214864XJ4	4X	12,000	Stainless steel	460/1/60	4.1	122°F	57.6" x 15.86" x 15.03"	237

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

HC151J4
HAZARDOUS LOCATIONS

1/27/2025

15,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge HC151 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 15,000 BTUH
- Available in UL types 12, 4 and 4X

Unit Efficiency

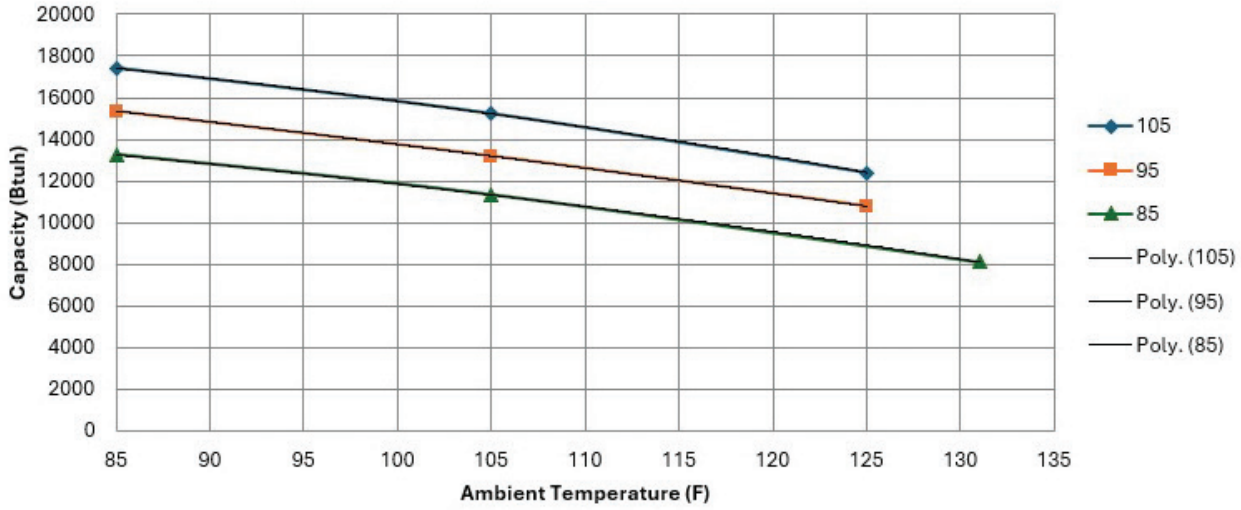
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

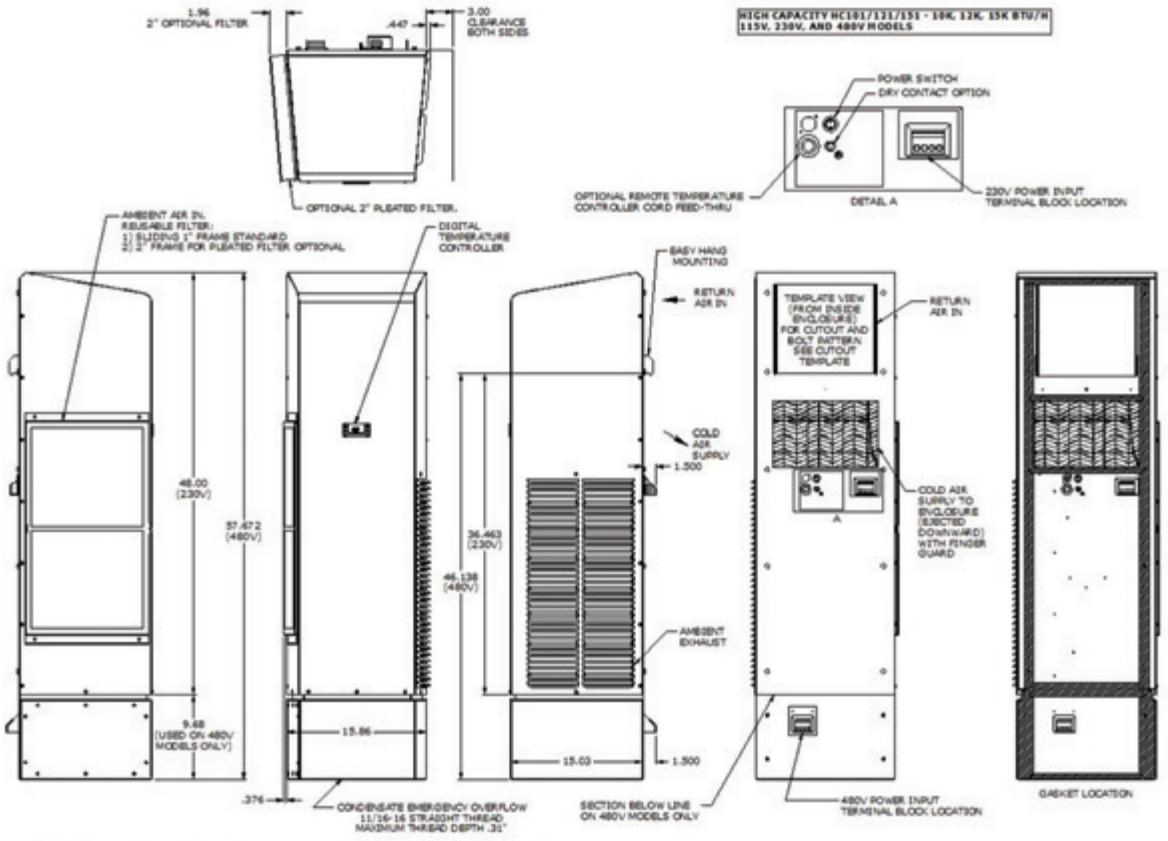
OPTIONS:

- Corrosive Environment Packages
- Extreme Ambient Packages
- Remote Controller
- Dry Contact Alarm Capabilities
- Special Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- All Filter Options
- Extended Temperature Probe
- Custom Paint

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC15123612J4	12	15,000	Powder coated steel	230/1/60	11.3	122°F	48" x 15.86" x 15.03"	170
HC15123604J4	4	15,000	Powder coated steel	230/1/60	11.3	122°F	48" x 15.86" x 15.03"	170
HC1512364XJ4	4X	15,000	Stainless steel	230/1/60	11.3	122°F	48" x 15.86" x 15.03"	170
HC15148612J4	12	15,000	Powder coated steel	460/1/60	5.7	122°F	57.6" x 15.86" x 15.03"	247
HC15148604J4	4	15,000	Powder coated steel	460/1/60	5.7	122°F	57.6" x 15.86" x 15.03"	247
HC1514864XJ4	4X	15,000	Stainless steel	460/1/60	5.7	122°F	57.6" x 15.86" x 15.03"	247

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components. Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved. Shroud mounted controllers max ambient 122F, remote controllers max ambient is 131F.

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

HC20CJ4
HAZARDOUS LOCATIONS

1/27/2025

20,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge HC20CJ4 Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

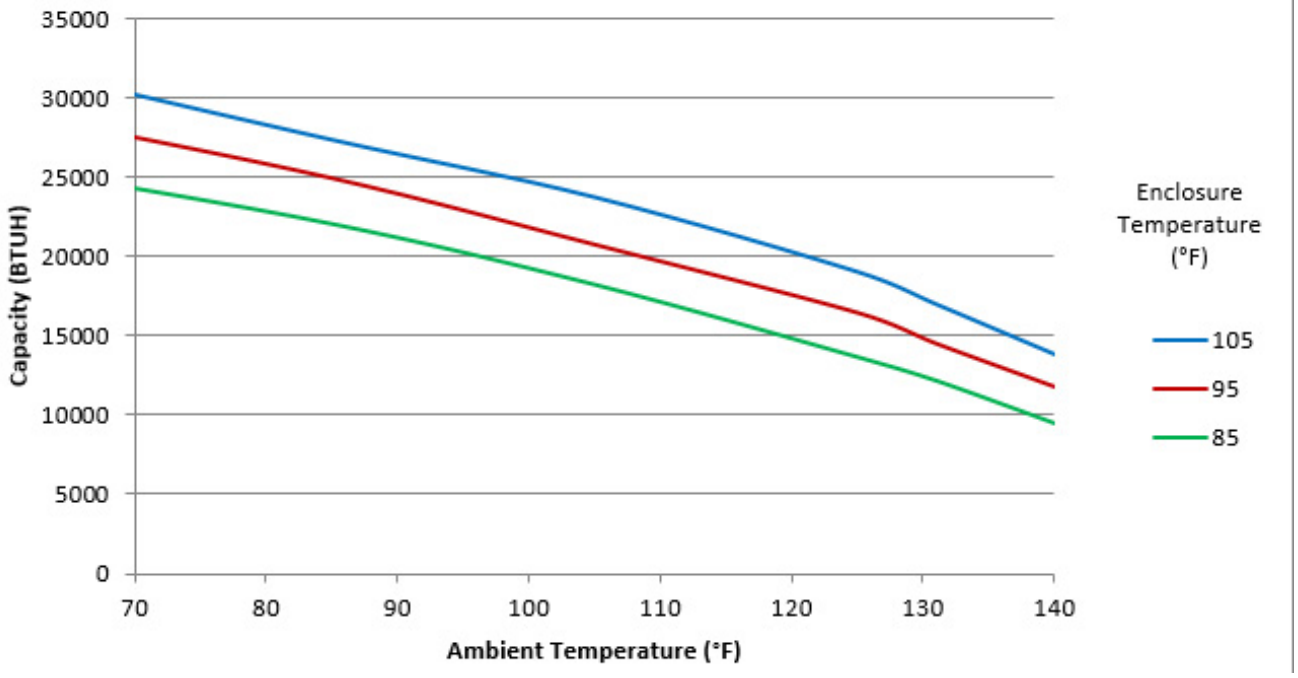
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 20,000 BTUH
- Available in UL types 12, 4 and 4X

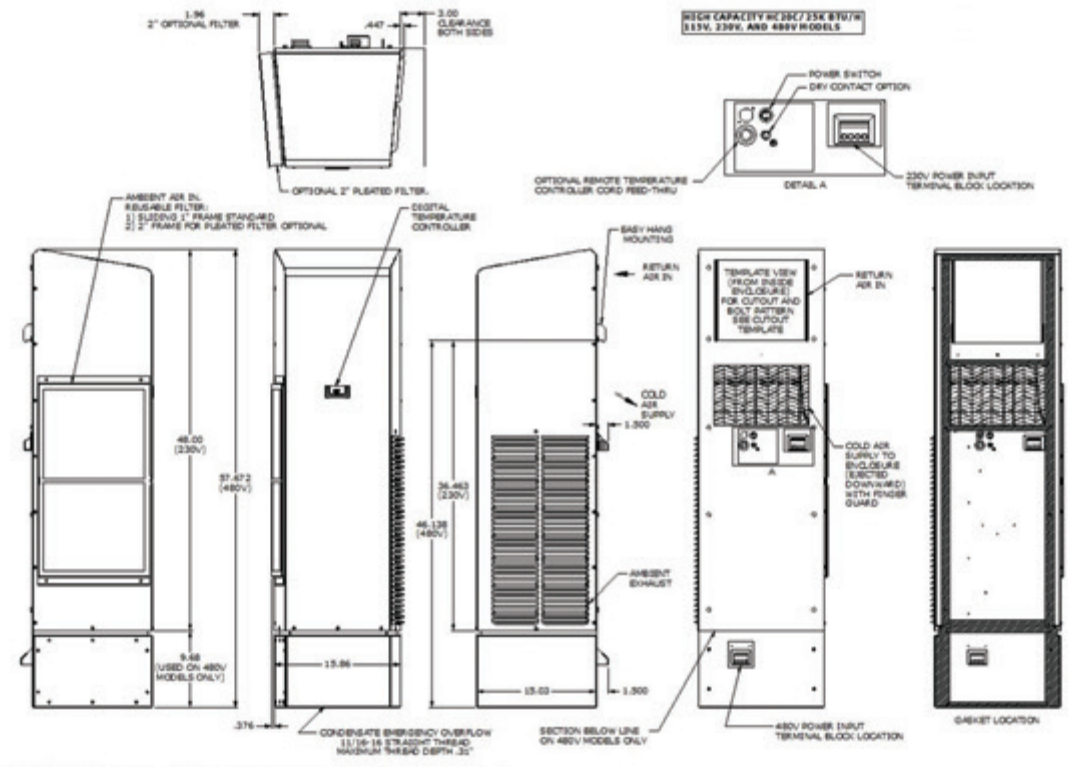
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Unit Weight (lbs.)
HC20C23612J4	12	Powder coated steel	230/1/60	12.47	122°F	48" x 15.86" x 15.03"	170
HC20C23604J4	4	Powder coated steel	230/1/60	12.47	122°F	48" x 15.86" x 15.03"	170
HC20C2364XJ4	4X	Stainless steel	230/1/60	12.47	122°F	48" x 15.86" x 15.03"	170
HC20C48612J4	12	Powder coated steel	460/1/60	6.3	122°F	57.6" x 15.86" x 15.03"	247
HC20C48604J4	4	Powder coated steel	460/1/60	6.3	122°F	57.6" x 15.86" x 15.03"	247
HC20C4864XJ4	4X	Stainless steel	460/1/60	6.3	122°F	57.6" x 15.86" x 15.03"	247

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

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ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

1/27/2025

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

50 HZ HAZARDOUS LOCATIONS ENCLOSURE AIR CONDITIONERS

Fully Integrated Condensate Evaporation Package
Programmable Digital Controller
Thermal Expansion Valve
Energy Efficient - Low Running Amps

MADE IN AMERICA MATTERS...

Thermal Edge Inc.™

50 HZ HAZLOC AIR CONDITIONER PRODUCT LINE (J4)

1/27/2025

Thermal Edge 50 Hz Hazardous Location air conditioners are certified to the following standard(s): ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C and D Hazardous (Classified) Locations; CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C and D Hazardous (Classified) Locations.

Model	BTU/Hour	Voltage/ Phase/Hz	Maximum Ambient Temp	Temp. Code
CS020235	2,000	230/1/50	48°C	T6
NE020105	2,000	100/1/50	50°C	T4
NE020235	2,000	230/1/50	50°C	T4
NE020385	2,000	380/1/50	50°C	T4
NE020405	2,000	400/1/50	50°C	T4
NE020415	2,000	415/1/50	50°C	T4
NE030105	3,000	100/1/50	50°C	T4
NE030205	3,000	200/1/50	50°C	T4
NE030385	3,000	380/1/50	50°C	T4
NE030405	3,000	400/1/50	50°C	T4
NE030415	3,000	415/1/50	50°C	T4
NE050235	5,000	230/1/50	50°C	T4
NE050385	5,000	380/1/50	50°C	T4
NE050405	5,000	400/1/50	50°C	T4
NE050415	5,000	415/1/50	50°C	T4
NE060235	6,000	230/1/50	50°C	T4
NE060385	6,000	380/1/50	50°C	T4
NE060405	6,000	400/1/50	50°C	T4
NE060415	6,000	415/1/50	50°C	T4
HC080235	8,000	230/1/50	50°C	T4
HC080385	8,000	380/1/50	50°C	T4
HC080405	8,000	400/1/50	50°C	T4
HC080415	8,000	415/1/50	50°C	T4
HC101235	10,000	230/1/50	50°C	T4
HC101385	10,000	380/1/50	50°C	T4
HC101405	10,000	400/1/50	50°C	T4
HC101415	10,000	415/1/50	50°C	T4
HC121235	12,000	230/1/50	50°C	T4
HC121385	12,000	380/1/50	50°C	T4
HC121405	12,000	400/1/50	50°C	T4
HC121415	12,000	415/1/50	50°C	T4

Thermal Edge Inc.™

CS020J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge CS020J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D Hazardous (Classified) Locations
- 0°C≤Ta≤+48°C

System Features

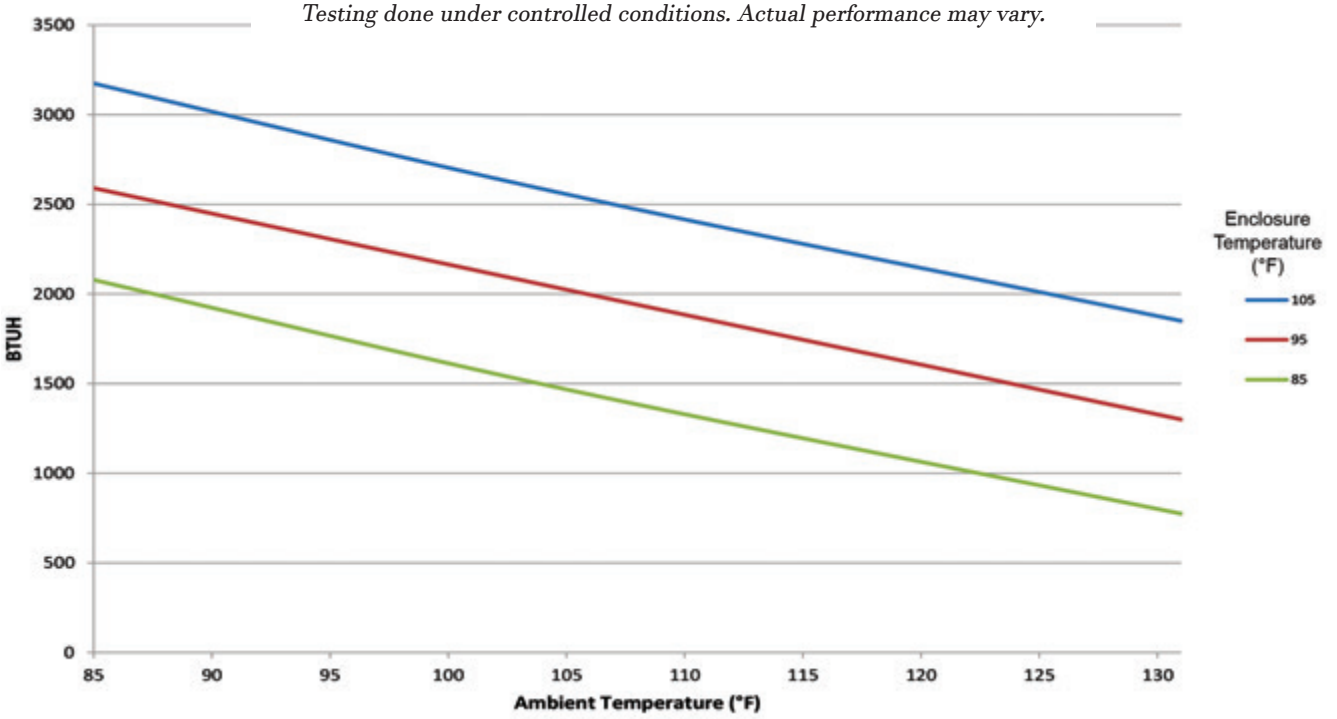
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 2000 BTUH
- Narrow body style fits on 10" enclosure
- Available in UL types 12, 4 and 4X

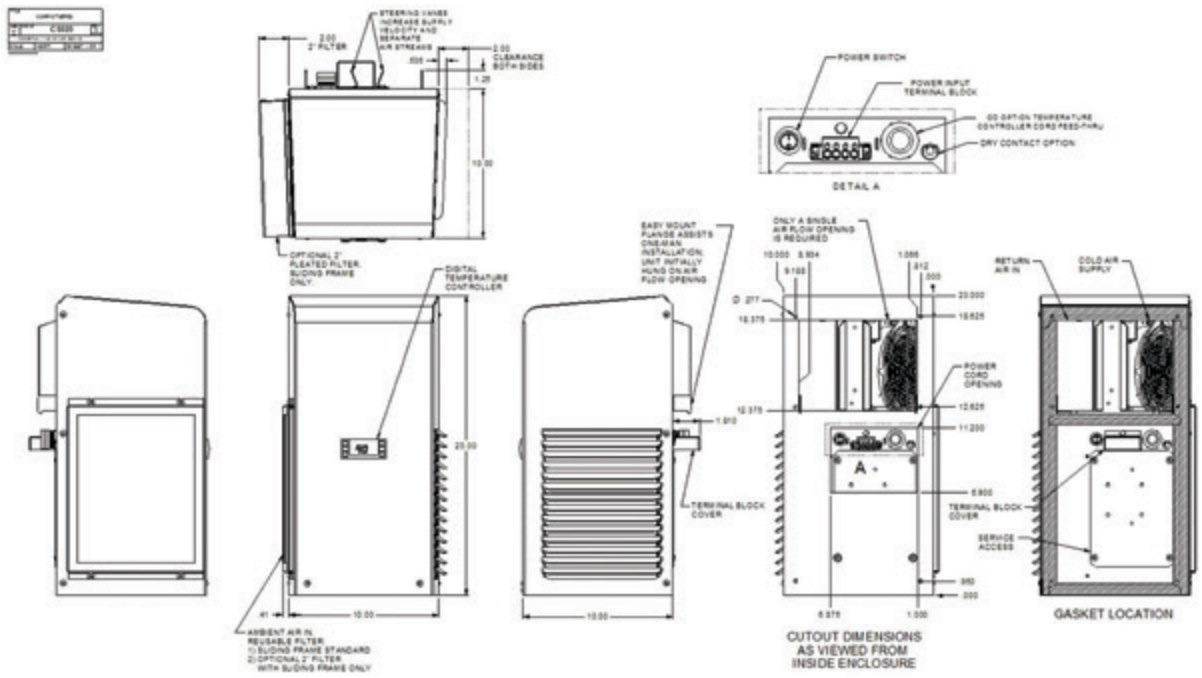
Unit Efficiency

- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/Phase/ Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
CS02023512J4	12	2,000	Powder coated steel	207-253/1/50	1.7	48°C	20" x 10" x 10"	49 / 63
CS02023504J4	4	2,000	Powder coated steel	207-253/1/50	1.7	48°C	20" x 10" x 10"	49 / 63
CS0202354XJ4	4X	2,000	Stainless steel	207-253/1/50	1.7	48°C	20" x 10" x 10"	49 / 63

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET c US
E113961
Haz Loc Certification

c UL us
SA32252
Ord Loc Certification

CE

Thermal Edge Inc. 5-YEAR WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE020J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

2000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE020J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

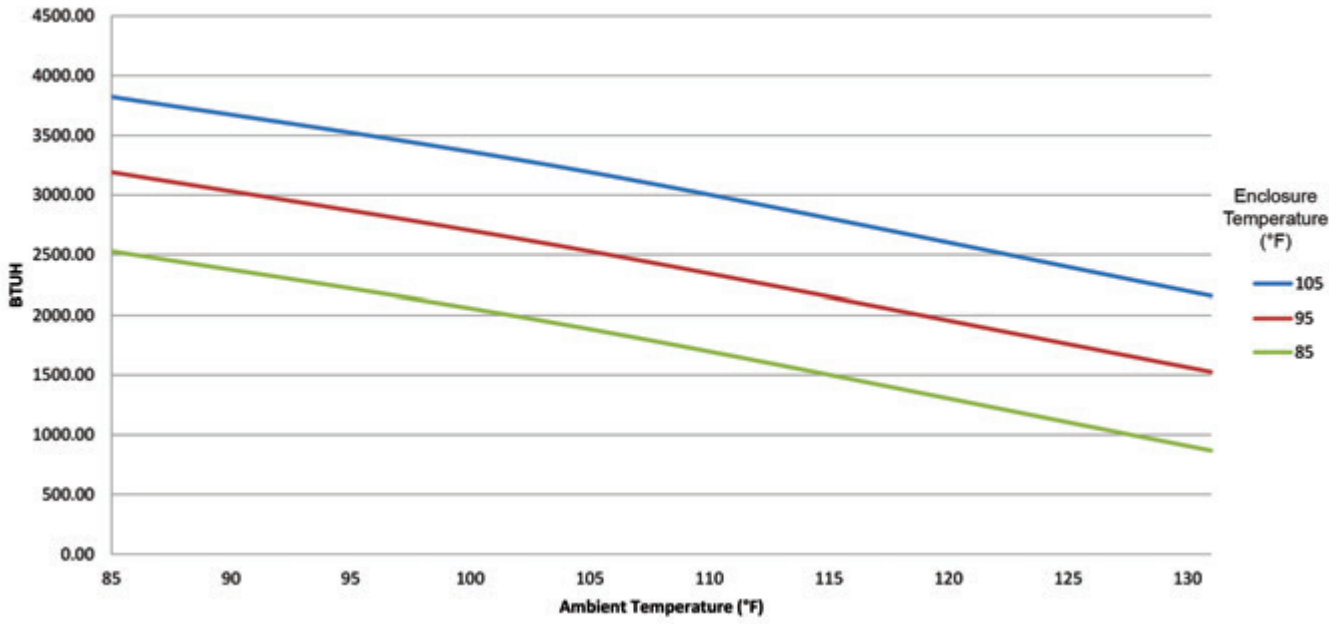
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 2000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

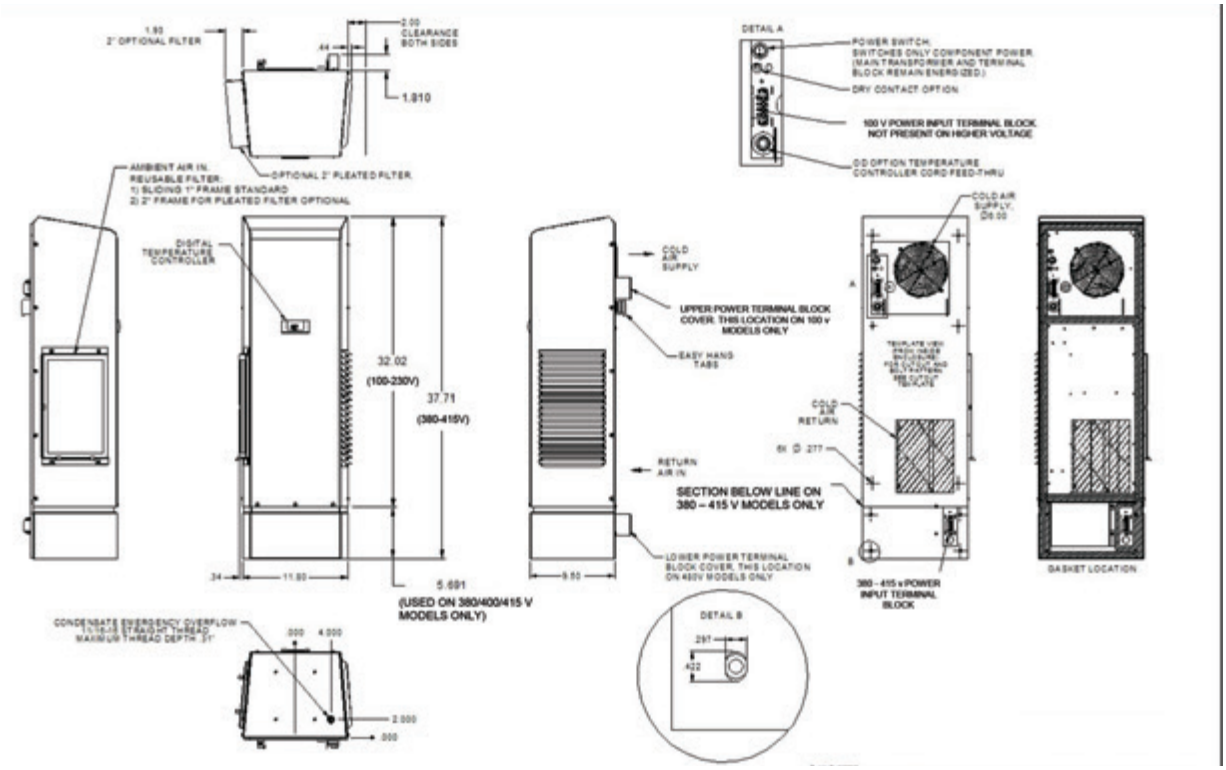
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE02010512J4	12	2,000	Powder coated steel	100/1/50	5.2	50°C	32" x 11.8" x 9.5"	65 / 79
NE02010504J4	4	2,000	Powder coated steel	100/1/50	5.2	50°C	32" x 11.8" x 9.5"	65 / 79
NE0201054XJ4	4X	2,000	Stainless steel	100/1/50	5.2	50°C	32" x 11.8" x 9.5"	65 / 79
NE02023512J4	12	2,000	Powder coated steel	230/1/50	1.7	50°C	32" x 11.8" x 9.5"	65 / 79
NE02023504J4	4	2,000	Powder coated steel	230/1/50	1.7	50°C	32" x 11.8" x 9.5"	65 / 79
NE0202354XJ4	4X	2,000	Stainless steel	230/1/50	1.7	50°C	32" x 11.8" x 9.5"	65 / 79
NE02038512J4	12	2,000	Powder coated steel	380/1/50	1.4	50°C	38" x 11.8" x 9.5"	99 / 113
NE02038504J4	4	2,000	Powder coated steel	380/1/50	1.4	50°C	38" x 11.8" x 9.5"	99 / 113
NE0203854XJ4	4X	2,000	Stainless steel	380/1/50	1.4	50°C	38" x 11.8" x 9.5"	99 / 113

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED
MET
c US
E113961
Haz Loc
Certification

c UL US
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™
5-YEAR
WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE030J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

3000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE030J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- $0°C \leq T_a \leq +50°C$

System Features

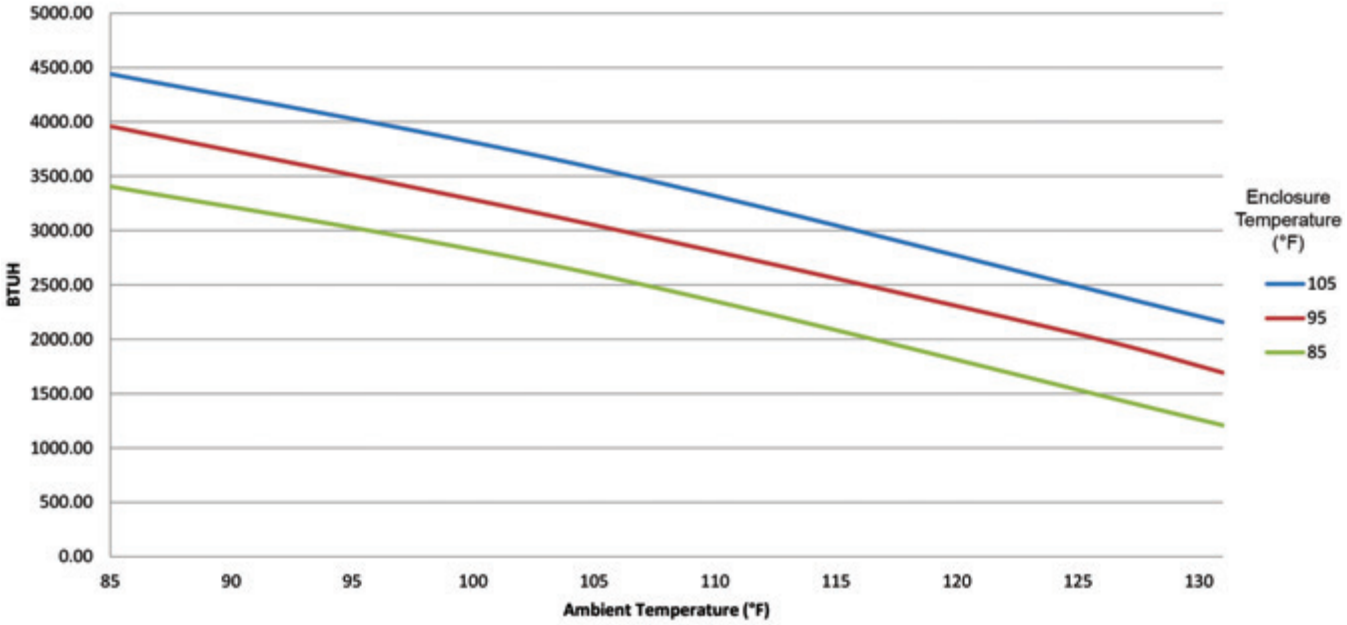
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 3000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

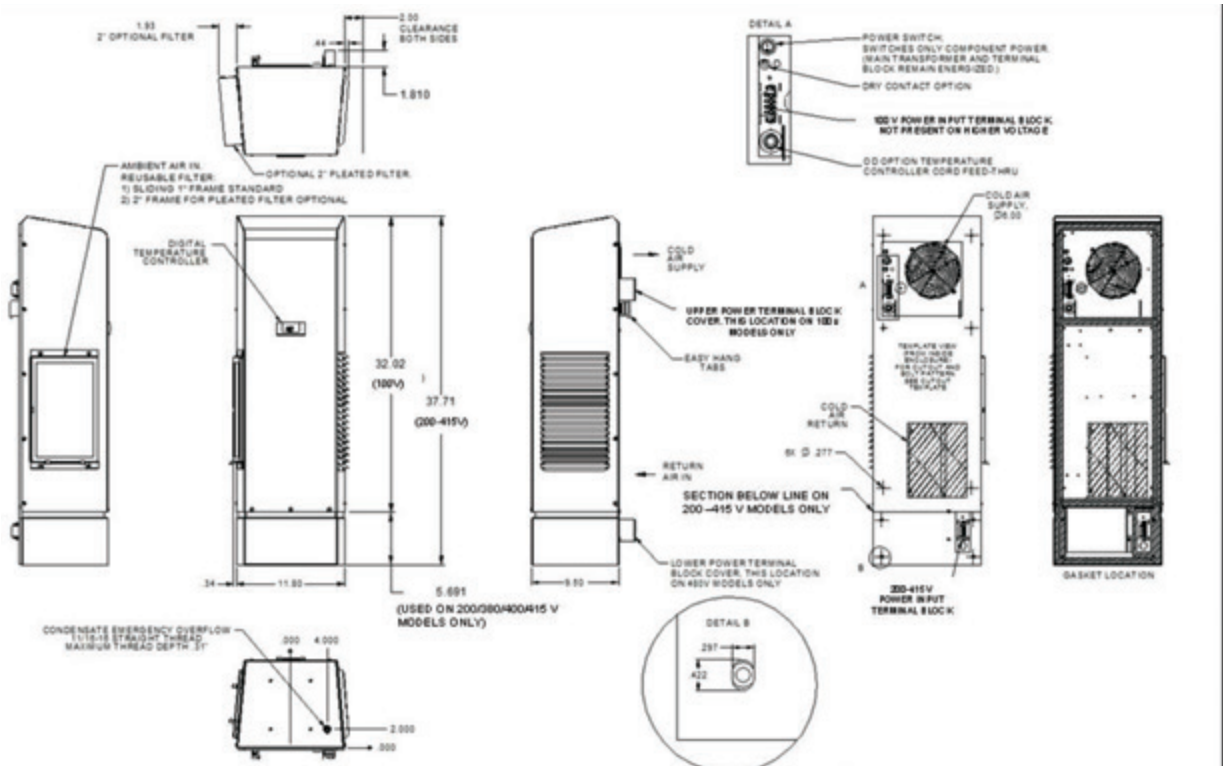
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE03010512J4	12	3,000	Powder coated steel	100/1/50	5	50°C	32" x 11.8" x 9.5"	66 / 80
NE03010504J4	4	3,000	Powder coated steel	100/1/50	5	50°C	32" x 11.8" x 9.5"	66 / 80
NE0301054XJ4	4X	3,000	Stainless steel	100/1/50	5	50°C	32" x 11.8" x 9.5"	66 / 80
NE03020512J4	12	3,000	Powder coated steel	200/1/50	3.07	50°C	38" x 11.8" x 9.5"	99 / 113
NE03020504J4	4	3,000	Powder coated steel	200/1/50	3.07	50°C	38" x 11.8" x 9.5"	99 / 113
NE0302054XJ4	4X	3,000	Stainless steel	200/1/50	3.07	50°C	38" x 11.8" x 9.5"	99 / 113
NE03038512J4	12	3,000	Powder coated steel	380/1/50	1.32	50°C	38" x 11.8" x 9.5"	99 / 113
NE03038504J4	4	3,000	Powder coated steel	380/1/50	1.32	50°C	38" x 11.8" x 9.5"	99 / 113
NE0303854XJ4	4X	3,000	Stainless steel	380/1/50	1.32	50°C	38" x 11.8" x 9.5"	99 / 113

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

5-YEAR WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

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Thermal Edge Inc.™

NE050J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

5000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE050J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- $0°C \leq T_a \leq +50°C$

System Features

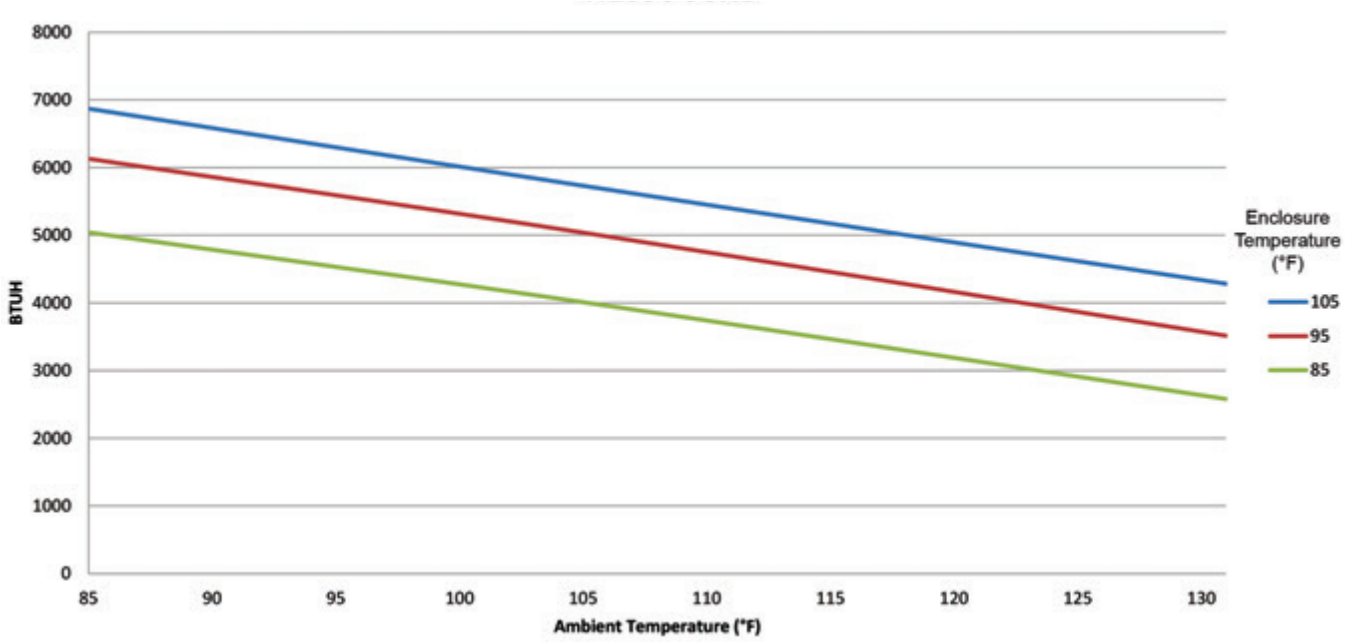
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 5000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

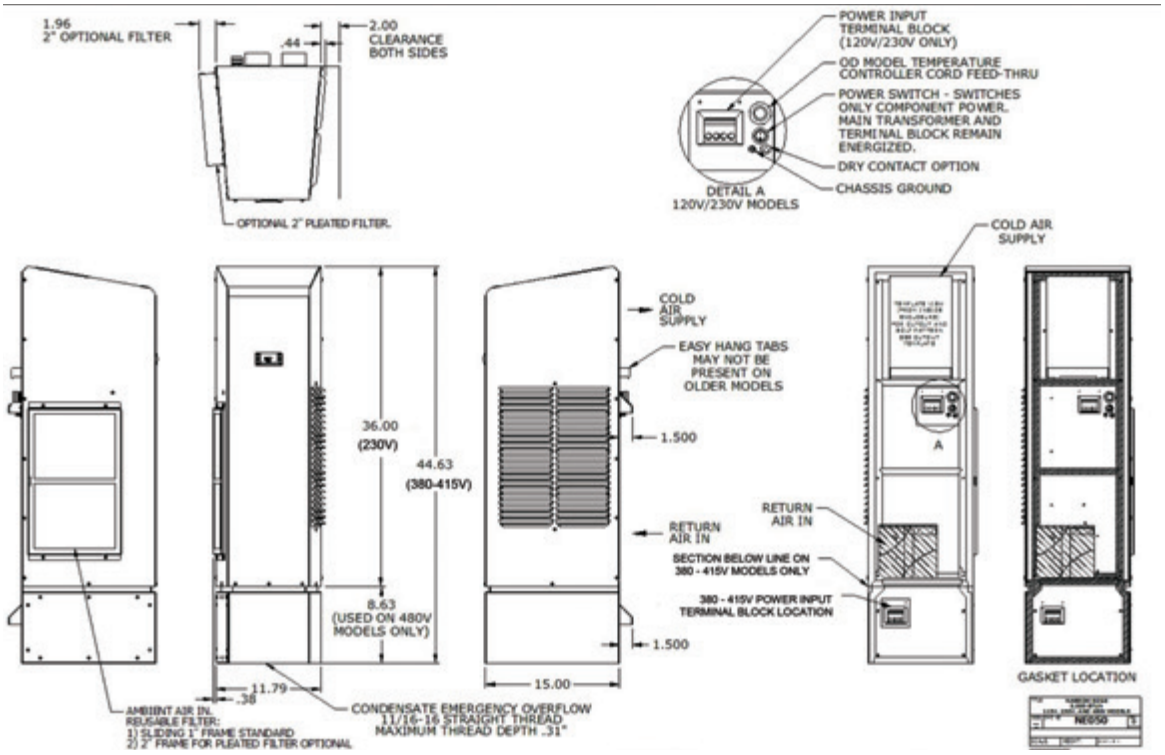
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE05023512J4	12	5,000	Powder coated steel	230/1/50	3.1	50°C	36" x 11.8" x 15.02"	92 / 106
NE05023504J4	4	5,000	Powder coated steel	230/1/50	3.1	50°C	36" x 11.8" x 15.02"	92 / 106
NE0502354XJ4	4X	5,000	Stainless steel	230/1/50	3.1	50°C	36" x 11.8" x 15.02"	92 / 106
NE05038512J4	12	5,000	Powder coated steel	380/1/50	2.1	50°C	44.63" x 11.8" x 15.02"	136 / 150
NE05038504J4	4	5,000	Powder coated steel	380/1/50	2.1	50°C	44.63" x 11.8" x 15.02"	136 / 150
NE0503854XJ4	4X	5,000	Stainless steel	380/1/50	2.1	50°C	44.63" x 11.8" x 15.02"	136 / 150
NE05040512J4	12	5,000	Powder coated steel	400/1/50	1.9	50°C	44.63" x 11.8" x 15.02"	136 / 150
NE05040504J4	4	5,000	Powder coated steel	400/1/50	1.9	50°C	44.63" x 11.8" x 15.02"	136 / 150
NE0504054XJ4	4X	5,000	Stainless steel	400/1/50	1.9	50°C	44.63" x 11.8" x 15.02"	136 / 150

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED
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Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™
5-YEAR
WARRANTY

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

ATTENTION: If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will ensure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model. All information subject to change without notice.

Thermal Edge Inc.™

NE060J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

6000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Vibration Resistant
- Custom Finish

Thermal Edge NE060J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

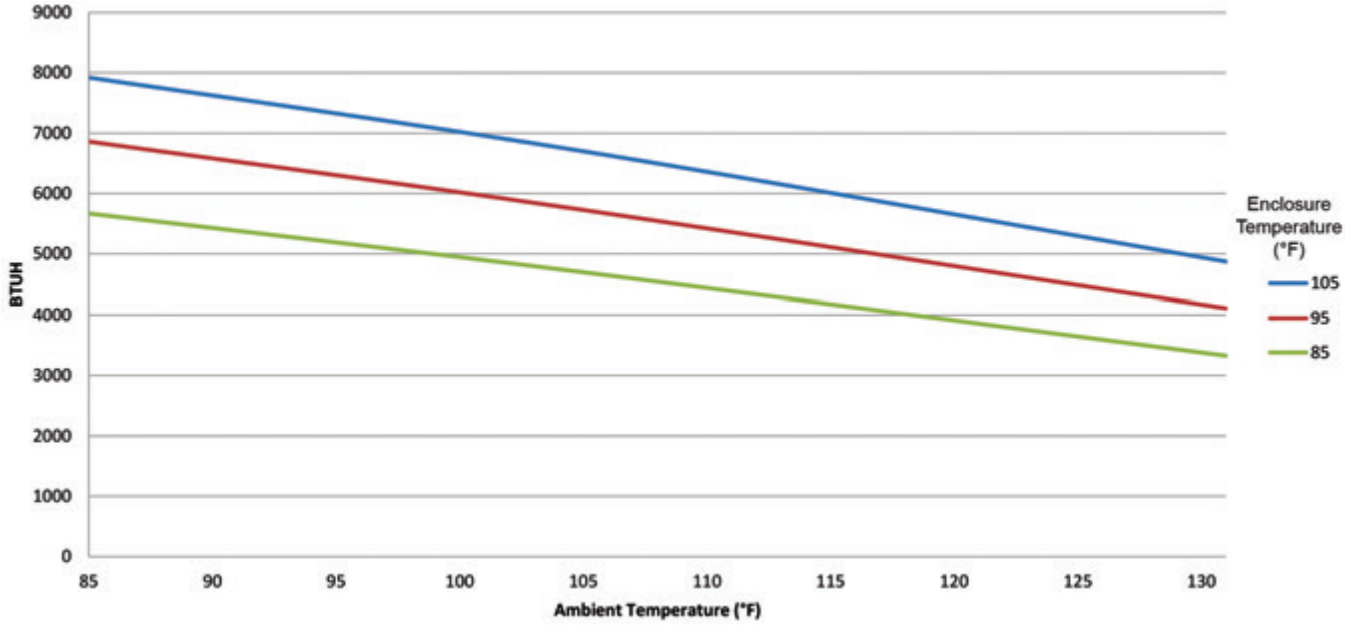
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 6000 BTUH
- Narrow body style fits on 12" enclosure
- Available in UL types 12, 4 and 4X

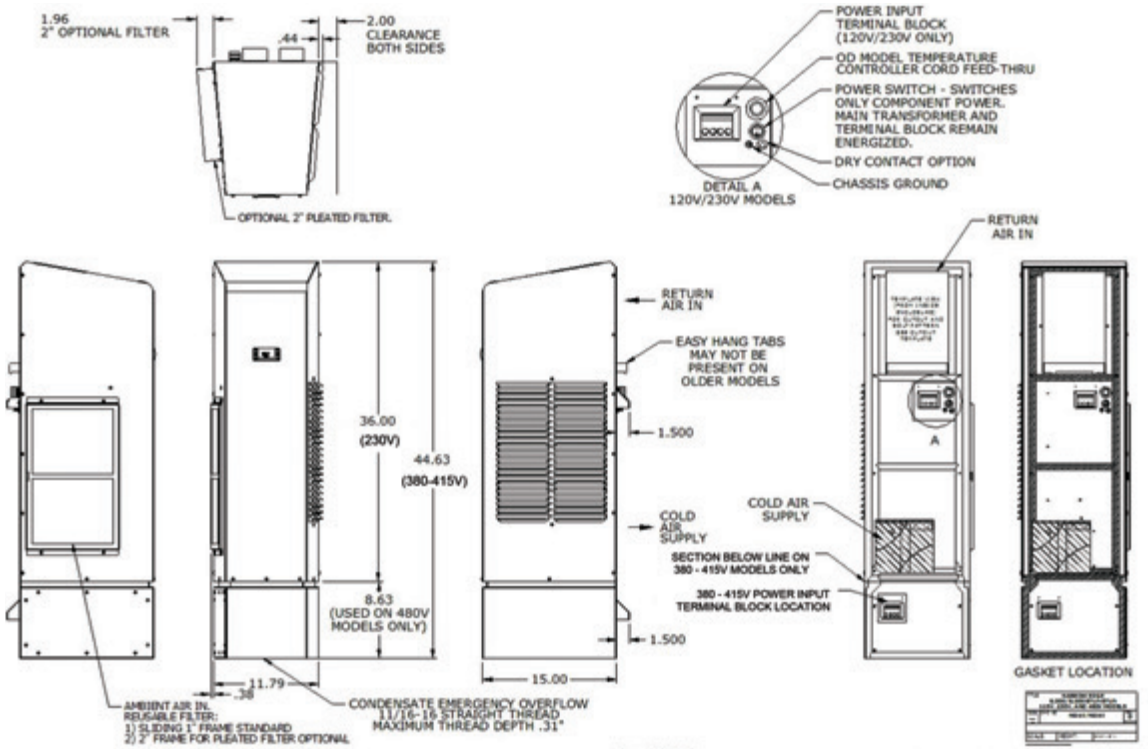
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
NE06023512J4	12	6,000	Powder coated steel	230/1/50	3.99	50°C	36" x 11.8" x 15.02"	98 / 112
NE06023504J4	4	6,000	Powder coated steel	230/1/50	3.99	50°C	36" x 11.8" x 15.02"	98 / 112
NE0602354XJ4	4X	6,000	Stainless steel	230/1/50	3.99	50°C	36" x 11.8" x 15.02"	98 / 112
NE06038512J4	12	6,000	Powder coated steel	380/1/50	2.4	50°C	44.63" x 11.8" x 15.02"	142 / 156
NE06038504J4	4	6,000	Powder coated steel	380/1/50	2.4	50°C	44.63" x 11.8" x 15.02"	142 / 156
NE0603854XJ4	4X	6,000	Stainless steel	380/1/50	2.4	50°C	44.63" x 11.8" x 15.02"	142 / 156
NE06040512J4	12	6,000	Powder coated steel	400/1/50	2.3	50°C	44.63" x 11.8" x 15.02"	142 / 156
NE06040504J4	4	6,000	Powder coated steel	400/1/50	2.3	50°C	44.63" x 11.8" x 15.02"	142 / 156
NE0604054XJ4	4X	6,000	Stainless steel	400/1/50	2.3	50°C	44.63" x 11.8" x 15.02"	142 / 156

Testing done under controlled conditions. Actual performance may vary.





NRTL LISTED MET C US
E113961
Haz Loc
Certification

c UL us
SA32252
Ord Loc
Certification

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

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Thermal Edge Inc.™

HC080J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

8000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

Thermal Edge HC080J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 8000 BTUH
- Available in UL types 12, 4 and 4X

Unit Efficiency

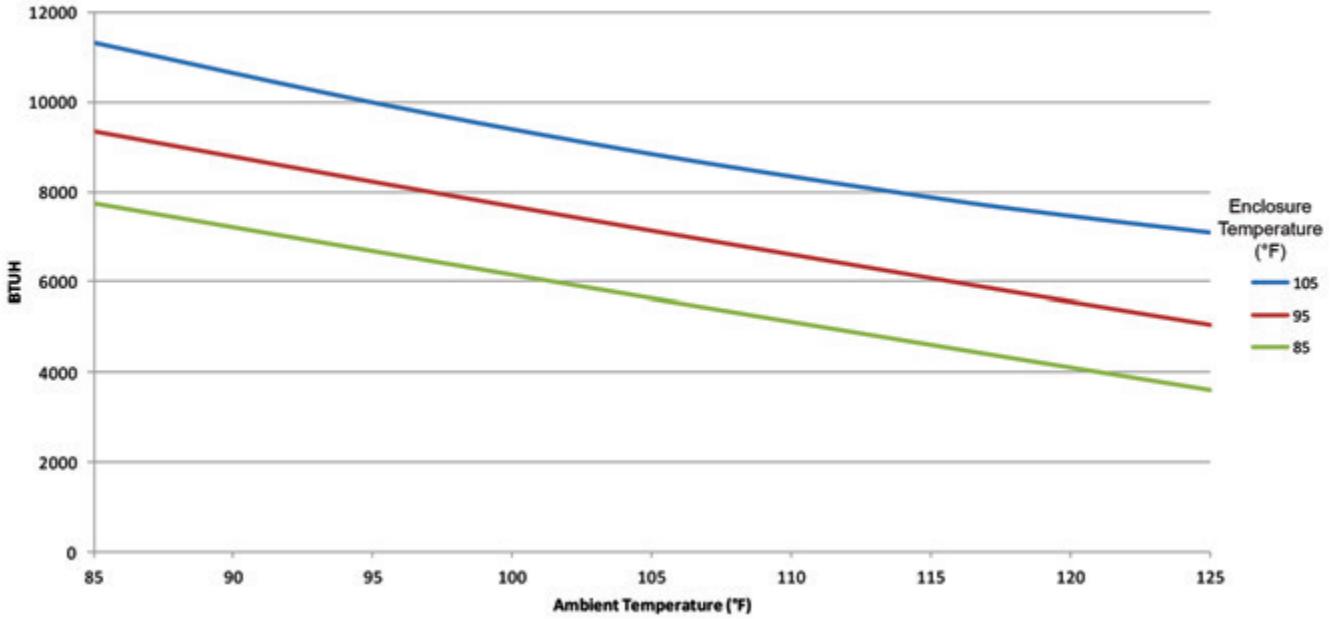
- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

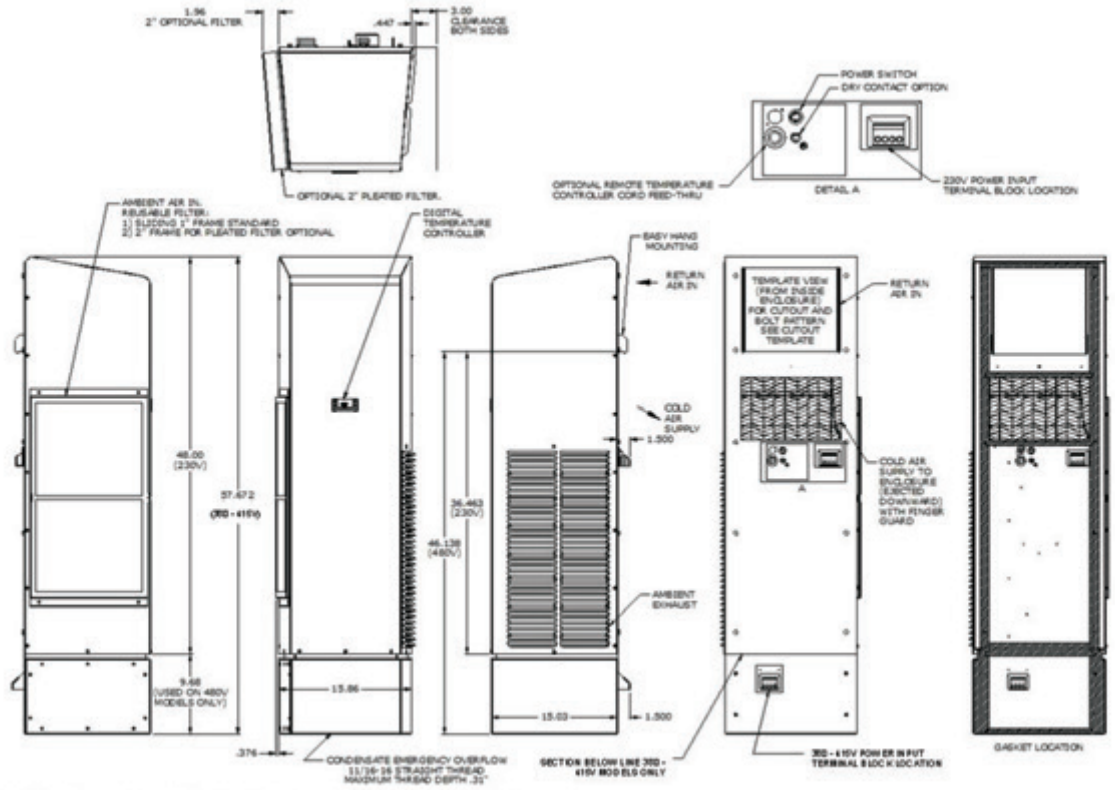
OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC08023512J4	12	8,000	Powder coated steel	230/1/50	7.1	50°C	48" x 15.86" x 15"	166 / 186
HC08023504J4	4	8,000	Powder coated steel	230/1/50	7.1	50°C	48" x 15.86" x 15"	166 / 186
HC0802354XJ4	4X	8,000	Stainless steel	230/1/50	7.1	50°C	48" x 15.86" x 15"	166 / 186
HC08038512J4	12	8,000	Powder coated steel	380/1/50	4.3	50°C	57.6" x 15.86" x 15"	232 / 275
HC08038504J4	4	8,000	Powder coated steel	380/1/50	4.3	50°C	57.6" x 15.86" x 15"	232 / 275
HC0803854XJ4	4X	8,000	Stainless steel	380/1/50	4.3	50°C	57.6" x 15.86" x 15"	232 / 275
HC08040512J4	12	8,000	Powder coated steel	400/1/50	4.1	50°C	57.6" x 15.86" x 15"	232 / 275
HC08040504J4	4	8,000	Powder coated steel	400/1/50	4.1	50°C	57.6" x 15.86" x 15"	232 / 275
HC0804054XJ4	4X	8,000	Stainless steel	400/1/50	4.1	50°C	57.6" x 15.86" x 15"	232 / 275

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

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Thermal Edge Inc.™

HC101J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

10,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge HC101J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

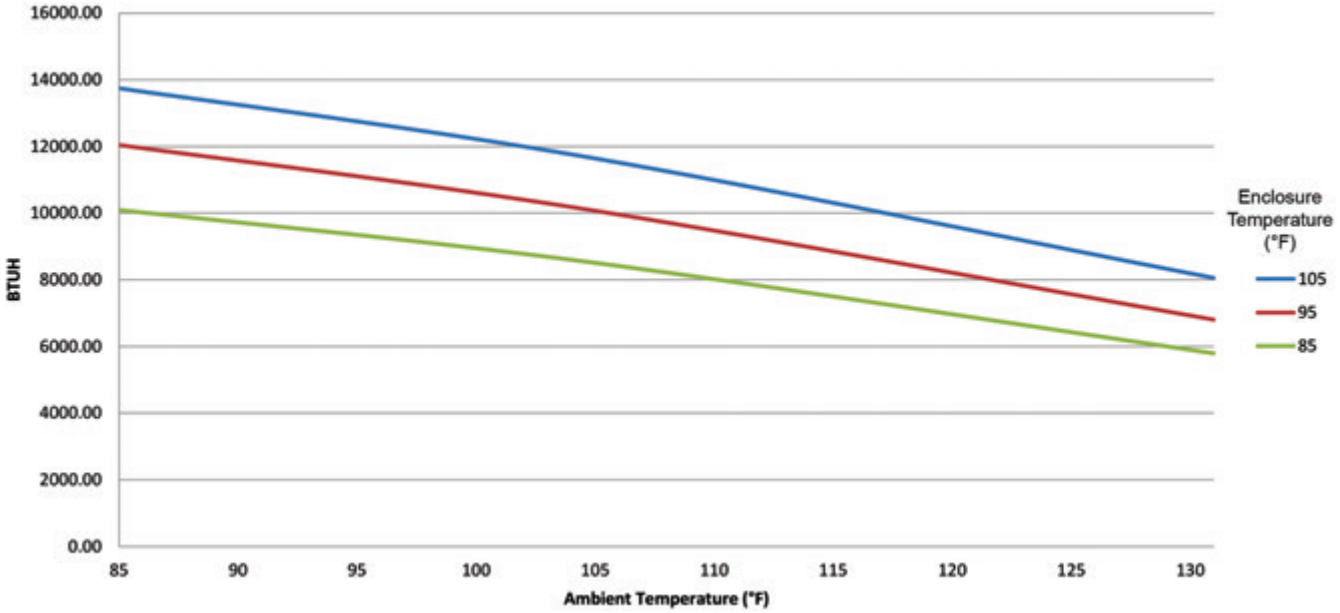
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 10,000 BTUH
- Available in UL types 12, 4 and 4X

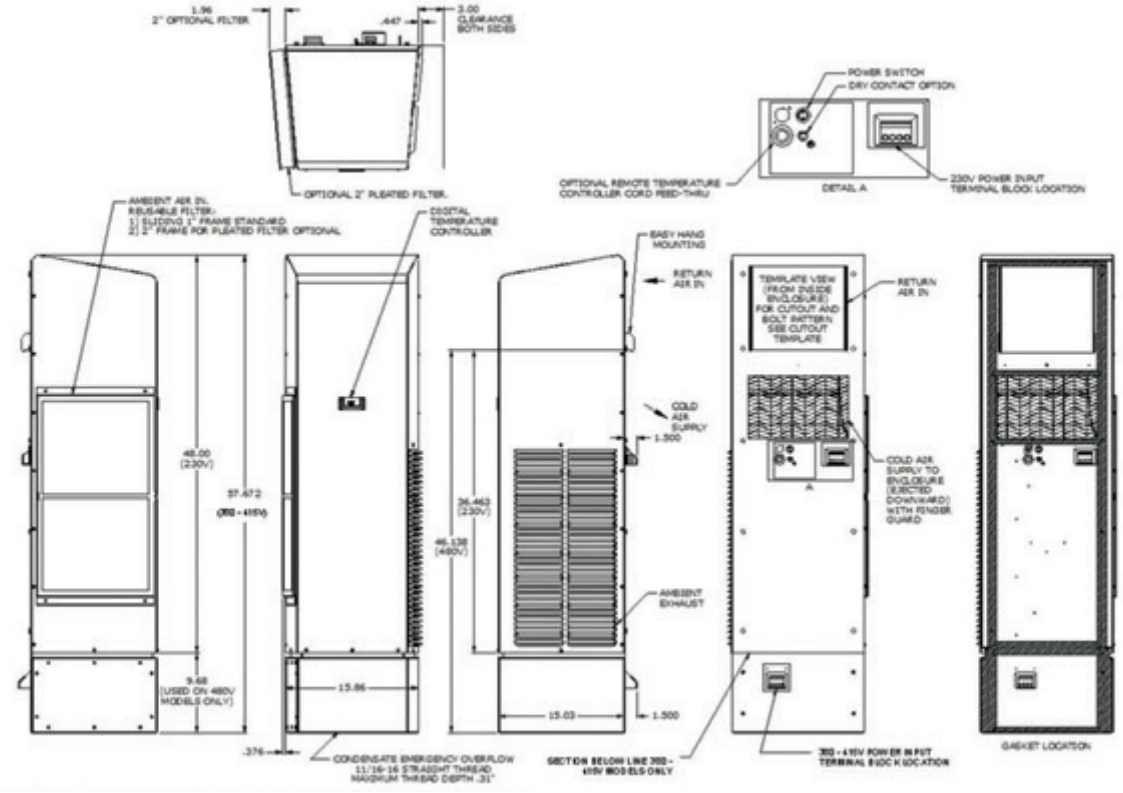
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC10123512J4	12	10,000	Powder coated steel	230/1/50	6.4	50°C	48" x 15.86" x 15"	166 / 186
HC10123504J4	4	10,000	Powder coated steel	230/1/50	6.4	50°C	48" x 15.86" x 15"	166 / 186
HC1012354XJ4	4X	10,000	Stainless steel	230/1/50	6.4	50°C	48" x 15.86" x 15"	166 / 186
HC10138512J4	12	10,000	Powder coated steel	380/1/50	3.9	50°C	57.6" x 15.86" x 15"	232 / 275
HC10138504J4	4	10,000	Powder coated steel	380/1/50	3.9	50°C	57.6" x 15.86" x 15"	232 / 275
HC1013854XJ4	4X	10,000	Stainless steel	380/1/50	3.9	50°C	57.6" x 15.86" x 15"	232 / 275
HC10140512J4	12	10,000	Powder coated steel	400/1/50	3.7	50°C	57.6" x 15.86" x 15"	232 / 275
HC10140504J4	4	10,000	Powder coated steel	400/1/50	3.7	50°C	57.6" x 15.86" x 15"	232 / 275
HC1014054XJ4	4X	10,000	Stainless steel	400/1/50	3.7	50°C	57.6" x 15.86" x 15"	232 / 275

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components.Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation are approved.*

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Thermal Edge Inc.™

HC121J4 (50 HZ) HAZARDOUS LOCATIONS

1/27/2025

12,000 BTUH | INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Designed to provide nonincendive cooling for electrical enclosures in hazardous locations, these closed-loop units are ideal for use on systems in chemical and petrochemical, refining, onshore and offshore drilling applications.

OPTIONS:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact
- Controller Programming
- External Heater Control (for Haz Loc enclosure heaters)
- Filter/Filter Frame
- Extended Temp. Probe
- Custom Finish

Thermal Edge HC121J4 50Hz Hazardous Location air conditioners are certified to the following standard(s):*

- ANSI/ISA-12.12.01-2015 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- CAN/CSA C22.2 No. 213-15 Nonincendive Electrical Equipment for use in Class I, Division 2, Groups A, B, C, and D T4 Hazardous (Classified) Locations
- 0°C≤Ta≤+50°C

System Features

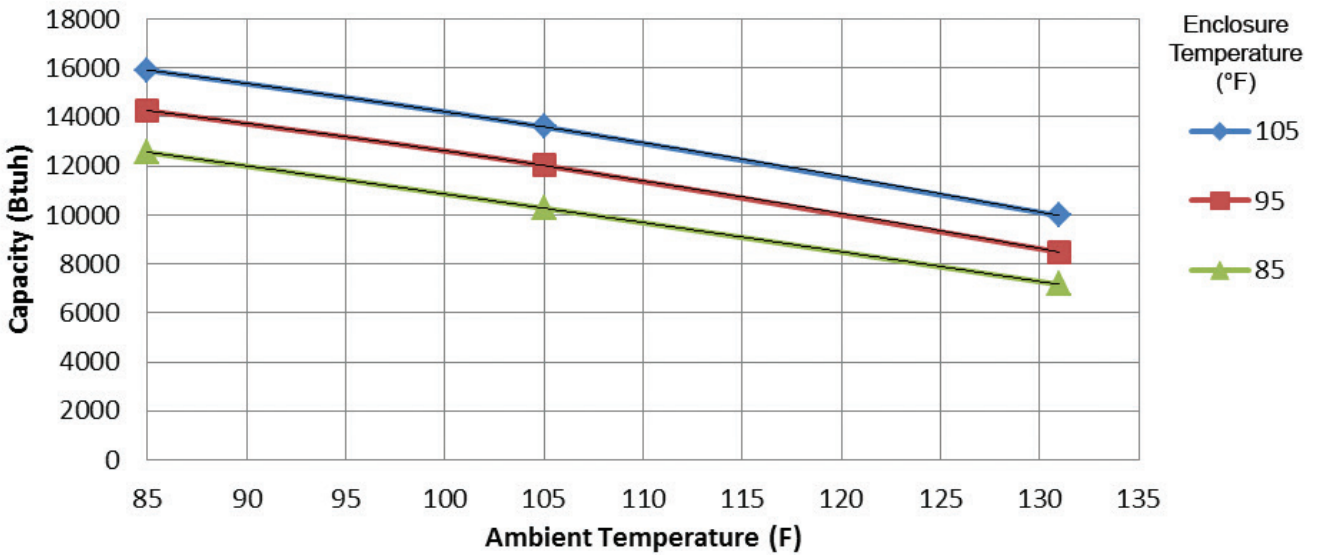
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically sealed compressor thermal overload protector
- 12,000 BTUH
- Available in UL types 12, 4 and 4X

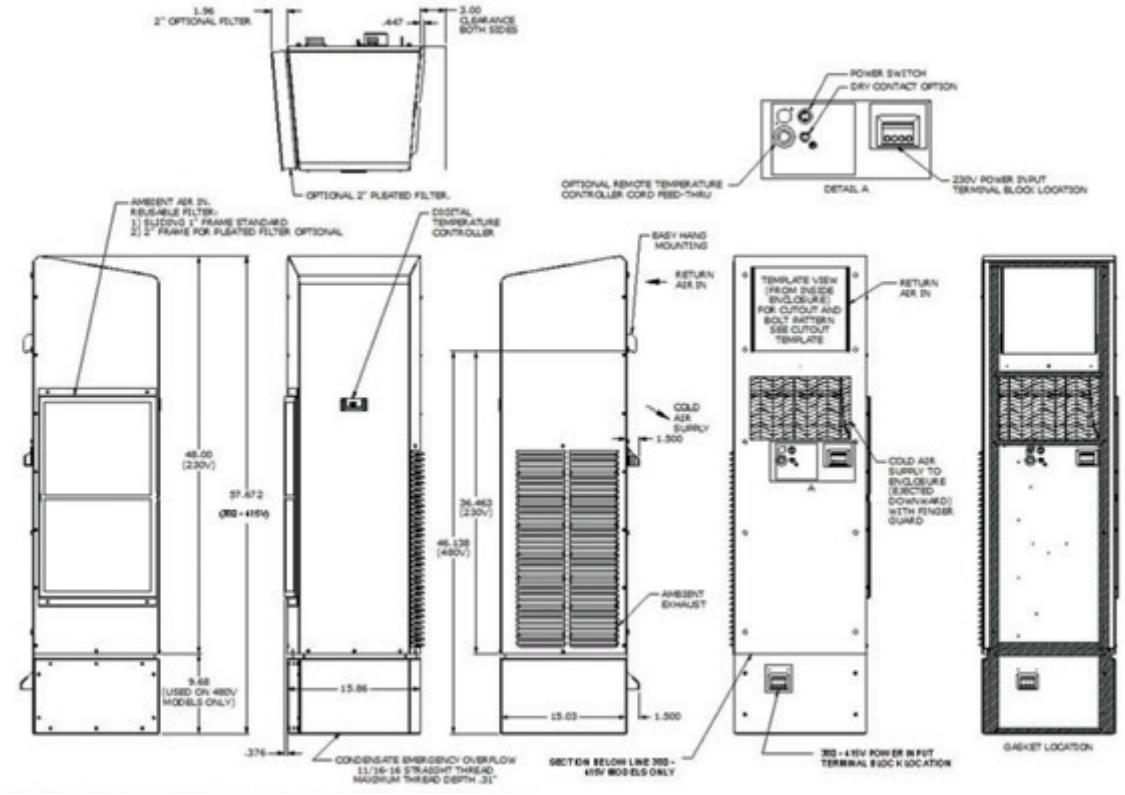
Unit Efficiency

- Pressure-operated condenser fan reduces power inrush and saves energy
- Highly efficient Rotary Compressor
- Fully insulated & sealed cabinet

Model	UL Type	BTU/Hour	Material	Voltage/ Phase/Hz.	Running Amps	Max. Amb. Temp.	H x W x D	Weight (lbs.) Unit/Ship
HC12123512J4	12	12,000	Powder coated steel	230/1/50	8.2	50°C	48" x 15.86" x 15"	163 / 183
HC12123504J4	4	12,000	Powder coated steel	230/1/50	8.2	50°C	48" x 15.86" x 15"	163 / 183
HC1212354XJ4	4X	12,000	Stainless steel	230/1/50	8.2	50°C	48" x 15.86" x 15"	163 / 183
HC12138512J4	12	12,000	Powder coated steel	380/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280
HC12138504J4	4	12,000	Powder coated steel	380/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280
HC1213854XJ4	4X	12,000	Stainless steel	380/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280
HC12140512J4	12	12,000	Powder coated steel	400/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280
HC12140504J4	4	12,000	Powder coated steel	400/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280
HC1214054XJ4	4X	12,000	Stainless steel	400/1/50	4.7	50°C	57.6" x 15.86" x 15"	237 / 280

Testing done under controlled conditions. Actual performance may vary.





E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

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1/27/2025

Thermal Edge Inc.™ 5-YEAR WARRANTY

MADE IN AMERICA MATTERS...

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

AIR CONDITIONER OPTIONS

Corrosion Protection
Dry Contact
Open Door Kill Switch
Remote Control & Monitor
Remote Controller
Ambient Packages
Vibration Package
Redundant System
2" Louvered Frame & Filter
Digitally Controlled Integrated Heat Package
Universal Mounting Plate
Hazardous Location Enclosure Air Conditioning Systems

MADE IN AMERICA MATTERS...

AIR CONDITIONER OPTIONS

RULES & EXCEPTIONS:*

1. Hazardous Location units are only available with the following options:

- Corrosion Protection
- Low Ambient
- Remote Controller
- Dry Contact, Normally Open
- Special Controller Programming
- External heater control (for Haz Loc enclosure heaters)
- All Filter Options
- Extended Temperature Probe
- Vibration Resistant
- Custom Paint

2. All CS011 air conditioners with Heater option may not include:

- Remote Controller option
- Modbus-RTU option

3. C-Level corrosion protection is strongly recommended for:

- 316 Stainless Steel Air Conditioners

**If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will assure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model.*

CORROSION PROTECTION

The thermal edge protective coating options for coils and copper tubing provide the very best protection against corrosion due to acids, solvents, salt, chemicals and more.

A-LEVEL PROTECTION (C1)

Coated condenser coils. Included in NEMA Type 4X units. Available in NEMA Types 12 and 4.

B-LEVEL PROTECTION

Coated condenser and evaporator coils.
Available in NEMA Types 12, 4 (C2) and 4X (C5).

C-LEVEL PROTECTION*

Coated condenser coil, evaporator coil and refrigeration tubing. All copper joints are brazed with 45% silver solder, then cleaned and epoxy painted, including the condenser fan guards and electrical components near the condensing section.
Available in NEMA Types 12, 4 (C3) and 4X (C6).

EPOXY COIL COATING - ELECTROSTATICALLY APPLIED & BAKED

State of the art corrosion resistance, particularly on thin edges.
Lead free formulation with improved corrosion protection.
Uniform film build.
Excellent thermal transfer properties.

Properties:

- Salt Spray ASTM B117 | D53167 10,000 Hours Minimum
- Humidity ASTM D1735-99 1000 Hours Minimum
- Water Immersion ASTM D870-97 240 Hours Minimum

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* *C-Level Protection is strongly recommended for 4X applications requiring 316 stainless steel housing.*

All information subject to change without notice.

DRY CONTACT

HIGH TEMPERATURE ALARM

This option provides an early warning capability for your enclosure when a high temperature alarm is activated. A 6' cable attached to the dry contact relay can be connected to a light, horn, PLC or other alarm notification equipment allowing the alarm to be seen or heard at a distance for immediate attention.

The Dry Contact is programmed in the air conditioner controller with an individual set point to monitor the enclosure temperature limit that you require. When the enclosure temperature has exceeded the maximum limit, the contact will activate to notify you that there is a problem in achieving your cooling requirement.

DEFAULT SETTINGS

- 105°F Dry Contact High Temperature Alarm Set Point
- 2°F Recovery Differential
- 3 minute Temperature Alarm Delay

At the default settings the Dry Contact initial conditions are normally open and/or normally closed. When the unit is powered on and the temperature exceeds 105°F for a period longer than 3 minutes the Dry Contact will activate. At this time the normally open contact will close and the normally closed contact will open. This state will remain until the temperature has decreased to 103°F.

Options:

- Normally Open (D1)
- Normally Closed (D2)
- Normally Open & Normally Closed (D3)
- Compressor Status & High Temperature Alarm (D4)

This option provides a normally open dry contact that closes when the compressor is operating, plus a normally open & normally closed high temperature alarm. 6' cables attached to the dry contact relays can be connected to a light, horn, PLC or other alarm notification equipment allowing the alarm to be seen or heard at a distance for immediate attention.

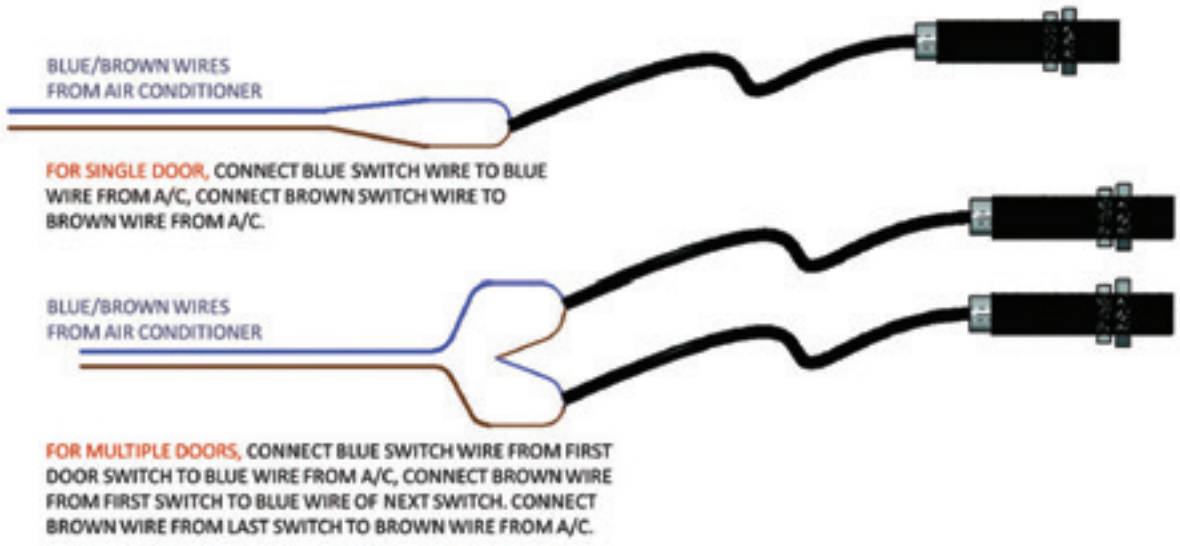
- Power On Status & High Temperature Alarm (D5)

This option provides a normally open dry contact that closes when power is being supplied to the air conditioner, plus a normally open & normally closed high temperature alarm. 6' cables attached to the dry contact relays can be connected to a light, horn, PLC or other alarm notification equipment, allowing the alarm to be seen or heard at a distance for immediate attention.

OPEN DOOR KILL SWITCH (K4) & DOOR SWITCH ADD-ON KIT

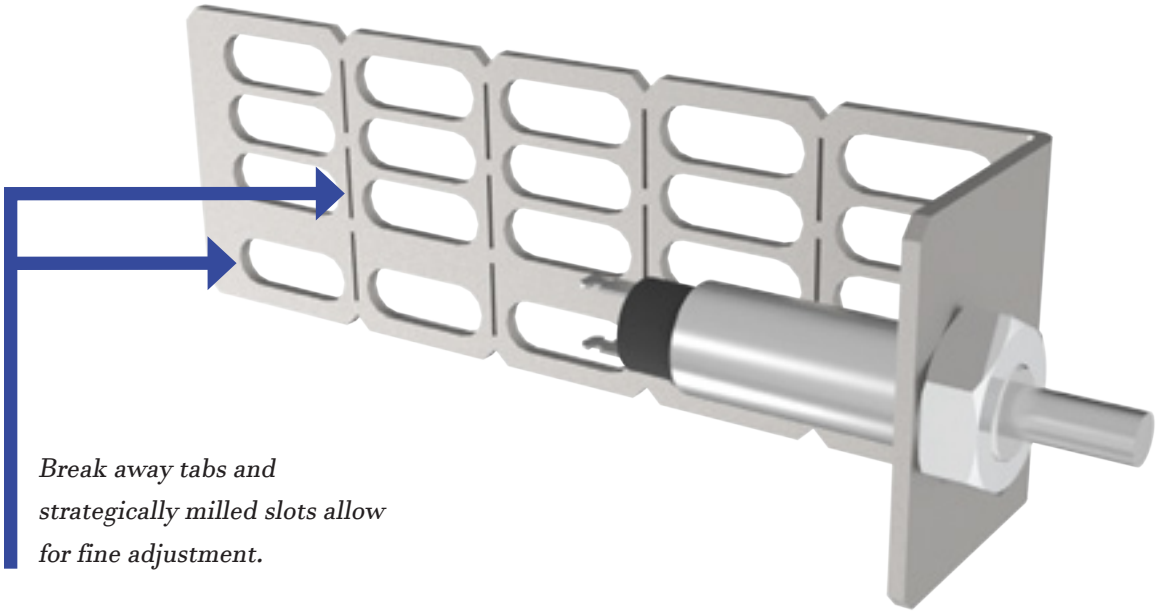
The Thermal Edge Open Door Kill Switch is designed to automatically shut off the enclosure air conditioner when the door of the enclosure is opened. When the door is closed, the air conditioner will resume normal operation. Each door switch is supplied with a 7-foot low-voltage cable and a mounting bracket.

WIRING DIAGRAM FOR DOOR SWITCH ADD-ON KIT (PART NO. 53058-KIT)



CONFIGURATION	ORDER INFORMATION
1 Air Conditioner : 1 Door	Order **Option K4** for 7' cable + Proxy Sensor, **K5** for 16' cable + Proxy Sensor
1 Air Conditioner : 1 to 2 doors MAX	Order **Option K6 plus one Door Switch Add-on Kit** (Part No. 53058-Kit) for the additional door (proxy sensor)
Low voltage Proxy Sensor Wires	Order **Option K7** for low voltage wires only (For Proxy and Mechanical Sensor)

OPEN DOOR KILL SWITCH (K0) SP/NO MULTI-VOLTAGE



Break away tabs and strategically milled slots allow for fine adjustment.

CHARACTERISTICS & FEATURES:

- 16-Gauge stainless steel construction
- N.O. Plunger style switch
- Part no. 53054-Kit (includes 12" pig tails pre wired to the sensor terminals)
- Slot spacing allows placement on .5 or .625 rack mount holes.

CONFIGURATION	ORDER INFORMATION
1 Air Conditioner: 1 Door	Order **Option K0** for Mechanical SP/ST, N.O. multi-voltage door switch
1 Air Conditioner: 2+ Doors	Order **K0, + Door Switch Add-on kit** (Part No. 53054-KIT) for each additional door

REMOTE CONTROLLER OPTION (BX)

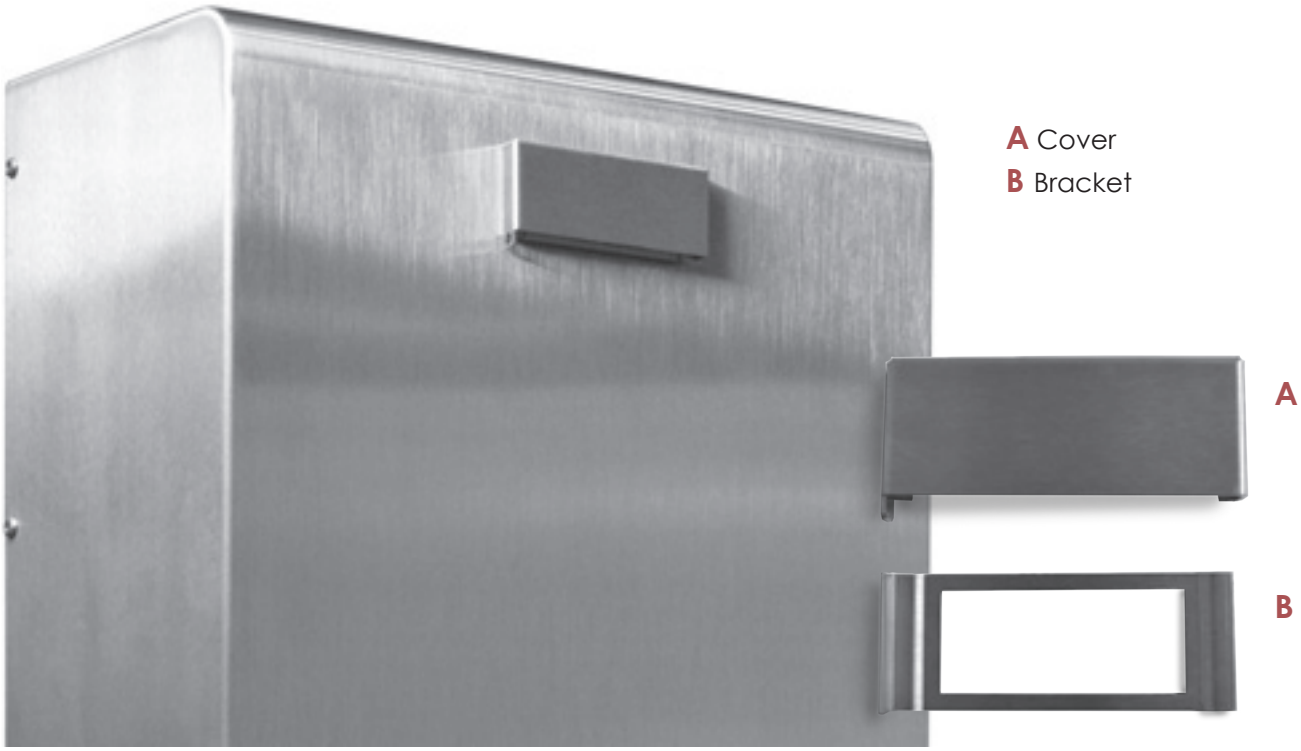
When having our Programmable Digital Controller on the face of our Air Conditioner does not fit your application, Thermal Edge offers the Remote Controller Option.

HOW IT WORKS

This option moves the controller into your enclosure using a 10' cable. A Field installed; universal mounting bracket will also be provided for your location preference. The powder coated universal mounting bracket is constructed of 16-gauge sheet metal and will provide limited access to the controller for secure applications. As shown below*, the air conditioner has no openings on the face of the unit. In addition, the Remote Controller Option and a filter hood or louvered cover option are required for high pressure wash-down applications.

Unit pictured left is a UL Type 4X Air Conditioner with the remote controller option. Drawing to the right illustrates the application and installation of the remote controller option.

TAMPER RESISTANT CONTROLLER COVER (B6, B7)



Electrical equipment placed in locations frequented by the public should be securely locked and all controls made inaccessible to reduce the risk of vandalism or unauthorized tampering with the operation of the enclosure air conditioner.

The keypad on the controller can be locked to prevent unauthorized access, but the visibility of the controller display sometimes attracts unwanted attention. For that reason, Thermal Edge offers a **Tamper Resistant Cover option for your Digital Controller**, preventing unauthorized access and keeping your controls secure. Available in stainless steel (B7) or painted (B6).

REMOTE CONTROL & MONITOR

The digital controller used in all Thermal Edge air conditioners features the ability to remotely control, monitor and alarm the cooling and heating functions of the air conditioner. This can be done using a PLC connected to an industrial network or a personal computer (PC) connected to an Ethernet network.

PLC CONTROL, MONITOR & ALARM

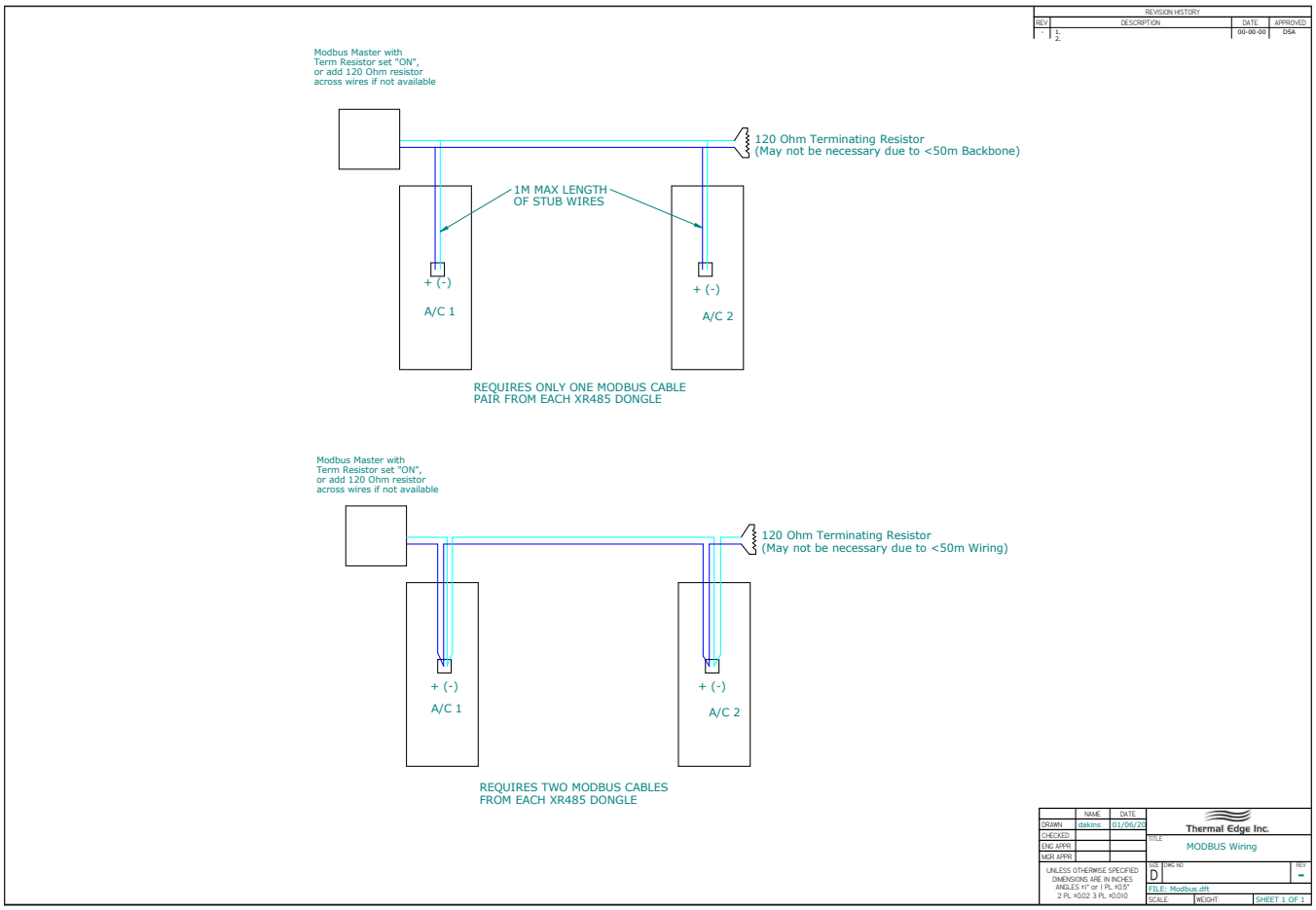
ModBUS-RTU, RS485 (R1)

- RS485, 2 wire, network connection
- User Supplied Gateway Connection
- RJ45 Ethernet connection to LAN
- Internet connection with static IP address

ALARM ONLY

Dry Contact

- High temperature alarm input signal to PLC
- Normally Open & Normally Closed (D3)



2" SECURITY LOUVERED FRAME AND 2" FILTER

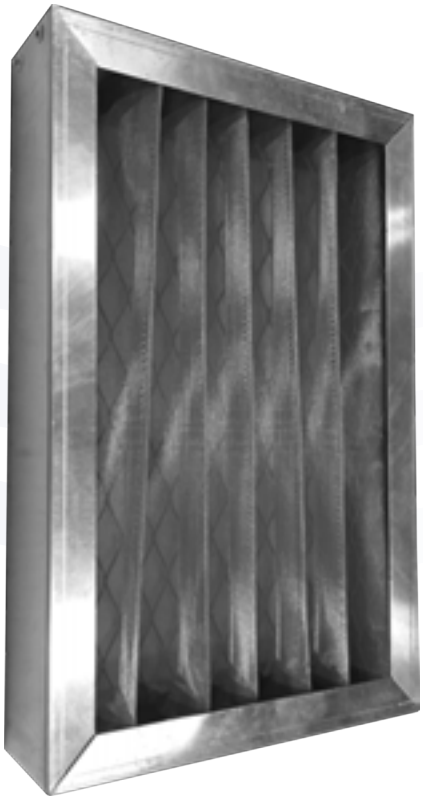
If your application is in a food processing or dirty environment, filter maintenance is crucial. These types of environments can create real problems for an air conditioner that by its very design requires a steady flow of reasonably clean air in order to remove heat from your enclosure. If condenser air flow is reduced by a dirty filter, cooling capacity will be reduced as well.

EXTENDED SURFACE

Thermal Edge offers extended surface, 2” deep filters and filter frame assemblies. These 250 micron stainless steel mesh filters, with 94% efficiency, extend the filter capacity by 400%. The filters are washable and reusable. Life expectancy is determined by the environment and the cleaning procedures. Stainless steel filers are preferred in wash-down applications over aluminum filters.

These deeper filter frames can easily be retrofitted on existing units with standard filters.

LOUVERED FILTER FRAME



2" PLEATED FILTER

LOUVERED SECURITY FLAT FILTER FRAMES

These filter frames can easily be retrofitted on existing units with standard filters.

Filter media not included, sold separately.

A/C Unit	ANSI Grey Part Number	Aluminum Part Number	304 SS Part Number	316 SS Part Number
CS020	22218-1	22218-3	22218-4304	22218-4316
NE020	22416-1	22416-3	Only avail. in 316 SS	22416-4316
NE030	22416-1	22416-3	Only avail. in 316 SS	22416-4316
NE040	22416-1	22416-3	Only avail. in 316 SS	22416-4316
NE050	22824-1	22824-3	Only avail. in 316 SS	22824-4316
NE060	22824-1	22824-3	Only avail. in 316 SS	22824-4316
NE080	22824-1	22824-3	Only avail. in 316 SS	22824-4316
TM061	22908-1	22908-3	22908-4304	22908-4316
TM081	22908-1	22908-3	22908-4304	22908-4316
HC101	23815-1	23815-3	23815-4304	23815-4316
HC121	23815-1	23815-3	23815-4304	23815-4316
HC151	23815-1	23815-3	23815-4304	23815-4316
HC20C	23815-1	23815-3	23815-4304	23815-4316
HC201	23864-1	23864-3	23864-4304	23864-4316

REPLACEMENT 2" PLEATED FILTER

Thermal Edge offers extended surface, 2" deep replacement filters. These 250 micron stainless steel mesh filters, with 94% efficiency, extend the filter capacity by 400%. The filters are washable and reusable.
Life expectancy is determined by the environment and the cleaning procedures. Stainless steel filters are preferred in wash-down applications over aluminum filters.

2" Pleated Filter

A/C Unit	Part Number	Size	Description	Quantity
CS020	44250	9" W x 11" H	304 SS mesh, 250 micron, 94% efficiency	4
NE020	44251	7.3" W x 11.3" H	304 SS mesh, 250 micron, 94% efficiency	4
NE030	44251	7.3" W x 11.3" H	304 SS mesh, 250 micron, 94% efficiency	4
NE040	44251	7.3" W x 11.3" H	304 SS mesh, 250 micron, 94% efficiency	4
NE050	44252	10.3" W x 16.3" H	304 SS mesh, 250 micron, 94% efficiency	4
NE060	44252	10.3" W x 16.3" H	304 SS mesh, 250 micron, 94% efficiency	4
NE080	44252	10.3" W x 16.3" H	304 SS mesh, 250 micron, 94% efficiency	4
TM061	44258	19 "W x 13.75"H	304 SS mesh, 250 micron, 94% efficiency	4
TM081	44258	19 "W x 13.75"H	304 SS mesh, 250 micron, 94% efficiency	4
HC101	44254	14" W x 24" H	304 SS mesh, 250 micron, 94% efficiency	4
HC121	44254	14" W x 24" H	304 SS mesh, 250 micron, 94% efficiency	4
HC151	44254	14" W x 24" H	304 SS mesh, 250 micron, 94% efficiency	4
HC201	44261	14" W x 13.33" H	304 SS mesh, 250 micron, 94% efficiency	6

EXPANDED ALUMINUM REPLACEMENT FILTERS

A/C Unit	Part Number	Size	Description	Quantity
NE010	44200	7.5" W x 9" H	Exp. alum, 250 micron, 60% efficiency	12
NE015	44200	7.5" W x 9" H	Exp. alum, 250 micron, 60% efficiency	12
CS020	44201	9" W x 11" H	Exp. alum, 250 micron, 60% efficiency	12
NE020	44202	7.3" W x 11.3" H	Exp. alum, 250 micron, 60% efficiency	12
NE030	44202	7.3" W x 11.3" H	Exp. alum, 250 micron, 60% efficiency	12
NE040	44202	7.3" W x 11.3" H	Exp. alum, 250 micron, 60% efficiency	12
NE050	44203	10.3" W x 16.3" H	Exp. alum, 250 micron, 60% efficiency	12
NE060	44203	10.3" W x 16.3" H	Exp. alum, 250 micron, 60% efficiency	12
NE080	44203	10.3" W x 16.3" H	Exp. alum, 250 micron, 60% efficiency	12
TM061	44218	19 "W x 13.75"H	Exp. alum, 250 micron, 60% efficiency	12
TM081	44218	19 "W x 13.75"H	Exp. alum, 250 micron, 60% efficiency	12
HC101	44204	14" W x 24" H	Exp. alum, 250 micron, 60% efficiency	12
HC121	44204	14" W x 24" H	Exp. alum, 250 micron, 60% efficiency	12
HC151	44204	14" W x 24" H	Exp. alum, 250 micron, 60% efficiency	12
HC201	44260	14" W x 13.33" H	Exp. alum, 250 micron, 60% efficiency	12

DIGITALLY CONTROLLED INTEGRATED HEAT PACKAGE (HX)

The Thermal Edge Enclosure Heat System is incorporated into the evaporator section of the air conditioner, thereby utilizing the evaporator blower for cooling or heating. Electric heating elements with thermal overloads are available in four ranges to suit most applications. The heater is controlled by our programmable digital controller.
The controller has separate programmable upper and lower control limits for cooling and heating, as well as a programmable dead band to prevent simultaneous operation of heating and cooling. The temperature set points for cooling and heating are set at the factory during production and can be field adjusted in one degree increments. The temperature set points can be protected by a keypad lockout function.

SPECIFICATIONS:

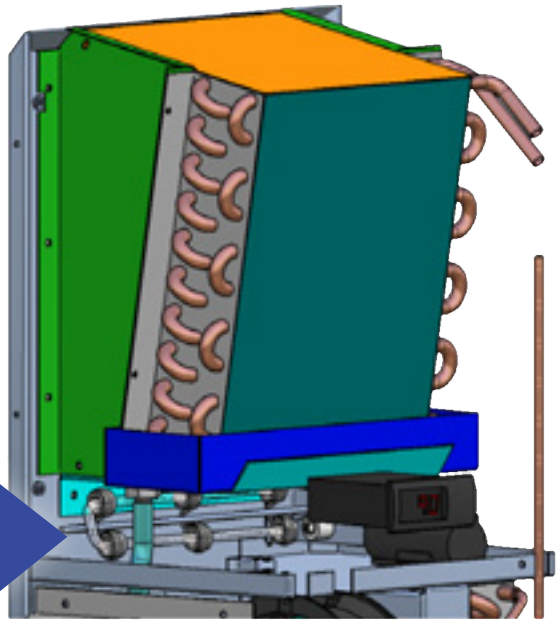
Watts:

- 350 (CS011)
- 500, 1000, or 1500 (HC Series)

Default Settings:

- Heat Set Point: 55°F
- Differential: 3°F

HEATER PACKAGE (below)
as it would appear installed (right)



HAZARDOUS LOCATION ENCLOSURE AIR CONDITIONING SYSTEMS (J4)

Thermal Edge Hazardous Location air conditioners are in conformance with all requirements of ANSI/NFPA 70, NEC and CAN/CSA-C22.1, Part I for Class I, Division 2, Groups A, B, C, and D.

E113961
Haz Loc
Certification

SA32252
Ord Loc
Certification

SYSTEM FEATURES:

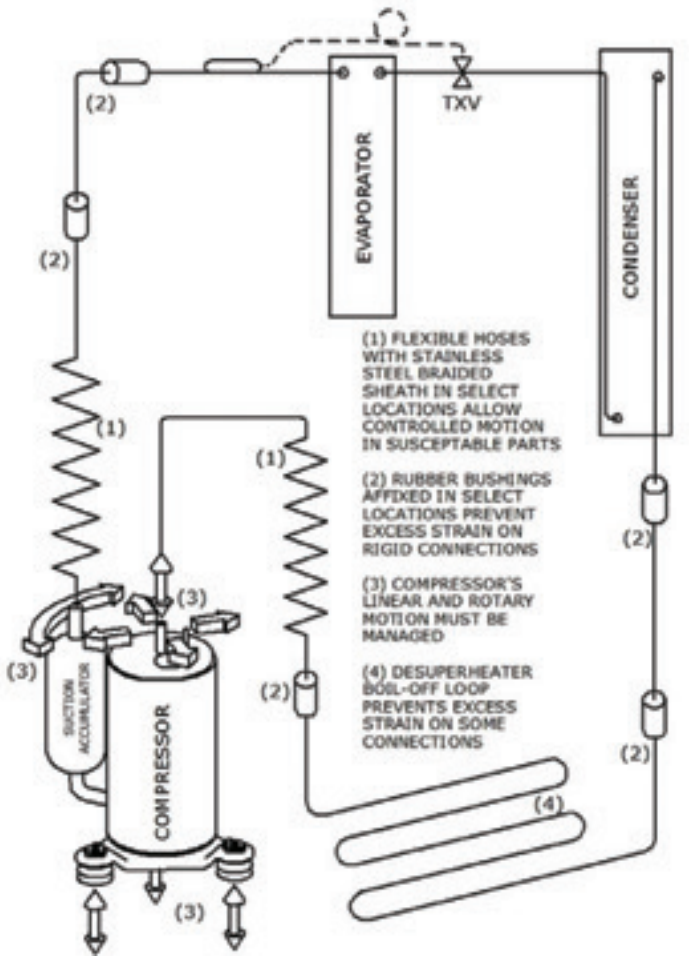
- For purged and non-purged enclosures
- Active, energy efficient, Condensate Evaporation System
- Fully programmable digital controller with built-in alarms and alerts
- Remote controller option places controller inside enclosure
- Thermal Expansion Valve for maximum efficiency when temperature or heat load changes
- Hermetically-sealed compressor, thermal overload protector
- Models range from 2,000 to 20,000 BTUH
- Available in UL types 12, 4 and 4X
- Top Mount and Side Mount*

**Critical components in the NRTL Hazardous Location Listing Report must not be substituted with alternate components. Thermal Edge, Inc. and MET Labs must be notified before changes to any drawings, samples, or required documentation will be approved.*

Model	BTU/ Hour	Voltage/ Phase/Hz.	Max. Ambient Temp.	Temp. Code
CS020126	2000	115/1/60	118°F	T6
CS020236	2000	230/1/60	118°F	T6
NE020126	2000	115/1/60	122°F	T4
NE020236	2000	230/1/60	122°F	T4
NE020486	2000	460/1/60	122°F	T4
NE030126	3000	115/1/60	122°F	T4
NE030236	3000	230/1/60	122°F	T4
NE030486	3000	460/1/60	122°F	T4
NE040126	4000	115/1/60	122°F	T4
NE040236	4000	230/1/60	122°F	T4
NE040486	4000	460/1/60	122°F	T4
NE050126	5000	115/1/60	122°F	T4
NE050236	5000	230/1/60	122°F	T4
NE050486	5000	460/1/60	122°F	T4
NE060126	6000	115/1/60	122°F	T4
NE060236	6000	230/1/60	122°F	T4
NE060486	6000	460/1/60	122°F	T4
TM061126	6000	115/1/60	122°F	T4
TM061236	6000	230/1/60	122°F	T4
TM061486	6000	460/1/60	122°F	T4
NE080126	8000	115/1/60	122°F	T4
NE080236	8000	230/1/60	122°F	T4
NE080486	8000	460/1/60	122°F	T4
TM081126	8000	115/1/60	122°F	T4
TM081236	8000	230/1/60	122°F	T4
TM081486	8000	460/1/60	122°F	T4
HC101126	10,000	115/1/60	122°F	T4
HC101236	10,000	230/1/60	122°F	T4
HC101486	10,000	460/1/60	122°F	T4
HC121126	12,000	115/1/60	122°F	T4
HC121236	12,000	230/1/60	122°F	T4
HC121486	12,000	460/1/60	122°F	T4
HC151236	15,000	230/1/60	122°F	T4
HC151486	15,000	460/1/60	122°F	T4
HC201236	20,000	230/1/60	122°F	T4
HC201486	20,000	460/1/60	122°F	T4

VIBRATION PACKAGE (V1)

The Thermal Edge Vibration Package is designed to protect NE model air conditioner components from the effects of moderate vibration. Depending on the model, short rigid refrigerant lines connecting the compressor may be replaced with shock absorbing loops to prevent work hardening and eventual fracture of the copper tubing.
On some models, flexible stainless steel refrigerant lines may be used in place of standard copper tubing to connect the compressor. Fixed insulated clamps are used to restrict vibration at critical points. Electrical wires are over-wrapped where they might rub against hard parts.*



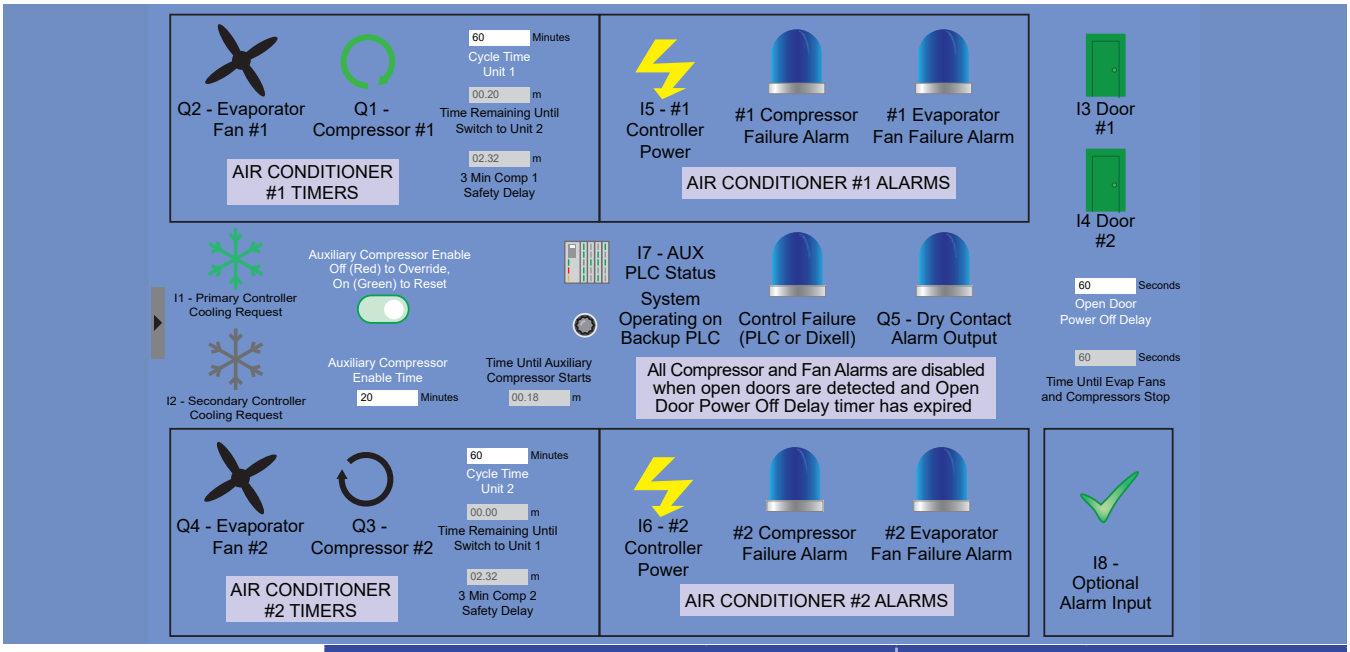
Consists of the Following:

- Fixed rubber bushings limit excess motion
- Stainless steel-sheathed flexible hoses absorb side to side and rotary motion produced by the compressor
- Tubing through the boil off pan absorbs expansion and contraction
- Brazed connections at compressor are high-temp silver solder to avoid hardening
- All wiring is neatly bundled & tied to prevent vibration

Please consult your Thermal Edge Representative for mounting considerations on severe vibration applications. Varies by Model. All information subject to change without notice.

DIAGNOSTICS (X1, X2, X3, X4, X5)

Diagnostic Options provide time and money-saving features with web-based system monitoring and remote troubleshooting capabilities.



	Redundant Systems			Single Air Conditioner	
	X1	X2	X3	X4	X5
Feature	**HMI Only**	**Sensors Only**	**Sensors + HM**	**Sensors + PLR**	**Sensors + PLR + HMI**
Web-based user interface with configurable settings	✓		✓		✓
Physical alarm notification in the event of an error		✓	✓	✓	✓
Remote diagnostics and troubleshooting			✓		✓

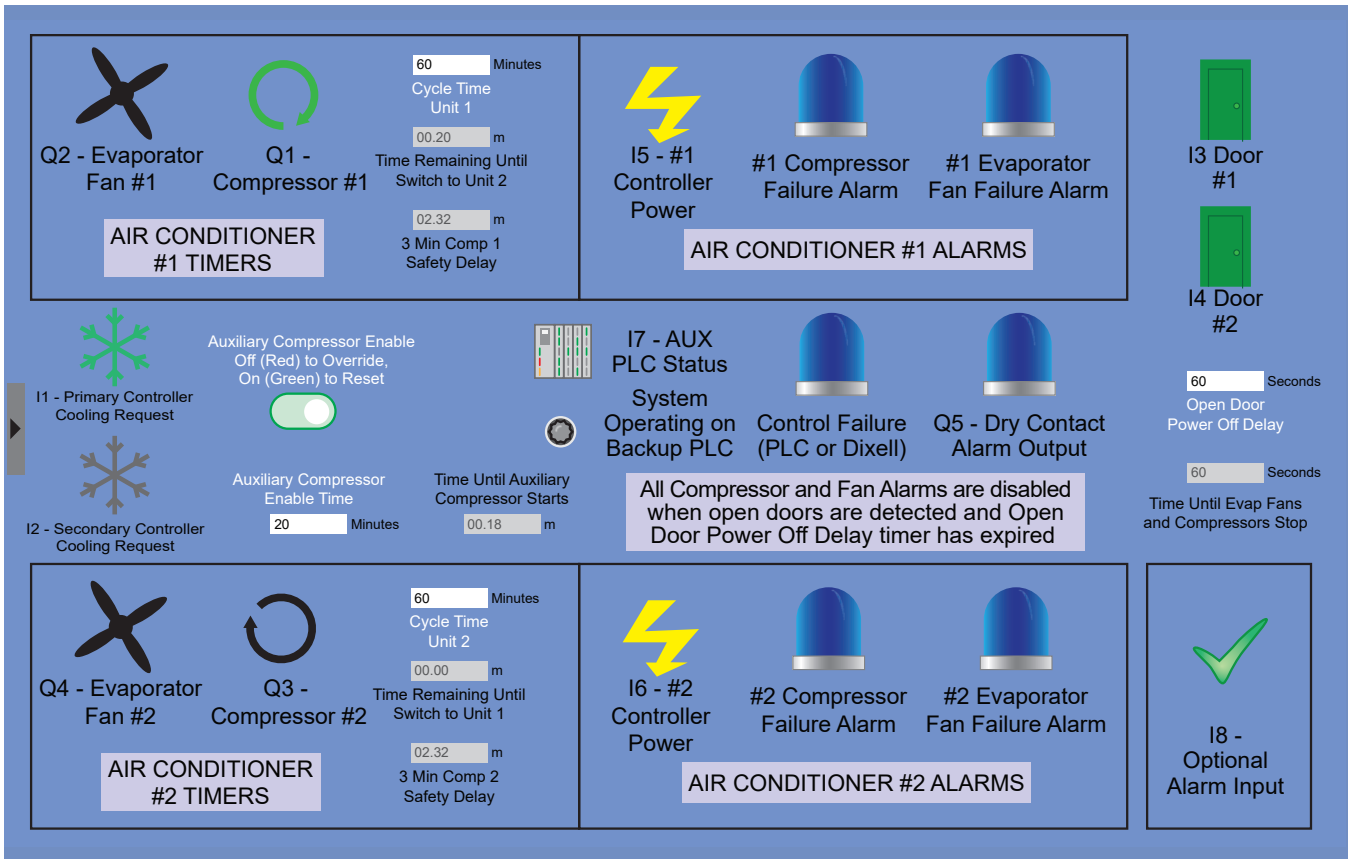
HMI ONLY: Provides a web-based interface accessible by web browser which displays the status of the programmable logic relay (PLR). End-users may configure five (5) settings through this portal, including the cycle time of both air conditioners, the auxiliary compressor status and enable time, and if installed with the Open Door Kill Switch (K4), the open door delay time prior to system powering off. A hardwired Ethernet connection is required. Compatible with Redundant Systems only (diagnostic options contiue on next page).

SENSORS: Allow notification through the Dry Contact Alarm Output in the event a compressor or evaporator becomes disabled. Two (2) sensors are provided (one for the compressor and one for the evaporator fan) for a single air conditioner.

SENSORS + PLR + HMI: Displays the PLR status in PLR equipped air conditioners. Compatible with E5 or E8 redundant systems and any single air conditioner with Option X5.

DIAGNOSTICS (X1)

Compatible with Thermal Edge Redundant Systems (E5, E6, E7, E8)



HMI AND REMOTE ACCESS

The HMI provides remote access via a web-based portal which displays how the system should be operating based on what the PLR is calling for. End-users may configure five (5) settings through this portal including the cycle time of both air conditioners, the auxiliary compressor status and enable time, and if installed with the Option K4 – Open Door Kill Switch, the open door delay time prior to the system powering off.

FAILSAFE SYSTEM WITH FULL SYSTEM VISIBILITY

When combined with the E8 Secondary Unit Backup with PLR, end users get a failsafe system with full system visibility for both the primary and secondary system.

PLR*-BASED REDUNDANT SYSTEM (E5, E6, E7, E8)

The PLR-Based Redundant System by Thermal Edge offers:

IMPROVED SERVICE LIFE

Alternating operating run times between two air conditioners, the balanced load sharing reduces wear and tear and improves the service life of the system.

RELIABLE COOLING

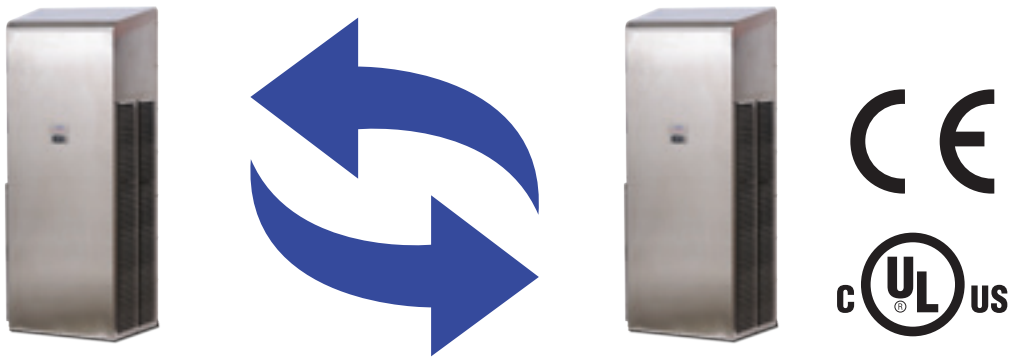
In fluctuating or high heat load environments, the system will simultaneously operate both air conditioners until the demand for additional cooling diminishes.

REDUNDANT OR FAILSAFE OPERATION

For reliable cooling without interruption in the event an air conditioner becomes disabled, the Redundant E6 Option automatically calls upon the second air conditioner to deliver the required amount of cooling. For reliable cooling without failure in the event a PLR becomes disabled, the Failsafe E8 Option maintains the critical cabinet temperature by maintaining operation from the backup PLR.

Option Codes:

- **E5** Primary PLR-Based Unit
- **E6** Secondary PLR-Based Unit—provides redundancy should an air conditioner become disabled
- **E7** Replacement Primary PLR-Based Unit
- **E8** Secondary Unit with Backup PLR—provides a failsafe option should the primary PLR become disabled



*PLR = Programmable Logic Relay.

All information subject to change without notice.

AMBIENT PACKAGES

LOW AMBIENT* OPTION

The low ambient option consists of circuitry to protect the compressor in a low ambient temperature environment. Heat is applied inside the compressor, where it is needed, to protect it from damage or wear due to stalls and hard starts after long periods in the non-cooling state.

THIS WORKS TOGETHER WITH...

the pressure controlled condenser fan in Thermal Edge air conditioners. The condenser fan cycles off in low ambient temperature conditions, thus allowing rapid warm up. This also reduces the current inrush by not starting the condenser fan when the compressor is turned on.

Low Ambient Package (A1 standard / A2 custom)*

- Special circuit protects compressor from stalls and hard starts at ambient temperatures below 50°F and during long periods of compressor off-state
- Constant low current in compressor motor during the non-cooling state provides internal heat to compressor
- Ambient temperatures as low as 20°F
- Below 20°F requires a special quote

High Ambient Package (A3)

- Optimize Air Conditioner during manufacturing to achieve improved performance at high ambient conditions
- Standard maximum ambient temperature is 125°F or 131°F
- Most models can be optimized to achieve 131°F operation
- Some models can be optimized to achieve 140°F operation

**Low Ambient option MAY NOT be combined with High Ambient option, unless pre-approved by engineering.*

WHAT IS MODBUS RTU?

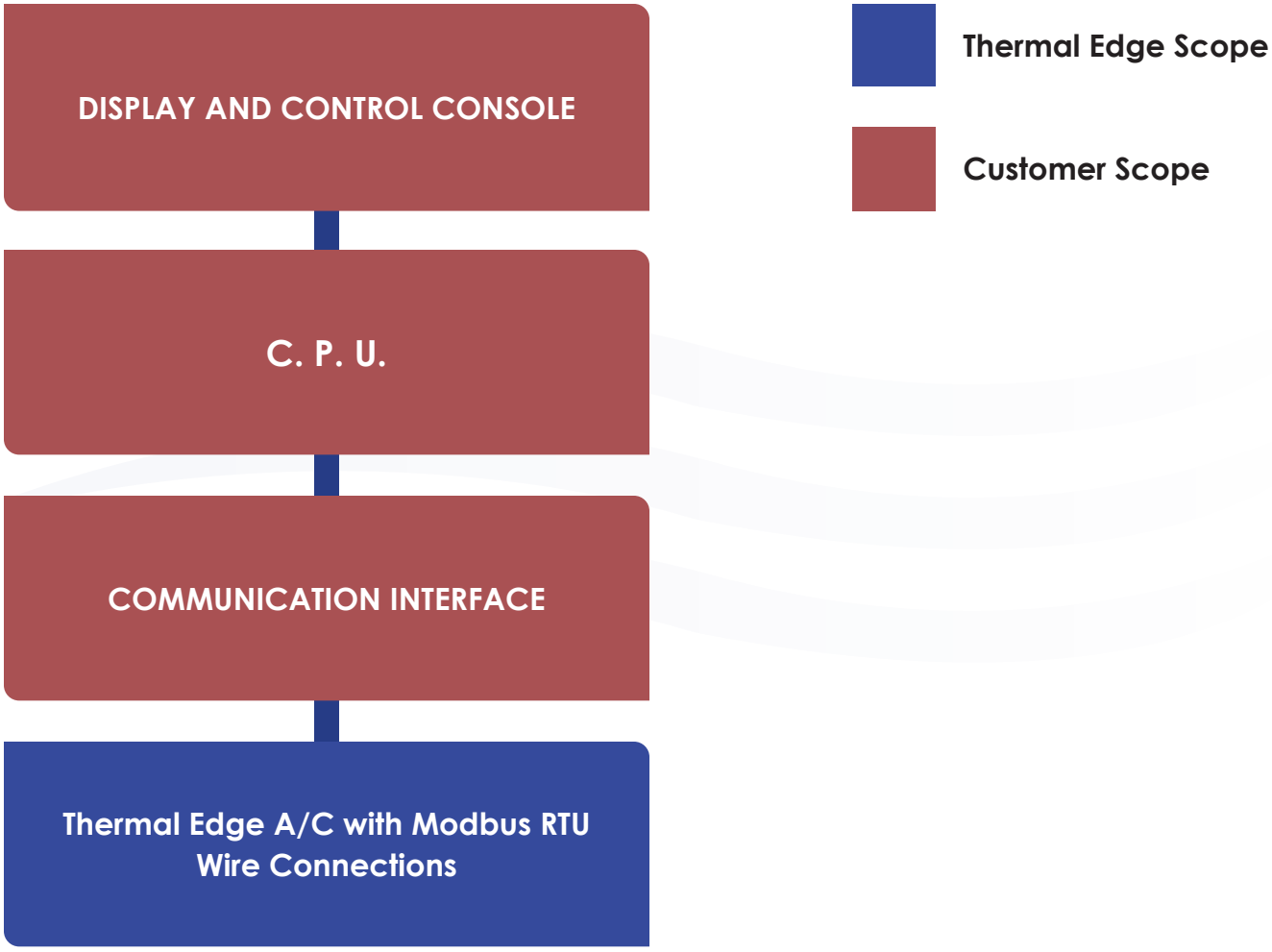
Serial communications open protocol that can be used by any manufacturer to communicate data across multiple industrial devices

PRIMARY DEVICE

Device that is requesting information. Only device in system that can initiate communication

SECONDARY DEVICE

Device that responds to requests from primary device. Each secondary device is assigned a unique ID.



Thermal Edge air conditioners with the Modbus RTU (R1 option) are equipped with two RS485 wire connections to connect to customer supplied interface

ADVANTAGES OF MODBUS RTU

ADVANTAGES:

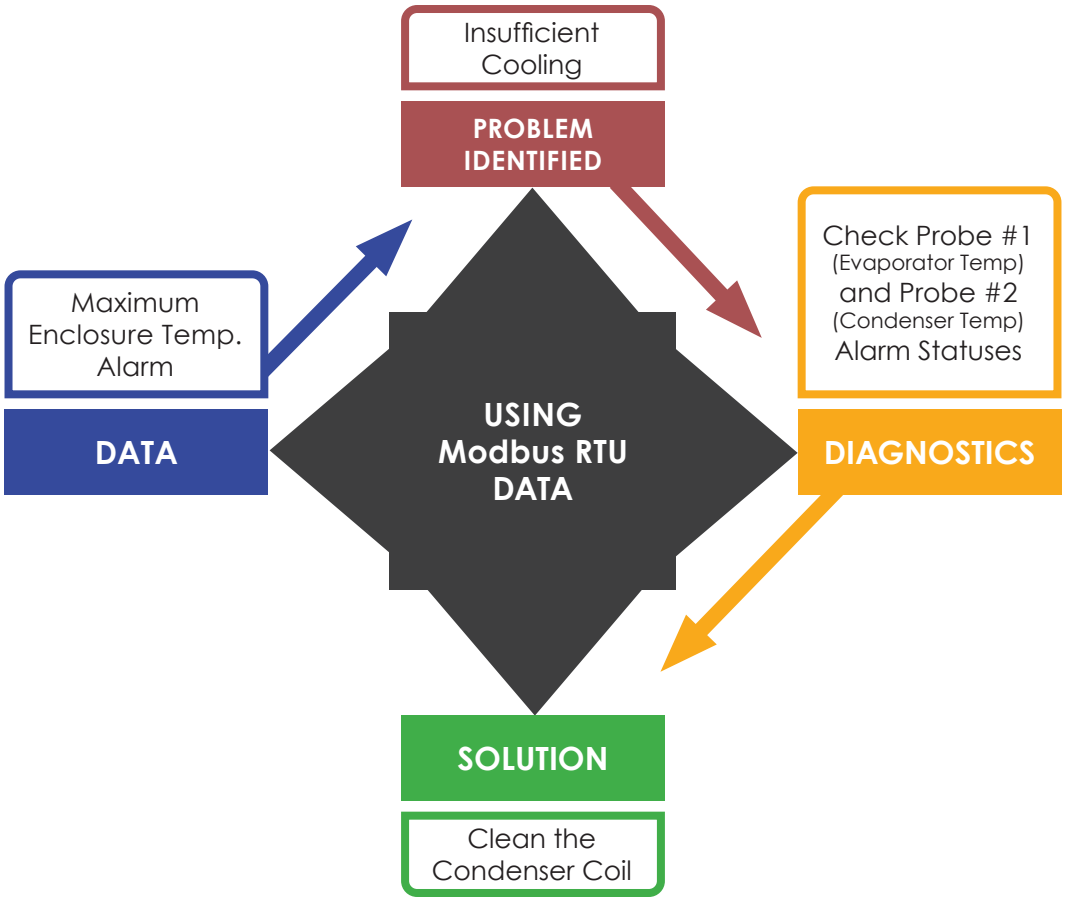
- Allows customers to monitor and control devices remotely
- Can perform diagnostics remotely to reduce down time and labor costs
- Collecting and monitoring data from Modbus RTU device can allow for proactive maintenance to prevent damage to equipment in your enclosure

SOME TYPES OF DATA IN MODBUS RTU

- Cooling Set Point
- Enclosure Temperature
- Condenser Temperature
- System Pressure

USING DATA FROM MODBUS RTU DEVICE

Modbus RTU provides a method for customers to assess status information, review active alarms, and perform diagnostics on their industrial equipment.



UNIVERSAL MOUNTING PLATE

The universal mounting plate allows you to mount a Thermal Edge Enclosure Air Conditioner to your enclosure when you need to replace another manufacturer's model.

WITH THERMAL EDGE YOU GET:

- Energy-saving condensate evaporation
- Digital programmable controller with protection and alarm circuits
- Thermal Expansion valve for efficient refrigerant control

THERMAL EDGE UNIVERSAL MOUNTING PLATE:

- Easily replace another company's A/C unit
- Covers the existing cutout and has the cutouts for Thermal Edge unit
- Provide us with the existing model number, and we do the rest.

ALUMINUM HOUSINGS

INDOOR/OUTDOOR, UL TYPE 4X

Engineered & manufactured to endure the most difficult of environments and applications. Thermal Edge mill finish aluminum air conditioner housings will exceed environmental requirements in applications like Traffic Control and Telecom Outside Plant cabinets.

Aluminum Finishings:

- **L4** - Aluminum, Mill Finish (115/230 V)
- **L5** - Aluminum, Mill Finish (460 V)
- **L6** - Aluminum, Mill Finish (48 VDC)

Also Available:

- Aluminum Louvered Covers for Flat Filters
- 2" Louvered Filter Frames for 2" Pleated Filter

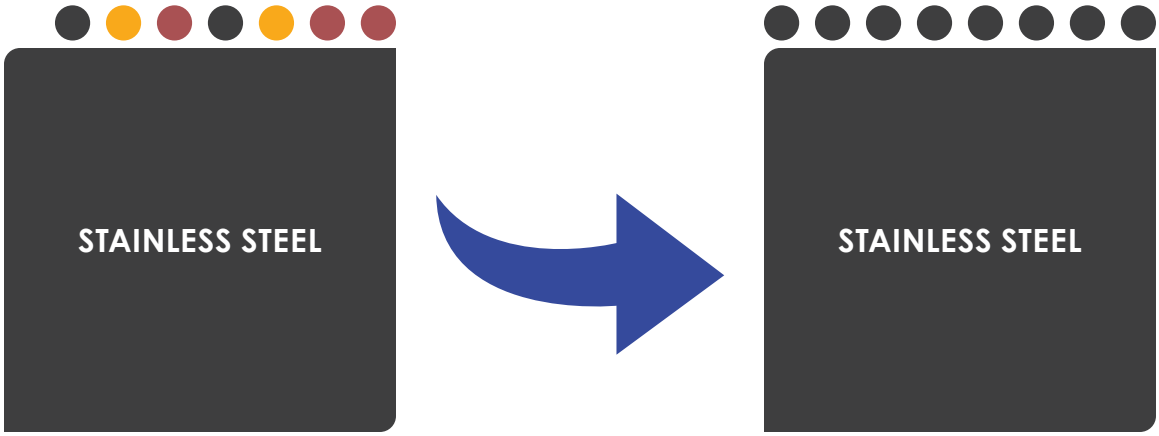
NO WATER DRIPS FROM THERMAL EDGE ENCLOSURE AIR CONDITIONERS

PASSIVATION OPTION (M2)

When your application requires extra corrosion resistance on your stainless-steel air conditioners, Thermal Edge offers the option to Passivate the 316 stainless steel parts that make up the unit The Passivation M2 option is a chemical treatment process that is applied to 316 stainless steels, which further enhances the ability of the treated surface, increasing corrosion resistance.

KEY FEATURES INCLUDE:

- Passivated 316 stainless steel – a chemical treatment of all steel components to remove free iron that can lead to corrosion.
- All internal bare parts are built with passivated 316 stainless steel for a fully corrosion-resistant package.



Iron Oxides
Dirt
Chromium Oxide

Result of Passivation

HOODED RAIN AND FILTER COVERS

If your Thermal Edge Air conditioners are exposed to harsh environments, there are some benefits our hooded rain and filter covers can provide. The hooded rain and filter covers can be made in stainless steel, painted steel, and aluminum.

Benefits:

- Coil damage protection from hail.
- Ingress of water from high power pressure washers during wash downs.
- Coil and Louver damage protection from high power pressure washers.
- Filter damage from high power pressure washers.
- Mitigation of falling debris that would normally get pulled into the filter.

NE234 Filter Hood (Standard filter 1")

Option	Finish	Part No.
F1	ANSI 61 Gray Powder Coat	22419-1
F11	316 Stainless Steel	22419-4316
F12	Aluminum	22419-3

NE234 Condenser Hood (Standard filter 1")

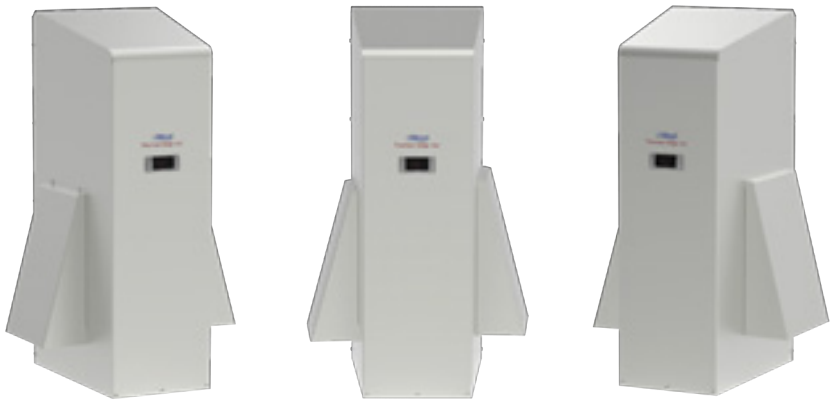
Option	Finish	Part No.
F6	ANSI 61 Gray Powder Coat	22470-1
F61	316 Stainless Steel	22470-4316
F62	Aluminum	22470-3

NE568 Filter Hood (Standard filter 1")

Option	Finish	Part No.
F1	ANSI 61 Gray Powder Coat	22819-1
F11	316 Stainless Steel	22819-4316
F12	Aluminum	22819-3

NE568 Condenser Hood (Standard filter 1")

Option	Finish	Part No.
F6	ANSI 61 Gray Powder Coat	22880-1
F61	316 Stainless Steel	22880-4316
F62	Aluminum	22880-3



XWEB300D PRO: REMOTE SUPERVISING AND MONITORING

The XWEB300D PRO is an economical, environmentally friendly solution that allows monitoring, analyzing, control, and alarm of your heat sensitive applications from any PC over the Internet to optimize energy, performance and operational savings. The system is easy to install and start up. The XWEB will provide HACCP documentation, energy savings and improved performance in all types of environments.

Extremely well suited for up to 6 or 18 enclosure air conditioner installations. A simple DIN Rail mounting (4 DIN) and the absence of local user interface make the XWEB300D Pro the ideal solution for the remote connection / assistance (via modem) to the plant. Local or remote connection from a PC is made without the need for special software. Standard web browser (Google Chrome, Mozilla Firefox, Microsoft Edge, Apple Safari, Opera) software is required; the information is displayed as Web pages.

XWEB300D Pro supervises the air conditioner(s), and, in case of malfunction alarm, it notifies the assistance center through FAX, SMS or E-mail. The XWEB300D Pro Remote supervisor can also record data relevant to the function of the air conditioner and populate it onto a table.

KEY FEATURES INCLUDE*:

- Data capture and alarm monitoring web server connectable to Thermal Edge Air Conditioners with the-ModBUS-RTU option (R1)
- Structure is based on Linux operating system with WEB pages
- Data shown for all controller values, parameters programming management and alarms
- Powerful graphs showing and exporting functions in Excel® format
- Calendar function to filter alarm transmissions to a particular service
- Alarm sending via FAX, SMS or e-mail
- Possibility to have a connection with a PDA or Smartphone
- Local or remote connection to a PC with a standard browser (Google Chrome, Mozilla Firefox, Microsoft Edge, Apple Safari, Opera) for the data display and monitoring

Key features and system diagram continue on next page.

XWEB300D PRO: REMOTE SUPERVISING AND MONITORING

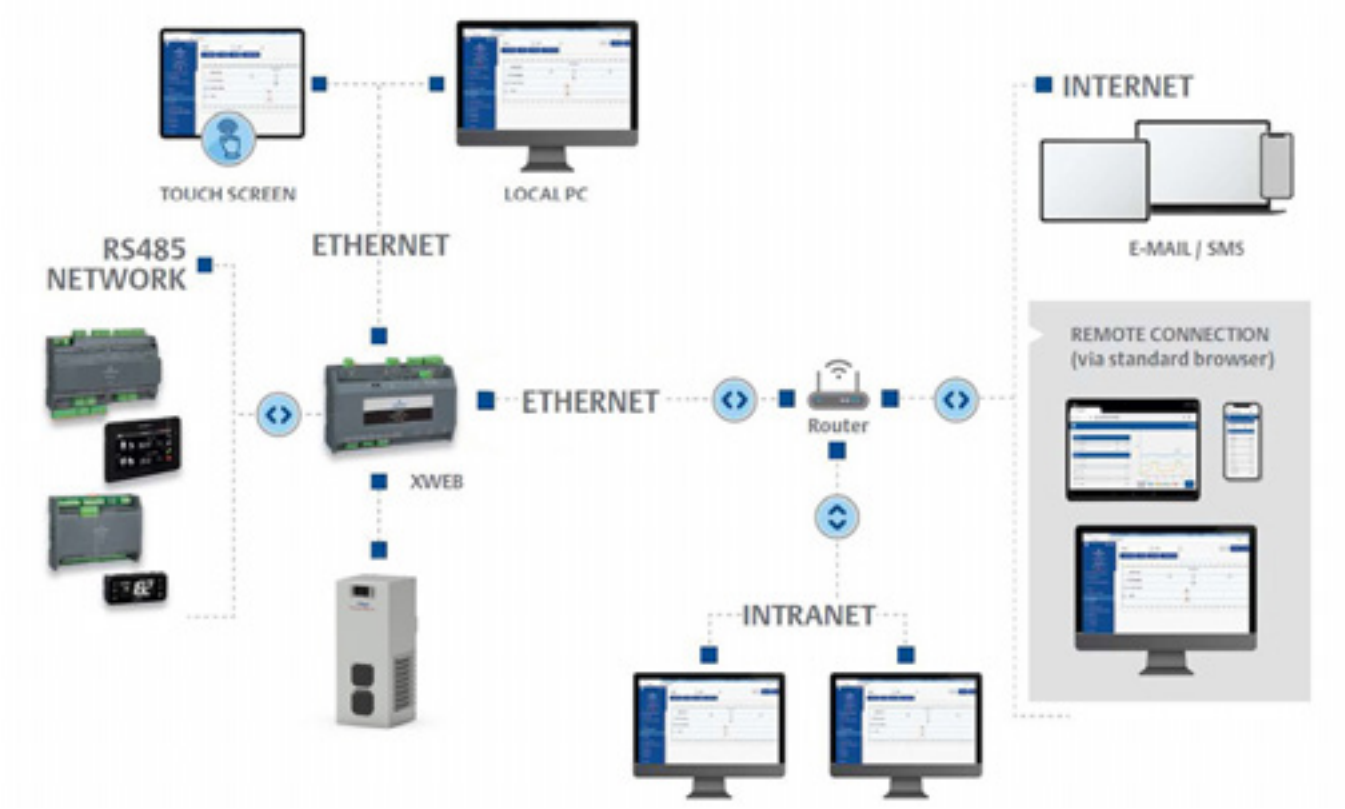
(CONTINUED)

KEY FEATURES INCLUDE:

- 8MB or 24MB internal memory to store up to 1 year data recorded with 15 min sampling time and 6 or 18 controllers
- 15VA max power absorption
- XWEB Pro available for 120V or 230V UL Listed applications
- Software is compliant with advanced safety systems and avoid unauthorized accesses, attacks or other threats thanks to dedicated algorithms for protection and control.

Thermal Edge enclosure air conditioners are listed under UL File #SA32252

Part Number	Description
XWEB3D8C000P	(XWEB) XWEB300D-8C000P PRO 6 Address 110/230V
XWEB3D8D000P	(XWEB) XWEB300D-8C000P PRO 18 Address 110/230V



AIR CONDITIONER OPTIONS

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Voltage / Frequency	D48	48VDC		X				X					
	105	100V / 50Hz	X			X	X (NE020, NE030)						
	125	115V / 50Hz							X (NE050, NE060)				
	126	115V / 60Hz	X		X	X	X		X	X		X (HC101, HC121)	
	205	200V / 50Hz				X	X (NE030)						
	235	230V / 50Hz			X		X (NE020)		X (NE050, NE060)		X	X (HC101, HC121)	X
	236	230V / 60Hz			X	X	X		X	X		X	X
	237	230V / 50-60Hz							X (NE050, NE060)				
	385	380V / 50Hz					X (NE020, NE030)		X (NE050, NE060)		X	X (HC101, HC121)	X
	405	400V / 50Hz					X (NE020, NE030)		X (NE050, NE060)		X	X (HC101, HC121)	X
	406	400V / 60Hz					X		X	X		X	X
	415	415V / 50Hz					X (NE020, NE030)		X (NE050, NE060)		X	X (HC101, HC121)	X
	485	460V / 50Hz					X (NE020, NE030)		X (NE050, NE060)		X	X (HC101, HC121)	X
	486	460V / 60Hz					X		X	X		X	X
	576	575V / 60Hz					X		X	X		X	X
	605	600V / 50Hz					X (NE020, NE030)		X (NE050, NE060)		X	X (HC101, HC121)	X
	606	600V / 60Hz					X		X	X		X	X
NEMA	12	Type 12	X	X	X	X	X	X	X	X	X	X	X
	4	Type 4	X	X	X	X	X	X	X	X	X	X	X
	4X	Type 4X	X	X	X	X	X	X	X	X	X	X	X
Ambient	A1	Low Ambient, Std.	X		X		X		X	X	X	X	X
	A2	Low Ambient, Custom	X		X		X		X	X	X	X	X
	A3	High Ambient	X	X	X	X	X	X	X	X	X	X	X
	A4	Low Ambient, Std. & High Ambient	X		X		X		X	X	X	X	X
	A5	Low Ambient, Custom & High Ambient	X		X		X		X	X	X	X	X

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Remote Controller	B1	Mount Controller inside enclosure (10 ft. Cable)	X	X	X	X	X	X	X	X	X	X	X
	B2	Custom, Parent (5 ft. Cable)	X	X	X	X	X	X	X	X	X	X	X
	B21	Mount Controller inside enclosure (21 ft. Cable)	X	X	X	X	X	X	X	X	X	X	X
	B3	Custom, Child (7 ft. Cable)	X	X					X			X	
	B4	Mount Low Voltage Controller inside enclosure, with Bracket (10 ft. Cable)	X	X	X	X	X	X	X	X	X	X	X
	B5	Low Voltage Controller, No Bracket (Std.10 ft. Cable)	X	X	X	X	X	X	X	X	X	X	X
	B6	Locking Controller Cover, ANSI 61 Grey	X	X	X	X	X	X	X	X	X	X	X
	B7	Locking Controller Cover, 316 SST	X	X	X	X	X	X	X	X	X	X	X
Corrosion Protection	C1	A-Level Protection Coated Condenser Coil (NEMA 12/4)	X	X	X	X	X	X	X	X	X	X	X
	C2	B-Level Protection Coated Condenser & Evaporator Coils (NEMA 12/4)	X	X	X	X	X	X	X	X	X	X	X
	C3	C-Level Protection Coated Condenser & Evaporator Coils + Coated Tubing (NEMA 12/4)	X	X	X	X	X	X	X	X	X	X	X
	C5	B-Level Protection Coated Condenser & Evaporator Coils (NEMA 4X)	X	X	X	X	X	X	X	X	X	X	X
	C6	C-Level Protection Coated Condenser & Evaporator Coils + Coated Tubing (NEMA 4X)	X	X	X	X	X	X	X	X	X	X	X
Dry Contact	D1	Normally Open	X	X	X	X	X	X	X	X	X	X	X
	D2	Normally Closed	X	X	X	X	X	X	X	X	X	X	X
	D3	Normally Open & Normally Closed	X	X	X	X	X	X	X	X	X	X	X
	D4	Compressor Status N.O. and N.C.			X	X	X	X	X	X	X	X	X
	D5	Power Status N.O. (closed when On) & Hi-Temp Warning N.O and N.C.			X	X	X	X	X	X	X	X	X

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Redundant System	E1	Primary*	X	X	X	X	X	X	X	X	X	X	X
	E2	Secondary*	X	X	X	X	X	X	X	X	X	X	X
	E3	Primary, Side by Side Mounting*	X	X	X	X	X	X	X	X	X	X	X
	E4	Secondary, Side by Side Mounting*	X	X	X	X	X	X	X	X	X	X	X
	E5	Primary PLR Based Redundant Unit	X	X	X	X	X	X	X	X	X	X	X
	E6	Secondary PLR Based Redundant Unit	X	X	X	X	X	X	X	X	X	X	X
	E7	Replacement Primary PLR Based Redundant Unit	X	X	X	X	X	X	X	X	X	X	X
	E8	Secondary Redundant Unit with Backup PLR	X	X		X	X	X	X	X	X	X	X
Filter	F1	Painted Filter Hood for Thin Filter			X		X	X	X		X	X	X
	F11	SS Filter Hood for Thin Filter			X		X	X	X		X	X	X
	F12	Aluminum Filter Hood for Thin Filter			X		X	X	X		X	X	X
	F3	Painted Louvered Cover for Thin Filter			X		X	X	X	Std.	X	X	X
	F31	SS Louvered Cover for Thin Filter			X		X	X	X		X	X	X
	F32	Aluminum Louvered Cover for Thin Filter			X		X	X	X		X	X	X
	F4	Painted Louvered Cover + 2" Filter			X		X	X	X	X	X	X	X
	F41	SS Louvered Cover + 2" Filter			X		X	X	X	X	X	X	X
	F42	Aluminum Louvered Cover + 2" Filter			X		X	X	X	X	X	X	X
	F5	Flat Filter for TM								X			
	F6	Std. Painted Filter Hood for Thin Filter & Condenser Hood					X						
	F61	SS Filter Hood for Thin Filter & Condenser Hood					X						
	F62	Aluminum Filter Hood for Thin Filter & Condenser Hood					X						
Controller Programming	G1	Celsius	X	X	X	X	X	X	X	X	X	X	X
	G2	Special	X	X	X	X	X	X	X	X	X	X	X

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Heater	H1	350 W	X										
	H2	500 W			X		X		X	X	X	X	X
	H3	1000 W					X		X	X	X	X	X
	H4	1500 W									X	X	X
	H5	External Heater Control	X		X	X	X		X	X	X	X	X
	H6	350 W with Hygrostat Connection	X										
	H7	500 W with Hygrostat Connection			X		X		X	X	X	X	X
	H8	1000 W with Hygrostat Connection					X		X	X	X	X	X
	H9	1500 W with Hygrostat Connection								X	X	X	X
Hazardous Location	J4	NEC: Class I, Div 2, Groups A, B, C, D			X		X		X	X	X	X	X
Open Door Kill Switch	K0	Mechanical SP/ST N.O. Multi-voltage Door Switch											
	K1	1 = Standard 7 ft. Cable Length	X										
	K15	15 ft. Cable Length							X	X		X	
	K2	7 ft. Cable & Chatsworth brackets, Secondary Redundant Unit							X			X	
	K3	7 ft. Cable & Chatsworth brackets, Primary Redundant Unit							X			X	
	K4	1 Door, 1 AC, 7 ft. Cable	X	X	X	X	X	X	X	X	X	X	X
	K5	1 Open Door Prox Sens, Dtch Cbl.							X			X	
	K6	2 Open Door Prox Sens, Dtch Cbl.							X			X	
	K7	Low Voltage Switch Wires Only		X	X	X	X	X	X	X	X	X	X
Housing Material	L1	316 SS (115/230 V)	X		X	X	X		X	X	X	X	X
	L2	316 SS (460 V)					X		X	X	X	X	X
	L3	316 SS (48 VDC)		X				X					
	L4	Aluminum, Mill Finish (115/230 V)	X	X	X	X	X		X	X	X	X	X
	L5	Aluminum, Mill Finish (460 V)					X		X	X	X	X	X
	L6	Aluminum, Mill Finish (460 V)						X					

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Finish	M1	Custom Paint	X	X	X	X	X	X	X	X	X	X	X
	M2	Passivated	X	X	X	X	X	X	X	X	X	X	X
	M3	Anodized	X	X	X	X	X	X	X	X	X	X	X
	M13	RAL 7035 115/230 V	X	X	X	X	X	X	X	X	X	X	X
	M14	RAL 7035 460 V	X	X	X	X	X	X	X	X	X	X	X
Extended Temp. Probe	P1	With 12 ft. Cable	X	X	X	X	X	X	X	X	X	X	X
Remote Control / Monitor	R1	Modbus-RTU (Enclosure mounted controller required for CS2)	X	X	X	X	X	X	X	X	X	X	X
	R2	Ethernet/IP	X		X	X	X		X	X	X	X	X
	R3	Ethernet/IP without 24 VDC Power Supply	X		X	X	X		X	X	X	X	X
	R4	Modbus RTU for Redundant Option with Enclosure Controller, Primary			X	X	X		X	X	X	X	X
	R5	Modbus RTU for Redundant Option with Enclosure Controller, Secondary			X	X	X		X	X	X	X	X
	R6	Modbus with Cat 5 Cable							X				
Hard Start Kit	S1	1 = Hard Start Relay									X	X	
Replacement AC w/ Power Cord	T1	1 = Power Cord Equipped	X			X	X		X		X	X	X
Imperfect	U1	Scratch & Dent	X	X	X	X	X	X	X	X	X	X	X
	U2	Refurbished	X	X	X	X	X	X	X	X	X	X	X
Vibration Resistant	V1						X	X	X	X	X	X	X

	Option Code	Description	CS011	CS011D48	CS020	NE010 NE015	NE020 NE030 NE040	NE020D48 NE030D48 NE040D48	NE050 NE060 NE080	TM061 TM081	HC081	HC101 HC121 HC151	HC20C
Custom Build	WZZ	Other	X	X	X	X	X	X	X	X	X	X	X
Diagnostics	X1	1 = HMI Only, Redundant Systems			X	X		X	X	X	X	X	X
	X2	2 = Diagnostic Sensors, Redundant Systems			X	X		X	X	X	X	X	X
	X3	3 = Sensors with HMI, Redundant Systems			X	X		X	X	X	X	X	X
	X4	4 = Diagnostic Sensors (Incl. PLR), Single Systems			X	X		X	X	X	X	X	X
	X5	5 = Sensors with HMI (Incl. PLR), Single Systems			X	X		X	X	X	X	X	X

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

AIR TO WATER HEAT EXCHANGERS

Closed Loop Design
Available in 115VAC & 230VAC
UL Tested NEMA Types 12, 4 and 4X

MADE IN AMERICA MATTERS...

Hydro Edge

Thermal Edge Inc.™

A2W30

12/14/2023

3,690 BTUH (@ 95°F ENCLOSURE & 50°F WATER TEMPERATURES) INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

When ambient conditions are extreme, Air-to-Water Heat Exchangers by Thermal Edge provide reliable, efficient, and cost-effective solutions. Ideal for high ambient conditions and tough industrial environments, these air-to-water heat exchangers provide contaminant-free cooling while minimizing energy use and maintenance cost.

Key Design Features

- Protection from outdoor contaminants with a closed loop design
- Constant elimination of condensate
- Easy maintenance with a filter free design
- Flexible application with the narrow body style fitting 12" deep enclosures
- Eliminates water and corrosion buildup in washdown applications with a sloped roof design and seam welded shroud
- Ruggedly designed for manufacturing environments in powder coated steel or corrosion resistant stainless steel
- Maintains UL Tested NEMA Type 12, 4, and 4X
- Ambient operating temperature: 34°F - 140°F
- Overall dimensions: 19.7" H x 11.8" W x 5" D

OPTIONS:

- Integrated digital temperature controller
- Solenoid water valve
- Water Leak Detection Switch
- Corrosive environment package
- Open door kill switch
- Aluminum or 316 stainless steel housing
- Enclosure mounted controller
- Dry contact alarm
- Remote monitoring options
- UL power cord

APPLICATIONS

Ideal for food processing plants, agricultural irrigation, waste-water treatment, automotive plants, flour milling and mining operations where water is readily available onsite.

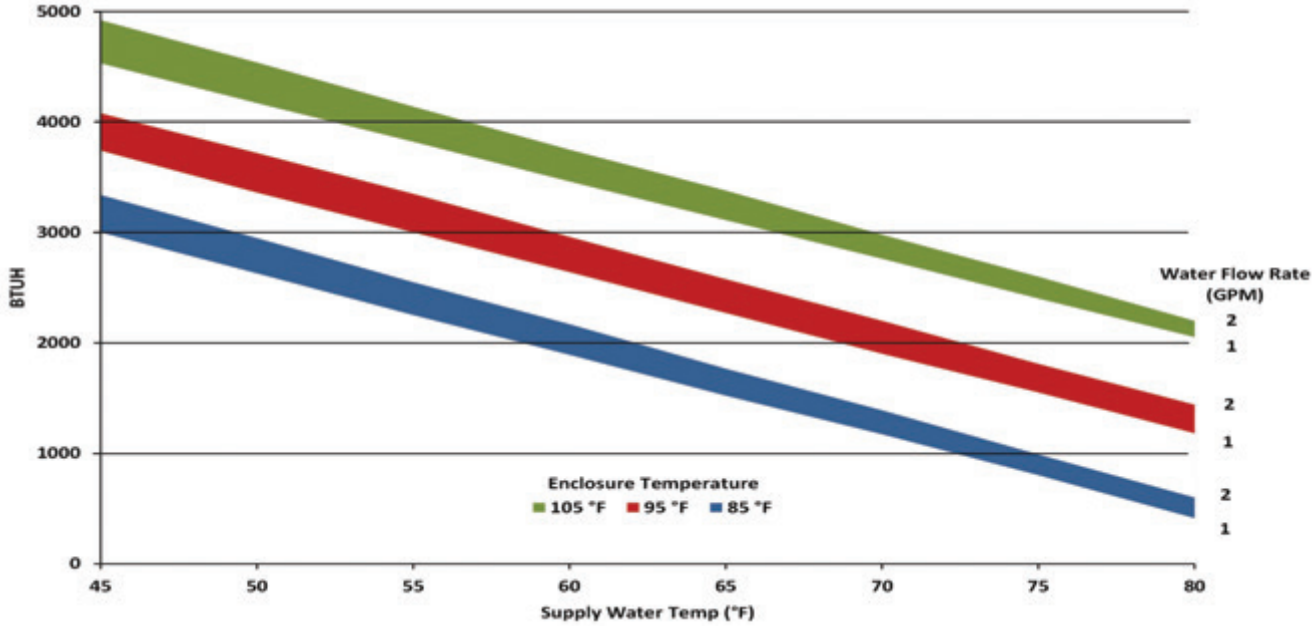
ACCESSORIES:

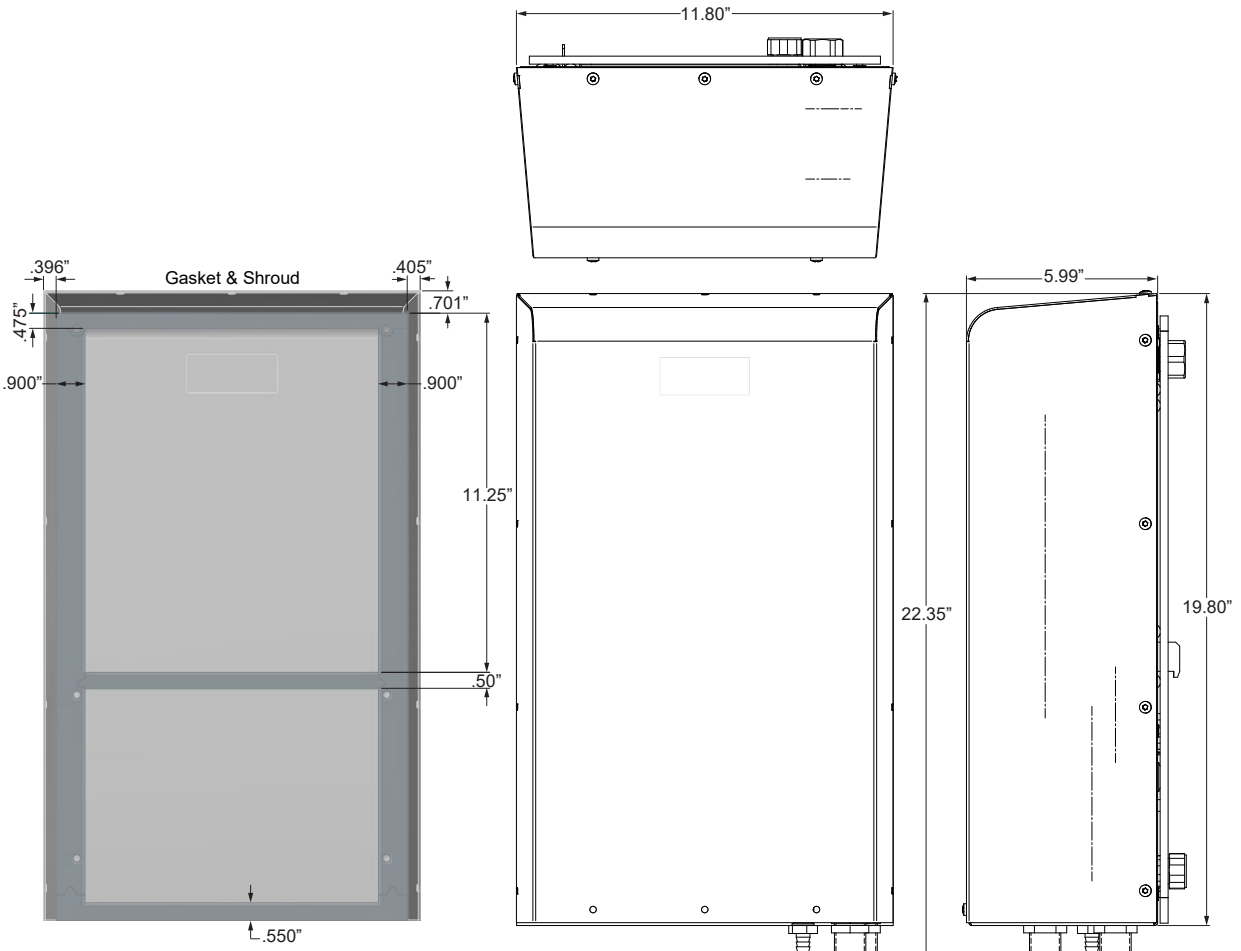
Water supply shutoff valves

Hydro Edge

Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Air Flow Rate (CFM @ 0 Static Pressure)	H x W x D	Weight (lbs.)
A2W301212	12	Powder coated steel	115/1/50-60	0.37	129	19.7" x 11.8" x 5"	21.4
A2W301204	4	Powder coated steel	115/1/50-60	0.37	129	19.7" x 11.8" x 5"	21.4
A2W30124X	4X	Stainless steel	115/1/50-60	0.37	129	19.7" x 11.8" x 5"	21.4
A2W302312	12	Powder coated steel	230/1/50-60	0.23	129	19.7" x 11.8" x 5"	21.4
A2W302304	4	Powder coated steel	230/1/50-60	0.23	129	19.7" x 11.8" x 5"	21.4
A2W30234X	4X	Stainless steel	230/1/50-60	0.23	129	19.7" x 11.8" x 5"	21.4
A2W304812	12	Stainless steel	460/1/50-60	0.12	129	19.7" x 11.8" x 5"	21.4
A2W304804	4	Powder coated steel	460/1/50-60	0.12	129	19.7" x 11.8" x 5"	21.4
A2W30484X	4X	Powder coated steel	460/1/50-60	0.12	129	19.7" x 11.8" x 5"	21.4

Testing done under controlled conditions. Actual performance may vary.





UL File #33288

*All information subject to change without notice.

Thermal Edge Inc.™

A2W60

12/14/2023

7,773 BTUH (@ 95°F ENCLOSURE & 50°F WATER TEMPERATURES) INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

When ambient conditions are extreme, Air-to-Water Heat Exchangers by Thermal Edge provide reliable, efficient, and cost-effective solutions. Ideal for high ambient conditions and tough industrial environments, these air-to-water heat exchangers provide contaminant-free cooling while minimizing energy use and maintenance cost.

Key Design Features

- Protection from outdoor contaminants with a closed loop design
- Constant elimination of condensate
- Easy maintenance with a filter free design
- Flexible application with the narrow body style fitting 12" deep enclosures
- Eliminates water and corrosion buildup in washdown applications with a sloped roof design and seam welded shroud
- Ruggedly designed for manufacturing environments in powder coated steel or corrosion resistant stainless steel
- Maintains UL Tested NEMA Type 12, 4, and 4X
- Ambient operating temperature: 34°F - 140°F
- Overall dimensions: 29" H x 11.8" W x 6" D

OPTIONS:

- Integrated digital temperature controller
- Solenoid water valve
- Water Leak Detection Switch
- Corrosive environment package
- Open door kill switch
- Aluminum or 316 stainless steel housing
- Enclosure mounted controller
- Dry contact alarm
- Remote monitoring options
- UL power cord

APPLICATIONS

Ideal for food processing plants, agricultural irrigation, waste-water treatment, automotive plants, flour milling and mining operations where water is readily available onsite.

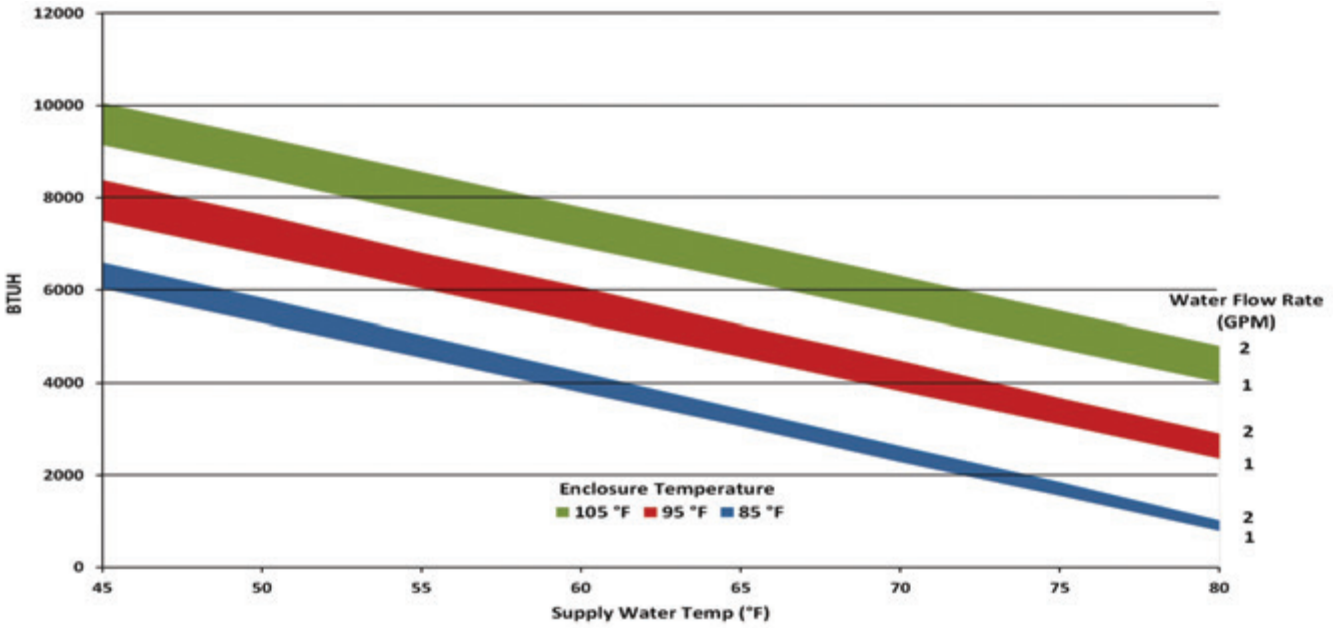
ACCESSORIES:

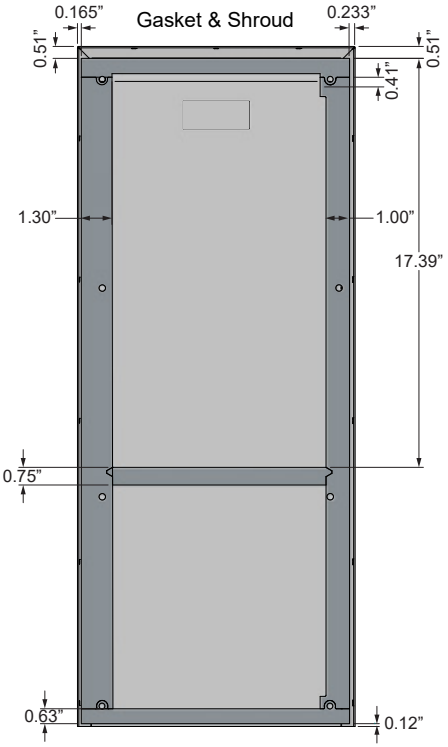
Water supply shutoff valves

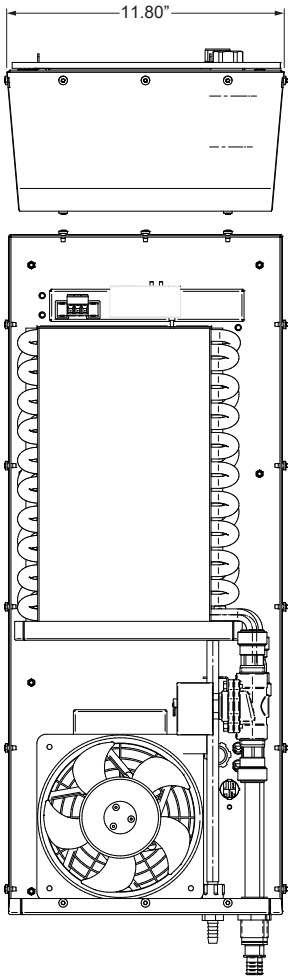
Hydro Edge

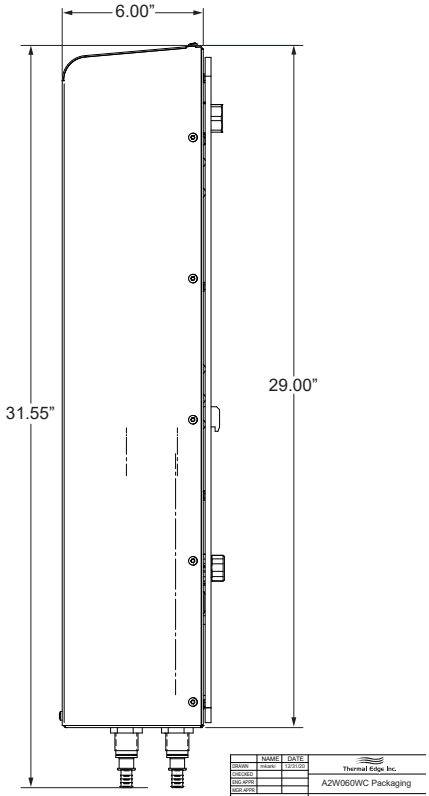
Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Air Flow Rate (CFM @ 0 Static Pressure)	H x W x D	Weight (lbs.)
A2W601212	12	Powder coated steel	115/1/50-60	0.59	234	29" x 11.8" x 6"	33.75
A2W601204	4	Powder coated steel	115/1/50-60	0.59	234	29" x 11.8" x 6"	33.75
A2W60124X	4X	Stainless steel	115/1/50-60	0.59	234	29" x 11.8" x 6"	33.75
A2W602312	4X	Powder coated steel	230/1/50-60	0.38	234	29" x 11.8" x 6"	33.75
A2W602304	12	Powder coated steel	230/1/50-60	0.38	234	29" x 11.8" x 6"	33.75
A2W60234X	4	Stainless steel	230/1/50-60	0.38	234	29" x 11.8" x 6"	33.75
A2W604812	4X	Powder coated steel	460/1/50-60	0.19	234	29" x 11.8" x 6"	33.75
A2W604804	12	Powder coated steel	460/1/50-60	0.19	234	29" x 11.8" x 6"	33.75
A2W60484X	4	Stainless steel	460/1/50-60	0.19	234	29" x 11.8" x 6"	33.75

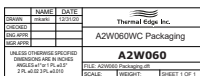
Testing done under controlled conditions. Actual performance may vary.











UL File #33288

Thermal Edge Inc.™

**All information subject to change without notice.*

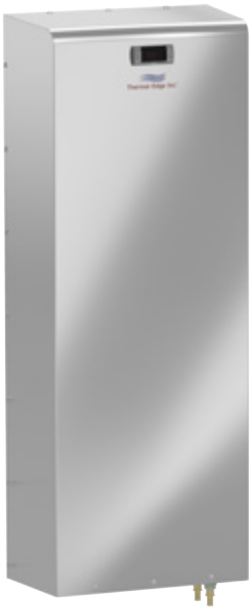
Thermal Edge Inc.™

A2W100

12/14/2023

17,330 BTUH (@ 95°F ENCLOSURE & 50°F WATER TEMPERATURES)
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

When ambient conditions are extreme, Air-to-Water Heat Exchangers by Thermal Edge provide reliable, efficient, and cost-effective solutions. Ideal for high ambient conditions and tough industrial environments, these air-to-water heat exchangers provide contaminant-free cooling while minimizing energy use and maintenance cost.



Key Design Features

- Protection from outdoor contaminants with a closed loop design
- Constant elimination of condensate
- Easy maintenance with a filter free design
- Flexible application with the narrow body style fitting 16" deep enclosures
- Eliminates water and corrosion buildup in washdown applications with a sloped roof design and seam welded shroud
- Ruggedly designed for manufacturing environments in powder coated steel or corrosion resistant stainless steel
- Maintains UL Tested NEMA Type 12, 4, and 4X
- Ambient operating temperature: 34°F - 140°F
- Overall dimensions: 40.7" H x 15.8" W x 8.1" D

OPTIONS:

- Integrated digital temperature controller
- Solenoid water valve
- Water Leak Detection Switch
- Corrosive environment package
- Open door kill switch
- Aluminum or 316 stainless steel housing
- Enclosure mounted controller
- Dry contact alarm
- Remote monitoring options
- UL power cord

APPLICATIONS

Ideal for food processing plants, agricultural irrigation, waste-water treatment, automotive plants, flour milling and mining operations where water is readily available onsite.

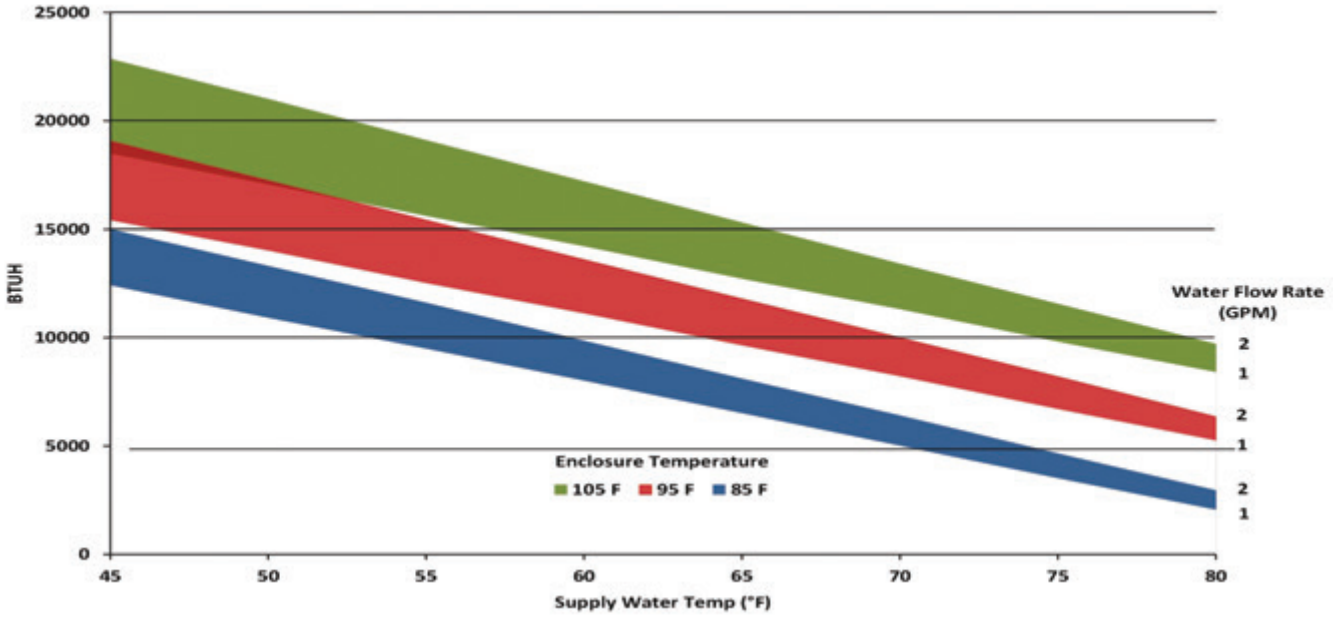
ACCESSORIES:

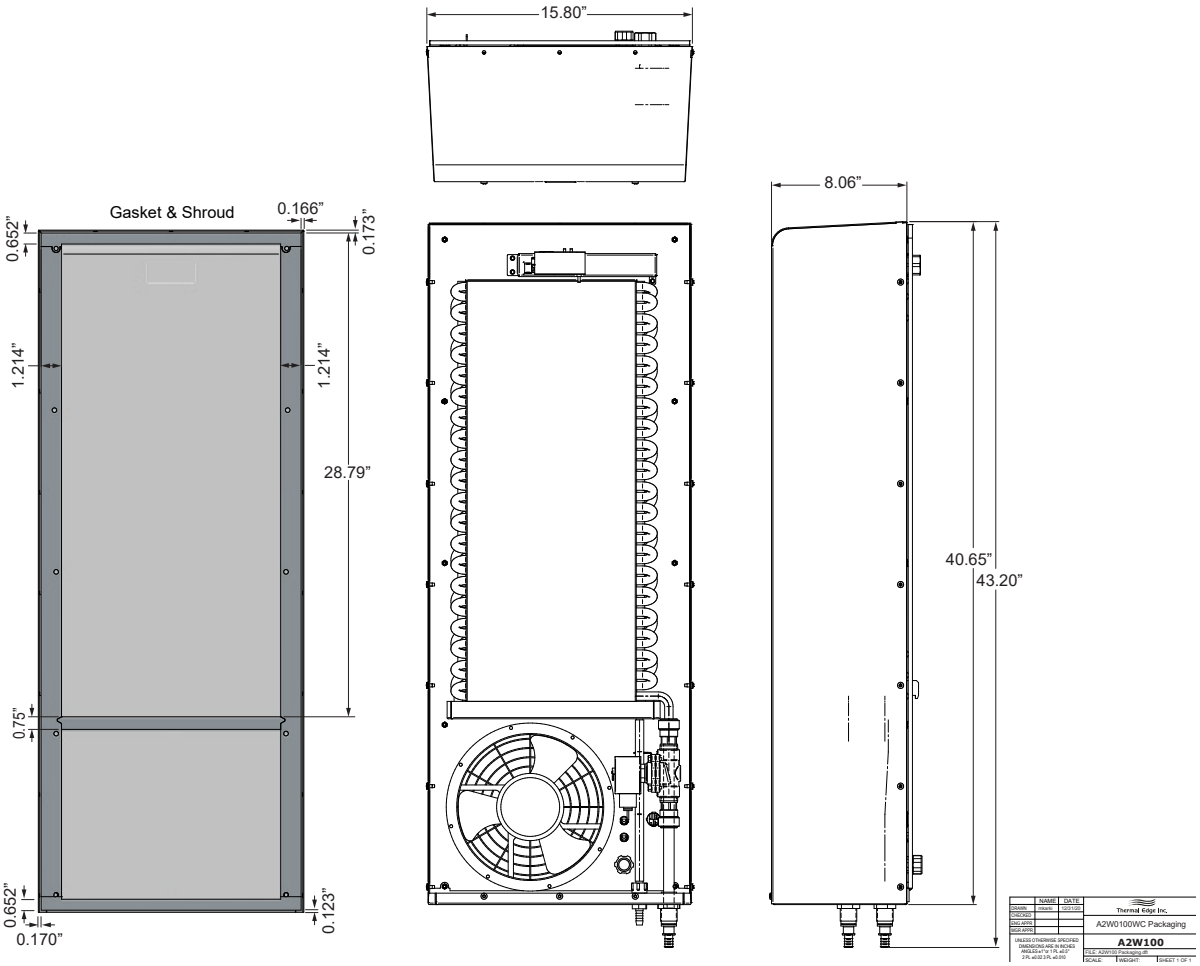
Water supply shutoff valves

Hydro Edge

Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Air Flow Rate (CFM @ 0 Static Pressure)	H x W x D	Weight (lbs.)
A2W1001212	12	Powder coated steel	115/1/50-60	1.11	516	40.7" x 15.8" x 8.1"	55
A2W1001204	4	Powder coated steel	115/1/50-60	1.11	516	40.7" x 15.8" x 8.1"	55
A2W100124X	4X	Stainless steel	115/1/50-60	1.11	516	40.7" x 15.8" x 8.1"	55
A2W1002312	12	Powder coated steel	230/1/50-60	0.60	516	40.7" x 15.8" x 8.1"	55
A2W1002304	4	Powder coated steel	230/1/50-60	0.60	516	40.7" x 15.8" x 8.1"	55
A2W100234X	4X	Stainless steel	230/1/50-60	0.60	516	40.7" x 15.8" x 8.1"	55
A2W1002312	12	Powder coated steel	460/1/50-60	0.30	516	40.7" x 15.8" x 8.1"	55
A2W1002304	4	Powder coated steel	460/1/50-60	0.30	516	40.7" x 15.8" x 8.1"	55
A2W100234X	4X	Stainless steel	460/1/50-60	0.30	516	40.7" x 15.8" x 8.1"	55

Testing done under controlled conditions. Actual performance may vary.





UL File #33288

**All information subject to change without notice.*

Thermal Edge Inc.™

A2W200

12/14/2023

18,930 BTUH (@ 95°F ENCLOSURE & 50°F WATER TEMPERATURES) INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

When ambient conditions are extreme, Air-to-Water Heat Exchangers by Thermal Edge provide reliable, efficient, and cost-effective solutions. Ideal for high ambient conditions and tough industrial environments, these air-to-water heat exchangers provide contaminant-free cooling while minimizing energy use and maintenance cost.

Key Design Features

- Protection from outdoor contaminants with a closed loop design
- Constant elimination of condensate
- Easy maintenance with a filter free design
- Flexible application with the narrow body style fitting 16" deep enclosures
- Eliminates water and corrosion buildup in washdown applications with a sloped roof design and seam welded shroud
- Ruggedly designed for manufacturing environments in powder coated steel or corrosion resistant stainless steel
- Maintains UL Tested NEMA Type 12, 4, and 4X
- Ambient operating temperature: 34°F - 140°F
- Overall dimensions: 50" H x 15.8" W x 8.5" D

OPTIONS:

- Integrated digital temperature controller
- Solenoid water valve
- Water Leak Detection Switch
- Corrosive environment package
- Open door kill switch
- Aluminum or 316 stainless steel housing
- Enclosure mounted controller
- Dry contact alarm
- Remote monitoring options
- UL power cord

APPLICATIONS

Ideal for food processing plants, agricultural irrigation, waste-water treatment, automotive plants, flour milling and mining operations where water is readily available onsite.

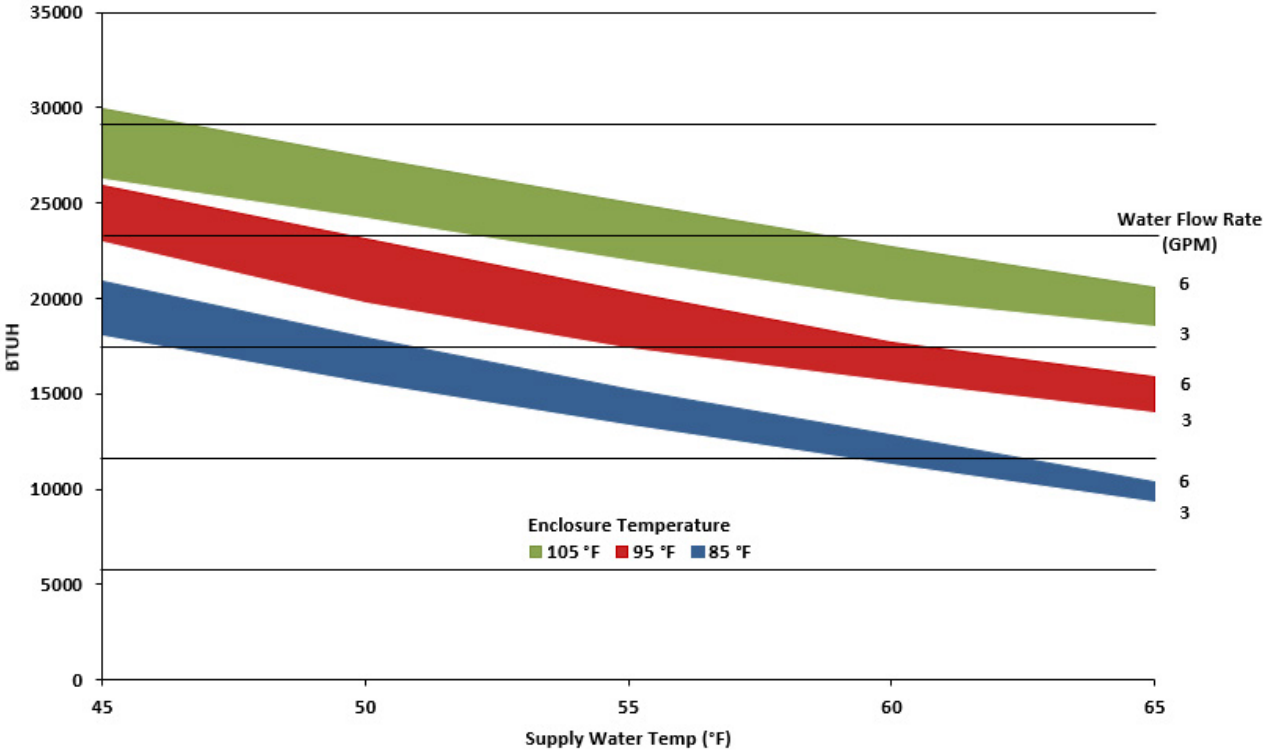
ACCESSORIES:

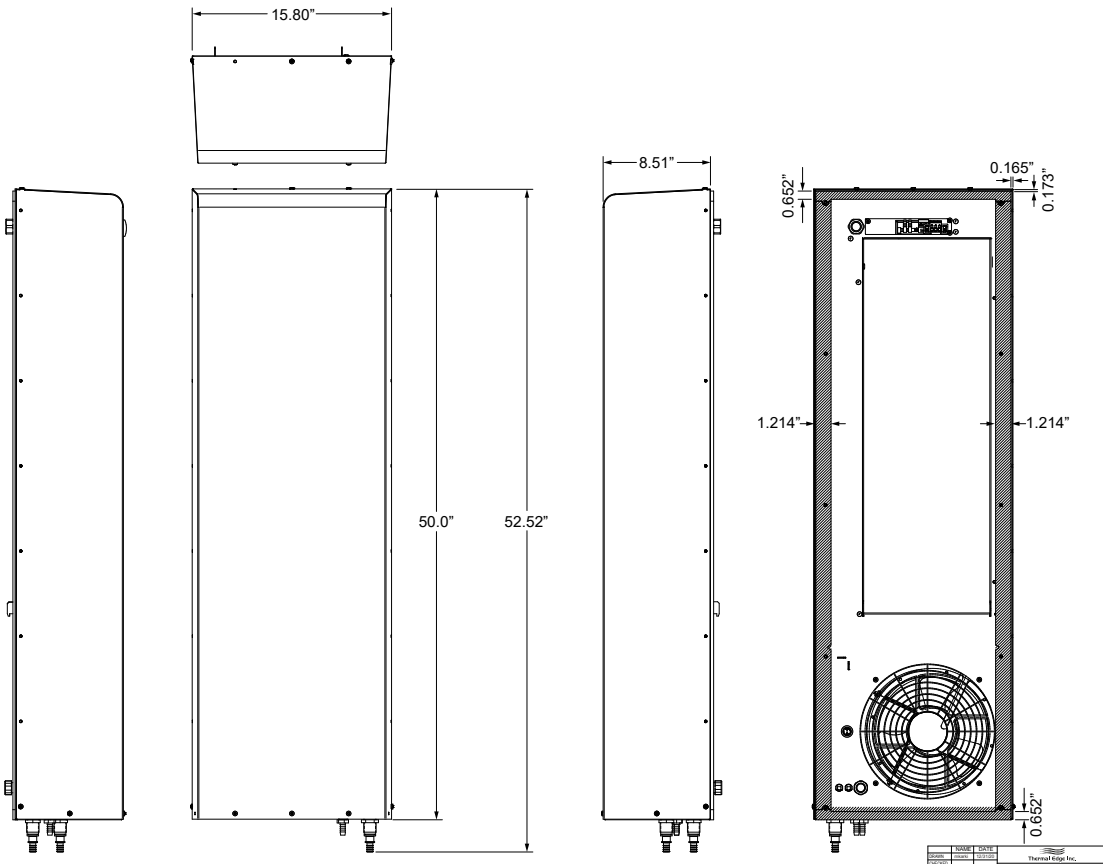
Water supply shutoff valves

Hydro Edge

Model	UL Type	Material	Voltage/ Phase/Hz.	Running Amps	Air Flow Rate (CFM @ 0 Static Pressure)	H x W x D	Weight (lbs.)
A2W2001212	12	Powder coated steel	115/1/50-60	2.51	670	50" x 15.8" x 8.5"	70
A2W2001204	4	Powder coated steel	115/1/50-60	2.51	670	50" x 15.8" x 8.5"	70
A2W200124X	4X	Stainless steel	115/1/50-60	2.51	670	50" x 15.8" x 8.5"	70
A2W2002312	12	Powder coated steel	230/1/50-60	1.26	670	50" x 15.8" x 8.5"	70
A2W2002304	4	Powder coated steel	230/1/50-60	1.26	670	50" x 15.8" x 8.5"	70
A2W200234X	4X	Stainless steel	230/1/50-60	1.26	670	50" x 15.8" x 8.5"	70
A2W2002312	12	Powder coated steel	460/1/50-60	0.63	670	50" x 15.8" x 8.5"	70
A2W2002304	4	Powder coated steel	460/1/50-60	0.63	670	50" x 15.8" x 8.5"	70
A2W200234X	4X	Stainless steel	460/1/50-60	0.63	670	50" x 15.8" x 8.5"	70

Testing done under controlled conditions. Actual performance may vary.





UL File #33288

**All information subject to change without notice.*

EFFICIENT AND COST EFFECTIVE COOLING FOR EXTREME AMBIENT CONDITIONS

OPTIONAL INTELLIGENT SYSTEM CONTROL AND MONITORING
An optional integrated digital temperature controller and optional solenoid water valve which regulates temperature control and monitors the system status.

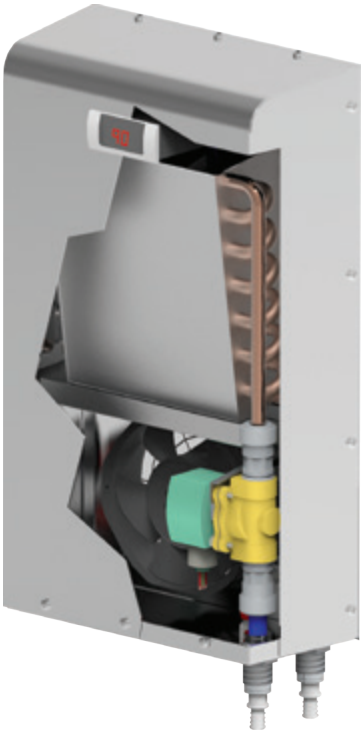
PROTECTION FROM OUTDOOR CONTAMINANTS...
with its closed loop design.

CONSTANT ELIMINATION OF CONDENSATE...
ensures reliable and efficient condensation management.

FLEXIBLE APPLICATION WITH A NARROW BODY STYLE...
fits 12" deep enclosures.

ELIMINATES WATER AND CORROSION BUILDUP in washdown applications with its sloped roof design and seam welded shroud.

RUGGEDLY DESIGNED for manufacturing environments in powder coated steel or corrosion resistant stainless steel.



Shown with optional digital temperature controller and optional solenoid water valve

FOR A WIDE RANGE OF APPLICATIONS

With cooling capacities up to 20,000 BTUH, these units provide liquid cooling for a wide range of cabinet cooling applications.

DESIGNED FOR EXTREME CONDITIONS

Ruggedly designed for manufacturing environments susceptible to extreme ambient or aggressive conditions.

ENERGY EFFICIENT OPERATION

With efficient heat transfer capabilities, a water source absorbs and transfers electrical heat from the enclosure.

CONSISTENT TEMPERATURE CONTROL

Precise temperature control of the electrical enclosure with the ability to regulate coolant flow.

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

AIR TO AIR HEAT EXCHANGERS

Heat Pipe Technology
Closed Loop Design
Available in 115 & 230VAC, 24 & 48VDC
NEMA Types 12, 4 and 4X
UL Listed for Standard and Hazardous Locations

MADE IN AMERICA MATTERS...

Thermal Edge Inc.™

COMPACT SERIES

1/22/2025

AIR TO AIR HEAT EXCHANGER | 22 WATTS/°C (12 WATTS/°F)
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Advantages

- Industry leading 5-Year Workmanship Warranty
- High efficiency heat pipe design
- Standard units include on/off switch
- NEMA Type 12, 4 & 4X
- Coated coils standard on all units
- 115VAC, 230VAC & 24VDC
- Needs no filter
- UL Listed for standard & hazardous location
- Equipment tested to perform and built to last
- Units designed with our customers' applications and environments in mind

OPTIONS:

- Hazardous Location Class 1, Div 2, Groups A,B,C,D (XJX)

c UL us
UL File # 33288
Under UL standard 1995

CE

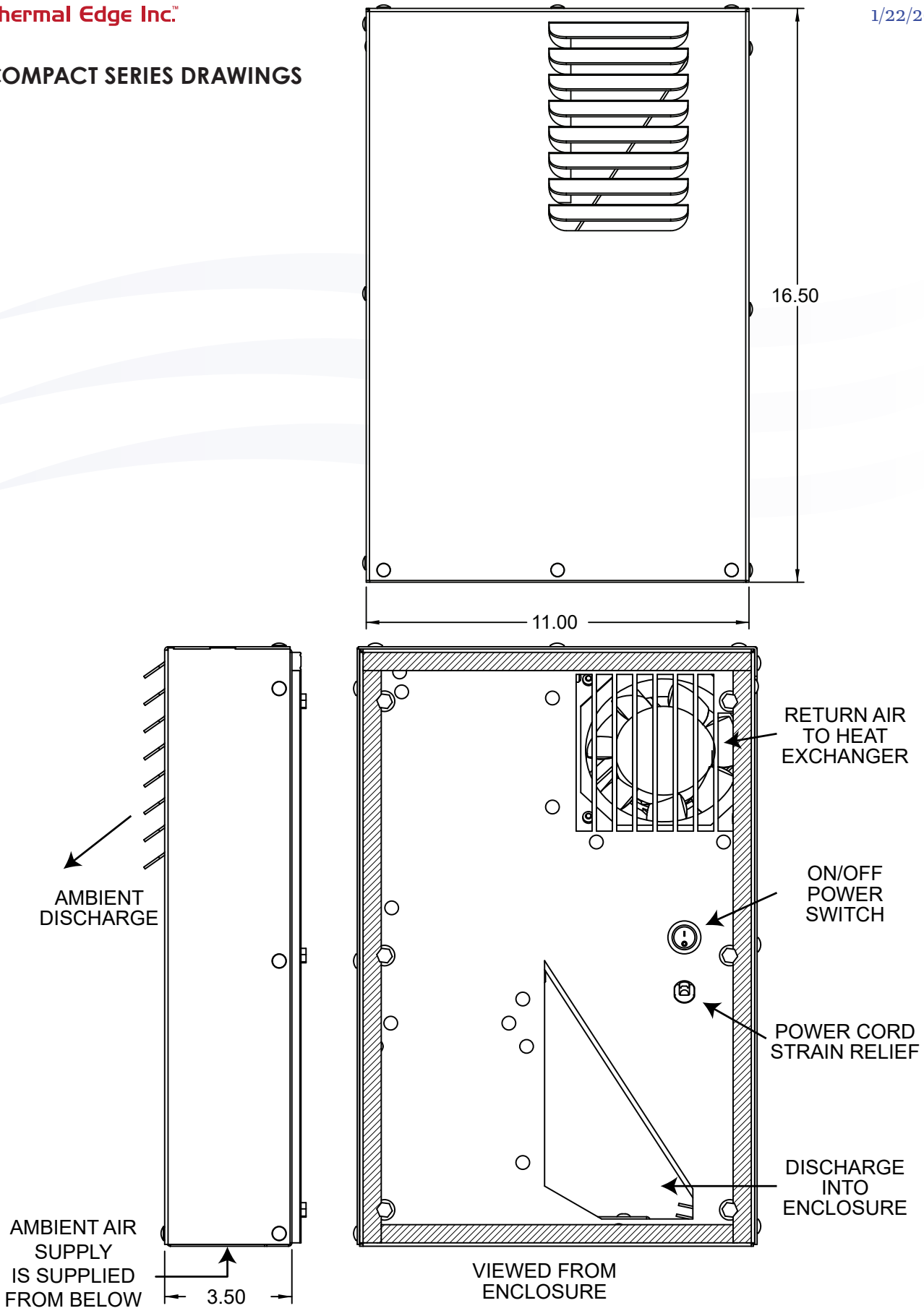
Thermal Edge Inc.™ 5-YEAR WARRANTY

Model	UL Type	Material	Voltage/Hz.	Running Amps	Watts	Max. Op. Temp.	H x W x D	Weight (lbs.) Unit/Ship
A2AC08012012	12	Powder coated steel	115/50-60	0.35	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC08012004	4	Powder coated steel	115/50-60	0.35	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC0801204X	4X	Stainless steel	115/50-60	0.35	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC08023012	12	Powder coated steel	230/50-60	0.20	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC08023004	4	Powder coated steel	230/50-60	0.20	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC0802304X	4X	Stainless steel	230/50-60	0.20	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC080D2412	12	Powder coated steel	24VDC	0.80	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC080D2404	4	Powder coated steel	24VDC	0.80	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18
A2AC080D244X	4X	Stainless steel	24VDC	0.80	22°C (12°F)	149°F	16.5" x 11" x 3.5"	16 / 18

Thermal Edge Inc.™

1/22/2025

COMPACT SERIES DRAWINGS



Thermal Edge Inc.™

DEEP SERIES

1/22/2025

AIR TO AIR HEAT EXCHANGER | 44 WATTS/°C (24 WATTS/°F)
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE

Advantages

- Industry leading 5-Year Workmanship Warranty
- High efficiency heat pipe design
- Standard units include on/off switch
- NEMA Type 12, 4 & 4X
- Coated coils standard on all units
- 115VAC, 230VAC, 24VDC & 48VDC
- Needs no filter
- UL Listed for standard & hazardous location
- Equipment tested to perform and built to last
- Units designed with our customers' applications and environments in mind

OPTIONS:

- Hazardous Location Class 1, Div 2, Groups A,B,C,D (XJX)

c UL us
UL File # 33288
Under UL standard 1995

CE

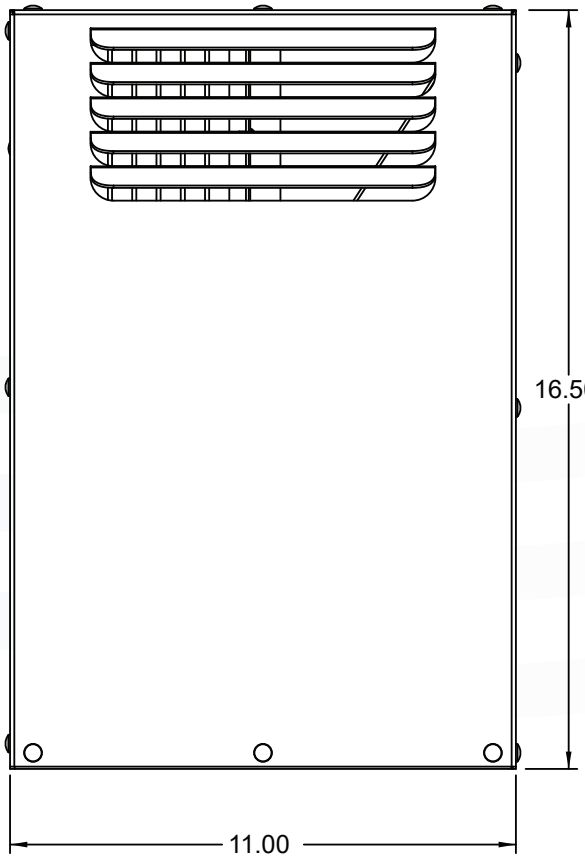
Thermal Edge Inc.'s 5-YEAR WARRANTY

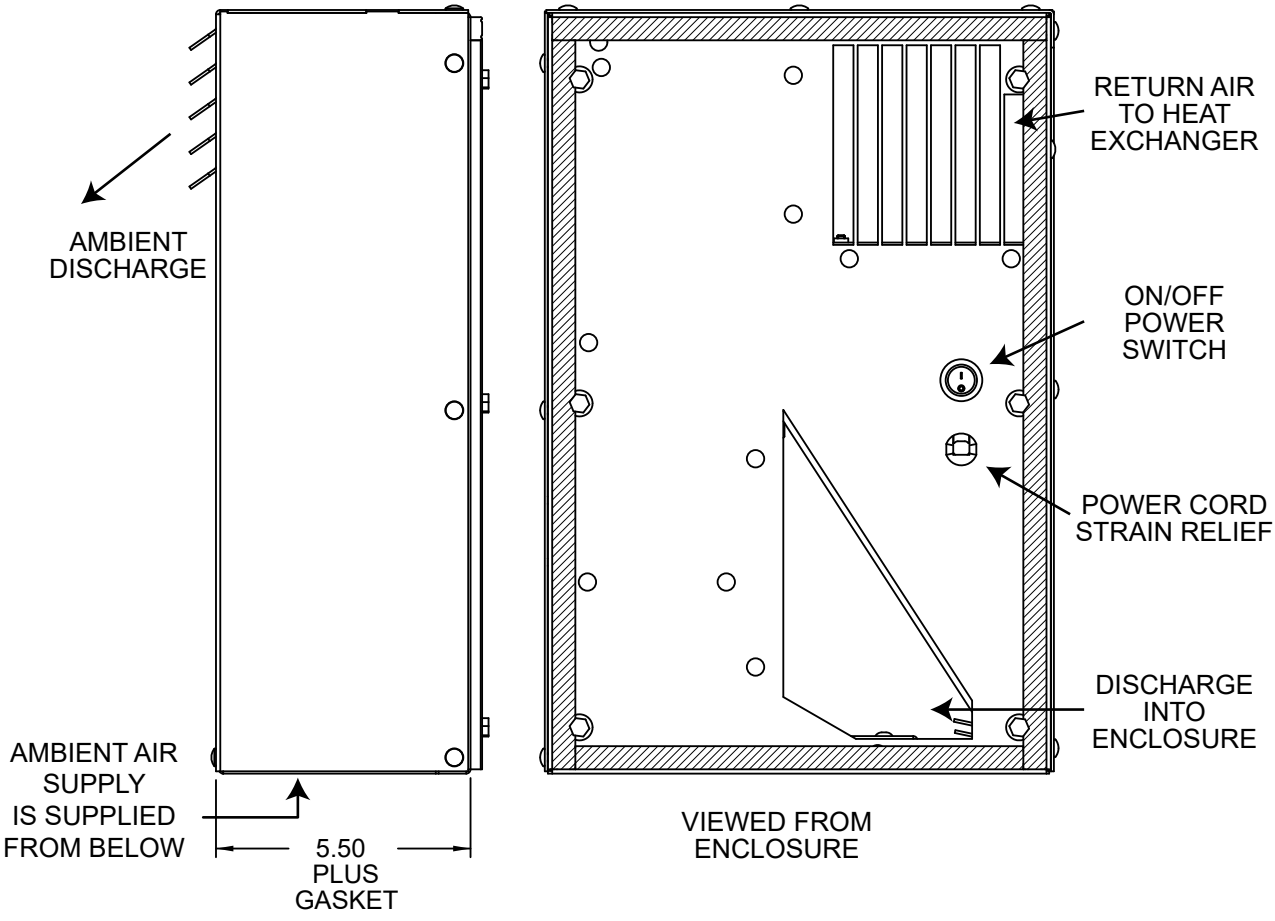
Model	UL Type	Material	Voltage/Hz.	Running Amps	Watts	Max. Op. Temp.	H x W x D	Weight (lbs.) Unit/Ship
A2AD16012012	12	Powder coated steel	115/50-60	0.35	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD16012004	4	Powder coated steel	115/50-60	0.35	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD1601204X	4X	Stainless steel	115/50-60	0.35	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD16023012	12	Powder coated steel	230/50-60	0.18	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD16023004	4	Powder coated steel	230/50-60	0.18	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD1602304X	4X	Stainless steel	230/50-60	0.18	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D2412	12	Powder coated steel	24VDC	0.80	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D2404	4	Powder coated steel	24VDC	0.80	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D244X	4X	Stainless steel	24VDC	0.80	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D4812	12	Powder coated steel	48VDC	0.40	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D4804	4	Powder coated steel	48VDC	0.40	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22
A2AD160D484X	4X	Stainless steel	48VDC	0.40	44°C (24°F)	149°F	16.5" x 11" x 5.5"	20 / 22

Thermal Edge Inc.™

1/22/2025

DEEP SERIES DRAWINGS



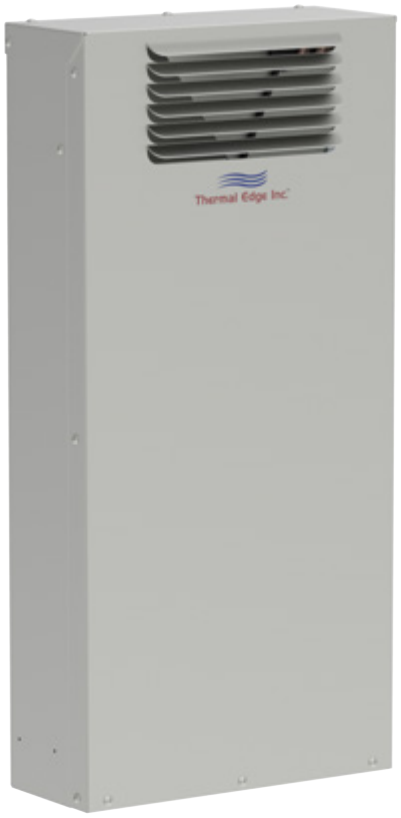


Thermal Edge Inc.™

TALL SERIES

1/22/2025

AIR TO AIR HEAT EXCHANGER | 71.6 WATTS/°C (40 WATTS/°F)
INDOOR/OUTDOOR, UL TYPES 12, 4 & 4X AVAILABLE



Advantages

- Industry leading 5-Year Workmanship Warranty
- High efficiency heat pipe design
- Standard units include on/off switch
- NEMA Type 12, 4 & 4X
- Coated coils standard on all units
- 115VAC, 230VAC, 24VDC & 48VDC
- Needs no filter
- UL Listed for standard & hazardous location
- Equipment tested to perform and built to last
- Units designed with our customers' applications and environments in mind

OPTIONS:

- Hazardous Location Class 1, Div 2, Groups A,B,C,D (XJX)

c UL us
UL File # 33288
Under UL standard 1995

CE

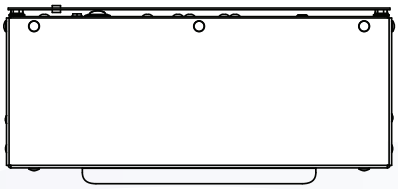
Thermal Edge Inc.™ 5-YEAR WARRANTY

Model	UL Type	Material	Voltage/Hz.	Running Amps	Watts	Max. Op. Temp.	H x W x D	Weight (lbs.) Unit/Ship
A2AT26012012	12	Powder coated steel	115/50-60	0.47	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT26012004	4	Powder coated steel	115/50-60	0.47	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT2601204X	4X	Stainless steel	115/50-60	0.47	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT26023012	12	Powder coated steel	230/50-60	0.24	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT26023004	4	Powder coated steel	230/50-60	0.24	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT2602304X	4X	Stainless steel	230/50-60	0.24	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D2412	12	Powder coated steel	24VDC	1.94	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D2404	4	Powder coated steel	24VDC	1.94	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D244X	4X	Stainless steel	24VDC	1.94	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D4812	12	Powder coated steel	48VDC	0.96	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D4804	4	Powder coated steel	48VDC	0.96	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36
A2AT260D484X	4X	Stainless steel	48VDC	0.96	71.6°C (40°F)	160°F	29" x 13.88" x 5.5"	34 / 36

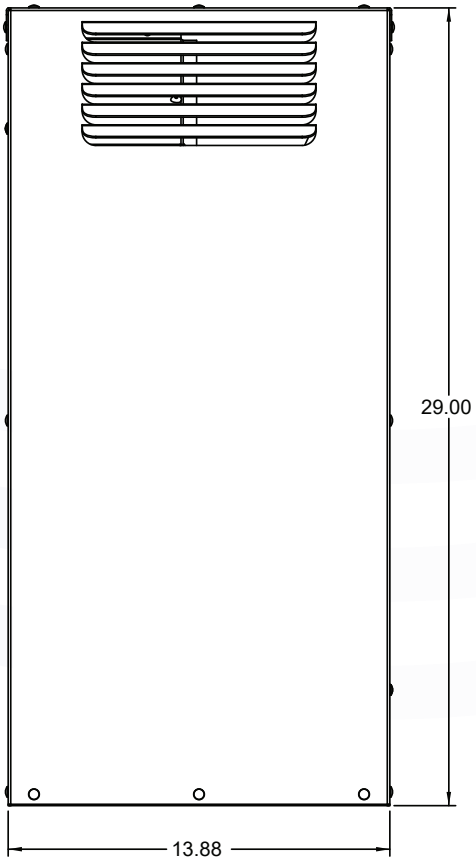
Thermal Edge Inc.™

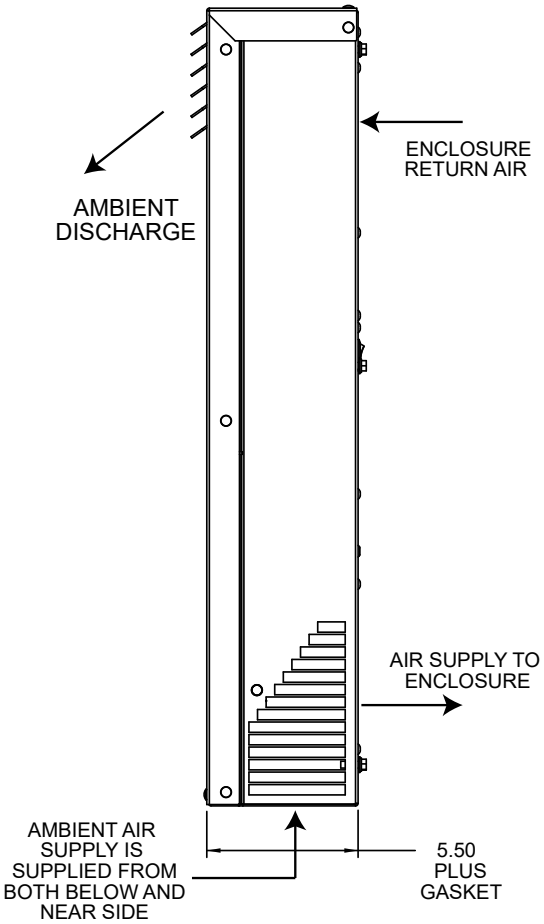
1/22/2025

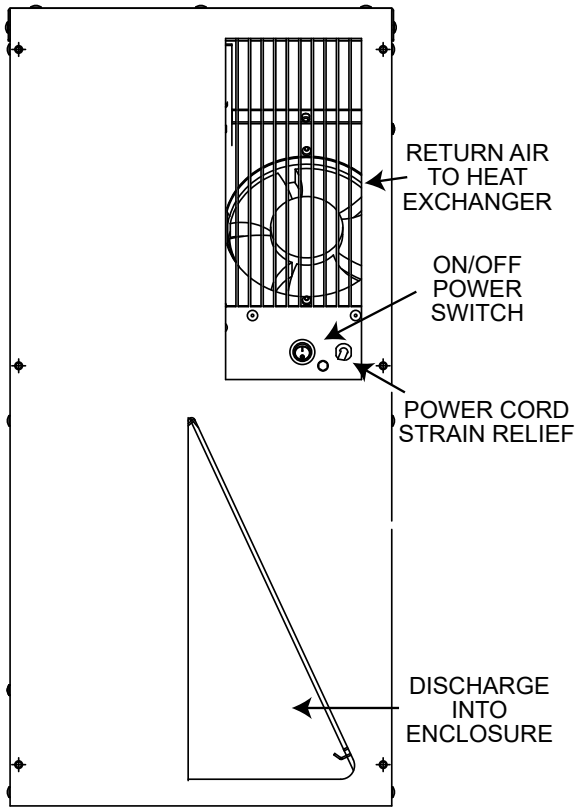
TALL SERIES DRAWINGS



TOP VIEW







VIEWED FROM ENCLOSURE

Thermal Edge Inc.™

AT COLTEC

1/22/2025

AIR TO AIR THERMOELECTRIC COOLING UNITS | NEMA 12

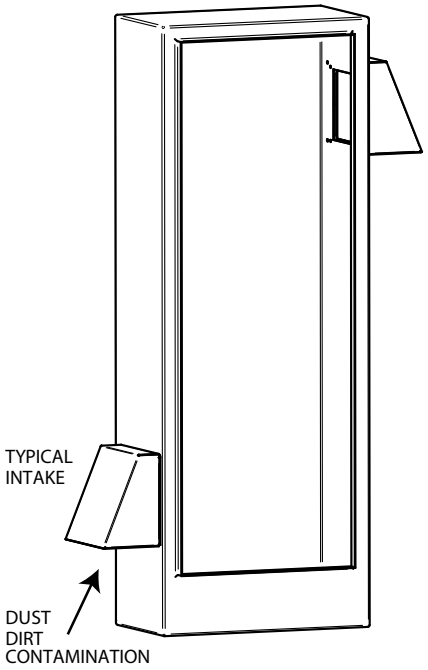
Thermoelectric cooling units are versatile solutions designed for demanding industries like industrial enclosures, medical devices, lab instruments, aerospace, and telecommunications. They provide active cooling to lower or stabilize temperatures, unlike passive heat sinks. Applications range from simple food coolers to advanced temperature control in space technologies. Our Air-to-Air Thermoelectric Cooling Units (AT COLTEC series) offer reliable cooling for telecom batteries, industrial cabinets, and more.

Advantages & Characteristics:

- CE Compliant
- Color: RAL 9003 – White
- Virtually maintenance-free, with no filters or compressors
- Safe for the environment with no refrigerant
- No air exchange between ambient and cabinet air
- Continuous operation
- Installs vertically or horizontally
- Installs on any plate thickness with use of screws
- Uses quality ball bearing fans
- Standard direction airflow
- Ingress Protection of NEMA 12/ IP 55
- Ambient temp. range: 14 TO +140°F (-10 TO +60°C)

Model	Voltage (VDC)	Amperage	Cooling Capacity (W-BTU/R)	H x W x D in. (mm)	Weight lbs. (kg)
AT COLTECN01512-55	12	2.2 ±10%	19-65	4.76×3.94×3.15 (121×100×80)	1.32 (0.6)
AT COLTECN03512-55	12	2.5 ±10%	25-85	4.25×3.94×3.15 (108×100×80)	1.32 (0.6)
AT COLTECN05012-55	12	3.9 ±10%	35-120	5.67×4.73×4.05 (144×120×103)	2.43 (1.1)
AT COLTECN05024-55	24	4.0 ±10%	50-170	6.30×4.80×5.5.8 (160×122×146)	3.97 (1.8)
AT COLTECN08024-55	24	5.0 ±10%	80-270	9.49×6.14×8.27 (241×156×210)	6.17 (2.8)
AT COLTECN10012-55	12	12.6 ±10%	100-340	9.49×6.14×8.27 (241×156×210)	6.17 (2.8)
AT COLTECN10024-55	24	7.7 ±10%	100-340	7.87×7.09×6.38 (200×180×162)	4.4 (2)
AT COLTECN10048-55	48	4.3 ±10%	100-340	7.87×7.09×6.38 (200×180×162)	4.4 (2)
AT COLTECN20024-55	24	12.5±10%	200-680±10%	15.75×7.87×7.09 (400×200×180)	16.53 (7.5)
AT COLTECN20048-55	48	7.5 ±10%	200-680 ±10%	15.75×8.11×7.09 (400×200×180)	16.53 (7.5)
AT COLTECN30048-55	48	14 ±10%	300-1024 ±10%	11.81×12.99×7.87 (300×330×200)	22 (10)
AT COLTECN40048-55	48	14 ±10%	400-1365 ±10%	15.75×12.99×7.87 (400×330×200)	33 (15)
AT COLTECN400240-55	48	5.3 ±10%	400-1365 ±10%	15.75×12.99×7.87 (400×330×200)	40 (18)
AT COLTECN800240-55	240	4.4 ±10%	800-2730 ±10%	2661×17.32×7.09 (676×440×180)	77 (35)
AT COLTECN80048-55	48	14 ±10%	800-2730 ±10%	2661×17.32×7.09 (676×440×180)	77 (35)

COMPONENTS ARE FAILING INSIDE ELECTRICAL ENCLOSURES WHEN USING FILTERED FAN PACKAGES



FACT:

- Filtered Fans introduce dirt and contamination into every electrical enclosure using them.
- Drives and PLCs do not like dirt, dust and contamination.
- Filtered Fans can never produce a true closed loop cooling solution.
- No matter how effective your filter is, dirt and particulates will enter your enclosure.

In this image, a standard installation shows where the dirt and particulate will enter the enclosure and be pulled in by the fans on your drives and devices. Filters or not, contamination is invited in by this open loop approach.

CONSIDER A BETTER SOLUTION—
AN AIR TO AIR HEAT EXCHANGER:

- Always closed loop
- Low cost and maintenance free
- Easier to mount on only one side of your enclosure
- Energy efficient, using no more power than a filtered fan system
- Filter free, so no diminished cooling capacity.
- Air to air heat exchangers are available in NEMA types 12, 4 and 4x

In this image, a standard installation demonstrates the closed loop condition maintained by the Air to Air Heat Exchanger. Cool air inlet and outlet vents are completely covered by the heat exchanger.
*This provides NEMA Type 12, 4 or 4X.**

**All information subject to change without notice*

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

FILTERED FANS PACKAGES

PLASTIC:

Injection Molded Plastic UL Types 12 & 3R

UL Types 12 & 3R

UL Types 12 & 3R | Accessories

Injection Molded Plastic UL Type 1

METAL:

Powder Coated and Stainless Steel

Accessories | 3R Rain Shrouds

BOTH:

Accessories | Filter Media

Accessories | Thermostats

MADE IN AMERICA MATTERS...

INJECTION MOLDED PLASTIC UL TYPES 12 & 3R

PACKAGE INCLUDES FILTERED FAN & FILTERED EXHAUST VENT

Features:

- Hood-free Type 3R rating
- Storage temperature: -40 to 158 °F
- Operating temperature: 14 to 131 °F
- Noise Level: < 60 dBA
- Secure snap-in installation on 18 to 11 gauge panels
- Integrated perimeter seal
- Sliding grille for easy filter maintenance

Injection Molded UV resistant plastic:

- UL Type 12 color: RAL 7035 light grey
- UL Type 3R color: RAL 9005 jet black

Quiet, efficient ball bearing fans:

- 100,000 hour L10 lifetime @25°C
- Thermal motor protection
- Screwless terminal block electrical connection (28-14 AWG)

Progressive structure synthetic fiber filter medium:

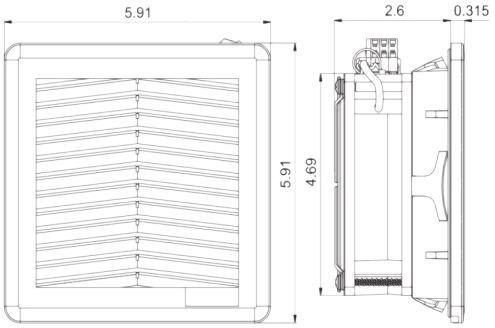
- Washable
- Class G3 per EN 779

Model	Height	Width	Depth
PFFP085	5.91"	5.91"	2.915"
PFFP150	8.03"	8.03"	3.755"
PFFP250	9.84"	9.84"	4.924"
PFFP450	12.8"	12.8"	6.314"

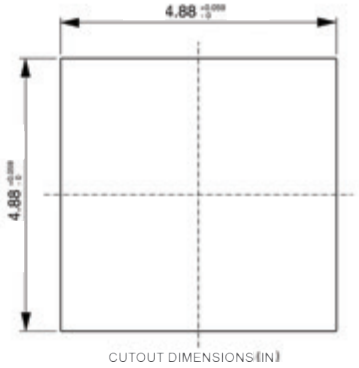
Part Number UL Type 12 (Color: RAL 7035 gray)	Filtered Fan CFM	CFM With Exhaust Filter	Voltage/ Frequency	Rated Current (Amps)	Weight (lbs.)
PFFP085-120-12-XXX	39/46	26/31	115 VAC 50/60	0.26/0.22	1.9
PFFP085-230-12-XXX	39/46	26/31	230 VAC 50/60	0.13/0.10	1.9
PFFP085-D24-12-XXX	28	21	24 VDC	22/71	1.2
PFFP150-120-12-XXX	65/76	50/60	115 VAC 50/60	0.20/0.18	2.5
PFFP150-230-12-XXX	65/76	50/60	230 VAC 50/60	0.126/0.11	2.5
PFFP150-D24-12-XXX	59	44	24 VDC	0.342	1.8
PFFP250-120-12-XXX	135/159	95/112	115 VAC 50/60	0.28/0.27	3.9
PFFP250-230-12-XXX	135/159	95/112	230 VAC 50/60	0.14/0.16	3.9
PFFP250-D24-12-XXX	162	118	24 VDC	1.3	3.8
PFFP450-120-12-XXX	262/285	186/206	115 VAC 50/60	0.68/0.73	8
PFFP450-230-12-XXX	268/296	189/210	230 VAC 50/60	0.31/0.35	8

Part Number UL Type 3R (Color: RAL 9005 black)	Filtered Fan CFM	CFM With Exhaust Filter	Voltage/ Frequency	Rated Current (Amps)	Weight (lbs.)
PFFP085-120-3R-XBX	29/35	18.5/22	115 VAC 50/60	0.26/0.22	2.1
PFFP085-230-3R-XBX	29/35	18.5/22	230 VAC 50/60	0.13/0.10	2.1
PFFP085-D24-3R-XBX	21	14.5	24 VDC	22/71	1.2
PFFP150-120-3R-XBX	53/65	37/45	115 VAC 50/60	0.20/0.18	2.5
PFFP150-230-3R-XBX	53/65	37/45	230 VAC 50/60	0.126/0.11	2.5
PFFP150-D24-3R-XBX	50	31	24 VDC	0.342	1.8
PFFP250-120-3R-XBX	94/115	68/82	115 VAC 50/60	0.28/0.26	3.9
PFFP250-230-3R-XBX	94/115	68/82	230 VAC 50/60	0.14/0.16	3.9
PFFP250-D24-3R-XBX	135	93	24 VDC	1.3	3.8
PFFP450-120-3R-XBX	199/222	141/182	115 VAC 50/60	0.68/0.73	7.9
PFFP450-230-3R-XBX	212/235	150/168	230 VAC 50/60	0.31/0.35	7.9

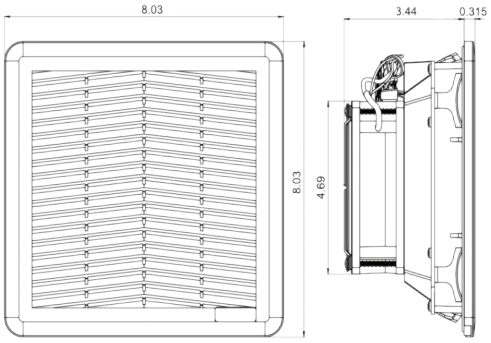
PFFP085

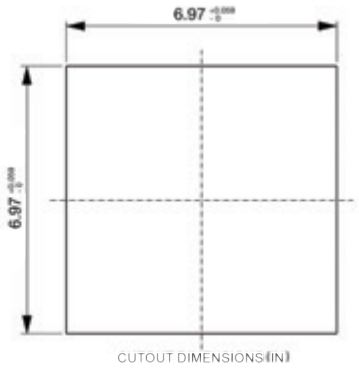


NOTE:
Type 3R cutout dimensions:
4.921 +.059 -0

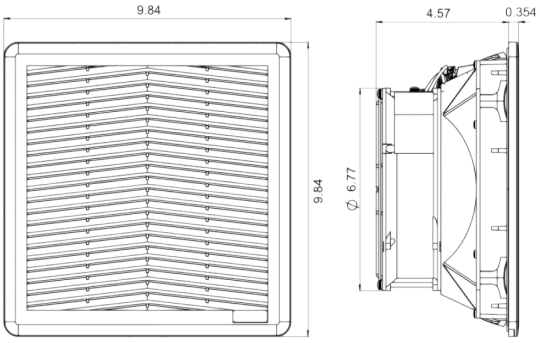


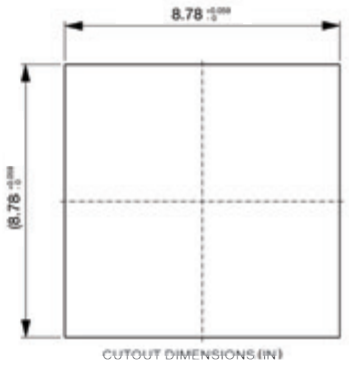
PFFP150



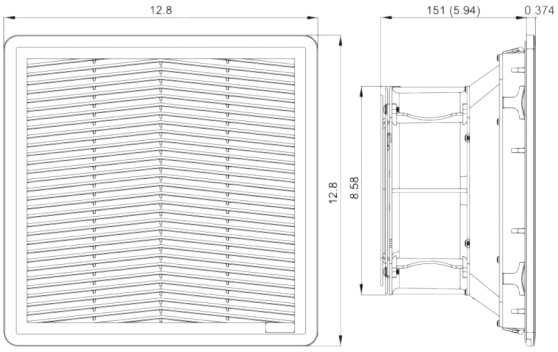


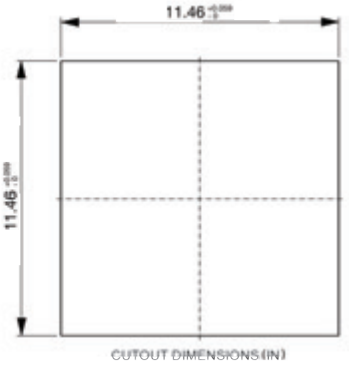
PFFP250





PFFP450





Accessories:

- Additional filtered exhaust vent
- Replacement filter media
- Plastic adaptor (reduce fan intrusion into electrical enclosure)
- Stainless steel hood (IP56 pressurized wash down protection)
- Thermostats

c UL us
UL File # E502939

CE

UL TYPES 12 & 3R

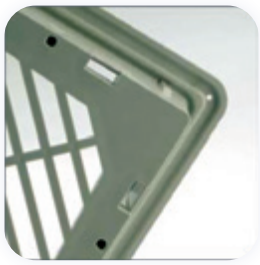
The PFFP Type 12 and Type 3R filtered fan series offers a revolutionary, tool-less, easy-to-mount solution thanks to a system of clips optimized for 18 to 11 gauge thick enclosure panels. The advanced design reduces the risk of water infiltration, increasing operating safety.

RAPID INSTALLATION

The filtered fan and exhaust are installed without screws, by simply pressing into the enclosure cutout.

INNOVATIVE MOUNTING CLIPS

The clips are made of a highly elastic material, for mounting on 11-18 gauge thick plates.



HIDDEN SEAL

A dedicated perimeter seat houses the integrated gasket between the filter unit and the enclosure.

c UL us

UL File # E502939

CE

Thermal Edge Inc.™ 5-YEAR WARRANTY

EASY SLIDE OPENING

Cover snaps securely onto the base.

OPERATIONAL SAFETY

The filter media can be replaced from the outside and without the need for tools.

UV PROTECTION

The base and cover are made of UV-resistant PC/ABS plastic.

IMPROVED WATER RESISTANCE

The interface between the base and the cover employs ribbing that facilitates water runoff to the outside.

UL TYPES 12 & 3R | ACCESSORIES

Filter Media

- High performance progressive structure polyolefin fiber with thermal bonding
- High arrestance throughout useful lifetime, providing maximum operational reliability
- Class G3 per EN779
- Can be cleaned, up to 10 times, by careful washing, blowing dry and lightly beating
- 6 filters per package

Part Number	Used On
42246	PFFP085
42247	PFFP150
42248	PFFP250
42249	PFFP450

Stainless Steel Cover

- For high pressure wash down applications
- IP56 protection
- 304 stainless steel
- Easy mounting with stainless steel bayonet bracket and PVC gasket

Part Number	Used On	Width	Height	Depth
40036-4304	PFFP085	7.48"	7.68"	1.63"
40037-4304	PFFP150	9.49"	9.69"	1.63"
40038-4304	PFFP250	11.34"	11.54"	1.63"
40039-4304	PFFP450	14.21"	14.21"	1.63"

Depth Adapter

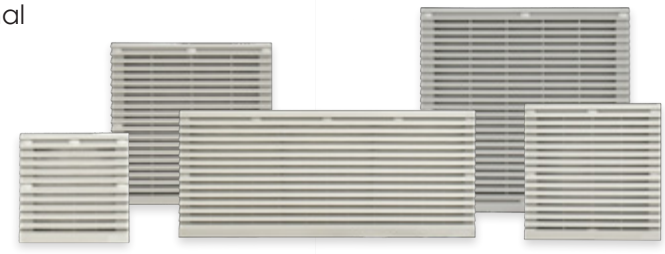
- For reducing fan intrusion into cabinet by 1 inch
- RAL7035 plastic frame
- Adapter mounts on outside of cabinet

Part Number	Used On	Cutout Dimensions (Width x Height)
40036-4304	PFFP085	4.92" x 4.92"
40037-4304	PFFP150	8.78" x 8.78"
40038-4304	PFFP250	11.46" x 11.46"

INJECTION MOLDED PLASTIC UL TYPE 1

Features:

- Efficient, quiet ball bearing fans
- Nylon or electrostatic polypropylene filter pad
- Snap-on grille for easy filter maintenance
- Angled louvers to resist moisture
- Pressurized operation standard, reverse flow optional
- Operating temperature 14° F to 131° F

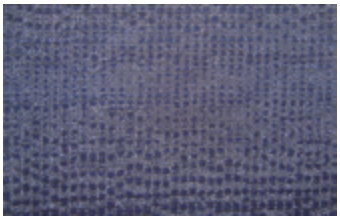


Package includes:

- Fan & exhaust vent
- Mounting Hardware
- All kits include integrated gaskets and mounting template

Accessories:

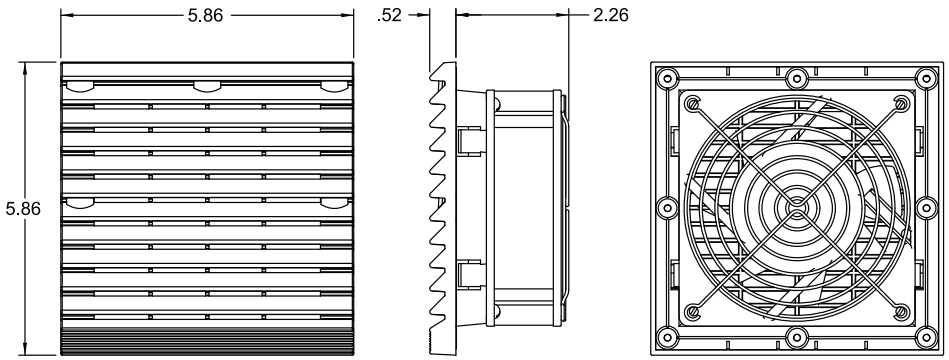
- Thermostats
- Washable replacement filters
- Vent kits



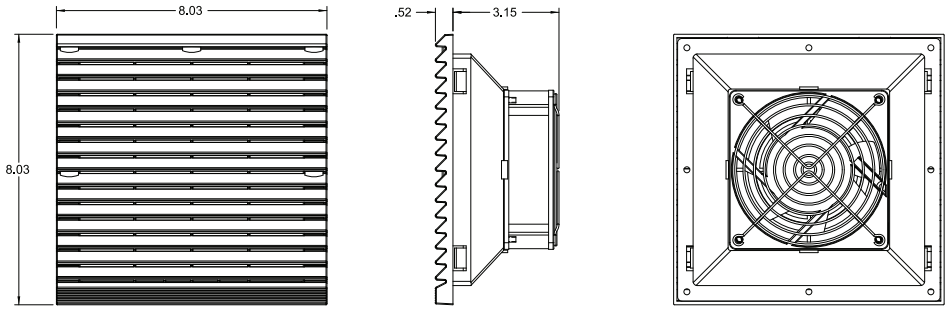
UL File # E319601

Part Number UL Type 1	CFM Free Flow	CFM With 1 Filter	CFM With 2 Filters	Voltage/Hz.	Rated Amps	RPM
PFFP080-120	75	53	24	115 VAC 50/60	0.11	2900
PFFP080-230	75	53	24	230 VAC 50/60	0.06	2900
PFFP080-D24	89	63	28	24 VDC	0.19	2200
PFFP100-120	131	101	45	115 VAC 50/60	0.17/0.18	3300
PFFP100-230	131	101	45	230 VAC 50/60	0.1/0.11	3300
PFFP100-D24	90	69	31	24 VDC	0.23	3300
PFFP200-120	300	202	91	115 VAC 50/60	0.35/0.40	3300
PFFP200-230	300	202	91	230 VAC 50/60	0.20/0.22	3300
PFFP200-D24	300	202	91	24 VDC	2.1	3900
PFFP390-120	390	280	124	115 VAC 50/60	0.51/0.54	3300
PFFP390-230	390	280	124	230 VAC 50/60	0.30/0.33	3300
PFFP390-D24	270	192	85	24 VDC	0.69	3300
PFFP500-120	850	572	247	115 VAC 50/60	0.50/0.58	2700
PFFP500-230	850	572	247	230 VAC 50/60	0.25/0.30	2700

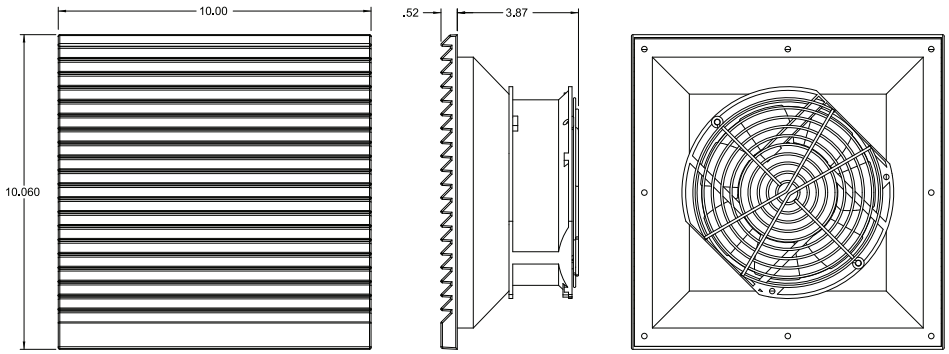
Model PFFP080



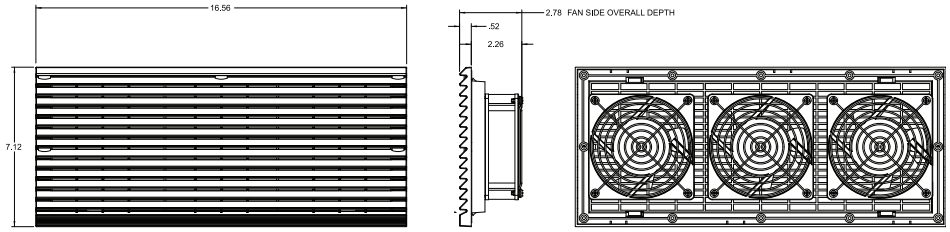
Model PFFP100



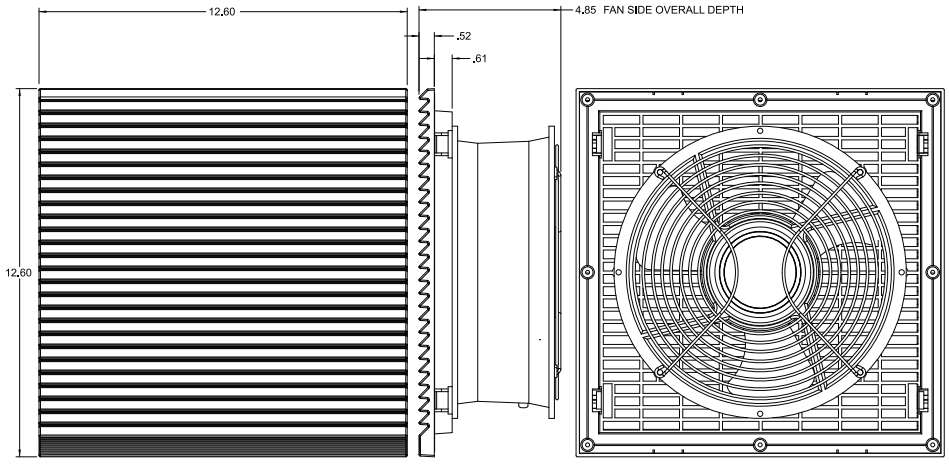
Model PFFP200



Model PFFP390



Model PFFP500



POWDER COATED AND STAINLESS STEEL

Features:

- Efficient, quiet ball bearing fans
- Electrostatic polypropylene filter pad
- Available in 304 Stainless Steel
- Pressurized operation standard, reverse flow optional
- Operating temperature 14° F to 131° F

Package includes:

- Fan & exhaust vent
- Filtered fan, filtered exhaust vent, gaskets, hardware and templates
- Includes 8' cord with plug

(TOP) ANSI 61 Powder Coated Mild Steel (RIGHT) 304 Stainless Steel (XAX)

Accessories:

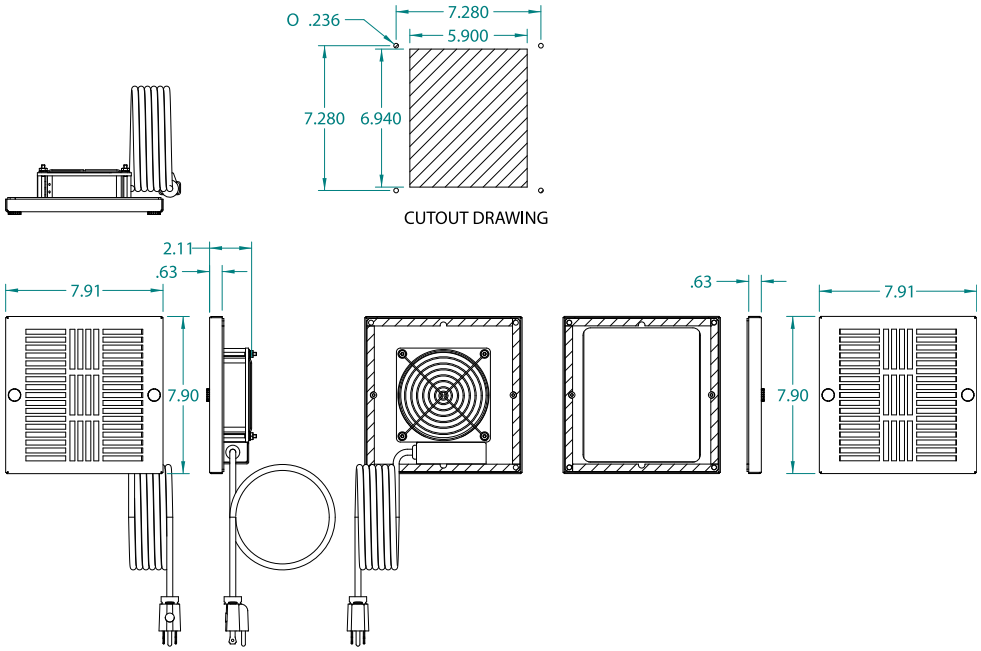
- Thermostats
- 3R Shrouds
- Washable replacement filters
- Vent kits

c UL us
UL File # E319601

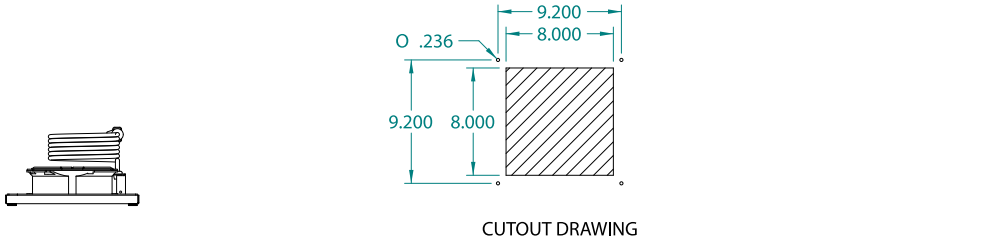
CE

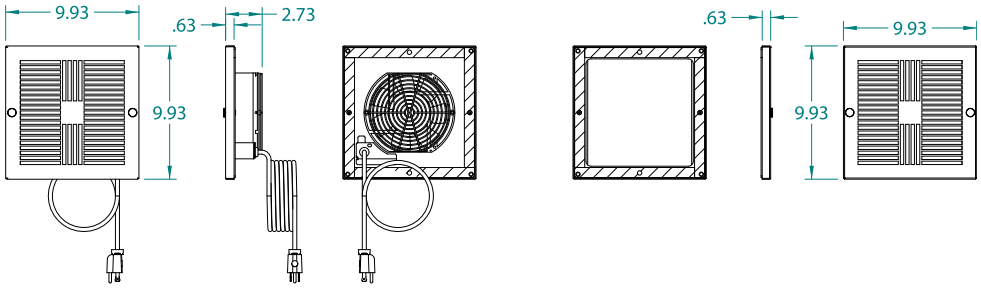
Part Number UL Type 1	Part Number UL Type 3R	CFM Free Flow	CFM With 1 Filter	CFM With 2 Filters	Voltage/Hz.	Rated Amps	RPM
MFFP100-120	MFFP100-120-3R	131	101	45	115 VAC 50/60	0.17/0.18	3300
MFFP100-230	MFFP100-230-3R	131	101	45	230 VAC 50/60	0.1/0.11	3300
MFFP100-D24	MFFP100-D24-3R	90	69	31	24 VDC	0.23	3300
MFFP200-120	MFFP200-120-3R	300	202	91	115 VAC 50/60	0.35/0.40	3300
MFFP200-230	MFFP200-230-3R	300	202	91	230 VAC 50/60	0.20/0.22	3300
MFFP200-D24	MFFP200-D24-3R	300	202	91	24 VDC	2.1	3900
MFFP200-120-01-XAX	MFFP200-120-3R-XAX	300	202	91	115 VAC 50/60	0.35/0.40	3300
MFFP200-230-01-XAX	MFFP200-230-3R-XAX	300	202	91	230 VAC 50/60	0.20/0.22	3300
MFFP200-D24-01-XAX	MFFP200-D24-3R-XAX	300	202	91	24 VDC	2.1	3900
MFFP500-120	MFFP500-120-3R	850	572	247	115 VAC 50/60	0.50/0.58	2700
MFFP500-230	MFFP500-230-3R	850	572	247	230 VAC 50/60	0.25/0.30	2700

Model MFFP 100

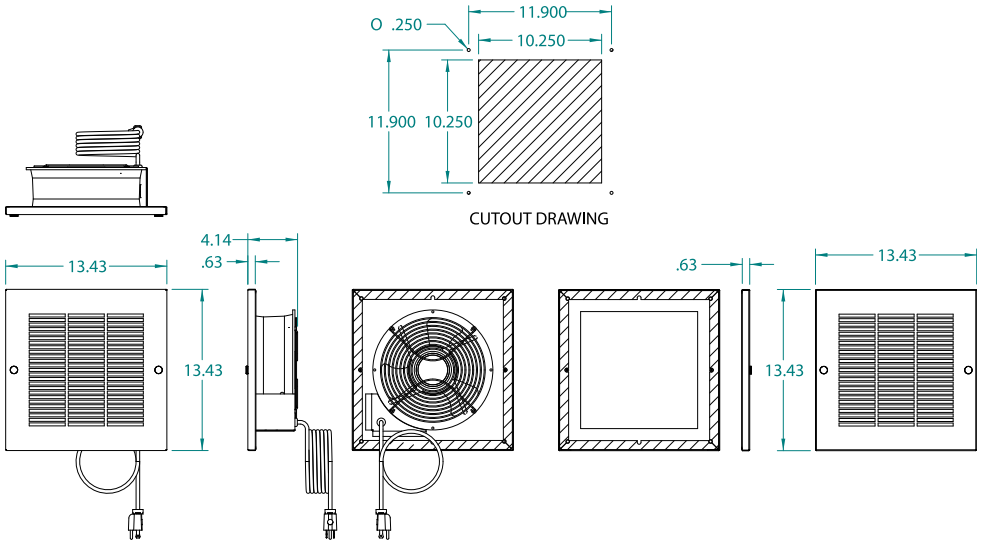


Model MFFP 200





Model MFFP 500



ACCESSORIES | 3R RAIN SHROUDS

APPLICATION*

Our Fan Shroud Kits are designed to keep the elements out of your enclosure while allowing the free air movement from your filtered fan packages.

INSTALLATION

Shrouds come 2 to a kit and are sized to fit neatly over your openings and fans.

SPECIFICS

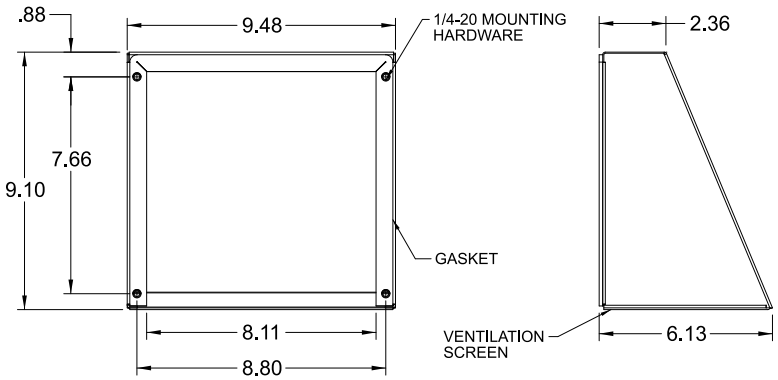
- 16 Gauge Powder Coated Mild Steel
- Maintains UL Type 3R
- Includes Gaskets On All Three Edges
- Kits Include All Mounting Hardware and Template

THE 3R RAIN SHROUD

is fit over filter fan assembly and fastened from inside.

**All information subject to change without notice.*

P/N 100-FFP-3R



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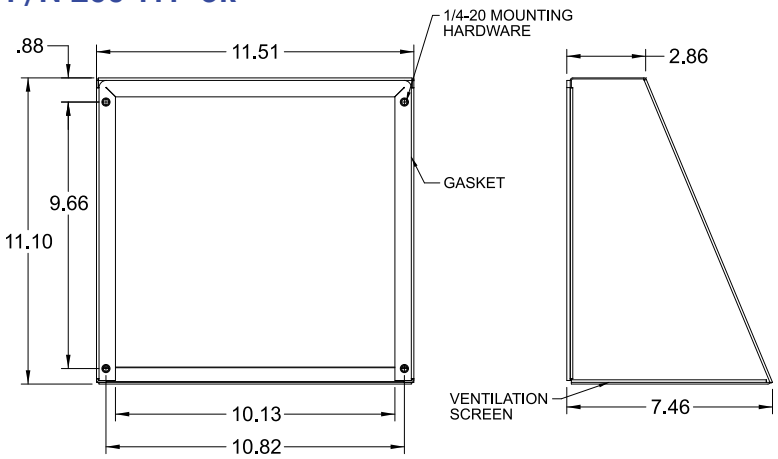

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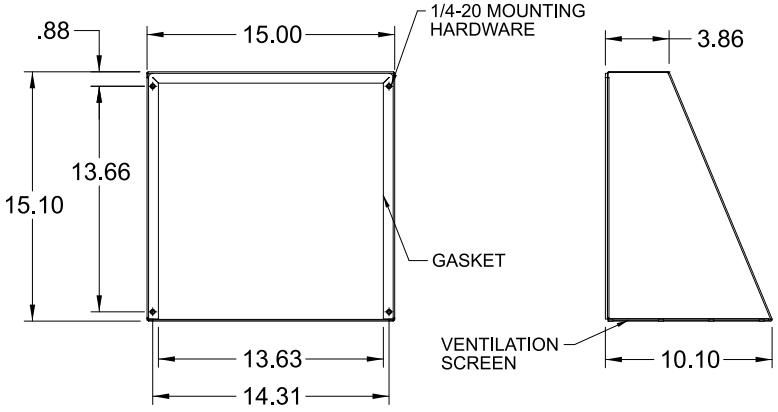
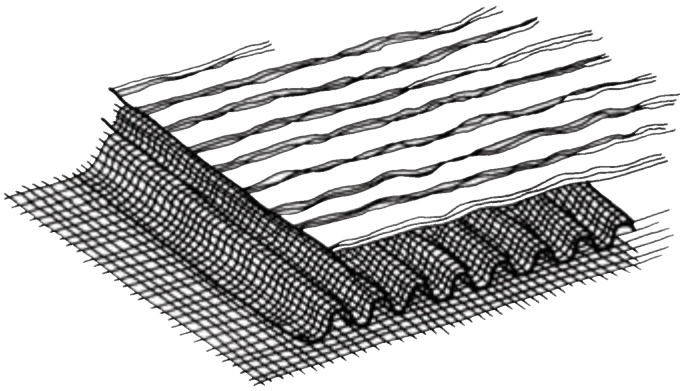


ACCESSORIES | FILTER MEDIA

ELECTROSTATIC POLYPROPYLENE FILTER MEDIA

Our unique 1/4" corrugated polypropylene filtration media features an electrostatic charge that assists in filtering dirt, dust and other irritating pollutants from the air. This industrial filter media is a dense, 3 layer, waffle weave configuration, which enhances the filtration abilities and creates a rigid and durable electrostatic air filter.

Additionally, the Thermal Edge air filtration media can be rinsed or vacuum cleaned, and will not degrade over time as foam does.



Illustrative View of Multilayered Material

Photo of Actual Material

Media	PermaCool Polypropylene
Weave type	3-D waffle corrugated
U.L. classification	Class 2
Yarn diameter	10 mil
Yarn count (warp/fill)	65/74
Media thickness	.25 inch
Media weight	10.1 oz per square yard
Temperature rating	Operating 180° F, Melting 325°F
Initial resistance	0.04 inches w.g.
Average arrestance efficiency	63%
Dust holding capacity	100 Grams

Part #	Description
44207	Replacement Filters MFFP100 PKG 12
44208	Replacement Filters MFFP200 PKG 12
44209	Replacement Filters MFFP500 PKG 12
44210	Replacement Filters PFFP080 PKG 12
44211	Replacement Filters PFFP100 PKG 12
44212	Replacement Filters PFFP200 PKG 12
44213	Replacement Filters PFFP390 PKG 12
44214	Replacement Filters PFFP500 PKG 12

Thermal Edge Inc.™

ACCESSORIES | THERMOSTATS

THERMOSTAT KTS 111

- Safe wiring with Push-In connection terminal
- Faster and tool-free wiring
- Improved air intakes for ventilation
- Easy adjustability of switch temperature setting
- For use in up to 16,000 ft. altitude

Part #	Contact Type	Scale
11101.0-00	Normally Open*	0 to +60 °C
11101.0-01	Normally Open	-10 to +50 °C
11101.0-02	Normally Open	+20 to +80 °C
11101.9-00	Normally Open	+32 to +140 °F
11101.9-01	Normally Open	+14 to +122 °F

DUAL THERMOSTAT

- ZR 011 Two thermostats in one unit
- One normally open* (blue) & one normally closed (red)
- Or, both normally open
- Each with wide adjustable temperature range
- Available with °F or °C scale
- DIN rail mountable

Part #	NC (red)	NO (blue)
01172.0-01	32 - 140°F	32 - 140°F
01172.0-00	0 - 60°C	0 - 60°C
01176.0-00	0 - 60°C	0 - 60°C
01176.0-01	32 - 140°F	32 - 140°F

**Thermostat normally open: thermostat closes at temperature rise. Comes with a blue temperature dial.*

Additional information on these thermostats may be found in the Enclosure Accessories section of this catalog.

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

ENCLOSURE ACCESSORIES

Explosion Proof
Regulators
Heaters
Lighting

MADE IN AMERICA MATTERS...

Thermal Edge Inc.™

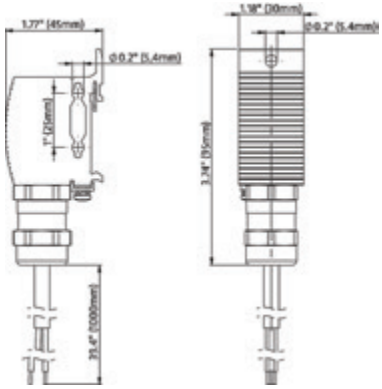
REx 011

12/14/2023

EXPLOSION PROOF | 15°C, 25°C (T6)
HAZARDOUS AREA THERMOSTAT

Compact, small mechanical thermostat offering a high response accuracy, small switching difference, and a very long service life (switching cycles). This thermostat of temperature class T6 (140 °F / 60 °C max.) is utilized for the regulation of heaters deployed in hazardous areas. The high switching performance allows direct control of a heater.

Temperature Class	T6
Ex Protection type Ex II 2 GD **Gases** **Dusts**	 Ex db IIC T6 Gb Ex tb IIIC T85 °C Db IP66
Ambient Temperature	-76 to +140 °F (-60 to +60 °C)
Sensor Element	thermostatic bimetal
Service Life	> 100,000 cycles
Max. Switching Capacity	10 A* resistive @ AC 250 V, 1 A resistive @ DC 24 V
Min. Switching Capacity	DC 1.5 V 5 mA
Max. Inrush Current	AC 16 A for 12 sec.
Connection	halogen-free silicone cable 3 x AWG 18 (1.0 mm²)
Connection Pe	AWG 18 to 14 (1.0 to 2.5 mm²)
Mounting	clip for 35mm DIN rail, EN 60715 screw mounting M5, optional sideways mounting
Housing	aluminum, silver anodized
Dimensions	3.7 x 1.8 x 1.9" (95 x 45 x 30 mm)
Weight	approx. 0.66 lbs (0.3 kg)
Mounting Position	variable
Storage Temperature	-76 to +185 °F (-60 to +85 °C)
Operating / Storage Humidity	max. 90 % RH (non-condensing)
Protection Class / Type	I (grounded) / IP66
Approvals	EPS 16 ATEX 1 118 X IECEx EPS 16.0054X EAC



Dimentioned Drawing.

- For use in hazardous areas
- High switching capacity
- Compact Design
- "Pre-set" temperature
- Ready-to-use with strain relief
- Temperature class T6

**currents above 4A affect the switching difference*

Part No.	Contact Type (1-Pole)	Switch Temperature	Switching Difference (Hysteresis)
01185.0-00	Normally Closed (NC)	59 °F / 15 °C (± 5 °F /3 K tolerance)	9 °F ± 5 °F tolerance (5 K ± 3 K)
01185.1-00	Normally Closed (NC)	77 °F / 25 °C (± 5 °F /3 K tolerance)	9 °F ± 5 °F tolerance (5 K ± 3 K)

Thermal Edge Inc.™

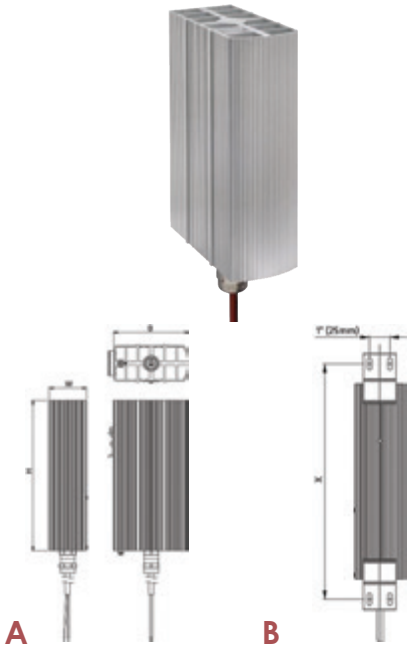
CREx 020

12/14/2023

EXPLOSION PROOF | 50 W, 100 W (T5)
HAZARDOUS AREA HEATER

Compact convection heater of temperature class T5 (212 °F / 100 °C max.) for use in hazardous areas for prevention of formation of condensation, temperature fluctuations, and for protection against frost in control and switch cabinets, as well as in measuring equipment.

Temperature Class	T5
Ex Protection Type Ex II 2 GD **Gases** **Dusts**	 Ex db IIC T5 Gb Ex tb IIIC T100 °C Db IP66
Ambient Temperature	-76 to +122 °F (-60 to +50 °C)
Surface Temperature	max. +212 °F (+100 °C)
Heating Element	high performance cartridge
Heater Body	aluminum profile, silver anodized
Connection	halogen-free silicone cable 3 x AWG 18 (0.75 mm²), length 3 ft (1 m)
Connection PE	AWG 18 to 14 (0.75 to 2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715 for heating body size 4.7 x 2.4", screw mounting with 2 mounting brackets for all heating body sizes, optional sideways mounting
Mounting Position	vertical airflow (connection at bottom)
Storage Temperature	-76 to +185 °F (-60 to +85 °C)
Operating / Storage Humidity	max. 90 % RH (non-condensing)
Protection Class / Type	I (grounded) / IP66
Approvals	EPS 16 ATEX 1 109 X IECEx EPS 16.0048X EAC



Dimentioned Drawing. A) with DIN clip. B) with screw mounting bracket.

- For use in hazardous areas
- Large convection surface
- DIN rail and screw mounting
- Ready-to-use with strain relief
- Maintenance free
- Temperature class T5

Part No. Din Clip	Part No. Screw Mounting	Hole Spacing X	Operating Voltage	Heating Capacity	Rec. Pre-Fuse T (Time-Delay)	Dimensions (D X W X H)	Weight (Approx.)
02051.0-00	02051.0-10	8.9" (225 mm)	AC 230 V	50 W	0.5 A	4.7 x 2.4 x 7.1" (120 x 60 x 180 mm)	3.1 lbs (1.4 kg)
02051.9-00	02051.9-10	8.9" (225 mm)	AC 120 V	50 W	0.5 A	4.7 x 2.4 x 7.1" (120 x 60 x 180 mm)	3.1 lbs (1.4 kg)
N/A	02052.0-10	13.8" (350 mm)	AC 230 V	100 W	1.0 A	6.3 x 3.2 x 11.8" (160 x 80 x 300 mm)	6.2 lb (2.8 kg)
N/A	02052.9-10	13.8" (350 mm)	AC 120 V	100 W	1.0 A	6.3 x 3.2 x 11.8" (160 x 80 x 300 mm)	6.2 lbs (2.8 kg)

Thermal Edge Inc.™

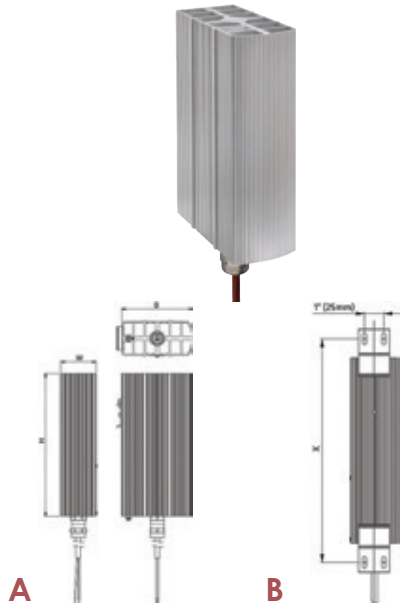
CREx 020

12/14/2023

EXPLOSION PROOF | 50 W TO 200 W (T4)
HAZARDOUS AREA HEATER

Compact convection heater of temperature class T4 (275 °F / 135 °C max.) for use in hazardous areas for prevention of formation of condensation, temperature fluctuations, and for protection against frost in control and switch cabinets, as well as in measuring equipment.

Temperature Class	T4
Ex Protection Type Ex II 2 GD **Gases** **Dusts**	 Ex db IIC T4 Gb Ex tb IIIC T135 °C Db IP66
Ambient Temperature	-76 to +122 °F (-60 to +50 °C)
Surface Temperature	max. +275 °F (+135 °C)
Heating Element	high performance cartridge
Heater Body	aluminum profile, silver anodized
Connection	halogen-free silicone cable 3 x AWG 18 (0.75 mm²), length 3 ft (1 m)
Connection PE	AWG 18 to 14 (0.75 to 2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715 for heating body sizes 3.2 x 1.9" and 4.7 x 2.4"; screw mounting with 2 mounting brackets for all heating body sizes, optional sideways mounting
Mounting Position	vertical airflow (connection at bottom)
Storage Temperature	-76 to +185 °F (-60 to +85 °C)
Operating / Storage Humidity	max. 90 % RH (non-condensing)
Protection Class / Type	I (grounded) / IP66
Approvals	EPS 16 ATEX 1 109 X IECEx EPS 16.0048X EAC



Dimentioned Drawing. A) with DIN clip. B) with screw mounting bracket.

- For use in hazardous areas
- Large convection surface
- DIN rail and screw mounting
- Ready-to-use with strain relief
- Maintenance free
- Temperature class T4

Part No. Din Clip	Part No. Screw Mounting	Hole Spacing X	Operating Voltage	Heating Capacity	Rec. Pre-Fuse T (Time-Delay)	Dimensions (D X W X H)	Weight (Approx.)
02041.0-00	02041.0-10	5.9"	AC 230 V	50 W	0.5 A	3.2 x 1.9 x 4.3"	1.5 lbs
02041.9-00	02041.9-10	5.9"	AC 120 V	50 W	1.0 A	3.2 x 1.9 x 4.3"	1.5 lbs
02042.0-00	02042.0-10	8.9"	AC 230 V	100 W	1.0 A	4.7 x 2.4 x 7.1"	3.1 lbs
02042.9-00	02042.9-10	8.9"	AC 120 V	100 W	2.0 A	4.7 x 2.4 x 7.1"	3.1 lbs
-	02043.0-10	10.8"	AC 230 V	150 W	1.5 A	6.3 x 3.2 x 8.6"	5.1 lbs
-	02043.9-10	10.8"	AC 120 V	150 W	3.0 A	6.3 x 3.2 x 8.6"	5.1 lbs
-	02044.0-10	13.8"	AC 230 V	200 W	2.0 A	6.3 x 3.2 x 11.8"	6.2 lbs
-	02044.9-10	13.8"	AC 120 V	200 W	4.0 A	6.3 x 3.2 x 11.8"	6.2 lbs

Thermal Edge Inc.™

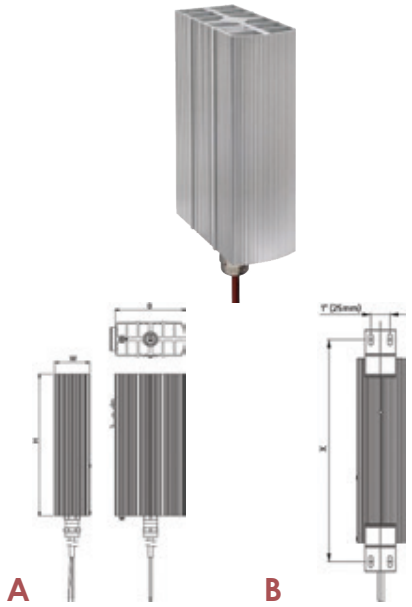
CREx 020

12/14/2023

EXPLOSION PROOF | 50 W TO 200 W (T3)
HAZARDOUS AREA HEATER

Compact convection heater of temperature class T3 (392 °F / 200 °C max.) for use in hazardous areas for prevention of formation of condensation, temperature fluctuations, and for protection against frost in control and switch cabinets, as well as in measuring equipment.

Temperature Class	T3
Ex Protection Type Ex II 2 GD **Gases** **Dusts**	 Ex db IIC T4 Gb Ex tb IIIC T135 °C Db IP66
Ambient Temperature	-76 to +185 °F (-60 to +85 °C)
Surface Temperature	max. +392 °F (+200 °C)
Heating Element	high performance cartridge
Heater Body	aluminum profile, silver anodized
Connection	halogen-free silicone cable 3 x AWG 18 (0.75 mm²), length 3 ft (1 m)
Connection PE	AWG 18 to 14 (0.75 to 2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715 for heating body sizes 3.2 x 1.9" and 4.7 x 2.4"; screw mounting with 2 mounting brackets for all heating body sizes, optional sideways mounting
Mounting Position	vertical airflow (connection at bottom)
Storage Temperature	-76 to +185 °F (-60 to +85 °C)
Operating / Storage Humidity	max. 90 % RH (non-condensing)
Protection Type / Protection Class	IP66 / I (grounded)
Approvals	EPS 16 ATEX 1 109 X IECEx EPS 16.0048X EAC



Dimentioned Drawing. A) with DIN clip. B) with screw mounting bracket.

- For use in hazardous areas
- Large convection surface
- DIN rail and screw mounting
- Ready-to-use with strain relief
- Maintenance free
- Temperature class T3

Part No. Din Clip	Part No. Screw Mounting	Hole Spacing X	Operating Voltage	Heating Capacity	Rec. Pre-Fuse T (Time-Delay)	Dimensions (D X W X H)	Weight (Approx.)
02031.0-00	02031.0-10	5.9"	AC 230 V	50 W	0.5 A	3.2 x 1.9 x 4.3"	1.5 lbs
02031.9-00	02031.9-10	5.9"	AC 120 V	50 W	1.0 A	3.2 x 1.9 x 4.3"	1.5 lbs
02032.0-00	02032.0-10	8.9"	AC 230 V	100 W	1.0 A	4.7 x 2.4 x 7.1"	2.2 lbs
02032.9-00	02032.9-10	8.9"	AC 120 V	100 W	2.0 A	4.7 x 2.4 x 7.1"	2.2 lbs
02033.0-00	02033.0-10	8.9"	AC 230 V	150 W	1.5 A	4.7 x 2.4 x 7.1"	3.1 lbs
02033.9-00	02033.9-10	8.9"	AC 120 V	150 W	3.0 A	4.7 x 2.4 x 7.1"	3.1 lbs
02034.0-00	02034.0-10	11.8"	AC 230 V	200 W	2.0 A	4.7 x 2.4 x 9.5"	3.7 lbs
02034.9-00	02034.9-10	11.8"	AC 120 V	200 W	4.0 A	4.7 x 2.4 x 9.5"	3.7 lbs
-	02035.0-10	10.8"	AC 230 V	250 W	2.5 A	6.3 x 3.2 x 8.6"	5.1 lbs
-	02035.9-10	10.8"	AC 120 V	250 W	5.0 A	6.3 x 3.2 x 8.6"	5.1 lbs

Thermal Edge Inc.™

HVL 031

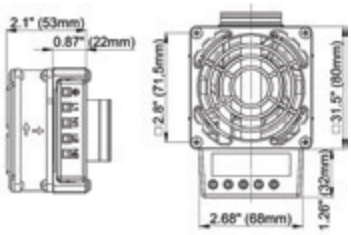
12/14/2023

FAN HEATERS | 100 - 400 W
TOUCH-SAFE PTC FAN HEATER

The compact HVL 031 high-performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. For large OEM use, this fan heater can also be provided without the fan, in which case the OEM/customer must provide a fan which meets the minimum airflow requirements.

Heating Element	high performance cartridge
Overheat Protection	built-in temperature limiter
Heater Body	die-cast aluminum, glass bead finish
Axial Fan, Ball Bearing	service life 50,000 h at 77 °F (25 °C)
Air Flow, Free Blowing	see table below
Axial Fan Connection	2-pole terminal AWG 14 max. (2.5 mm²), terminals L2/N2
Connection	3-pole terminal AWG 14 max. (2.5 mm²), torque 0.8 Nm max.
Connection Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	horizontal
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Protection Class / Type	I (grounded) / IP20
Approvals	UL File No. E234324 (all) EAC (all) VDE (AC 230 V only)

A



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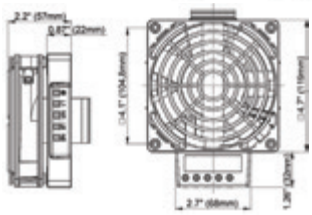


Dimentioned Drawings. A) 100 W/ 150 W Heater. B) 200 W/ 300 W/ 400 W Heater.

- Compact size
- Flat design
- Built-in overheat protection
- 3-side DIN rail mountable

Part No.	Part No.	Heating Capacity	Recommended Pre-Fuse T (Time-Delay)		Min. Airflow (Free Blowing)	Dimensions (D X W X H)	Weight (Approx.)
AC 120 V, 50/60 Hz	AC 230 V, 50/60 Hz		AC 120 V	AC 230 V			
03102.9-00	03102.0-00	100 W	2.0 A	1.0 A	20 cfm (35 m³/h)	1.85 x 3.15 x 4.41" (47 x 80 x 112 mm)	1.3 lbs. (600 g)
03103.9-00	03103.0-00	150 W	2.5 A	1.25 A	20 cfm (35 m³/h)	1.85 x 3.15 x 4.41" (47 x 80 x 112 mm)	1.3 lbs. (600 g)
03113.9-00	03113.0-00	200 W	3.0 A	2.0 A	63 cfm (108 m³/h)	1.85 x 4.68 x 5.94" (47 x 119 x 151 mm)	2.0 lbs. (900 g)
03114.9-00	03114.0-00	300 W	4.0 A	2.0 A	63 cfm (108 m³/h)	1.85 x 4.68 x 5.94" (47 x 119 x 151 mm)	2.0 lbs. (900 g)
03115.9-00	03115.0-00	400 W	6.3 A	4.0 A	63 cfm (108 m³/h)	1.85 x 4.68 x 5.94" (47 x 119 x 151 mm)	2.0 lbs. (900 g)

Thermal Edge Inc.™

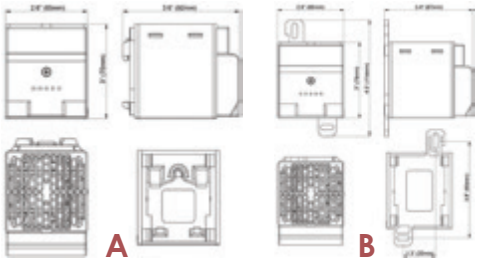
CS 028 | CSL 028

12/14/2023

FAN HEATERS | 150 - 400 W
TOUCH-SAFE PTC FAN HEATER

The CS 028 / CSL 028 fan heaters prevent formation of condensation and provide an evenly distributed interior air temperature in enclosures. The heaters are connected using the internal terminal connectors. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. The small size of the CS 028 / CSL 028 heaters make them ideal for use in enclosures where space is at a premium.

Heating Element	PTC resistor - temperature limiting
Axial Fan, Ball Bearing	service life 40,000 h at 104 °F (40 °C)
Air Flow, Free Blowing	CS 028: 8 cfm (13.8 m³/h) CSL 028: 32 cfm (54 m³/h) @ AC 120 V 26 cfm (45 m³/h) @ AC 230 V
Connection	2-pole terminal AWG 14 max. (2.5 mm²) with strain relief, torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	screw mount (Ø 2.11"/5.3 mm) or clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Operating / Storage Temp.	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	II (double insulated) / IP20
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Protection Class / Type	I (grounded) / IP20



Dimentioned Drawings.
A) CS 028 with DIN clip.
B) CS 028 with screw mount tabs.
C) CSL 028 with screw mount tabs.

- Compact size
- Quiet operation
- Heating power adjusts to ambient temperature
- DIN rail or screw mount available

CS 028

Part No. Din Mount	Part No. Screw Mount	Operating Voltage	Heating Capacity*	Max. Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Weight	Approvals
02800.9-00	02800.9-01	AC 120 V, 50/60 Hz	150 W	1.0 A	10.0 A	10.6 oz.	UL File No. E234324 - EAC
02800.0-00	02800.0-01	AC 230 V, 50/60 Hz	150 W	1.25 A	10.0 A	10.6 oz.	UL File No. E234324 VDE EAC

CSL 028

Part No. Din Mount	Part No. Screw Mount	Operating Voltage	Heating Capacity*	Max. Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Weight	Approvals
02811.9-00	02811.9-01	AC 120 V, 50/60 Hz	250 W	6.0 A	10.0 A	17.6 oz.	UL File No. E234324 - EAC
02810.9-00	02810.9-01	AC 120 V, 50/60 Hz	400 W	9.0 A	10.0 A	17.6 oz.	UL File No. E234324 - EAC
02811.0-00	02811.0-01	AC 230 V, 50/60 Hz	250 W	9.0 A	10.0 A	17.6 oz	UL File No. E234324 VDE EAC
02810.0-00	02810.0-01	AC 230 V, 50/60 Hz	400 W	15.0 A	16.0 A	17.6 oz	UL File No. E234324 VDE EAC

**at 68 °F (20 °C) ambient temperature*

Thermal Edge Inc.™

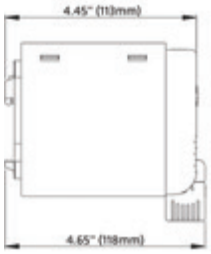
CSF 028

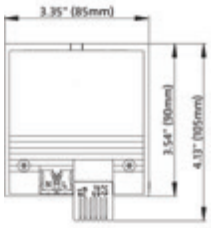
12/14/2023

FAN HEATERS | 250 W, 400 W
TOUCH-SAFE PTC FAN HEATER

The CSF 028 fan heater prevents formation of condensation and provides evenly distributed interior air temperature in enclosures. The touch-safe plastic housing and the small size makes it ideal for use in enclosures with a high packing density. The heater is equipped with a fixed set point thermostat and is easily wired via external pressure clamps. Two different mounting options are available - DIN rail or screw tabs. The robust screw tab mounting is particularly suitable for applications with high vibration.

Heating Element	PTC resistor - temperature limiting
Overheat Protection	built-in temperature limiter
Axial Fan, Free Blowing	32 cfm (54 m³/h) @ AC 120 V---26 cfm (45 m³/h) @ AC 230 V
Connection	2-pole dual pressure clamp for solid wire AWG 14 max. (2.5 mm²), stranded wire (with wire end ferrule) AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw mount (Ø 5.5 mm), clamping torque 2 Nm max., washers must be used
Mounting Position	vertical airflow (air outlet up)
Dimensions	models with DIN clip: 4.13 x 3.35 x 4.65" (105 x 85 x 118 mm), models w/ screw tabs: 4.13 x 4.53 x 4.25" (105 x 115 x 108 mm)
Weight	17.6 oz. (500 g)
Operating / Storage Temp.	-40 to +158 °F (-40 to +70 °C) / -49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	II (double insulated) / IP20





Dimentioned Drawings.

- Compact size
- Quiet operation
- Integrated pre-set thermostat
- Heating power adjusts to ambient temperature
- DIN rail or screw tab mount available

Part No. DIN Mount	Part No. Screw Mount	Operating voltage	Heating capacity*	Max. current (inrush)	Rec. pre-fuse T (time-delay)	Switch-off temp**	Switch-on temp**	Approvals
02821.9-06	02821.9-08	AC 120 V, 50/60 Hz	250 W	6.0 A	10.0 A	59 °F	41 °F	UL File No. E234324 - EAC
02821.9-09	02821.9-11	AC 120 V, 50/60 Hz	250 W	6.0 A	10.0 A	77 °F	59 °F	UL File No. E234324 - EAC
02820.9-06	02820.9-08	AC 120 V, 50/60 Hz	400 W	9.0 A	10.0 A	59 °F	41 °F	UL File No. E234324 - EAC
02820.9-09	02820.9-11	AC 120 V, 50/60 Hz	400 W	9.0 A	10.0 A	77 °F	59 °F	UL File No. E234324 - EAC
02821.0-06	02821.0-08	AC 230 V, 50/60 Hz	250 W	9.0 A	10.0 A	59 °F	41 °F	UL/VDE/EAC
02821.0-09	02821.0-11	AC 230 V, 50/60 Hz	250 W	9.0 A	10.0 A	77 °F	59 °F	UL/VDE/EAC
02820.0-06	02820.0-08	AC 230 V, 50/60 Hz	400 W	15.0 A	16.0 A	59 °F	41 °F	UL/VDE/EAC
02820.0-09	02820.0-11	AC 230 V, 50/60 Hz	400 W	15.0 A	16.0 A	77 °F	59 °F	UL /VDE/EAC

**at 68 °F (20 °C) ambient temperature.*

*** tolerance of ±5 K. Note: Other Switch-off and Switch-on temperatures on request.*

Thermal Edge Inc.™

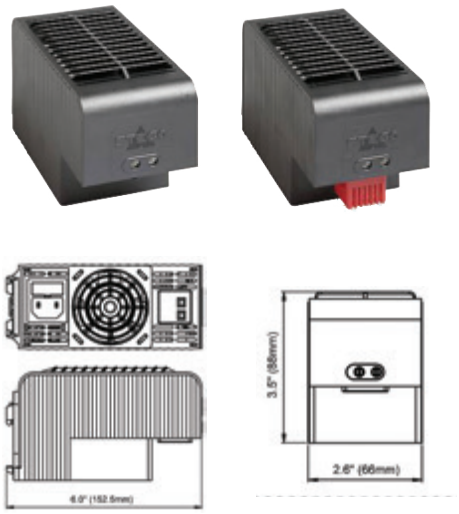
CS 032 | CSF 032

12/14/2023

FAN HEATERS | 1000 W
COMPACT PTC FAN HEATER

The compact CS 032 high performance fan heater prevents the formation of condensation and provides an evenly distributed interior air temperature in enclosures. The plastic housing provides protection against contact with current-carrying components via double insulation (protection class II). The fan heater is also available with an optional fixed-point thermostat as the CSF 032. These series were designed to accommodate DIN rail or screw mounting.

Heating Element	PTC resistor - temperature limiting
Heating Capacity*	1,000 W
Overheat Protection	built-in temperature limiter
Surface Temperature	max. 176 °F (80 °C), except upper protective grille at 68 °F (20 °C) ambient temperature
Axial Fan, Ball Bearing	service life 70,000 h at 77 °F (25 °C)
Air Flow, Free Blowing	37 cfm (63 m³/h)
Connection	male power insert connector according to IEC320 C18
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw mount (M5, not included), tightening torque 2 Nm max.
Mounting Position	air flow directed up
Operating / Storage Temp.	-40 to +140 °F (-40 to +60 °C) / -40 to +158 °F (-40 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	5.9 x 3.5 x 2.6" (150.5 x 88 x 66 mm)
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E234324 VDE, EAC



Dimentioned Drawings CS 032.

- Compact design
- High heating performance
- Double insulated plastic housing
- DIN or screw mount
- Optional integrated fixed thermostat

**at 77 °F (25 °C) ambient temperature*

Part No. Din Mount	Part No. Screw Mount	Series	Operating Voltage	Max. Current (Inrush)	Switch-Off Temp.	Switch-On Temp.
03209.0-00	03209.0-01	CS 032, no thermostat	AC 230 V, 50/60 Hz	12.0 A	-	-
03209.9-00	03209.9-01	CS 032, no thermostat	AC 120 V, 50/60 Hz	18.0 A	-	-

CS 032

Part No. Din Mount	Part No. Screw Mount	Series	Operating Voltage	Max. Current (Inrush)	Switch-Off Temp.	Switch-On Temp.
03201.0-00	03201.0-01	CSF 032, with thermostat	AC 230 V, 50/60 Hz	12.0 A	77 °F	59 °F
03201.9-00	03201.9-01	CSF 032, with thermostat	AC 120 V, 50/60 Hz	18.0 A	77 °F	59 °F
03202.0-00	03202.0-01	CSF 032, with thermostat	AC 230 V, 50/60 Hz	12.0 A	59 °F	41 °F
03202.9-00	03202.9-01	CSF 032, with thermostat	AC 120 V, 50/60 Hz	18.0 A	59 °F	41 °F

CSF 032

***tolerance of ±5 K. Note: Other Switch-off and Switch-on temperatures on request.*

Thermal Edge Inc.™

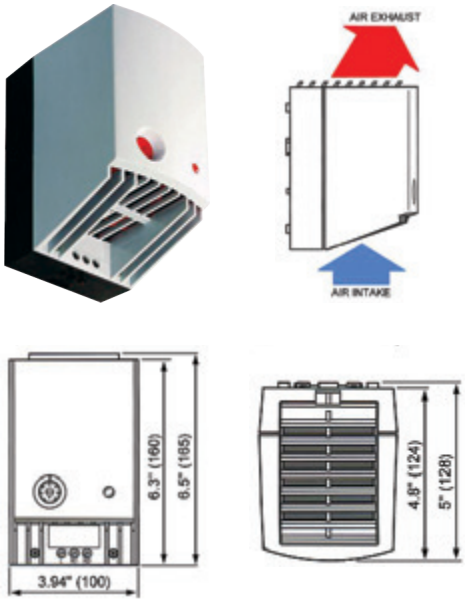
CR 027

12/14/2023

FAN HEATERS | UP TO 650 W

The semiconductor CR 027 fan heater prevents the formation of condensation and ensures an even temperature in enclosures. The integrated thermostat is used to set the desired temperature while the high performance axial fan provides forced air circulation. The CR 027 is also available with a continuously running fan (when powered).

Heating Element	PTC resistor - temperature limiting
Overheat Protection	built-in temperature limiter
Axial Fan, Ball Bearing	service life 50,000 h at 77 °F (25 °C)
Air Flow, Free Blowing	see table below
Connection	2-pole terminal AWG 14 max. (2.5 mm²), torque 0.8 Nm max.
Housing	plastic, UL 94V-0, light grey
Function Control Light	LED
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	6.5 x 3.94 x 5.0" (165 x 100 x 128 mm)
Recommended Pre-Fuse T (Time-Delay)	10.0 A
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E204590 / VDE / EAC



Dimentioned Drawing.

Wiring note: only connect the L and N1 terminals. N2 is not used and grounding is not required.

- Compact fan heater
- Heating power adjusts to ambient temperature
- Integrated adjustable thermostat
- Built-in overheat protection
- DIN rail mountable

Part No.	Heating Capacity* 50 Hz	Heating Capacity* 60 Hz	Operating Voltage	Min. Airflow (Free Blowing)	Thermostat Setting Range**	Weight (Approx.)
02700.0-00	475 W	550 W	AC 220-240 V	20 cfm (35 m³/h)	0 to 60 °C	2.0 lbs (0.9 kg)
02700.9-00	400 W	550 W	AC 100-120 V	20 cfm (35 m³/h)	32 to 140 °F	2.0 lbs (0.9 kg)
02701.0-00	550 W	650 W	AC 220-240 V	26 cfm (45 m³/h)	0 to 60 °C	2.4 lbs (1.1 kg)
02701.9-00	510 W	650 W	AC 100-120 V	26 cfm (45 m³/h)	32 to 140 °F	2.4 lbs (1.1 kg)

**at 68 °F (20 °C) ambient temperature*

***switch temperature difference 7K (±4K tolerance)*

Thermal Edge Inc.™

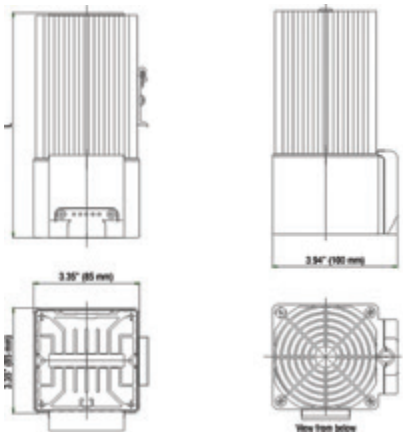
HGL 046

FAN HEATERS | 250 W, 400 W

12/14/2023

The compact HGL 046 fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. The heater is wired using the internal terminal connectors.

Heating Element	resistance - micanite
Overheat Protection	built-in temperature limiter
Heater Body	extruded aluminum, anodized
Surface Temperature	400 W heater - max. 167 °F (75 °C)
Axial Fan, Ball Bearing	service life 50,000 h at 77 °F (25 °C)
Mounting Air Flow, Free Blowing	AC: 26 cfm (45 m³/h) - 50 Hz 32 cfm (54 m³/h) - 60 Hz DC: 32 cfm (54 m³/h)
Connection	3-pole terminal AWG 16 max. (1.5 mm²) with strain relief, clamping torque 0.8 Nm max.
Connection Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	I (grounded) / IP20
Protection Class / Type	II (double insulated) / IP20



Dimentioned Drawings.

- Compact size
- Built-in overheat protection
- Long service life
- DIN rail mountable

Part No.	Heating Capacity	Operating Voltage	Rec. Pre-Fuse T (Time-Delay)	Weight (Approx.)	Length	Approvals
04640.0-00	250 W	AC 230 V, 50/60 Hz	2.0 A	2.4 lbs.	7.2"	UL File No. E234324 / VDE / EAC
04640.9-00	250 W	AC 120 V, 50/60 Hz	2.0 A	2.4 lbs.	7.2"	UL File No. E234324 / VDE / EAC
04641.0-00	400 W	AC 230 V, 50/60 Hz	2.0 A	3.1 lbs.	8.7"	UL File No. E234324 / VDE / EAC
04641.9-00	400 W	AC 120 V, 50/60 Hz	2.0 A	3.1 lbs.	8.7"	UL File No. E234324 / VDE / EAC

Thermal Edge Inc.™

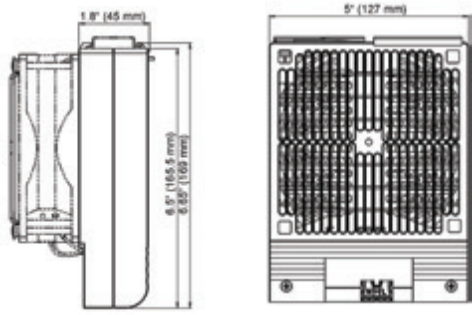
HVI 030

12/14/2023

FAN HEATERS | 500 - 700 W
OEM VERSION - NO FAN PROVIDED

The compact high-performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The heater may only be operated together with a fan, but is also available without axial fan (for self-installation). The fan heaters are available with two different mounting systems – either mounting by screws or with a new and unique twist clip mounting system. These options allow for a quick and easy installation of the fan heater.

Heating Element	high performance cartridge
Overheat Protection	with automatic reset and second-tier one shot fuse
Connection	2-pole dual pressure clamp for solid wire AWG 14 max. (2.5 mm²), stranded wire (with wire end ferrule) AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	twist clip for 35 mm DIN rail, EN 60715 or M6 screws and washers (not included), torque 2 Nm max.
Mounting Position	vertical airflow (air outlet up)
Operating Temperature	UL: +14 to +104 °F (-10 to +40 °C) VDE: +14 to +122 °F (-10 to +50 °C)
Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	6.65 x 5.0 x 1.77" (169 x 127 x 45 mm)
Weight	approx. 1.7 lbs (0.77 kg)
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E234324 EAC VDE



Dimentioned Drawings.

- Compact size
- Flat design
- Built-in overheat protection
- Twist clip or screw mountable
- End user must attach fan

Part No. Twist Clip	Part No. Screw Mount	Heating Capacity	Operating Voltage	Recommended Pre-Fuse T (Time-Delay)
03082.0-00	03082.0-01	700 W	AC 230 V, 50/60 Hz	6.3 A
03082.9-00	03082.9-01	700 W	AC 120 V, 50/60 Hz	10.0 A
03083.0-00	03083.0-01	600 W	AC 230 V, 50/60 Hz	4.0 A
03083.9-00	03083.9-01	600 W	AC 120 V, 50/60 Hz	8.0 A
03084.0-00	03084.0-01	500 W	AC 230 V, 50/60 Hz	4.0 A
03084.9-00	03084.9-01	500 W	AC 120 V, 50/60 Hz	8.0 A

Important note: Heater may only be operated together with fan (min. 88 cfm). Danger of overheating!

Thermal Edge Inc.™

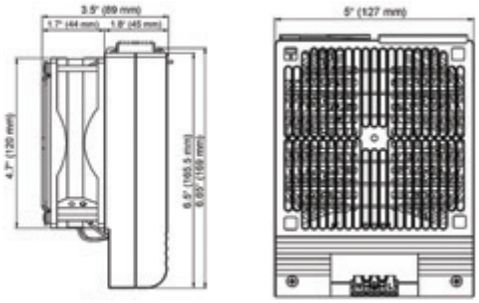
HVI 030

12/14/2023

FAN HEATERS | 500 - 700 W
FAN INCLUDED

The compact high-performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The heater may only be operated together with a fan, but is also available without axial fan (for self-installation). The fan heaters are available with two different mounting systems – either mounting by screws or with a new and unique twist clip mounting system. These options allow for a quick and easy installation of the fan heater.

Heating Element	high performance cartridge
Temperature Safety Cut-Out	with automatic reset and second-tier one shot fuse
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	88 cfm (150 m³/h)
Connection	2-pole dual pressure clamp for solid wire AWG 14 max. (2.5 mm²), stranded wire (with wire end ferrule) AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	twist clip for 35 mm DIN rail, EN 60715 or M6 screws and washers (not included), torque 2 Nm max.
Mounting Position	vertical airflow (air outlet up)
Operating Temperature	UL: +14 to +104 °F (-10 to +40 °C) VDE: +14 to +122 °F (-10 to +50 °C)
Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	6.65 x 5.0 x 3.5" (169 x 127 x 89 mm)
Weight	approx. 3.1 lbs (1.4 kg)
Protection Class / Type	heater: II (double insulated), fan: I (grounded) / IP20
Approvals	UL File No. E234324 EAC VDE



Dimentioned Drawings.

- Compact size
- Flat design
- Built-in overheat protection
- Twist clip or screw mountable

Part No. Twist Clip	Part No. Screw Mount	Heating Capacity	Operating Voltage	Recommended Pre-Fuse T (Time-Delay)
03072.0-00	03072.0-01	700 W	AC 230 V, 50/60 Hz	6.3 A
03072.9-00	03072.9-01	700 W	AC 120 V, 50/60 Hz	10.0 A
03073.0-00	03073.0-01	600 W	AC 230 V, 50/60 Hz	4.0 A
03073.9-00	03073.9-01	600 W	AC 120 V, 50/60 Hz	8.0 A
03074.0-00	03074.0-01	500 W	AC 230 V, 50/60 Hz	4.0 A
03074.9-00	03074.9-01	500 W	AC 120 V, 50/60 Hz	8.0 A

Important note: Heater may only be operated together with fan (min. 88 cfm). Danger of overheating!

Thermal Edge Inc.™

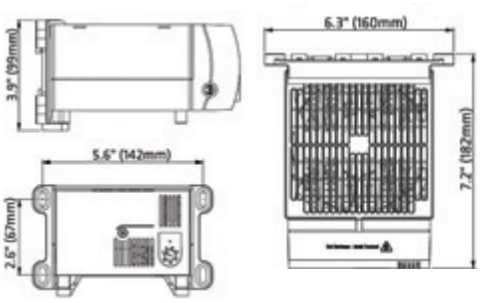
CR 030

12/14/2023

FAN HEATERS | 950 W
FOOT-MOUNT FAN HEATER

The compact CR 030 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an integrated thermostat for temperature control or a pre-set hygrostat for humidity control. The CR 030 was designed as a stationary unit for the bottom of the enclosure. For panel or DIN rail mount, the CR 130 fan heater is recommended.

Heating Element	high performance cartridge
Overheat Protection	with automatic reset and second-tier one shot fuse
Heater Body	extruded aluminum
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole terminal AWG 16 max. (1.5 mm²) with strain relief, clamping torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	M5 screws (not included)
Mounting Position	vertical airflow (air outlet up)
Operating* / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	3.9 x 5.7 x 6.6" (100 x 145 x 168 mm)
Weight	approx. 3.1 lbs. (1.4 kg)
Protection Class / Type	II (double insulated) / IP20



Dimentioned Drawings.

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat or fixed hygrostat
- Double insulated plastic housing

**Operating temperature of heater with integrated hygrostat: +32 to +140 °F (0 to +60 °C)*

Part No.	Operating Voltage	Heating Capacity	Rec. Pre-Fuse T (Time-Delay)	Setting Range**	Approvals
03051.0-00	AC 230 V 50/60 Hz	950 W	6.3 A	0 to 60 °C	UL File No. E234324 / VDE / EAC
03051.0-02	AC 230 V 50/60 Hz	950 W	6.3 A	65 %RH, factory-set	UL File No. E234324 / VDE / EAC
03051.0-07	AC 230 V 50/60 Hz	950 W	6.3 A	none (no integrated controls)	UL File No. E234324 / VDE / EAC
03059.9-00	AC 120 V 50/60 Hz	950 W	10.0 A	32 to 140 °F	UL File No. E234324 / EAC
03059.9-02	AC 120 V 50/60 Hz	950 W	10.0 A	none (no integrated controls)	UL File No. E234324 / EAC

***Switching difference 12.6 °F ± 7 °F tolerance (7 K ± 4 K)*

Thermal Edge Inc.™

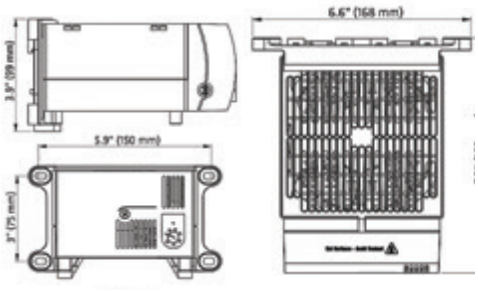
CR 130

12/14/2023

FAN HEATERS | 950 W
PANEL-MOUNT FAN HEATER

The compact CR 130 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an integrated thermostat for temperature control or a pre-set hygrostat for humidity control. The CR 130 was designed as a stationary unit for panel or DIN rail mounting. For foot mounting on the bottom of an enclosure, the CR 030 fan heater is recommended.

Heating Element	high performance cartridge
Overheat Protection	with automatic reset and second-tier one shot fuse
Heater Body	extruded aluminum
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole terminal AWG 16 max. (1.5 mm²) with strain relief, clamping torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or M6 screws (not included)
Mounting Position	vertical airflow (air outlet up)
Operating*/ Storage Temp.	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	3.9" x 6.6" x 7.2" (99 x 168 x 182 mm)
Weight	approx. 3.1 lbs. (1.4 kg)
Protection Class / Type	II (double insulated) / IP20



Dimentioned Drawings.

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat or fixed hygrostat
- Double insulated plastic housing
- Panel or DIN rail mounting

**Operating temperature of heater with integrated hygrostat: +32 to +140 °F (0 to +60 °C)*

Part No.	Operating Voltage	Heating Capacity	Rec. Pre-Fuse T (Time-Delay)	Setting Range**	Approvals
13051.0-00	AC 230 V 50/60 Hz	950 W	6.3 A	0 to 60 °C	UL File No. E234324 / VDE / EAC
13051.0-02	AC 230 V 50/60 Hz	950 W	6.3 A	65 %RH, factory-set	UL File No. E234324 / VDE / EAC
13051.0-03	AC 230 V 50/60 Hz	950 W	6.3 A	none (no integrated controls)	UL File No. E234324 / VDE / EAC
13059.9-00	AC 120 V 50/60 Hz	950 W	10.0 A	32 to 140 °F	UL File No. E234324 / EAC
13059.9-02	AC 120 V 50/60 Hz	950 W	10.0 A	none (no integrated controls)	UL File No. E234324 / EAC

***Switching difference 12.6 °F ± 7 °F tolerance (7 K ± 4 K)*

Thermal Edge Inc.™

DCR 030

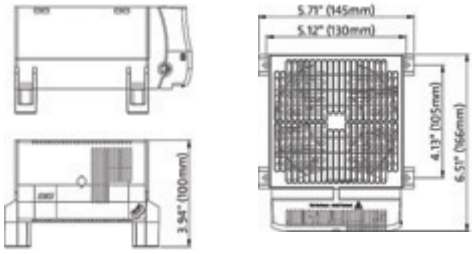
12/14/2023

FAN HEATERS | 200 W TO 800 W
24 VDC, 56 VDC

The compact high performance fan heater DCR 030 prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The fan heater is available with an integrated electronic thermostat or integrated electronic hygrostat. The model with thermostat is available with internal or external sensor. The fan heater with integrated hygrostat is equipped with an external sensor. The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity. The DCR 030 was designed as a stationary unit for the bottom of the enclosure. For wall fixing the fan heater DCR 130 is recommended.

Heating Element	high performance cartridge
Overheat Protection	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater Body	extruded aluminium profile
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole "Push-In" connection clamp stranded wire* AWG 16 (1.5 mm²) with strain relief; max. AWG 12 (2.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	M5 screws and washers (not included), torque 2 Nm max.
Mounting Position	vertical airflow (air outlet up)
Operating Temperature	-4 to +167 °F (-20 to +75 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	3.9 x 5.7 x 6.5" (100 x 145 x 166 mm)
Weight	approx. 2.86 lbs. (1.3 kg)
Protection Class / Type	IP20 / II (double insulated)
Approvals	UL File No. E234324 / VDE / EAC

**When connecting with stranded wires, wire end ferrules must be used.*



Dimentioned Drawings.

- High DC heating performance
- Integrated adjustable thermostat or hygrostat
- Small hysteresis
- Integrated switch module
- Screw mounting
- Optical indicator (LED)

Part No.	Model	Operating Voltage	Heating Capacity	Rec. Pre-fuse T (time-delay)	Setting Range† (temperature/ humidity)
03092.1-16	Fan heater with integrated thermostat with internal temperature sensor	DC 24 V	200 W	16.0 A	-4 to 104 °F
03092.1-17	Fan heater with integrated thermostat with connector for external temperature sensor**	DC 24 V	200 W	16.0 A	-4 to 104 °F
03097.3-16	Fan heater with integrated thermostat with internal temperature sensor	DC 56 V	800 W	20.0 A	-4 to 104 °F
03097.3-17	Fan heater with integrated thermostat with connector for external temperature sensor**	DC 56 V	800 W	20.0 A	-4 to 104 °F
03092.1-03	Fan heater with integrated hygrostat with connector for external humidity sensor**	DC 24 V	200 W	16.0 A	40 to 90 % RH
03095.3-03	Fan heater with integrated hygrostat with connector for external humidity sensor**	DC 56 V	600 W	20.0 A	40 to 90 % RH

***The external sensor needs to be ordered separately;* † *Switching difference temperature: 3 K (±1 K tolerance) at +77 °F (+25 °C), 50 % RH; switching difference humidity: 4 % RH (±1 % tolerance) at +77 °F (+25 °C), 50 % RH.*

Thermal Edge Inc.™

DCR 130

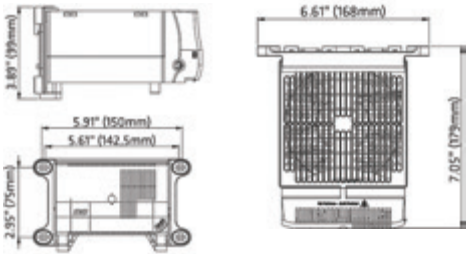
12/14/2023

FAN HEATERS | 200 W TO 800 W
24 VDC, 56 VDC

The compact high performance fan heater DCR 130 prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/ electronic components. The fan heater is available with an integrated electronic thermostat or electronic hygrostat. The model with thermostat is available with internal or external sensor. The fan heater with integrated hygrostat is equipped with an external sensor. The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity. The DCR 130 was designed for wall fixing. For fixing on the bottom of the enclosure the fan heater DCR 030 is recommended.

Heating Element	high performance cartridge
Overheat Protection	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater Body	extruded aluminium profile
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole "Push-In" connection clamp stranded wire* AWG 16 (1.5 mm²) with strain relief; max. AWG 12 (2.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or M6 screws and washers (not included), torque 2 Nm max.
Mounting Position	vertical airflow (air outlet up)
Operating Temperature	-4 to +167 °F (-20 to +75 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	3.9 x 6.6 x 7.0" (99 x 168 x 179 mm)
Weight	approx. 2.86 lbs. (1.3 kg)
Protection Class / Type	IP20 / II (double insulated)
Approvals	UL File No. E234324 / VDE / EAC

**When connecting with stranded wires, wire end ferrules must be used.*



Dimentioned Drawings.

- High DC heating performance
- Integrated adjustable thermostat or hygrostat
- Small hysteresis
- Integrated switch module
- Panel or DIN rail mounting
- Optical indicator (LED)

Part No.	Model	Operating Voltage	Heating Capacity	Rec. Pre-fuse T (time-delay)	Setting Range† (temperature/ humidity)
13092.1-16	Fan heater with integrated thermostat with internal temperature sensor	DC 24 V	200 W	25.0 A	-4 to 104 °F
13092.1-17	Fan heater with integrated thermostat with connector for external temperature sensor**	DC 24 V	200 W	25.0 A	-4 to 104 °F
13097.3-16	Fan heater with integrated thermostat with internal temperature sensor	DC 56 V	800 W	25.0 A	-4 to 104 °F
13097.3-17	Fan heater with integrated thermostat with connector for external temperature sensor**	DC 56 V	800 W	25.0 A	-4 to 104 °F
13092.1-03	Fan heater with integrated hygrostat with connector for external humidity sensor**	DC 24 V	200 W	25.0 A	40 to 90 % RH
13095.3-03	Fan heater with integrated hygrostat with connector for external humidity sensor**	DC 56 V	600 W	25.0 A	40 to 90 % RH

***The external sensor needs to be ordered separately.* † *Switching difference temperature: 3 K (±1 K tolerance) at +77 °F (+25 °C), 50 % RH; switching difference humidity: 4 % RH (±1 % tolerance) at +77 °F (+25 °C), 50 % RH.*

Thermal Edge Inc.™

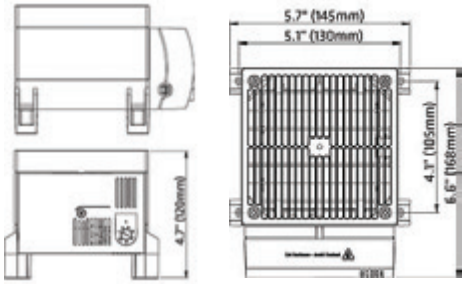
CS 030

12/14/2023

FAN HEATERS | 1200 W
FOOT-MOUNT PTC FAN HEATER

The compact CS 030 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an optional integrated thermostat for temperature control. The CS 030 was designed as a stationary unit for the bottom of the enclosure. For panel or DIN rail mount, the CS 130 fan heater is recommended.

Heating Element	PTC resistor, temperature limiting
Overheat Protection	built-in temperature limiter
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole terminal AWG 16 max. (1.5 mm²) with strain relief, clamping torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	M5 screws (not included)
Mounting Position	vertical airflow (air outlet up)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	4.7 x 5.7 x 6.6" (120 x 145 x 168 mm)
Weight	approx. 2.6 lbs. (1.2 kg)
Protection Class / Type	IP20 / II (double insulated)
Heating Capacity*	1,200 W



Dimentioned Drawings.

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat (optional)
- Double insulated plastic housing

**at 68 °F (20 °C) ambient temperature*

Part No.	Operating Voltage	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Setting Range**	Approvals
03060.0-00	AC 230 V 50/60 Hz	13.0 A	10.0 A	0 to 60 °C	UL File No. E150057† / VDE / EAC
03060.0-01	AC 230 V 50/60 Hz	13.0 A	10.0 A	none (no integrated controls)	UL File No. E150057† / VDE / EAC
03060.9-00	AC 120 V 50/60 Hz	16.0 A	16.0 A	32 to 140 °F	UL File No. E150057† / EAC
03060.9-01	AC 120 V 50/60 Hz	16.0 A	16.0 A	none (no integrated controls)	UL File No. E150057† / EAC

***Switching difference 12.6 °F ± 7 °F tolerance (7 K ± 4 K);* †*according to UL 508A, NITW File on request.*

Thermal Edge Inc.™

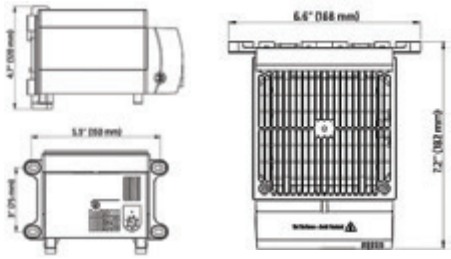
CS 130

12/14/2023

FAN HEATERS | 1200 W
PANEL-MOUNT PTC FAN HEATER

The compact CS 130 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an optional integrated thermostat for temperature control. The CS 130 was designed as a stationary unit for panel or DIN rail mounting. For foot mounting on the bottom of an enclosure, the CS 030 fan heater is recommended.

Heating Element	PTC resistor, temperature limiting
Overheat Protection	built-in temperature limiter
Axial Fan, Ball Bearing	service life 50,000 h at +77 °F (+25 °C)
Air Flow, Free Blowing	94 cfm (160 m³/h)
Connection	2-pole terminal AWG 16 max. (1.5 mm²) with strain relief, clamping torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or M6 screws (not included)
Mounting Position	vertical airflow (air outlet up)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	4.7" x 6.6" x 7.2" (120 x 168 x 182 mm)
Weight	approx. 2.6 lbs. (1.2 kg)
Protection Class / Type	IP20 / II (double insulated)
Heating Capacity*	1,200 W



Dimentioned Drawings.

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat (optional)
- Double insulated plastic housing
- Panel or DIN rail mounting

**at 68 °F (20 °C) ambient temperature*

Part No.	Operating Voltage	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Setting Range**	Approvals
13060.0-00	AC 230 V 50/60 Hz	13.0 A	10.0 A	0 to 60 °C	UL File No. E150057† / VDE / EAC
13060.0-01	AC 230 V 50/60 Hz	13.0 A	10.0 A	none (no integrated controls)	UL File No. E150057† / VDE / EAC
13060.9-00	AC 120 V 50/60 Hz	16.0 A	16.0 A	32 to 140 °F	UL File No. E150057† / EAC
13060.9-01	AC 120 V 50/60 Hz	16.0 A	16.0 A	none (no integrated controls)	UL File No. E150057† / EAC

***Switching difference 12.6 °F ± 7 °F tolerance (7 K ± 4 K);* †*according to UL 508A, NITW File on request.*

Thermal Edge Inc.™

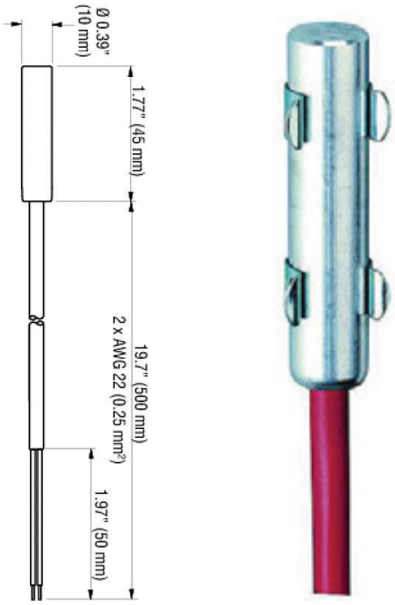
RCE 016

PTC HEATERS | 5 W, 9 W

12/14/2023

The RCE 016 small heaters have been designed to prevent condensation and to ensure a minimum operating temperature in small enclosures. They are suitable for permanent operation.

Heating Element	PTC resistor, temperature limiting
Heater Body	aluminum, anodized
Insulation	PTFE / Kapton
Mounting	2 pressure clips included (mounting screws not included)
Mounting Position	variable
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	length 1.77", Ø 0.39" (45 mm, Ø 10 mm)
Protection Class / Type	II (double insulated) / IP54
Approvals	UL File No. E234324 / VDE / EAC



Dimentioned Drawing.

- Compact size
- Wide voltage range
- Heating power adjusts to ambient temperature
- Energy saving

Part No.	Heating Capacity*	Operating Voltage**	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Surface Temperature (Approx.)*	Weight (Approx.)
01622.0-03	5 W	AC/DC 120-240 V	2.0 A	2.0 A	329 °F (165 °C)	0.7 oz. (20 g)
01623.0-01	9 W	AC/DC 120-240 V	4.0 A	4.0 A	347 °F (175 °C)	0.7 oz. (20 g)

**at 68 °F (20 °C) ambient temperature*

*** operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10% (min. 110 V, max 265 V)*

Thermal Edge Inc.™

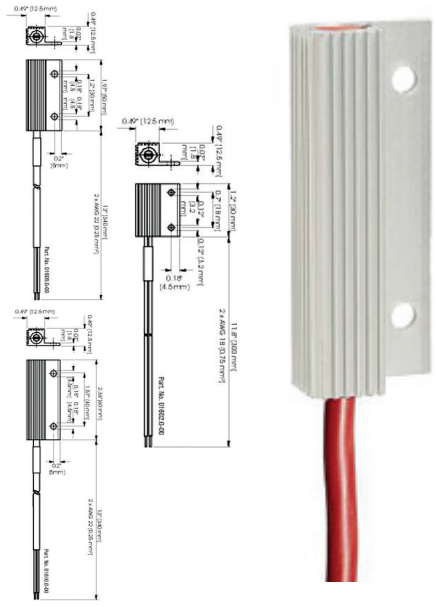
RC 016

12/14/2023

PTC HEATERS | 8 W, 10 W, 13 W

The RC 016 small heaters are designed to prevent condensation and to ensure a minimum operating temperature in small enclosures. They are suitable for permanent operation.

Heating Element	PTC resistor, temperature limiting
Heater Body	aluminum, anodized
Insulation	PTFE / Kapton
Mounting	screw (mounting screws not included)
Mounting Position	variable
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Dimensions	length 1.77", Ø 0.39" (45 mm, Ø 10 mm)
Protection Class / Type	II (double insulated) / IP54
Approvals	UL File No. E234324 / VDE / EAC



Dimentioned Drawings.

- Compact size
- Wide voltage range
- Heating power adjusts to ambient temperature
- Energy saving

Part No.	Heating Capacity*	Operating Voltage**	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Surface Temperature (Approx.)*	Weight (Approx.)
01602.0-00	8 W	AC/DC 120-240 V	2.0 A	2.0 A	302 °F (150 °C)	0.7 oz. (20 g)
01609.0-00	10 W	AC/DC 120-240 V	2.5 A	4.0 A	311 °F (155 °C)	1.0 oz. (28 g)
01610.0-00	13 W	AC/DC 120-240 V	3.0 A	4.0 A	338 °F (170 °C)	1.2 oz. (34 g)

**at 68 °F (20 °C) ambient temperature*

*** operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10% (min. 110 V, max 265 V)*

Thermal Edge Inc.™

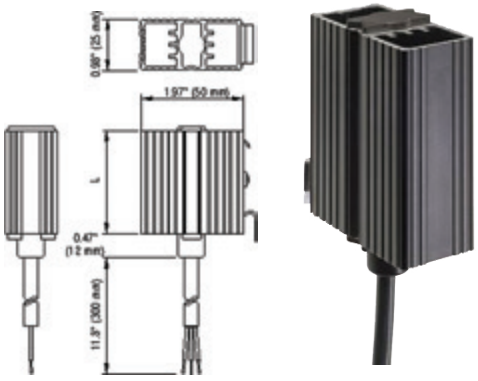
HGK 047

12/14/2023

PTC HEATERS | 10 W TO 30 W

The HGK 047 heaters are used in enclosures to maintain minimum operating temperatures and to help prevent failure of electronic components caused by condensation and corrosion. They are suitable for permanent operation.

Heating Element	PTC resistor, temperature limiting
Heater Body	extruded aluminum profile, anodized
Connection	3 x AWG 20 (0.5 mm²), 12" (300 mm) length
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	I (grounded) / IP44



Dimentioned Drawings.

- Compact size
- Wide voltage range
- Heating power adjusts to ambient temperature
- DIN rail mountable

Part No.	Operating Voltage*	Heating Capacity**	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Length (L)	Weight (Approx.)	Approvals
04700.0-00	10 W	AC/DC 120-240 V	1.0 A	2.0 A	2.05"	3.0 oz.	VDE / EAC
04701.0-00	20 W	AC/DC 120-240 V	2.5 A	4.0 A	2.36"	3.6 oz.	VDE / EAC
04702.0-00	30 W	AC/DC 120-240 V	3.0 A	4.0 A	2.76"	4.0 oz.	VDE / EAC
04700.9-00	10 W	AC/DC 120-230 V	1.0 A	2.0 A	2.05"	3.0 oz.	UL File No. E234324 VDE / EAC
04701.9-00	20 W	AC/DC 120-230 V	1.5 A	2.0 A	2.76	4.0 oz.	UL File No. E234324 VDE / EAC
04702.9-00	30 W	AC/DC 120-230 V	1.5 A	2.0 A	3.94"	5.2 oz.	UL File No. E234324 VDE / EAC

**(min. 110 V, max 265 V) operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10 %*

***at 68°F (20°C) ambient temperature*

Thermal Edge Inc.™

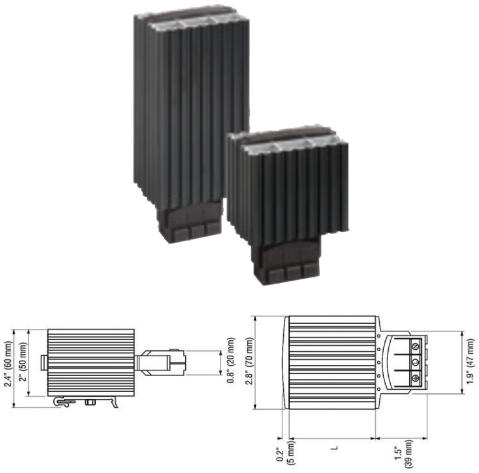
HG 140

12/14/2023

PTC HEATERS | 15 W TO 150 W

These heaters are used in enclosures where damage from condensation must be prevented, or where the temperature must be maintained above a minimum value. They are suitable for permanent operation. The aluminum profile heater body design has a chimney effect to distribute heat evenly. The cage clamp connectors save time and simplify installation.

Operating Voltage*	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating Element	PTC resistor, temperature limiting
Heater Body	extruded aluminum profile, anodized
Connection	3 cage clamps for solid wire AWG 20-14 (0.5-2.5 mm²), and stranded wire (with wire end ferrule) AWG 20-16 (0.5-1.5 mm²)
Connection Casing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	I (grounded) / IP44
Approvals	UL File No. E150057 / VDE / EAC



Dimentioned Drawings.

- Compact size
- Wide voltage range
- Heating power adjusts to ambient temperature
- Cage clamp connectors for quick & easy wiring
- DIN rail mountable

**Operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10%.*

Part No.	Heating Capacity**	Max Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Length (L)	Weight (Approx.)
14000.0-00	15 W	1.5 A	2.0 A	2.56" (65 mm)	7.6 oz. (215 g)
14001.0-00	30 W	3.0 A	4.0 A	2.56" (65 mm)	7.6 oz. (215 g)
14003.0-00	45 W	3.5 A	4.0 A	2.56" (65 mm)	7.6 oz. (215 g)
14005.0-00	60 W	2.5 A	4.0 A	5.5" (140 mm)	14.1 oz. (400 g)
14006.0-00	75 W	4.0 A	6.3 A	5.5" (140 mm)	14.3 oz. (405 g)
14007.0-00	100 W	4.5 A	8.0 A	5.5" (140 mm)	14.3 oz. (405 g)
14008.0-00	150 W	9.0 A	10.0 A	8.66" (220 mm)	14.3 oz. (405 g)

***at 68°F (20°C) ambient temperature*

Thermal Edge Inc.™

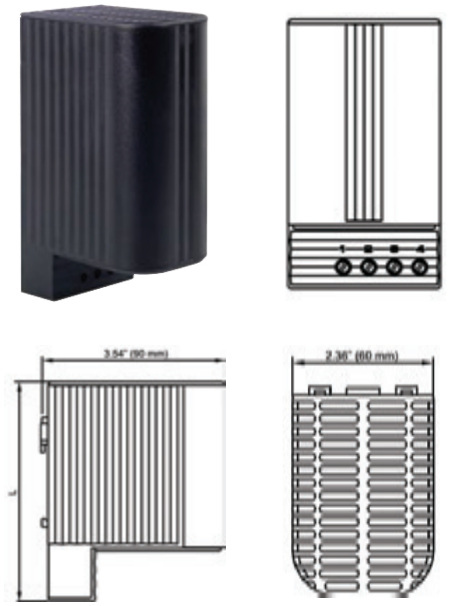
CS 060

12/14/2023

PTC HEATERS | 50 W TO 150 W
TOUCH-SAFE PTC HEATER

The CS 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. The CS 060 is also available in a version with a plug-in thermostat requiring no additional wiring (CSF 060). These heaters are suitable for permanent operation.

Operating Voltage*	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating Element	PTC resistor, temperature limiting
Surface Temperature	< 176 °F (80 °C), except upper protective grill
Connection	4-pole terminal AWG 14 max (2.5 mm²), torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E150057 / VDE / EAC



Dimentioned Drawings.

- Low surface temperature
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

**Operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10%*

Part No.	Heating Capacity*	Dimensions	Max. Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Air Outlet Temperature†	Weight (Approx.)
06000.0-00	50 W	4.3 x 2.36 x 3.54"	2.5 A	2.5 A	187 °F (86 °C)	10.4 oz. (295 g)
06010.0-00	100 W	4.3 x 2.36 x 3.54"	4.5 A	4.5 A	248 °F (120 °C)	10.6 oz. (300 g)
06020.0-00	150 W	5.9 x 2.36 x 3.54"	8 A	8 A	293 °F (145 °C)	15.5 oz. (440 g)

**see Heating Power / Ambient Temperature diagram*

†*measured 2" (50 mm) above protective grill*

Thermal Edge Inc.™

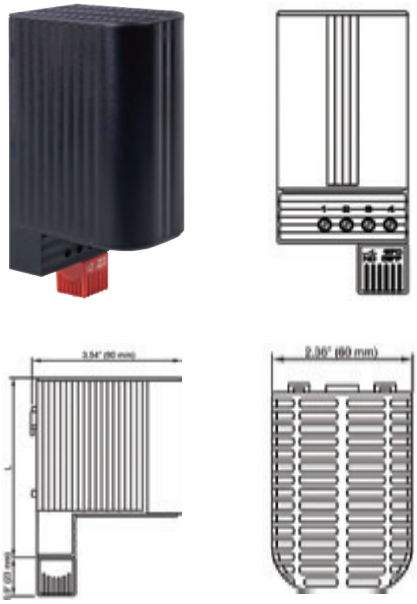
CSF 060

12/14/2023

PTC HEATERS | 50 W TO 150 W
TOUCH-SAFE PTC HEATER

The CSF 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. This model with plug-in thermostat does not require additional wiring. The CSF 060 is also available in a version without thermostat (CS 060). These heaters are suitable for permanent operation.

Operating Voltage*	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating Element	PTC resistor, temperature limiting
Surface Temperature	< 176 °F (80 °C), except upper protective grill
Connection	4-pole terminal AWG 14 max (2.5 mm²), torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E150057 / VDE / EAC



Dimentioned Drawings.

- Low surface temperature
- Integrated thermostat
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

**Operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10%*

Part No.	Heating Capacity**	Dimensions	Max. Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Air Outlet Temp†	Switch-Off Temp§	Switch-On Temp§	Weight (Approx.)
06001.0-00	50 W	5.24 x 2.36 x 3.54"	2.5 A	4.0 A	187 °F	59 °F	41 °F	10.8 oz.
06002.0-00	50 W	5.24 x 2.36 x 3.54"	2.5 A	4.0 A	187 °F	77 °F	59 °F	10.8 oz.
06011.0-00	100 W	5.24 x 2.36 x 3.54"	4.5 A	8.0 A	248 °F	59 °F	41 °F	11.2 oz.
06012.0-00	100 W	5.24 x 2.36 x 3.54"	4.5 A	8.0 A	248 °F	77 °F	59 °F	11.2 oz.
06021.0-00	150 W	6.8 x 2.36 x 3.54"	8.0 A	10.0 A	293 °F	59 °F	41 °F	15.9 oz.
06022.0-00	150 W	6.8 x 2.36 x 3.54"	8.0 A	10.0 A	293 °F	77 °F	59 °F	15.9 oz.

***see Heating Power / Ambient Temperature diagram;*

†measured 2" (50 mm) above protective grill; §tolerance of ±5 K

Thermal Edge Inc.™

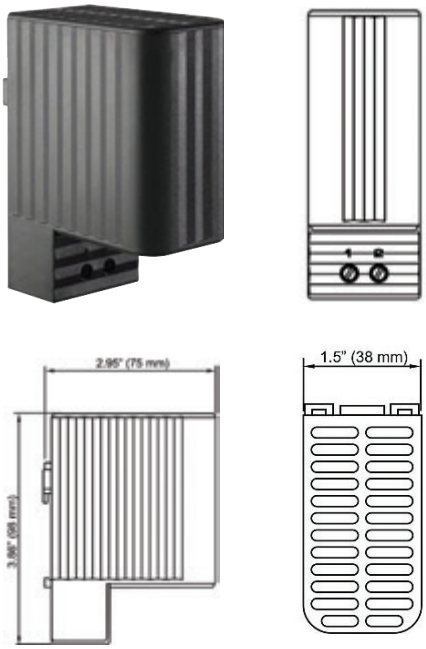
CSK 060

12/14/2023

PTC HEATERS | 10 W, 20 W
TOUCH-SAFE PTC HEATER

The CSK 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. This heater is suitable for permanent operation.

Operating Voltage*	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating Element	PTC resistor, temperature limiting
Surface Temperature	< 185 °F (85 °C), except upper protective grill
Connection	2-pole terminal AWG 14 max (2.5 mm²), torque 0.8 Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical airflow (air outlet up, connection on bottom)
Operating / Storage Temperature	-49 to +158 °F (-45 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	II (double insulated) / IP20
Approvals	UL File No. E150057 / VDE / EAC



Dimentioned Drawings.

- Low surface temperature
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

**Operating high voltage heaters below AC/DC 140 V reduces heating performance by approx. 10%*

Part No.	Heating Capacity*	Dimensions	Max. Current (Inrush)	Rec. Pre-Fuse T (Time-Delay)	Weight (Approx.)
06030.0-00	20 W	3.86 x 2.95 x 1.5"	2.5 A	4.0 A	6.1 oz. (170 g)
06040.0-00	10 W	3.86 x 2.95 x 1.5"	1.0 A	2.0 A	5.0 oz. (140 g)

**at 68 °F (20 °C) ambient temperature*

Thermal Edge Inc.™

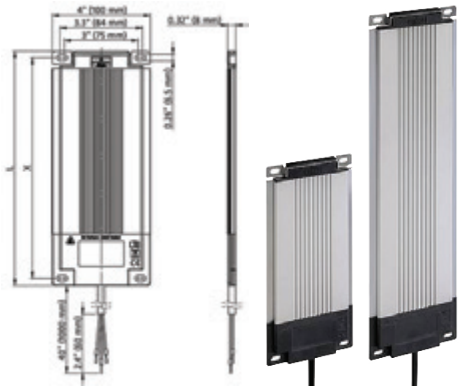
CP 061

12/14/2023

PTC HEATERS | 50 W, 100 W
FLAT HEATER

The Flat Heater CP 061 is used to provide evenly distributed temperature within enclosures and cabinets with electric/electronic components. Its ultra-thin design makes it particularly suitable for high-density applications in which standard enclosure heaters are often too big in size. Depending on the application, the Flat Heater can be used as a convection heater or as a contact heater. When used as a contact heater it offers thermoconductive contact to a component or a cabinet wall in need to be heated. Additionally, a mounting system especially designed for the CP 061 allows for the compensation of an expansion of the heater body as a result of the heating-up when in operation. Operated as a convection heater, the slim heater CP 061 warms up the ambient air within a cabinet. The CP 061 is designed for permanent operation.

Heating Element	resistance heater
Overheat Protection	with automatic reset
Heating Body	aluminum profile
Surface Temperature	max. +302 °F (+150 °C) at +77 °F (+25 °C)
Connection	silicone cable (halogen-free) 3 x AWG 18 (0.75 mm²), length 3 ft (1 m)
Housing	plastic, UL 94V-0, black
Mounting	screw mount M6 (not included)
Mounting Position	horizontal, variable connection or vertical, connection on bottom
Dimensions	L x 4" x .32" (L x 100 x 8 mm)
Operating / Storage Temperature	-40 to +185 °F (-40 to +85 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	IP30 / I (grounded)



Dimentioned Drawings.

- Low surface temperature
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

Part No.	Heating Capacity	Operating Voltage	Length (L)	Hole Spacing (X)	Weight Approx.	Operating Temperature	Approvals
06100.0-00	50 W	AC 230 V, 50/60 Hz	9.41"	8.9"	.88 lbs	-40 to +140 °F	VDE / EAC
06101.0-00	100 W	AC 230 V, 50/60 Hz	16.3"	15.75"	1.54 lbs	-40 to +140 °F	VDE / EAC
06100.9-00	50 W	AC 120 V, 50/60 Hz	9.41"	8.9"	.88 lbs	-40 to +104 °F	UL / EAC
06101.9-00	100 W	AC 120 V, 50/60 Hz	16.3"	15.75"	1.54 lbs	-40 to +104 °F	UL / EAC

Thermal Edge Inc.™

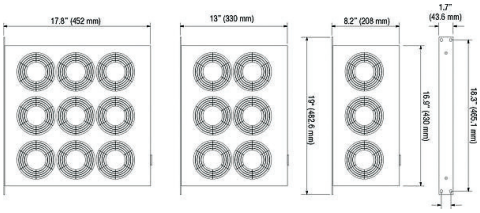
LE 019

12/14/2023

FANS | 286 - 1017 CFM
19" FAN TRAY

The LE 019 is a compact high performance fan tray for forced circulation of air in enclosures and for cooling of 19" rack mount applications. Natural convection is improved and the formation of hot zones is prevented. Also available with integrated thermostat (see photo).

Axial Fans, Ball Bearing	service life 50,000 h at 77 °F (25 °C) and 65 %RH, fan body aluminum, rotor plastic
Material	front panel aluminum, bright anodized casing steel sheet, electrogalvanized
Optical Indicator	integrated in front panel
Connection	power inlet on rear of casing, plug included (no cable)
Mounting Position	horizontal (direction of air upward)
Operating / Storage Temperature	+14 to +140 °F (-10 to +60 °C) -40 to +158 °F (-40 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Class / Type	I (grounded)/ IP20



Dimentioned Drawings.

NOTE: The use of a thermostat, whether integrated or external, is recommended. When using a fan tray with integrated thermostat, an additional thermostat (e.g. KTS 111 Part No. 11101.0-00) may be used if it is desired to switch a signal device should the enclosure interior temperature rise above a set limit (e.g. in case of fan failure).

For models without integrated thermostat, the use of a dual thermostat (e.g. ZR 011 Part No. 01176.0-00) provides the same overheat protection, i.e. one thermostat to control the fan tray operation, one thermostat for a signal device.

- High air volume
- Long service life
- Easy installation and connection
- Function control light
- Optional integrated thermostat

Part No.	Thermostat	Number Of Fans	Operating Voltage	Air Flow, Free Blowing	Power	Avg. Noise Level	Speed (RPM)	Weight (Approx.)	Approvals**
01930.0-00	-	3	AC 230 V, 50 Hz*	286 cfm	45 W	55 db (A)	2600	6.6 lbs.	UL / EAC
01930.1-00	0 to 60 °C	3	AC 230 V, 50 Hz*	286 cfm	45 W	55 db (A)	2600	7.5 lbs.	UL / EAC
01931.0-00	-	3	AC 120 V, 60 Hz	339 cfm	45 W	55 db (A)	2900	6.6 lbs.	UL / EAC
01931.1-00	0 to 60 °C	3	AC 120 V, 60 Hz	339 cfm	45 W	55 db (A)	2900	7.5 lbs.	UL / EAC
01940.0-00	-	6	AC 230 V, 50 Hz*	572 cfm	90 W	57 db (A)	2600	11.7 lbs.	UL / EAC
01940.1-00	0 to 60 °C	6	AC 230 V, 50 Hz*	572 cfm	90 W	57 db (A)	2600	12.5 lbs.	UL / EAC
01941.0-00	-	6	AC 120 V, 60 Hz	678 cfm	90 W	57 db (A)	2900	11.7 lbs.	UL / EAC
01941.1-00	0 to 60 °C	6	AC 120 V, 60 Hz	678 cfm	90 W	57 db (A)	2900	12.5 lbs.	EAC
01950.0-00	-	9	AC 230 V, 50 Hz*	858 cfm	135 W	58 db (A)	2600	17.2 lbs.	UL / EAC
01950.1-00	0 to 60 °C	9	AC 230 V, 50 Hz*	858 cfm	135 W	58 db (A)	2600	17.4 lbs.	EAC
01951.0-00	-	9	AC 120 V, 60 Hz	1017 cfm	135 W	58 db (A)	2900	17.2 lbs.	UL / EAC
01951.1-00	0 to 60 °C	9	AC 120 V, 60 Hz	1017 cfm	135 W	58 db (A)	2900	17.4 lbs.	EAC

**air volume increases by 15% when operating AC 230 V filter fans at 60 Hz;*

***UL File No. E234324*

Thermal Edge Inc.™

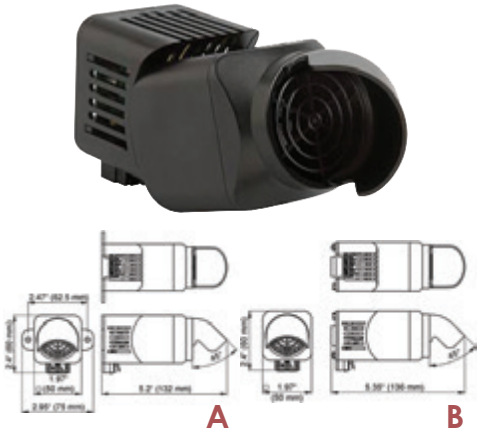
SJ 019

12/14/2023

FANS | 286 - 1017 CFM

The SJ 019 is a compact, powerful built-in fan. It allows precise cooling of heat sources and the air flow prevents formation of heat pockets. Its design offers a maximum rotation range with an air output in almost any direction. The dual clip system (two clips at a 90° angle) allows four different positions on a DIN rail, while the hinge in the housing can be moved at a 40° angle. Additionally, the airflow at the air outlet can be directed at a 45° angle and the air duct can be rotated in steps of 60°.

Axial Fans, Ball Bearing	air flow 16.2 cfm (27.6 m³/h), free flow
Power Consumption	4 W
Average noise level (DIN EN ISO 4871)	44 dB (A)
Connection	2-pole dual cage clamp for solid wire - AWG 14 (2.5 mm²), stranded wire (w/ wire end ferrule) - AWG 16 (1.5 mm²)
Housing	plastic, UL 94V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or with M5 screws and washers (not included), torque 2 Nm max.
Mounting Position	variable
Dimensions	5.2 x 2.95 x 2.4" (132 x 75 x 60 mm)
Weight	approx. 7 oz. (0.2 kg)
Operating / Storage Temperature	+14 to +140 °F (-10 to +60 °C) -22 to +158 °F (-30 to +70 °C)
Operating / Storage Humidity	max. 90 %RH (non-condensing)
Protection Type	IP20



Dimentioned Drawings.

A) Screw mounting. B) DIN rail mounting

- Prevents heat pockets
- Wide voltage range
- Compact design
- Quick connection
- Clip or screw mounting

Part No.	Model	Operating voltage	Protection class	Approvals*
01925.0-00	DIN rail mounting	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	II (double insulated)	UL / EAC
01925.0-01	Screw mounting	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	II (double insulated)	UL / EAC
01925.1-00	DIN rail mounting	DC 24 V (min. DC 12 V, max. DC 26.4 V)	III (double insulated)	EAC
01925.1-01	Screw mounting	DC 24 V (min. DC 12 V, max. DC 26.4 V)	III (double insulated)	EAC

**UL File No. E234324*

Thermal Edge Inc.™

KTS 111 | KTO 111

12/14/2023

THERMOSTATS | SMALL THERMOSTAT

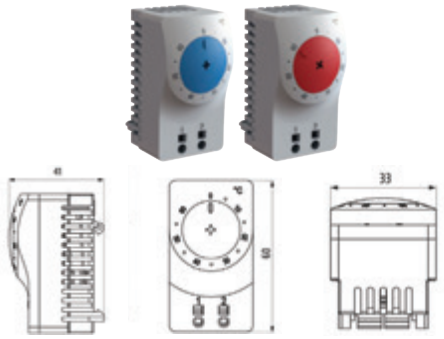
The mechanical thermostats KTO 111 and KTS 111 are two state regulators for use up to 5,000 meters in altitude, thanks to optimized air gap and increased creepage distance. By use of Push-In terminals the thermostat is wired tool-free. The Push-In terminals provide constant pressure on the wires to prevent them from coming loose (e.g. during transport).

KTS 111: Thermostat (NO); contact maker for regulating of filter fans and heat exchangers or for switching signal devices when temperature limit has been exceeded. The contact closes when temperature is rising.

KTO 111: Thermostat (NC); contact breaker for regulating heaters. The contact opens when temperature is rising.

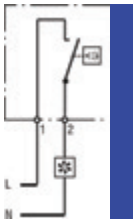
Switch Temperature Difference	7 K (±4 K tolerance)
Sensor Element	thermostatic bimetal
Contact Type	snap-action contact
Service Life	100,000 cycles verified
Max. Operating Voltage, Frequency Range	AC 250 V, 50-60 Hz
Max. Inrush Current	AC 16 A for 10 sec.
Connection*	2 Push-In clamps rigid wire 2.5 mm² (AWG 14) stranded wire 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	60 x 33 x 41 mm
Weight	approx. 40 g
Fitting Position	variable
Operating/Storage Temperature	-45 to +80 °C (-49 to +176 °F)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type/Protection Class	IP20 / II
Overvoltage Category/Altitude	II: up to 5,000 m; III: up to 2,000 m
Approvals	UL File No. E164102 / VDE / EAC

**Stripped length of rigid wire: 10 to 12 mm. When connecting with wires, wire end ferrules must be used (square or trapezoid crimp).*
Length of wire end ferrule: 10 mm or 12 mm.
IMPORTANT NOTE: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

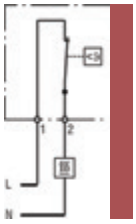


Dimentioned Drawings

- Safe wiring with Push-In connection terminal
- Faster and tool-free wiring
- Improved air intakes for ventilation
- Easy adjustability of switch temperature setting
- For use in up to 16,000 ft.altitude



KTS 111



KTO 111

Heater

Filter Fan, Cooling Eqpt, Signal Device

Setting Range	Part No. (NC)	Part No. (NO)	Switching Current**/Capacity Max		
			AC 250 V	AC 120 V	DC 24-72 V
+32 to +140 °F	11100.9-00	11101.9-00	10 (2) A	15 (2) A	30 W
+14 to +122 °F	11100.9-01	11101.9-01	10 (2) A	15 (2) A	30 W
0 to +60 °C	11100.0-00	11101.0-00	10 (2) A	15 (2) A	30 W
-10 to +50 °C	11100.0-01	11101.0-01	10 (2) A	15 (2) A	30 W
+20 to +80 °C	11100.0-02	11101.0-02	3 (2) A	3 (2) A	30 W

*** The level of switching current has an influence on the tolerance accuracy.*

Thermal Edge Inc.™

STS 011 | STO 011

12/14/2023

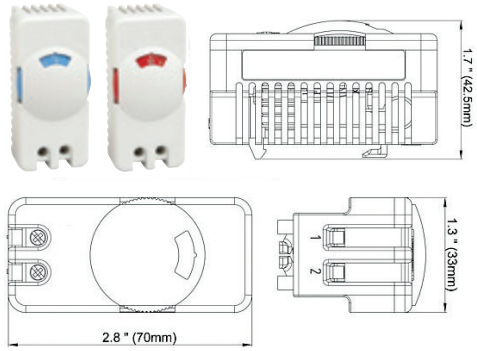
THERMOSTATS | COMPACT THUMBWHEEL THERMOSTAT

The ST 011 thermostat is an SPST regulator with small hysteresis. The housing design ensures optimized air circulation around the sensor element.

STS 011 NO (normally open): Thermostat closes on temperature rise (blue thumbwheel) for regulating filter fans, heat exchangers, cooling devices or for switching signal devices when temperature limit has been exceeded.

STO 011 NC (normally closed): Thermostat opens on temperature rise (red thumbwheel) for regulating heaters or for switching signal devices when temperature has fallen below the minimum value.

Switch difference	7 °F (4 K) ± 5.4 °F (3 K) tolerance
Sensor element	thermostatic bimetal
Contact type	snap-action contact
Service life	>100,000 cycles verified
Connection	2-pole terminal, clamping torque 1 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting position	variable
Operating/Storage temperature	-45 to +80 °C (-49 to +176 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP20
Dimensions	2.76 x 1.3 x 1.65" (70 x 33 x 42 mm)
Weight	approx. 1.8 oz. (50 g)
Protection type	IP20
Approvals	UL File No. E164102, VDE, EAC
Overvoltage Category/Altitude	II: up to 5,000 m; III: up to 2,000 m
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Adjustable thumbwheel setting
- Compact design
- Small hysteresis
- High switching capacity
- DIN rail mountable

Convenient minimum setpoint symbol on the NC thermostat assures enclosure temperature remains above freezing.

**When connecting with stranded wires, wire end ferrules must be used.*

Important note: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

Part No. (NC)	Part No. (NO)	Setting range	Max. switching capacity
01115.9-00	01116.9-00	+32 to +140 °F	15 A resistive / 2 A inductive @ AC 120 V 10 A resistive / 2 A inductive @ AC 250 V DC 30 W (DC 24-72 V)
01115.0-00	01116.0-00	0 to +60 °C	

Thermal Edge Inc.™

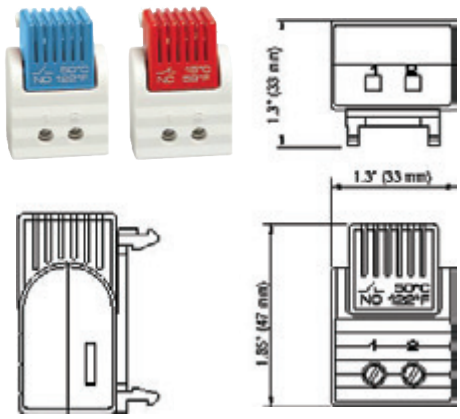
FTS 011 | FTO 011

12/14/2023

THERMOSTATS
TAMPERPROOF THERMOSTAT

Tamperproof (Pre-set) **FTS 011** (normally open): Thermostat closes on temperature rise (blue module housing) - for regulating filter fans, heat exchangers, cooling devices or for switching signal devices when temperature limit has been exceeded.
Tamperproof (Pre-set) **FTO 011** (normally closed): Thermostat opens on temperature rise (red module housing) - for regulating heaters or for switching signal devices when temperature has fallen below the minimum value.

Sensor Element	thermostatic bimetal
Contact Type	snap-action contact
Service Life	>100,000 cycles verified
Max. Switching Capacity	10 A resistive / 2 A inductive @ AC 120 V 5 A resistive / 1.6 A inductive @ AC 250 V DC 30 W
Max. Inrush Current	AC 16 A for 10 sec.
Connection	2-pole terminal, clamping torque 0.8 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Operating/Storage Temperature	-40 to +176 °F (-40 to +80 °C) -49 to +176 °F (-45 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Dimensions	1.85 x 1.3 x 1.3" (47 x 33 x 33 mm)
Weight	approx. 0.8 oz. (23 g)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Compact design
- Fixed set point
- Color coded modules
- DIN rail mountable

When connecting with stranded wires, wire end ferrules must be used.

FTS 011

Part No.	Contact	Switch-off temperature	Switch-on temperature
01161.0-00	NO - close on rise	122 °F / 50 °C (± 12.6 °F / 7 K tolerance)	104 °F / 40 °C (± 11 °F / 6 K tolerance)
01161.0-01	NO - close on rise	140 °F / 60 °C (± 12.6 °F / 7 K tolerance)	122 °F / 50 °C (± 12.6 °F / 7 K tolerance)
01161.0-02	NO - close on rise	95 °F / 35 °C (± 12.6 °F / 7 K tolerance)	77 °F / 25 °C (± 11 °F / 6 K tolerance)

FTO 011

Part No.	Contact	Switch-off temperature	Switch-on temperature
01160.0-00	NC - open on rise	59 °F / 15 °C (± 9 °F / 5 K tolerance)	41 °F / 5 °C (± 9 °F / 5 K tolerance)
01160.0-01	NC - open on rise	77 °F / 25 °C (± 9 °F / 5 K tolerance)	59 °F / 15 °C (± 9 °F / 5 K tolerance)
01160.0-05	NC - open on rise	50 °F / 10 °C (± 9 °F / 5 K tolerance)	32 °F / 0 °C (± 9 °F / 5 K tolerance)

Thermal Edge Inc.™

FTD 011

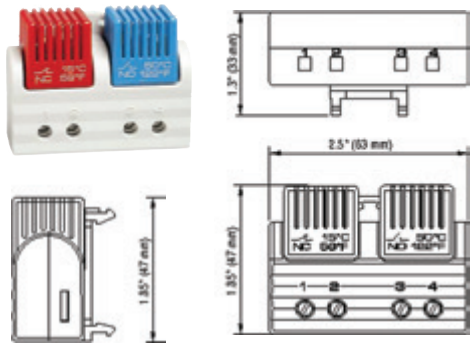
12/14/2023

THERMOSTATS

TAMPERPROOF DUAL THERMOSTAT

Two thermostats in one housing:
Tamperproof (Pre-set) **Thermostat NC** (normally closed): opens on temperature rise (red module housing) - for regulating heaters or for switching signal devices when temperature has fallen below the minimum value.
Tamperproof (Pre-set) **Thermostat NO** (normally open): closes on temperature rise (blue module housing) - for regulating filter fans, heat exchangers, cooling devices or for switching signal devices when temperature limit has been exceeded.

Sensor Element	thermostatic bimetal
Contact Type	snap-action contact
Service Life	>100,000 cycles verified
Max. Switching Capacity	10 A resistive / 2 A inductive @ AC 120 V 5 A resistive / 1.6 A inductive @ AC 250 V DC 30 W
Max. Inrush Current	AC 16 A for 10 sec.
Connection	4-pole terminal, clamping torque 0.8 Nm max. solid wire - AWG 14 max. (2.5 mm²) stranded wire - AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Operating/Storage Temperature	-40 to +176 °F (-40 to +80 °C) -49 to +176 °F (-45 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Dimensions	1.85 x 2.5 x 1.3" (47 x 63 x 33 mm)
Weight	approx. 14.1 oz. (40 g)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- NC/NO or NO/NO in one unit
- Fixed set points
- Color coded modules
- DIN rail mountable

**When connecting with stranded wires, wire end ferrules must be used.*

Part No.	NC - Open On Rise		NO - Close On Rise	
	Switch-Off Temperature	Switch-On Temperature	Switch-On Temperature	Switch-Off Temperature
01163.0-00	59 °F / 15 °C (± 9 °F / 5 K tolerance)	41 °F / 5 °C (± 9 °F / 5 K tolerance)	122 °F / 50 °C (± 11 °F / 7 K tolerance)	104 °F / 40 °C (± 12.6 °F / 6 K tolerance)
01163.0-01	77 °F / 25 °C (± 9 °F / 5 K tolerance)	59 °F / 15 °C (± 9 °F / 5 K tolerance)	140 °F / 60 °C (± 11 °F / 7 K tolerance)	122 °F / 50 °C (± 12.6 °F / 7 K tolerance)
01163.0-02	59 °F / 15 °C (± 9 °F / 5 K tolerance)	41 °F / 5 °C (± 9 °F / 5 K tolerance)	95 °F / 35 °C (± 11 °F / 7 K tolerance)	77 °F / 25 °C (± 12.6 °F / 6 K tolerance)
01163.0-03	77 °F / 25 °C (± 9 °F / 5 K tolerance)	59 °F / 15 °C (± 9 °F / 5 K tolerance)	122 °F / 50 °C (± 11 °F / 7 K tolerance)	104 °F / 40 °C (± 12.6 °F / 6 K tolerance)

Part No.	NO - Close On Rise		NO - Close On Rise	
	Switch-On Temperature	Switch-Off Temperature	Switch-On Temperature	Switch-Off Temperature
01164.0-00	122 °F / 50 °C (± 11 °F / 7 K tolerance)	104 °F / 40 °C (± 12.6 °F / 6 K tolerance)	140 °F / 60 °C (± 11 °F / 7 K tolerance)	122 °F / 50 °C (± 12.6 °F / 7 K tolerance)

Thermal Edge Inc.™

ZR 011

THERMOSTATS
DUAL THERMOSTAT

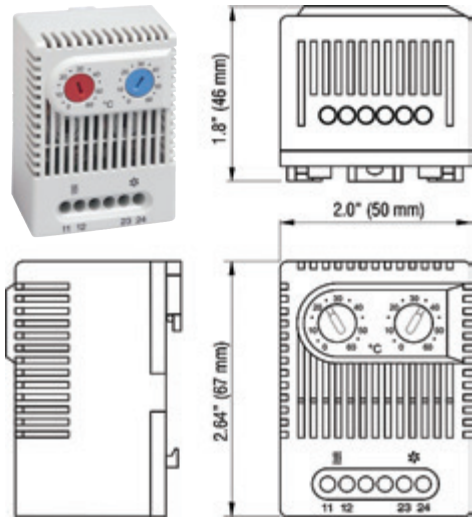
12/14/2023

The ZR 011 houses two separate thermostats, allowing the independent control of heating and cooling or other equipment.

Thermostat NC (normally closed): Thermostat opens at temperature rise - for regulating heaters or for switching signal devices. Comes with red temperature dial.

Thermostat NO (normally open): Thermostat closes at temperature rise - for regulating filter fans and heat exchangers or for switching signal devices. Comes with blue temperature dial.

Switch Temperature Difference	12.6 °F ± 7 °F tolerance (7 K ± 4 K)
Sensor Element	thermostatic bimetal
Contact Type	snap-action contact
Service Life	>100,000 cycles verified
Max. Switching Capacity	NC: 10 A resistive / 2 A inductive @ AC 250 V NO: 5 A resistive / 2 A inductive @ AC 250 V 15 A resistive / 2 A inductive @ AC 120 V DC 30 W (DC 24-72 V)
Max. Inrush Current	AC 16 A for 10 sec.
Connection*	4-pole terminal, clamping torque 0.5 Nm max.: solid wire - AWG 14 max. (2.5 mm²) stranded wire*- AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	2.6 x 2.0 x 1.8" (67 x 50 x 46 mm)
Weight	approx. 3.2 oz. (90 g)
Operating/Storage Temperature	-49 to +176 °F (-45 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / CSA / VDE / EAC



Dimentioned Drawings.

- NC/NO or NO/NO in one unit
- Separate adjustable temperatures
- Color coded temperature dials
- DIN rail mountable

**When connecting with stranded wires, wire end ferrules must be used.*

IMPORTANT NOTE: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

Part No.	Setting Range		Setting Range	
01172.0-00	NC - open on rise	0 to +60 °C	NO - close on rise	0 to +60 °C
01172.0-01	NC - open on rise	+32 to +140 °F	NO - close on rise	+32 to +140 °F
01175.0-00	NC - open on rise	-10 to +50 °C	NO - close on rise	+20 to +80 °C
01175.0-01	NC - open on rise	+14 to +122 °F	NO - close on rise	+68 to +176 °F
01176.0-00**	NO - close on rise	0 to +60 °C	NO - close on rise	0 to +60 °C
01176.0-01**	NO - close on rise	+32 to +140 °F	NO - close on rise	+32 to +140 °F

***For regulating heat exchangers and fans (e. g. LE 019) and as an alarm contact for monitoring the interior temperature of electronic enclosures.*

Thermal Edge Inc.™

FZK 011

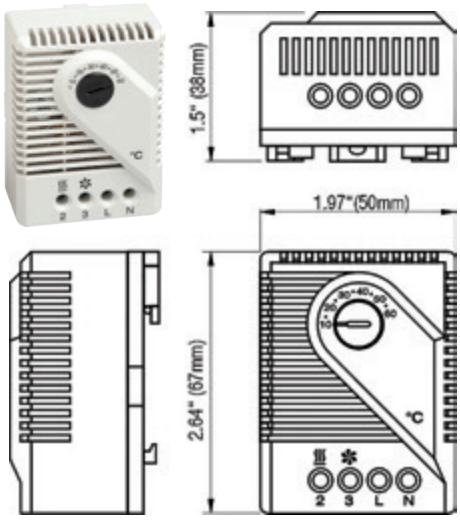
12/14/2023

THERMOSTATS

MECHANICAL THERMOSTAT

The FZK 011 mechanical thermostat is used for controlling heating and cooling equipment, filter fans or signal devices where a higher degree of sensing accuracy is required.
An integrated resistor (RF) can be connected to improve the switch temperature difference (see Option note). The thermostat registers the surrounding air and can switch both inductive and resistive loads via snap-action contact.

Switch Temperature Difference	approx. 9 °F (5 K), tolerance -5.4/+3.6 °F (-3/+2 K)*
Sensor Element	thermostatic bimetal
Contact Type	SPDT / change-over contact
Service Life	> 100,000 cycles verified
Min. Switching Capacity	10 mA
Max. Switching Capacity, Nc	10 A resistive / 4 A inductive @ AC 120 V 10 A resistive / 4 A inductive @ AC 250 V DC 30 W
Max. Switching Capacity, No	5 A resistive / 2 A inductive @ AC 120 V 5 A resistive / 2 A inductive @ AC 250 V DC 30W
Max. Inrush Current	AC 16 A for 10 sec.
Connection*	4-pole terminal, clamping torque 0.5 Nm max.: solid/stranded** wire - AWG 14 max. (2.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	variable
Dimensions	2.64 x 1.97 x 1.5" (67 x 50 x 38 mm)
Weight	approx. 2 oz. (60 g)
Operating/Storage Temperature	-49 to +149 °F (-45 to +65 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / EAC



Dimentioned Drawings.

- Wide adjustment range
- High switching capacity
- SPDT (change-over) contact
- Very low hysteresis option
- DIN rail mountable

**If the NC contact is used, the switch temperature difference could be reduced by connecting terminal "N" (RF heating resistor). It causes the thermal feedback which is subject to surrounding conditions and thus has to be determined for each individual application.*

***When connecting with stranded wires, wire end ferrules must be used.*

IMPORTANT NOTE: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

Part No.	Operating Voltage†	Setting Range
01170.0-00	AC 230 V	5 to 60 °C
01170.0-01	AC 230 V	40 to 140 °F
01170.9-00	AC 120 V	40 to 140 °F
01170.9-01	AC 120 V	5 to 60 °C

†*Voltage only needs to be specified if the optional use of the RF resistor is desired.*

Thermal Edge Inc.™

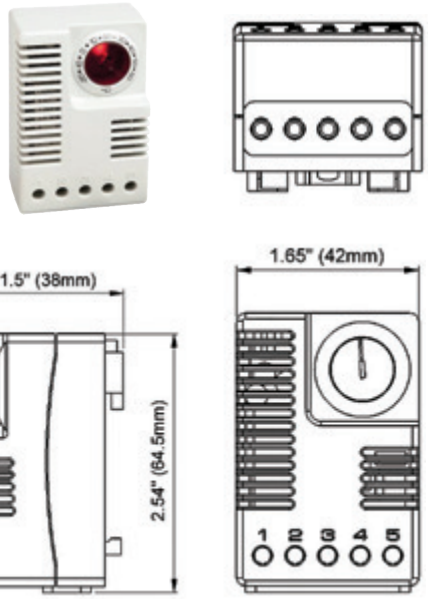
ETR 011

12/14/2023

THERMOSTATS
ELECTRONIC THERMOSTAT

The ETR 011 electronic thermostat is used for controlling heating and cooling equipment, filter fans or signal devices. The thermostat senses the surrounding air temperature and can switch both resistive and inductive loads via an SPDT contact. The integrated LED is lit when the NC is closed (i.e. connected heater is operating).

Switch Temperature Difference	7 °F (4 K) ±1.8 °F (1 K) tolerance at +68 °F (+20 °C)
Sensor Element	NTC
Reaction Time	approx. 5 seconds
Contact Type	SPDT / change-over contact (relay)
Service Life	>50,000 cycles
Max. Switching Capacity (Relay Output)	8 A resistive / 1.6 A inductive @ AC 120 V 8 A resistive / 1.6 A inductive @ AC 240 V 100 W @ DC 24 V
Max. Inrush Current	AC 16 A for 10 sec.
Connection*	5-pole terminal, clamping torque 0.5 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	2.54 x 1.65 x 1.5" (64.5 x 42 x 38 mm)
Weight	approx. 2 oz. (60 g)
Operating/Storage Temperature	-49 to +176 °F (-45 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Large setting range
- Compact design
- Small hysteresis
- Optical function display (LED)
- DIN rail mountable

When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range
01131.0-00	AC 230 V	-20 to +60 °C
01131.9-00	AC 120 V	-4 to +140 °F
01175.0-00	NC - open on rise	+20 to +80 °C

Thermal Edge Inc.™

ETL 011

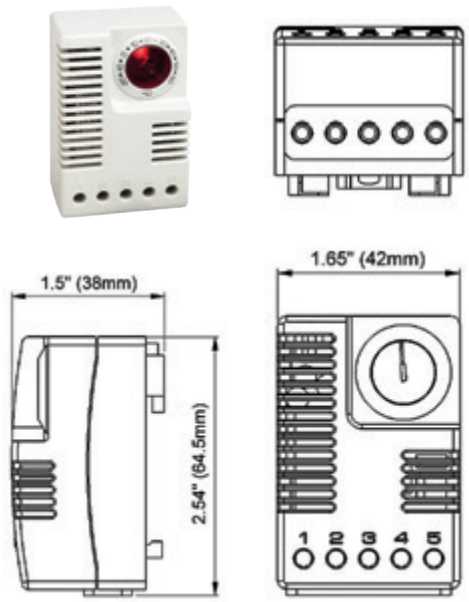
12/14/2023

THERMOSTATS

ELECTRONIC THERMOSTAT

The ETL 011 electronic thermostat is used for controlling heating and cooling equipment, filter fans or signal devices through the Relay DCM 010 or a similar device. The thermostat registers the surrounding air temperature and can switch a signal current via an internal relay with a potential free change-over contact. The LED integrated in the adjustment knob shows the closed status of the contact 1-2. When the temperature rises contact 1-2 opens and the LED turns off. In currentless state (no supply voltage) contact 1-2 opens.

Switch Temperature Difference	7 °F (4 K) ±1.8 °F (1 K) tolerance at +68 °F (+20 °C)
Sensor Element	NTC
Reaction Time	approx. 5 seconds
Contact Type	SPDT / change-over
Service Life	>100,000 cycles (at 10 mW)
Min. Switching Load	DC 10 mW (at 0.1 V, 100 mA or 1 mA, 10 V)
Optical Indicator	LED
Connection*	5-pole terminal, clamping torque 0.5 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	2.54 x 1.65 x 1.5" (64.5 x 42 x 38 mm)
Weight	approx. 2 oz. (60 g)
Operating/Storage Temperature	-40 to +185 °F (-40 to +85 °C)
Operating/Storage Humidity	max. 95 %RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Large setting range
- Compact design
- Small hysteresis
- Optical function display (LED)
- DIN rail mountable

When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range
01131.2-00	DC 12-48 V (min. DC 10 V, max. DC 60 V)	-20 to +60 °C
01131.2-01	DC 12-48 V (min. DC 10 V, max. DC 60 V)	-4 to +140 °F

Thermal Edge Inc.™

ET 011

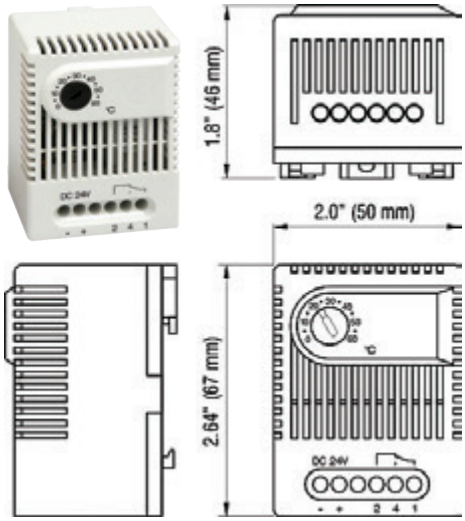
12/14/2023

THERMOSTATS

24 VDC ELECTRONIC THERMOSTAT

The ET 011 is an electronic thermostat for regulating high performance DC 24 V equipment. Heating or cooling equipment, as well as signal devices, can be switched via the SPDT (change-over) contact. A relatively small hysteresis sets the ET 011 Thermostat apart from less accurate mechanical thermostats.

Switching Difference	5.4 °F (3 K) ±1.8 °F (1 K) tolerance at +68 °F (+20 °C)
Sensor Element	PTC
Contact Type	SPDT / change-over contact
Service Life	>100,000 cycles
Max. Switching Capacity	16 A @ DC 28 V
Max. Inrush Current	DC 16 A
Connection	5-pole terminal, clamping torque 0.5 Nm max.: solid wire - AWG 14 max. (2.5 mm²) stranded wire* - AWG 16 max. (1.5 mm²)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	2.6 x 2.0 x 1.8" (67 x 50 x 46 mm)
Weight	approx. 2.4 oz. (70 g)
Operating/Storage Temperature	-40 to +140 °F (-40 to +60 °C) -49 to +176 °F (-45 to +80 °C)
Operating/Storage Humidity	max. 90 %RH (non-condensing)
Protection Type	IP20
Approvals	EAC



Dimentioned Drawings.

- 16 Amp DC switching capacity
- Low hysteresis
- Wide adjustment range
- DIN rail mountable

*When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range
01190.0-00	DC 24 V (DC 20-28 V)	0 to 60 °C
01190.0-01	DC 24 V (DC 20-28 V)	32 to 140 °F

Thermal Edge Inc.™

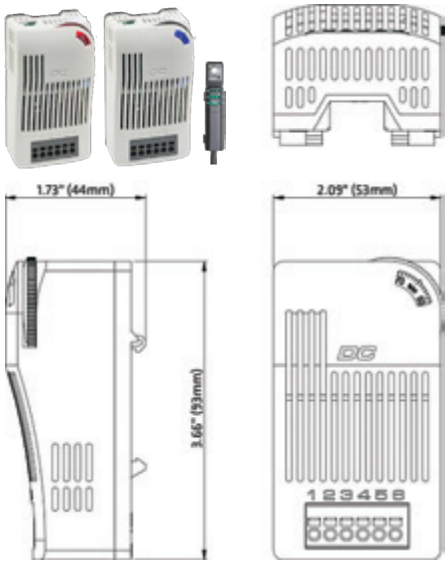
DCT 011

12/14/2023

THERMOSTATS | 20 VDC TO 56 VDC
ELECTRONIC THERMOSTAT

The electronic thermostat with integrated switch module is used to control DC powered devices with high capacities in control and switch cabinets. Heaters, coolers, filter fans or signal devices can directly be controlled via an internal electronic circuit. The external sensor can be positioned freely anywhere in the control cabinet for precise temperature measurements. Additionally, this thermostat is available in versions that not only measure temperature via the external sensor, but also the relative humidity.

Switch Temperature Difference	3 K (±1 K tolerance) at +77 °F (+25 °C), 50 % RH
Reaction Time	approx. 5 sec.
External Sensor	cable 2 m with snap in connector (included)
Contact Type	contact maker NO (MOSFET) or contact breaker NC (MOSFET)
Service Life	> 100,000 cycles
Operating Voltage	DC 20 to 56 V
Optical Indicator	LED
Connection	6-pole terminal: stranded wire* AWG 16 (1.5mm²); max. AWG 12 (2.5mm²)
Housing	plastic, UL 94V-0, grey (bicolor)
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	3.7 x 2.1 x 1.7" (93 x 53 x 44 mm)
Weight	approx. 4.2 oz. (120 g) incl. sensor
Operating/Storage Temp.	-40 to +176 °F (-40 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- High DC switching capacity
- Adjustable temperature
- Small hysteresis
- Optical operating display (LED)
- Integrated switch module
- Precise measurement via an external sensor

**When connecting with stranded wires, wire end ferrules must be used.*

Part No.	Max. Switching Capacity (Relay Output)	Operating Temperature	Primary Switching Function Setting Range Temp.	Secondary Switching Function** Humidity Setting	Contact (Primary)
01011.0-31	DC 13 A	-22 °F to +122 °F	14 to 122 °F	-	Contact maker (NO)
01011.0-32	DC 11 A	-22 °F to +140 °F	32 to 140 °F	-	Contact maker (NO)
01011.0-61	DC 13 A	-22 °F to +122 °F	14 to 122 °F	65 % RH pre-set	Contact breaker (NC)
01011.0-62	DC 11 A	-22 °F to +140 °F	32 to 140 °F	65 % RH pre-set	Contact breaker (NC)

***Versions with secondary switching function can also register the humidity and therefore offer an additional protection for electronics. Switching difference: 4 % RH (±1 % tolerance) at +77 °F (+25 °C), 50 % RH.*

TRT-10A230V-NCF

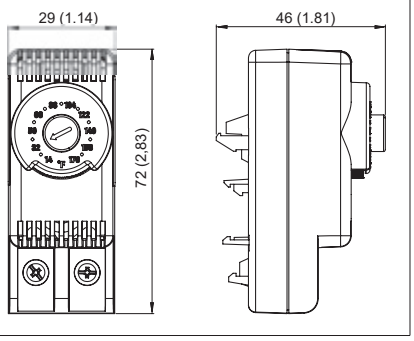
12/14/2023

THERMOSTAT
NORMALLY CLOSED

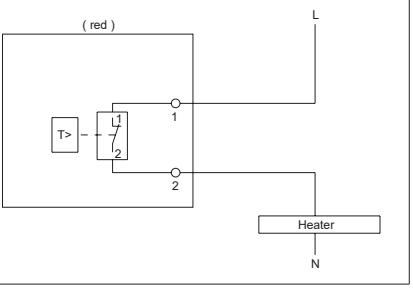
TRT-10A230V-NCF thermostats provide a reliable solution for accurate temperature control in protecting sensitive electronic components. These mechanical regulators are used with ventilation or heating products to keep the desired thermal conditions inside the enclosure.

Appliance Class	II
Max Contact Current	15 A
Operating Voltage	12-60 VDC
Rated Current	10 A
Rated Voltage	110-250 VAC
Rated Voltage	60 VDC
IP Protection Degree	IP20
Max Humidity	90 % RH
Operating Temperature	14 to 176 °F
Storage Temperature	-40 to 194 °F
Accuracy	± 3 K
Casing Material	PA66 UL94 V-0
Electrical Connection	Terminal Block
Fixing System	DIN rail
Life Expectancy	100,000 Cycles
RAL Number	7035
Rated Hysteresis	7 K
Sensor Type	Bi-Metal
Setting Range	14 to 176 °F
Setting Resolution	9 °F
Wires Section	0.75-2.5 mm²
Wires Section	18-14 AWG
UL Ambient Temperature	122 °F
UL File Number Recognized Component	E247491

Technical drawing mm (in)



Wiring Diagram



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TRT-10A230V-NOF

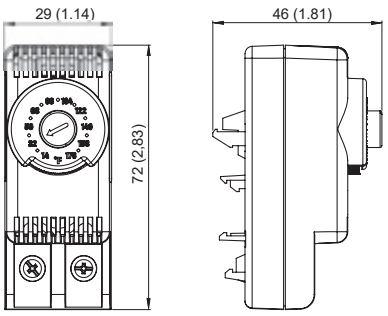
12/14/2023

THERMOSTAT
NORMALLY OPEN

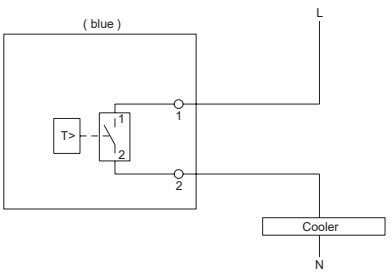
TRT-10A230V-NOF thermostats provide a reliable solution for accurate temperature control in protecting sensitive electronic components. These mechanical regulators are used with ventilation or heating products to keep the desired thermal conditions inside the enclosure.

Appliance Class	II
Max Contact Current	15 A
Operating Voltage	12-60 VDC
Rated Current	10 A
Rated Voltage	110-250 VAC
Rated Voltage	60 VDC
IP Protection Degree	IP20
Max Humidity	90 % RH
Operating Temperature	14 to 176 °F
Storage Temperature	-40 to 194 °F
Accuracy	± 3 K
Casing Material	PA66 UL94 V-0
Electrical Connection	Terminal Block
Fixing System	DIN rail
Life Expectancy	100,000 Cycles
RAL Number	7035
Rated Hysteresis	7 K
Sensor Type	Bi-Metal
Setting Range	14 to 176 °F
Setting Resolution	9 °F
Wires Section	0.75-2.5 mm²
Wires Section	18-14 AWG
UL Ambient Temperature	122 °F
UL File Number Recognized Component	E247491

Technical drawing mm (in)



Wiring Diagram



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Thermal Edge Inc.™

IGR35F

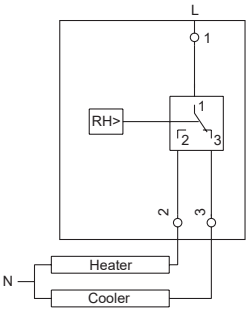
12/14/2023

HYGROSTAT
MECHANICAL CHANGE OVER

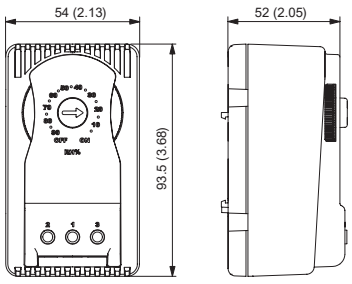
Thermal Edge mechanical hygrostat switches on electrical enclosure heating or cooling units when a preset relative humidity (RH) is exceeded. The relative humidity is kept above the dew point and the condensation of water on electrical components and the corrosion of unprotected sheet metal is prevented.

Appliance Class	II
Rated Current	10-5 A
Rated Voltage	120-240 VAC
IP Protection Degree	IP20
Operating Temperature	50 to 104 °F
Storage Temperature	-4 to 122 °F
Accuracy	± 5% RH
Casing Material	PC/ABS UL94 V-0
Electrical Connection	Terminal Block
Fixing System	DIN rail
Life Expectancy	30,000 Cycles
RAL Number	7035
Rated Hysteresis	5% RH
Sensor Type	Polyamide Ribbon
Setting Range	10 to 90% RH
Setting Resolution	5% RH
Wires Section	1-4 mm²
Wires Section	18-12 AWG
UL File Number Recognized Component	E247491

Wiring Diagram



Technical drawing mm (in)



Thermal Edge Inc.™

HTM045

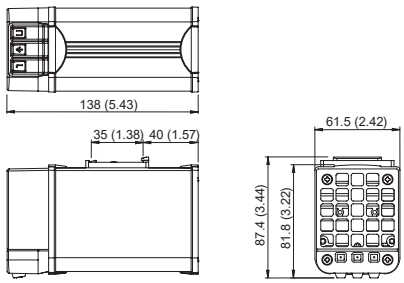
12/14/2023

HEATER
45 WATT

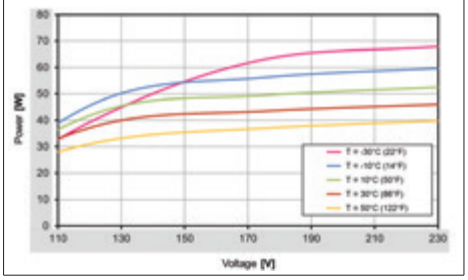
Thermal Edge PTC heaters are used for warming up the air inside enclosure, protecting electrical and electronic components from condensation and corrosion. These H series PTC heaters with screwless terminal block are available in two versions: in metal or plastic, with low surface thermal conductivity to keep safe maintenance operations.

Appliance Class	I
Frequency	50/60 Hz
Max Current	1.0 A
Operating Voltage	99-264 VAC
Rated Voltage	110-240 VAC/DC
IP Protection Degree	IP20
Operating Temperature	-22 to 122 °F
Storage Temperature	-40 to 158 °F
Casing Material	Black Anodized Aluminum
Electrical Connection	Terminal Block
Fixing System	DIN rail
Heating Power	45 W
Wires Section	1-2.5 mm²
Wires Section	20-16 AWG
UL Ambient Temperature	122 °F
UL File Number Recognized Component	E237844

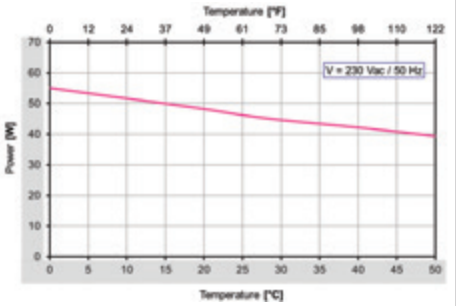
Technical drawing mm (in)



Power-Voltage



Power-Temperature



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HVMS250THP-115

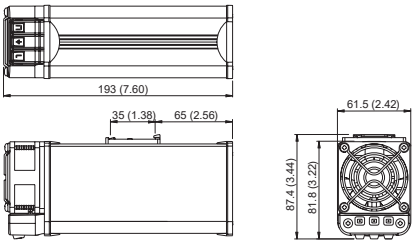
12/14/2023

HEATER
250 WATT

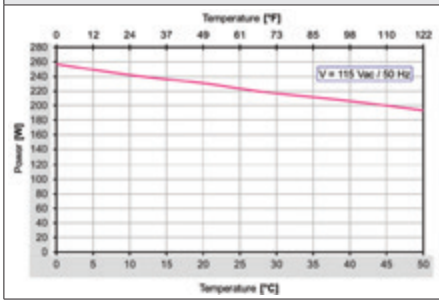
Thermal Edge PTC heaters are used for warming up the air inside enclosure, protecting electrical and electronic components from condensation and corrosion. These H series PTC heaters with screwless terminal block are available in two versions: in metal or plastic, with low surface thermal conductivity to keep safe maintenance operations.

Appliance Class	I
Frequency	50/60 Hz
Max Current	1.9 A
Operating Voltage	75-125 VAC
Rated Voltage	115 VAC
IP Protection Degree	IP20
Operating Temperature	14 to 104 °F
Storage Temperature	-40 to 158 °F
Casing Material	Black Anodized Aluminum
Electrical Connection	Terminal Block
Fixing System	DIN rail
Heating Power	250 W
Wires Section	1-2.5 mm²
Wires Section	20-16 AWG
UL Ambient Temperature	122 °F
UL File Number Recognized Component	E237844

Technical drawing mm (in)



Power-Temperature



Thermal Edge Inc.™

HVMS350THP-115

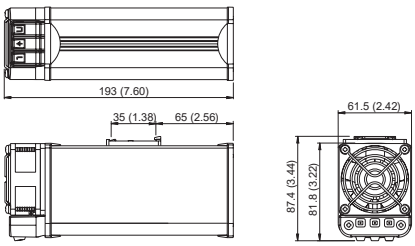
12/14/2023

HEATER
350 WATT

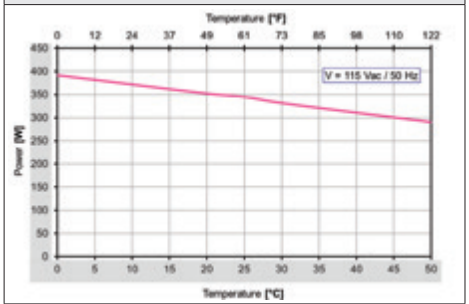
Thermal Edge PTC heaters are used for warming up the air inside enclosure, protecting electrical and electronic components from condensation and corrosion. These H series PTC heaters with screwless terminal block are available in two versions: in metal or plastic, with low surface thermal conductivity to keep safe maintenance operations.

Appliance Class	I
Frequency	50/60 Hz
Max Current	1.9 A
Operating Voltage	75-125 VAC
Rated Voltage	115 VAC
IP Protection Degree	IP20
Operating Temperature	14 to 104 °F
Storage Temperature	-40 to 158 °F
Casing Material	Black Anodized Aluminum
Electrical Connection	Terminal Block
Fixing System	DIN rail
Heating Power	350 W
Wires Section	1-2.5 mm²
Wires Section	20-16 AWG
UL Ambient Temperature	122 °F
UL File Number Recognized Component	E237844

Technical drawing mm (in)



Power-Temperature



CE UKCA cULus

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Thermal Edge Inc.™

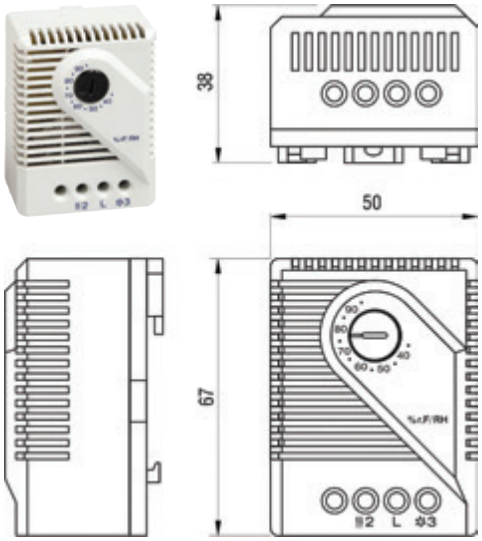
MFR 012

12/14/2023

HYGROSTATS
MECHANICAL HYGROSTAT

The MFR 012 electromechanical hygrostat is designed to control the relative humidity inside enclosures. When connected to an enclosure heater (dehumidifier), it will energize the heater at the humidity set point in order to raise the dew point. This helps prevent damage and malfunction of electronic components caused by condensation and corrosion*.
The MFR 012 can also be used to control cooling fans, warning lights or other devices.

Switch Difference	4% RH (±3% tolerance)
Permissible Air Velocity	15m/sec.
Contact Type	change-over contact
Service Life	>50,000 cycles
Min. Switching Capacity	20VAC/DC 100mA
Max. Switching Capacity	250VAC, 5A DC 20W
Connection	3-pole terminal for 2.5mm², clamping torque 0.5Nm max.: rigid wire 2.5mm² (AWG 14) stranded wire** 1.5mm² (AWG 16)
Housing	plastic, UL 94V-0, light grey
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	variable
Dimensions	2.64 x 1.97 x 1.5"
Weight	approx. 2 oz.
Operating/Storage Temperature	+32 to +140 °F (0 to +60 °C) -40 to +140 °F (-40 to +60 °C)
Operating/Storage Humidity	max. 95 %RH (non-condensing)
Protection Type	IP20



Dimentioned Drawings.

- 16 Amp DC switching capacity
- Low hysteresis
- Wide adjustment range
- DIN rail mountable

*The critical relative humidity level for most components is 65%. Above 65% RH, condensation can form and cause malfunctions of electronic equipment. Long term, this can lead to corrosion and permanent damage of electronic components and systems.

**When connecting with stranded wires, wire end ferrules must be used.

Part No.	Setting Range	Approvals
01220.0-00	35 to 95 %RH	UL File No. E164102, EAC

Thermal Edge Inc.™

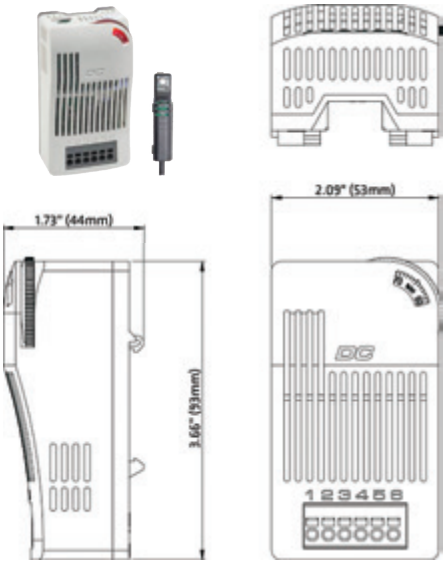
DCF 010

12/14/2023

HYGROSTATS | 20 VDC TO 56 VDC
ELECTRONIC HYGROSTAT

The electronic DC hygrostat with integrated switch module is used to control heating and cooling equipment, filter fans or signal devices through the relay. The hygrostat measures the relative humidity and can switch a signal current via an internal relay. The external sensor can be positioned freely anywhere in the control cabinet for precise measurement of the atmospheric humidity. Additionally, this hygrostat is available in versions that not only measure the relative humidity via the external sensor, but also the temperature.

Switching Difference (Humidity)	4 % RH (±1 % tolerance) at +77 °F (+25 °C), 50 % RH
Reaction Time	approx. 5 sec.
External Sensor	cable 2 m with snap in connector (included)
Contact Type	contact maker NO (MOSFET) or contact breaker NC (MOSFET)
Service Life	>100,000 cycles
Operating Voltage	DC 20 to 56 V
Optical Indicator	LED
Connection	6-pole terminal: stranded wire* AWG 16 (1.5mm²); max. AWG 12 (2.5mm²)
Housing	plastic, UL 94V-0, grey (bicolor)
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	3.7 x 2.1 x 1.7" (93 x 53 x 44 mm)
Weight	approx. 4.2 oz. (120 g) incl. sensor
Operating/Storage Temp.	-40 to +176 °F (-40 to +80 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- High DC switching capacity
- Adjustable humidity
- Small hysteresis
- Optical operating display (LED)
- Integrated switch module
- Precise measurement via an external sensor

*When connecting with stranded wires, wire end ferrules must be used.

Part No.	Max. Switching Capacity (Relay Output)	Operating Temperature	Primary Switching Function Setting Range Temp.	Secondary Switching Function** Humidity Setting	Contact (Primary)
01012.0-20	DC 15 A	-22 °F to +104 °F	40 to 90 % RH	+41 °F (+5 °C) pre-set	Contact maker (NO)
01012.0-21	DC 13 A	-22 °F to +122 °F	40 to 90 % RH	+41 °F (+5 °C) pre-set	Contact maker (NO)
01012.0-22	DC 11 A	-22 °F to +140 °F	40 to 90 % RH	+41 °F (+5 °C) pre-set	Contact maker (NO)

**Versions with secondary switching function can also register the temperature and therefore offer an additional protection for electronics. Switching difference: 3 K (±1 K tolerance) at +77 °F (+25 °C), 50 % RH.

Thermal Edge Inc.™

EFR 012

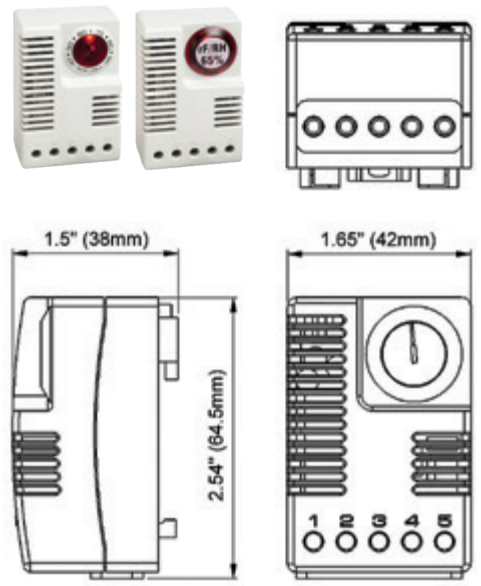
12/14/2023

HYGROSTATS
ELECTRONIC HYGROSTAT

The EFR 012 electronic hygrostat senses the relative humidity in an enclosure and turns on a heater at the set point, helping prevent the formation of condensation in the enclosure. The integrated LED is lit when the connected device is in operation.

Switching Difference	5 %RH (± 1 % tolerance) at 77 °F (25 °C) and 50 %RH
Reaction Time	approx. 5 seconds
Contact Type	SPDT / change-over contact (relay)
Service Life	> 50,000 cycles
Max. Switching Capacity (Relay Output)	8 A resistive / 1.6 A inductive @ AC 120 V 8 A resistive / 1.6 A inductive @ AC 240 V 100 W @ DC 24 V
Connection	5-pole terminal, clamping torque 0.5 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic, UL 94V-0, light grey
Dimensions	2.54 x 1.65 x 1.5" (64.5 x 42 x 38 mm)
Weight	approx. 2.3 oz. (65 g)
Fitting Position	vertical
Operating/Storage Temperature	+32 to +140 °F / -4 to +158 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20

When connecting with stranded wires, wire end ferrules must be used.



Dimentioned Drawings.

- Adjustable & pre-set relative humidity setpoints
- Compact design
- High switching capacity
- Optical function display (LED)
- DIN rail mountable

Part No.	Operating Voltage	Setting Range	Approvals
01245.0-00	AC 230 V, 50/60 Hz	40 to 90 %RH	UL File No. E164102 / VDE / EAC
01245.9-00	AC 120 V, 50/60 Hz	40 to 90 %RH	UL File No. E164102 / EAC
01246.0-00	AC 230 V, 50/60 Hz	65 %RH pre-set	UL File No. E164102 / VDE / EAC
01246.0-01	AC 230 V, 50/60 Hz	50 %RH pre-set	UL File No. E164102 / VDE / EAC
01246.9-00	AC 120 V, 50/60 Hz	65 %RH pre-set	UL File No. E164102 / EAC

Thermal Edge Inc.™

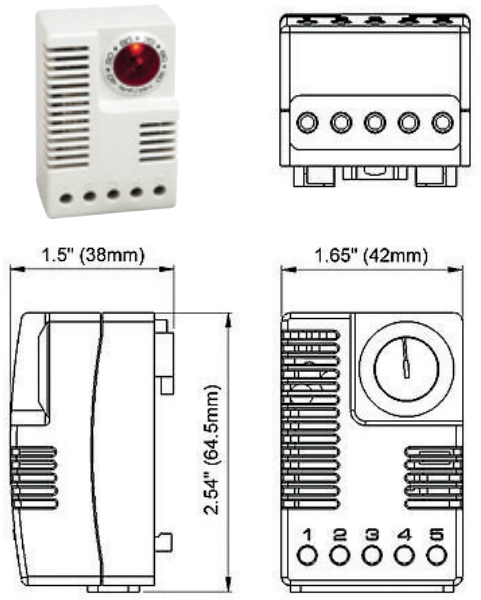
EFL 012

12/14/2023

HYGROSTATS
ELECTRONIC HYGROSTAT

The electronic hygrostat is used for controlling heating and cooling equipment, filter fans or signal devices through the Relay DCM 010 or a similar device. The hygrostat registers the surrounding relative humidity and can switch a signal current via an internal relay with a potential free change-over contact. The LED integrated in the adjustment knob shows the closed status of the contact 1-2. When relative humidity drops contact 1-2 opens and the LED turns off. In currentless state (no supply voltage) contact 1-2 opens.

Switching Difference	5 %RH (± 1 % tolerance) at 77 °F (25 °C) and 50 %RH
Reaction Time	approx. 5 seconds
Contact Type	SPDT / change-over contact (relay)
Service Life	>100,000 cycles (at 10 mW)
Max. Switching Capacity (Relay Output)	0.5 A at DC 48 V
Min. Switching Load	DDC 10 mW (at 0.1 V, 100 mA or 1 mA, 10 V)
Optical Indicator	LED
Connection	5-pole terminal, clamping torque 0.5 Nm max.: solid/ stranded* wire - AWG 14 max. (2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic, UL 94V-0, light grey
Dimensions	2.54 x 1.65 x 1.5" (64.5 x 42 x 38 mm)
Weight	approx. 2.3 oz. (65 g)
Fitting Position	vertical
Operating/Storage Temperature	+32 to +140 °F / -4 to +158 °F
Operating/Storage Humidity	max. 95 % RH (non-condensing)
Protection Type	IP20



Dimentioned Drawings.

- Large setting range
- Compact design
- Small hysteresis
- Optical function display
- Signal application

When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range	Approvals
01245.2-00	DC 12-48 V (min. DC 10 V, max. DC 60 V)	40 to 90 %RH	UL File No. E164102 / EAC

Thermal Edge Inc.™

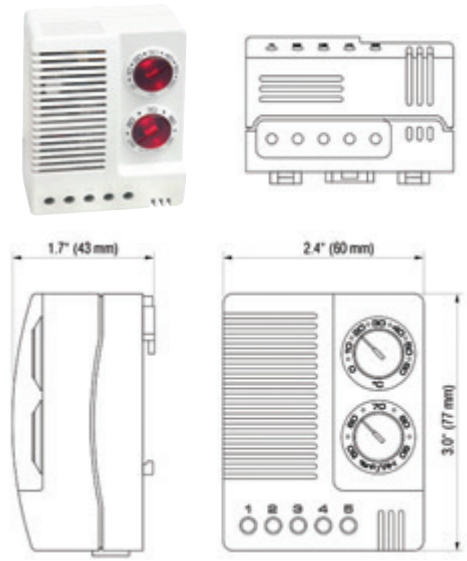
ETF 012

12/14/2023

HYGROTHERM
ELECTRONIC HYGROTHERM

The ETF 012 senses the ambient temperature and relative air humidity in an enclosure. Depending on which contact combination is chosen, it then turns on or off a connected device if either the temperature is below or the humidity is above the set point. The integrated LED in each adjustment knob is lit when indicating the active function.

Switching Difference (Temperature)	2 K (±1 K tolerance) at +25 °C (+77 °F), 50 %RH
Switching Difference (Humidity)	4 %RH (±1 % tolerance) at +25 °C (+77 °F), 50 %RH
Reaction Time (Humidity)	approx. 5 sec.
Contact Type	change-over contact (relay)
Service Life	VDE: NO/NC > 15,000 cycles UL: NO/NC > 30,000 cycles
Max. Switching Capacity (Relay Output)	10 A resistive / 1.6 A inductive @ AC 240 V 0.6 A @ DC 60 V*
Max. Inrush Current	AC 30 A for 10 sec.
Connection	5-pole terminal, clamping torque 0.5 Nm max.: solid/ stranded** wire - AWG 14 max. (2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic, UL 94V-0, light grey
Dimensions	3.0 x 2.4 x 1.7" (77 x 60 x 43 mm)
Weight	approx. 3.5 oz. (100 g)
Fitting Position	vertical
Operating/Storage Temperature	-40 to +140 °F (-40 to +60 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Efficient temperature & humidity control
- Wide voltage range
- Operating temperature down to -40 °C
- High switching capacity
- DIN rail mountable

*Not UL confirmed.

**When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range Temperature	Setting Range Humidity
01230.0-00	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	0 to +60 °C	50 to 90 %RH
01230.9-00	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	+32 to +140 °F	50 to 90 %RH
01230.1-00	DC 24-48 V (min. DC 20 V, max. DC 60 V)	0 to +60 °C	50 to 90 %RH

Thermal Edge Inc.™

ETF 012

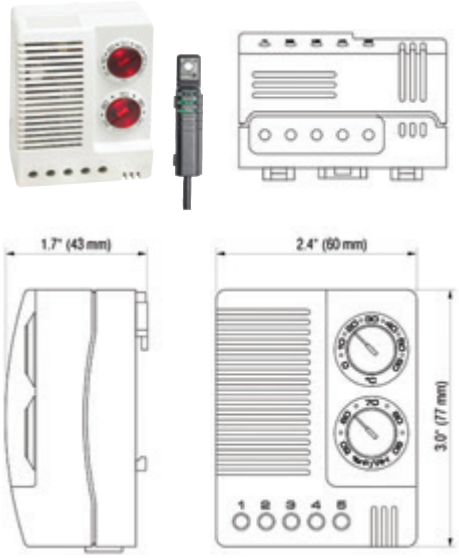
12/14/2023

HYGROTHERM

ELECTRONIC HYGROTHERM WITH EXTERNAL SENSOR

The ETF 012 senses the ambient temperature and relative humidity in an enclosure. Depending on which contact combination is chosen, it then turns on or off a connected device if either the temperature is below or the humidity is above the set point. The integrated LED in each adjustment knob is lit when indicating the active function.
The external sensor can be positioned freely anywhere in the enclosure for precise measurements.

Switching Difference (Temperature)	2 K (±1 K tolerance) at +25 °C (+77 °F), 50 %RH
Switching Difference (Humidity)	4 %RH (±1 % tolerance) at +25 °C (+77 °F), 50 %RH
Reaction Time (Humidity)	approx. 5 sec.
Contact Type	change-over contact (relay)
Service Life	VDE: NO/NC > 15,000 cycles UL: NO/NC > 30,000 cycles
Max. Switching Capacity (Relay Output)	10 A resistive / 1.6 A inductive @ AC 240 V 0.6 A @ DC 60 V*
Max. Inrush Current	AC 30 A for 10 sec.
Connection	5-pole terminal, clamping torque 0.5 Nm max.:solid/ stranded** wire - AWG 14 max. (2.5 mm²)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic, UL 94V-0, light grey
Dimensions	3.0 x 2.4 x 1.7" (77 x 60 x 43 mm)
Weight	approx. 3.5 oz. (100 g)
Fitting Position	vertical
Operating/Storage Temperature	-40 to +140 °F (-40 to +60 °C)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- Efficient temperature & humidity control
- Wide voltage range
- Operating temperature down to -40 °C
- High switching capacity
- With external sensor

*Not UL confirmed.

**When connecting with stranded wires, wire end ferrules must be used.

Part No.	Operating Voltage	Setting Range Temperature	Setting Range Humidity
01231.0-00	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	0 to +60 °C	50 to 90 %RH
01231.9-00	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	+32 to +140 °F	50 to 90 %RH
01231.1-00	DC 24-48 V (min. DC 20 V, max. DC 60 V)	0 to +60 °C	50 to 90 %RH

Thermal Edge Inc.™

CSS 014

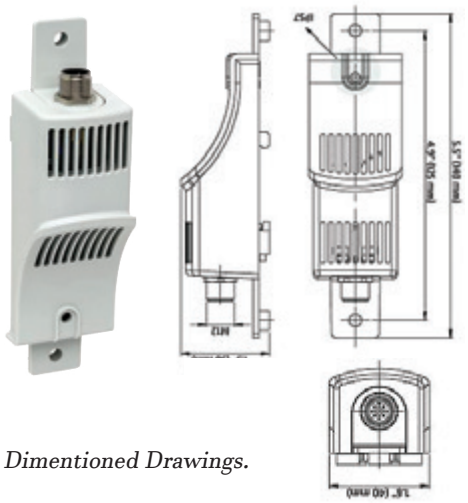
SMART SENSOR | 24 VDC

12/14/2023

The compact Smart Sensor CSS 014 electronically records temperature and humidity and converts the measured data into a standardized analog 4-20 mA or a digital IO-Link signal. The converted value signals can be utilized or further processed by a control or monitoring unit, e.g. a PLC control. The Smart Sensor is suitable for installation inside and outside the enclosure, even in harsh environmental conditions as can be found in the wind power industry: in shielded outdoor areas and exposed to vibrations.

Measuring Signals: Analog (4-20 Ma)/Digital (IO-Link) Digital (IO-Link)	temperature, humidity events, diagnosis, device data
Max. Reaction Time	3 min.
Load Resistance (External)	≤ 500 Ω (4-20 mA only)
Connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded, shielded
Electrical Protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 or M5 screws (not included)
Housing	plastic, UL94 V-0, light grey
Dimensions	5.5 x 1.6 x 1.5" (140 x 40 x 38 mm)
Weight	approx. 1.8 oz. (50 g)
Mounting Position	vertical (connection on top)
Storage Temperature	-40 to +185 °F (-40 to +85 °C)
Operating/Storage Humidity	max. 90% RH (non-condensing)
Protection Type*/Protection Class	IP20 (sensor only: IP57) / III (SELV)
Approvals	UL File No. E500143, VDE (acc. to IEC 61010-1/DIN EN 61010-1), EAC

** The PCB (printed circuit board) is coated on both sides with a certified protective lacquer to protect against corrosion and for improvement of the tracking resistance.*



Dimentioned Drawings.

- Analog/digital interface
- Small size
- Easy DIN rail and/or screw mount
- High accuracy
- Quick connection (M12 plug-in connector)
- Large temperature and humidity range
- Various application areas (IEC 61010-1/DIN EN 61010-1)

Part No.	Interface	Operating Voltage	Power Consumption Max.	Temperature Measuring Range	Humidity Measuring Range	Operating Temperature
01420.2-00	4-20 mA (analog)	DC 24 V (DC 12-30 V)	1.8 W (typically 0.4 W)	-40 to +140 °F (40 to +60 °C) ± 1 K	0 to 100 % RH ± 4%**	-40 to +158 °F (-40 to +70 °C)
01411.2-00	IO-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	0.3 W	-40 to +176 °F (-40 to +80 °C) ± 0.3 K	0 to 100% RH ± 3%**	-40 to +176 °F (-40 to +80 °C)

***Tolerance within 20 to 80 % RH (please request diagram for tolerances outside this range)*

Thermal Edge Inc.™

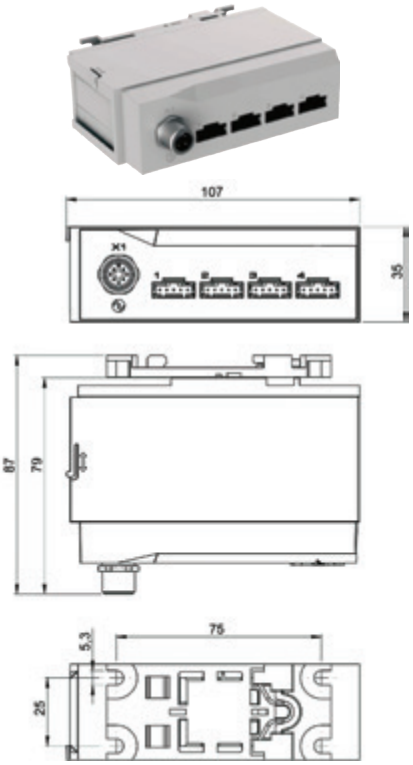
SHC 071

SENSOR HUB | IO-LINK

12/14/2023

The IO-Link Sensor Hub SHC 071 records measuring data from up to four external non IO-Link sensors on a process level and transmits data via an IO-Link Master for control and monitoring applications, using options such as an edge computer, cloud based system or PLC. Standard IO-Link sensors are connected to one IO-Link Master port each. By using the Sensor Hub up to four external sensors can be connected, but they only use one IO-Link Master port (see illustrations Connection Comparison). This allows you to attach up to three more IO-Link devices to an IO-Link Master. The Sensor Hub SHC 071 comes with a universal mounting bracket which offers six different DIN rail or screw mounting options (see operating instructions).

Sensor Connection	4 ports with strain relief for up to 4 sensors (not included)
Io-Link Connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded
Electrical Protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 and screw mounting (M5)
Casing	plastic according to UL94 V-0, light grey
Dimensions	107 x 35 x 79 mm (87 mm with universal mounting bracket)
Housing	plastic, UL94 V-0, light grey
Dimensions	5.5 x 1.6 x 1.5" (140 x 40 x 38 mm)
Weight	approx. 110 g
Fitting Position	variable
Operating/Storage Temperature	-40 to +80 °C (-40 to +176 °F) / -40 to +85 °C (-40 to +185 °F)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Operating Altitude	≤ 4,000 m above sea level
Protection Type/Protection Class	IP40 / III (SELV)
Certificates	CB No. DE1-63389 In conformity with IEC 61010-1 Evaluated in accordance with UL and CSA standards



Dimentioned Drawings.

- Digital IO-Link Interface
- Small dimensions
- Easy DIN rail and screw mounting
- M12 plug-in connector
- Quick connection of sensors via connectors
- 4 sensor types
- For 1 to 4 digital sensors

Part No.	Interface	Operating Voltage	Power Consumption Max.
07100.2-00	IO-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	0.5 W

Thermal Edge Inc.™

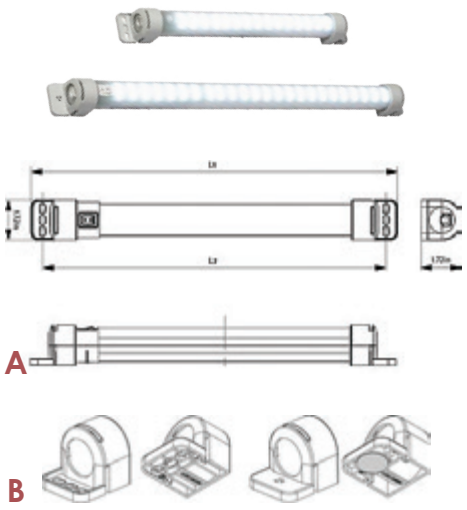
LED 021 | LED 022

12/14/2023

ENCLOSURE LIGHTS

The LED 021/022 Varioline is a powerful and compact LED lamp for use in enclosures. Its LED tube emits more than 1,000/1,700 Lm at only 11 W/16 W power consumption, thereby illuminating even very large enclosures in their full depth and height. The glare-free, 360° rotatable LED tube uses Mid-power LEDs with a service life of 60,000 h. The emitted daylight color of 6,500 K provides safety for the user by a natural and non-fading color reproduction.

Power Consumption	max. 11 W / 16 W
Operating Voltage	AC 100 - 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)
Luminous Flux	1,080 Lm/1,730 Lm
Lamp Type	LED, angle of radiation 120°, light color: daylight, color temperature: 6.500 K
Service Life	60,000 h at +20 °C (+68 °F)
Connection	2-pole connector with snap lock, AC: max. 2,5 A / AC 240 V, color: white
Mounting*	magnets or M5 screws (not included), torque 2 Nm max.
Housing	plastic, translucent
Dimensions	see drawings
Weight	approx. 7 oz./10.6 oz. (200 g/ 300 g)
Operating/Storage Temperature	-40 to +104 °F / -40 to +185 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type/Class	IP20 / II (double insulated)
Approvals	UL File No. E234324 / VDE / EAC



Dimentioned Drawings.

A) LED 021 (Size 1): L1 = 15.8 in, L2 = 14.8 in

LED 022 (Size 2): L1 = 23.6 in, L2 = 22.6 in

B) View of magnet and screw fixing

- High luminous flux
- Integrated power unit
- Durable and maintenance-free LED technology
- Daisy chain
- On/off switch or movement sensor
- Magnet or screw fixing

**Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 021/022 with M5 screws (not included). With a total rotation angle of 360° it provides perfect illumination. NOTE: The lamp must not be used for household lighting.*

Size 1 L1 = 15.8" (400 mm) Magnet Fixing	Size 1 L1 = 15.8" (400 mm) Screw Fixing	Size 2 L1 = 23.6" (600 mm) Magnet Fixing	Size 2 L1 = 23.6" (600 mm) Screw Fixing	Switch
02100.0-30	02100.0-00	02200.0-30	02200.0-00	on/off switch
02110.0-30	02110.0-00	02210.0-30	02210.0-00	PIR motion sensor**
02120.0-30	02120.0-00	02220.0-30	02220.0-00	without switching option

***approx. 5 min. fixed switch-on duration*

Thermal Edge Inc.™

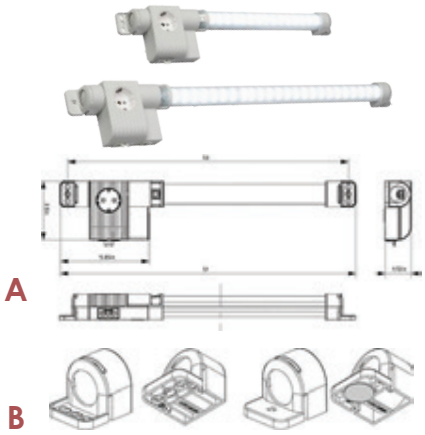
LED 121 | LED 122

12/14/2023

ENCLOSURE LIGHTS | LAMP WITH SOCKET

The LED 121/122 Varioline is a powerful and compact LED light with integrated receptacle for use in enclosures. Featuring socket standards of many European countries as well as the US and Australia, it allows for the power connection of laptops and diagnostic devices. Its LED tube emits more than 1,000/1,700 Lm thereby illuminating even very large enclosures in their full depth and height. The glare-free, 120° rotatable light tube uses Mid-power LEDs with a service life of 60,000 hcolor of 6,500 K provides safety for the user by a natural and non-fading color reproduction.

Power Consumption	max. 10 W / 15 W
Operating Voltage	AC 220 - 240 V, 50/60 Hz (min. AC 200 V, max. AC 265 V) AC 120 V, 50/60 Hz (min. AC 110 V, max. AC 130 V)
Luminous Flux	1,080 Lm/1,730 Lm
Lamp Type	LED, angle of radiation 120°, light color: daylight, color temperature: 6.500 K
Service Life	60,000 h at +20 °C (+68 °F)
Connection	3-pole connector with snap lock, AC: max. 16 A / AC 240 V, color: white
Mounting*	magnets or M5 screws (not included), torque 2 Nm max.
Housing	plastic, translucent
Dimensions	see drawings
Weight	approx. 10.6 oz./14.1 oz. (300 g/ 400 g)
Operating/Storage Temperature	-40 to +104 °F / -40 to +185 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type/Class	IP20 / II (double insulated)
Approvals	UL File No. E234324 / EAC



Dimentioned Drawings.

A) LED 121 (Size 1): L1 = 19.7 in, L2 = 18.7 in

LED 122 (Size 2): L1 = 27.6 in, L2 = 26.6 in

B) View of magnet and screw fixing

- High luminous flux
- Integrated receptacle
- Durable and maintenance-free LED technology
- Integrated power unit
- Daisy chain
- On/off switch, movement sensor or connection for external door switch

**Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 121/122 with M5 screws (not included). With a total rotation angle of 120° it provides perfect illumination. Note: The lamp must not be used for household lighting.*

Size 1 L1 = 19.7" (500 mm) Magnet Fixing	Size 1 L1 = 19.7" (500 mm) Screw Fixing	Size 2 L1 = 27.6" (700 mm) Magnet Fixing	Size 2 L1 = 27.6" (700 mm) Screw Fixing	Operating Voltage	Nominal Current Of Socket
LED 121/122 on/off switch					
12104.0-30	12104.0-00	12204.0-30	12204.0-00	AC 120 V, 50/60 Hz	15.0 A
LED 121/122 PIR Motion Sensor (features approx. 5 min fixed switch-on duration)					
12114.0-30	12114.0-00	12214.0-30	12214.0-00	AC 120 V, 50/60 Hz	15.0 A
LED 121/122 with connection for external door switch					
12124.0-30	12124.0-00	12224.0-30	12224.0-00	AC 120 V, 50/60 Hz	15.0 A
LED 121/122 without switching option					
12134.0-30	12134.0-00	12234.0-30	12234.0-00	AC 120 V, 50/60 Hz	15.0 A

Thermal Edge Inc.™

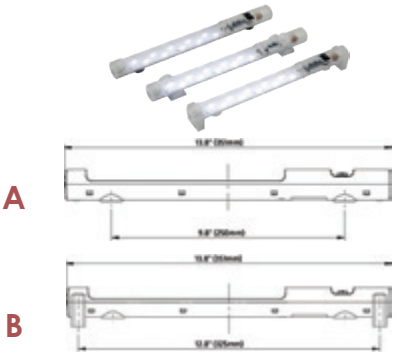
LED 025

ENCLOSURE LIGHTS

12/14/2023

The LED 025 light series is suitable for all types of panels and enclosures, especially where space is at a premium. These lights have a very long service life due to the use of LED technology. They are available with powerful non-slip rubberized magnets allowing them to be easily positioned in any steel enclosure. Screw and clip mounting are also available as options. The power output allows up to 10 lights to be connected to each other (daisy chain) with both the input and output plugs snap-locking into place.

Power Consumption	max. 11 W / 16 W
Luminosity	400 Lm at 120° (1,200 Lm at 360° or equiv. 95W light bulb)
Lamp Type	LED, 120° angle of radiation light color - daylight, color temperature - 6,000 to 7,000 K
Service Life	60,000 hrs. at 68 °F (20 °C)
Connection	2-pole plug with snap lock AC: max. 2.5 A / AC 240 V, white connector DC: max. 2.5 A / DC 60 V, blue connector
Mounting	magnet, M5 screws (not included), or clip (M6 screws) torque 2 Nm max.
Housing	plastic, translucent
Dimensions	see drawings
Operating/Storage Temperature	-40 to +104 °F / -40 to +185 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type/Class	IP20 / II (double insulated)
Approvals	UL File No. E164102 / EAC



Dimentioned Drawings.

A) On/off switch light w/magnet or screw mount.

B) On/off switch light w/clip mount.

- Energy saving LED technology
- Wide voltage range
- Integrated power unit
- Magnet, screw or clip mount
- Wide variety of connections
- On/off switch or motion sensor

Mounting options: The lights are available with magnet mount for easy positioning in any steel cabinet or enclosure. Other options are the LED 025 with screw mount, and specifically designed clip holders for clip mount of the LED 025. These can be positioned anywhere in the cabinet by simply screwing the holders to the cabinet wall. The light is snapped into the clip holders and can be turned in both directions. With a total rotation angle of 180° it provides perfect illumination within the cabinet or enclosure. NOTE: The lights are not approved for household lighting.

Part No. Magnet Mount	Part No. Screw Mount	Part No. Clip Mount	Operating Voltage	Switch Type	Weight
Light Kits With Input Connector Included					
02540.0-00-0003	02540.0-01-0003	02540.0-03-0003	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	on/off switch	4.8 oz.
02540.1-00-0003	02540.1-01-0003	02540.1-03-0003	DC 24-48 V (min. DC 20 V, max. DC 60 V)	on/off switch	4.8 oz.
02541.0-00-0003	02541.0-01-0003	02541.0-03-0003	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	PIR motion sensor*	5.0 oz.
02541.1-00-0003	02541.1-01-0003	02541.1-03-0003	DC 24-48 V (min. DC 20 V, max. DC 60 V)	PIR motion sensor*	5.0 oz.
Light Only					
02540.0-00	02540.0-01	02540.0-03	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	on/off switch	4.8 oz.
02540.1-00	02540.1-01	02540.1-03	DC 24-48 V (min. DC 20 V, max. DC 60 V)	on/off switch	4.8 oz.
02541.0-00	02541.0-01	02541.0-03	AC 100-240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	PIR motion sensor*	5.0 oz.
02541.1-00	02541.1-01	02541.1-03	DC 24-48 V (min. DC 20 V, max. DC 60 V)	PIR motion sensor*	5.0 oz.

**Passive Infrared (PIR) motion sensor is factory pre-set to turn the light off 5 minutes after all motion ceases*

Thermal Edge Inc.™

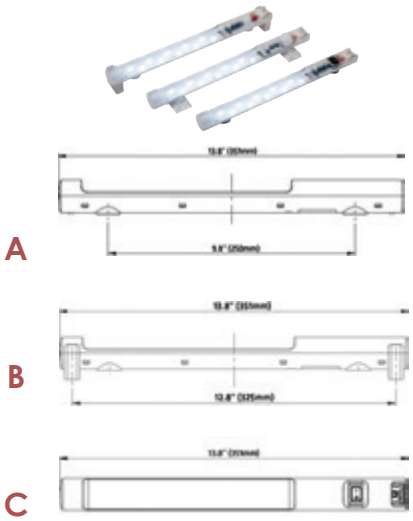
LED 025

ENCLOSURE LIGHTS | ECOLINE

12/14/2023

The LED 025 light series is suitable for all types of panels and enclosures, especially where space is at a premium. These lights have a very long service life due to the use of LED technology. They are available with powerful non-slip rubberized magnets allowing them to be easily positioned in any steel enclosure. Screw and clip mounting are also available as options. The power output allows up to 10 lights to be connected to each other (daisy chain) with both the input and output plugs snap-locking into place.

Power Consumption	max. 5 W (~ 75 W incandescent bulb)
Luminosity	400 Lm at 120° (1,200 Lm at 360° or equiv. 95W light bulb)
Lamp Type	LED, 120° angle of radiation light color - daylight, color temperature - 6,000 to 7,000 K
Service Life	60,000 hrs. at 68 °F (20 °C)
Connection	2-pole dual cage clamp for solid wire AWG 14 (2.5 mm²), and stranded wire (wire end ferrule) AWG 16 (1.5 mm²)
Mounting	magnet, M5 screws (not included), or clip (M6 screws) torque 2 Nm max.
Housing	plastic, translucent
Dimensions	see drawings
Weight	approx. 7 oz. (200 g)
Operating/Storage Temperature	-40 to +104 °F / -40 to +185 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type/Class	IP20 / II (double insulated)
Approvals	UL File No. E234324 VDE (REG. #E788)* / EAC / CCC



Dimentioned Drawings.

A) On/off switch light w/magnet or screw mount.

B) On/off switch light w/clip mount.

C) LED 025 top view.

**VDE Certificate of Conformity (REG.-Nr. E788). Mounting options: The lights are available with magnet mount for easy positioning in any steel cabinet or enclosure. Other options are the LED 025 with screw mount, and specifically designed clip holders for clip mount of the LED 025. These can be positioned anywhere in the cabinet by simply screwing the holders to the cabinet wall. The light is snapped into the clip holders and can be turned in both directions. With a total rotation angle of 180° it provides perfect illumination within the cabinet or enclosure. NOTE: The lights are not approved for household lighting.*

- Energy saving LED technology
- Wide voltage range
- Integrated power unit
- Magnet, screw or clip mount
- Wide variety of connections
- Dual cage clamp for quick wiring

Part No. Magnet Mount	Part No. Screw Mount	Part No. Clip Mount	Operating Voltage	Switch Type
02540.3-10	02540.3-11	02540.3-13	AC 100-240 V, 50/60Hz (min. AC 90 V, max. AC 265 V) DC 90-110 V (min. DC 80 V, max. DC 125 V)	on/off switch
02541.3-10	02541.3-11	02541.3-13	AC 100-240 V, 50/60Hz (min. AC 90 V, max. AC 265 V) DC 90-110 V (min. DC 80 V, max. DC 125 V)	PIR motion sensor**
02542.3-10	02542.3-11	02542.3-13	AC 100-240 V, 50/60Hz (min. AC 90 V, max. AC 265 V) DC 90-110 V (min. DC 80 V, max. DC 125 V)	N/A
02540.1-10	02540.1-11	02540.1-13	DC 24-48 V (min. DC 20 V, max. DC 60 V)	on/off switch
02541.1-10	02541.1-11	02541.1-13	DC 24-48 V (min. DC 20 V, max. DC 60 V)	PIR motion sensor**
02542.1-10	02542.1-11	02542.1-13	DC 24-48 V (min. DC 20 V, max. DC 60 V)	N/A

***Passive Infrared (PIR) motion sensor is factory pre-set to turn the light off 5 minutes after all motion ceases*

Thermal Edge Inc.™

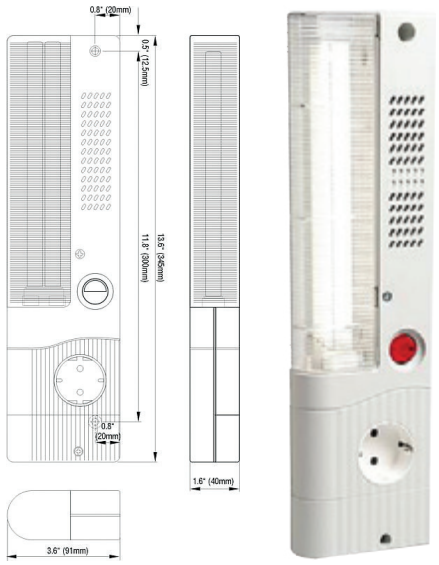
SL 025

ENCLOSURE LIGHTS

12/14/2023

The SL 025 light was designed to fit in tight spaces in enclosures. It features an optional integrated receptacle so that electrical devices (e.g. power tools) can be easily plugged in when needed. The standard light can be screw mounted in a variety of positions, or the light can be fitted with an available magnet mount.

Power Consumption	11 W
Luminosity	510 Lm (~ 45 W incandescent bulb)
Lamp Type	compact fluorescent, 2G7 base, electronic ballast
Service Life	10,000 hrs.
Switch (For Light Only)	on/off switch
Connection	3-pole terminal AWG 16 max. (2.5 mm²) with strain relief only (cable not included), clamping torque 0.8 Nm max.
Mounting	M5 screws (not included), 11.8" (300 mm) hole distance or optional attached magnet
Housing	plastic, UL 94V-0, light grey
Operating/Storage Temperature	-4 to +122 °F / -49 to +158 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Dimensions	13.6 x 3.6 x 1.6"
Weight	approx. 0.9 lbs. (400 g), 1.3 lbs (600 g) with magnet



Dimentioned Drawings.

- Compact design
- Electronic ballast
- Optional integrated receptacle
- Screw or magnet mount
- Long-life energy saving lamp
- On/off switch

Part No. with On/Off Switch	Model	Operating Voltage	Protection Class	Approvals
02527.0-00	without magnet	AC 230 V, 50/60 Hz	II (double insulated)	UL File No. E234324 / VDE / EAC
02527.1-00	with magnet	AC 230 V, 50/60 Hz	II (double insulated)	UL File No. E234324 / VDE / EAC
02527.1-10	with magnet	AC 120 V, 50/60 Hz	II (double insulated)	UL File No. E234324 / EAC

Thermal Edge Inc.™

SL 025

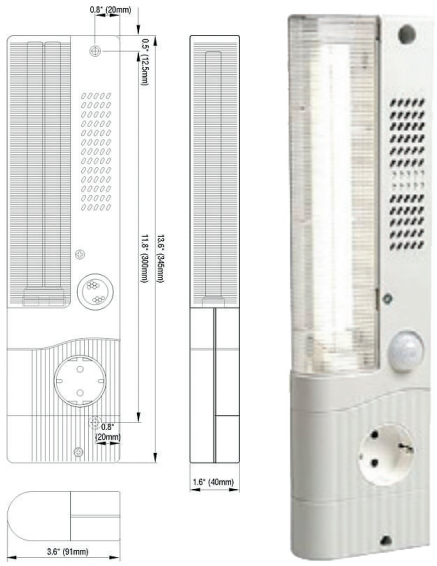
12/14/2023

ENCLOSURE LIGHTS | MOTION DETECTOR

The SL 025 light was designed to fit in tight spaces in enclosures. It features an optional integrated receptacle so that electrical devices (e.g. power tools) can be easily plugged in when needed. The standard light can be screw mounted in a variety of positions, or the light can be fitted with an available magnet mount. The motion sensor version was designed to eliminate the need for a door switch.

Power Consumption	11 W
Luminosity	510 Lm (~ 45 W incandescent bulb)
Lamp Type	compact fluorescent, 2G7 base, electronic ballast
Service Life	10,000 hrs.
Switch (For Light Only)	PIR motion sensor*
Connection	3-pole terminal AWG 16 max. (2.5 mm²) with strain relief only (cable not included), clamping torque 0.8 Nm max.
Mounting	M5 screws (not included), 11.8" (300 mm) hole distance or optional attached magnet
Housing	plastic, UL 94V-0, light grey
Operating/Storage Temperature	-4 to +122 °F / -49 to +158 °F
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Dimensions	13.6 x 3.6 x 1.6"
Weight	approx. 0.9 lbs. (400 g), 1.3 lbs (600 g) with magnet

** The Passive Infrared (PIR) motion sensor detects the motion of the enclosure door being opened and automatically turns on the light. The sensor is factory pre-set to turn the light off 6 minutes after all motion ceases. The motion sensor does not detect movement through glass, allowing for installation in enclosures with glass doors.*



Dimentioned Drawings.

- Compact design
- Electronic ballast
- Optional integrated receptacle
- Screw or magnet mount
- Long-life energy saving lamp
- On/off switch

Part No. with Motion Sensor	Model	Operating Voltage	Protection Class	Approvals
02527.0-04	without magnet	AC 230 V, 50/60 Hz	II (double insulated)	UL File No. E234324 / VDE / EAC
02527.1-12	with magnet	AC 120 V, 50/60 Hz	II (double insulated)	UL File No. E234324 / EAC

Thermal Edge Inc.™

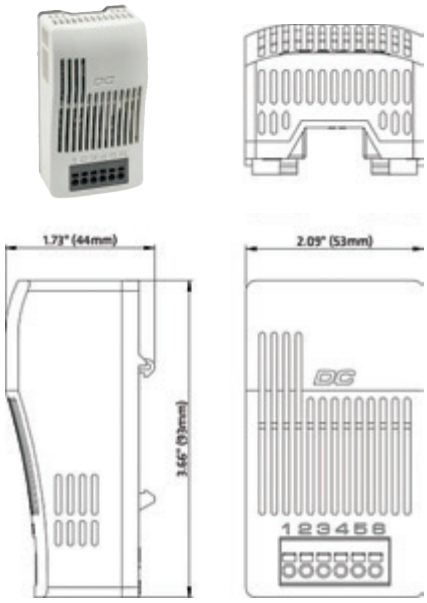
DCM 010

12/14/2023

SWITCH MODULE | 20 VDC TO 56 VDC

The DCM 010 is used to control DC powered devices with high capacities in control and switch cabinets. It is controlled via an external potential-free contact (thermostat or hygrostat), which is connected between terminal 3 and 4. It must be ensured that the external contact is suitable to switch the required signal current without any problems.

Contact Type	NO - normally open (MOSFET)
Service Life	> 100,000 cycles
Operating Voltage	DC 20 to 56 V
Control Contact – Signal Current	3 mA at DC 20 V / 4.5 mA at DC 24 V 14 mA at DC 48 V / 17 mA at DC 56 V
Connection	6-pole terminal: stranded wire* AWG 16 (1.5 mm²); max. AWG 12 (2.5 mm²)
Housing	plastic, UL 94V-0, grey (bicolor)
Mounting	clip for 35 mm DIN rail, EN 60715
Mounting Position	vertical
Dimensions	3.7 x 2.1 x 1.7" (93 x 53 x 44 mm)
Weight	approx. 2.3 oz. (65 g)
Operating/Storage Humidity	max. 90 % RH (non-condensing)
Protection Type	IP20
Approvals	UL File No. E164102 / VDE / EAC



Dimentioned Drawings.

- High DC switching capacity
- Variety of applications
- Wide DC voltage range
- Simple connection

*When connecting with stranded wires, wire end ferrules must be used.

Part No.	Max. Switching Capacity (Relay Output)	Operating Temperature
01010.0-00	DC 15 A	-40 °F to +104 °F (-30 °C to +40 °C)
01010.0-10	DC 13 A	-22 °F to +122 °F (-30 °C to +50 °C)
01010.0-20	DC 11 A	-22 °F to +140 °F (-30 °C to +60 °C)

All information subject to change without notice.

Thermal Edge Inc.™

TEMPERATURE CONTROL SOLUTIONS FOR ELECTRICAL ENCLOSURES

GENERAL INFORMATION

Thermal Edge Pledge
Unit Features
Success Stories
Sizing Calculations
Terms And Conditions
Warranty Information
Repair Service Procedures
Post Warranty Service

MADE IN AMERICA MATTERS...

Thermal Edge Inc.™

THERMAL EDGE AIR CONDITIONERS, AIR TO AIR HEAT EXCHANGERS & FILTERED FAN PACKAGES

There are many ways to control the temperature inside your electrical enclosures. Thermal Edge has the quality products, the most features and fullest line of accessories to satisfy the requirements of your application.

ENERGY EFFICIENCY AND LOW RUNNING AMPS

Today's world requires that manufacturers design their equipment with efficiency, durability and serviceability built in. At Thermal Edge, we designed our units with low running amps. Call us at (888) 580-0202 or visit our website at www.thermaledge.com to see our products with our condensate evaporation system and low running amps standard in every unit. At www.thermaledge.com you will find our ETM Calculator. This simple-to-use tool will give you the precise cooling capacity information needed to size your temperature control device. If you have a question or would like our printed catalog, please call us at (888) 580-0202 or visit us on the web at www.thermaledge.com

ENCLOSURE AIR CONDITIONERS FEATURES, OPTIONS, AND ACCESSORIES:

- 1,000 to 20,000 BTUH
- Narrow edge series fits on a 12" enclosure
- Energy saving condensate evaporation package
- Digital programmable controller
- Available in UL Types 12, 4 & 4X
- Thermal expansion valve
- Energy efficient due to lower running amps
- UL Listed

OPTIONS / ACCESSORIES:

- Hazardous Location, Class 1, Div 2, Groups A, B, C, D
- Fully integrated internal heat package
- Dry contact options
- High capacity filter
- Coated coils
- Remote mounting of digital controller
- Open door kill switch
- Universal mounting plate

FILTERED FAN PACKAGES:

- Washable and reusable filter media
- UL Types 12, 1 and Hood-free Type 3R rating
- UL Recognized
- Optional adjustable thermostat

AIR TO AIR HEAT EXCHANGERS:

- Closed Loop Design
- Maintenance Free
- UL Types 12, 4 & 4X
- UL Listed

Thermal Edge Inc.™

THE THERMAL EDGE PLEDGE

We pledge to only promise ship dates that we can meet.

We pledge that on the occasion that we cannot meet a ship date, the customer will be the first person we call.

We pledge to tolerate nothing less than zero defects on every product we make.

We pledge to embrace new technologies and fresh ideas for manufacturing, even if they are not our own.

We pledge to provide our people with the very best tools and processes in order to enable them to be their very best.

We pledge to always value our customer's time by always taking their call and never using voice mail as a form of communication.

We pledge to respond to our customer's email correspondence and requests immediately and without delay.

We pledge to speak with our customers personally, honestly and in a straight forward manner.

We pledge to listen to our customers when they describe their application so that we will always diagnose their application correctly the first time.

We pledge to guarantee every application our customers bring us.
This means that we will make a recommendation based on complete information provided,

We will guarantee the performance of our unit.

We pledge to always plan, dream and develop the most technologically advanced systems of our time.

We pledge to always be working on the next generation of our products bringing in new innovation and designs.

Thermal Edge Inc.™

CONDENSATE EVAPORATION PACKAGE

STANDARD ON ALL THERMAL EDGE AIR CONDITIONING SYSTEMS

Thermal Edge Condensate Control is accomplished by routing refrigerant hot gas through our condensate boil off pan. The pan is located ahead of the condenser in the hottest point in the refrigerant system where the hot gas temperature is 180° F to 260° F.

Condensate is evaporated and the vapor is discharged by the condenser blower to the environment. Additionally, this condensate evaporation helps to pre-cool the hot gas, lowering the running amps and making our industrial air conditioner more efficient. By utilizing this pre-cool method, we lower the overall use of energy.

This condensate boil off pan has enough water storage capacity to dehydrate the air in your equipment enclosure and vent it off without overflow so long as the enclosure doors are closed. In the event that the enclosure remains open, Thermal Edge does supply an Emergency Overflow Fitting on all of our units. Use of this Fitting is only for extreme open-door applications and should not be utilized in typical or even heavy applications. Please Contact Thermal Edge for more information on use of this feature.

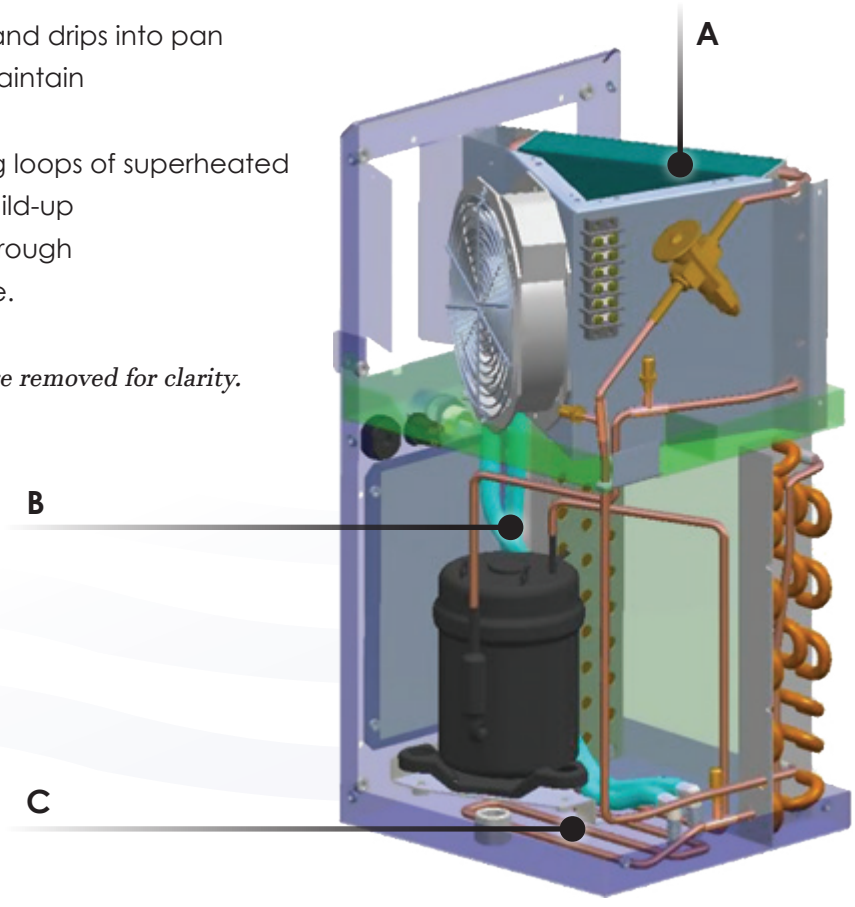
Condensate Control

A) Condensate forms on evaporator and drips into pan

B) Dual drains each form p-traps to maintain closed loop performance

C) Condensate collects in pan among loops of superheated refrigerant tubing to boil off normal build-up of condensate. Water vapor blown through condenser coil increases performance.

Note: CS020 shown. Select components are removed for clarity.



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UL File # SA32252

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Thermal Edge Inc.™

ADVANTAGES OF USING A THERMAL EXPANSION VALVE

All phase change refrigerant systems require an expansion device which controls the flow of refrigerant in the evaporator. Two principal types of control are used: Thermal Expansion Valves or Capillary Tubes.

THERMAL EXPANSION VALVES BALANCE AND MODULATE THE REFRIGERANT

Thermal Expansion Valves balance and modulate the refrigerant flow to the heat load by sensing the temperature of the refrigerant leaving the evaporator.

There are three major advantages to this refrigerant control method.

- Maximum efficiency over a wide temperature and load range
- Improved refrigerant return to the compressor assures better cooling at high temperatures and reduces the possibility of liquid slugging which can destroy the compressor.
- Variations in refrigerant charge, particularly smaller units, are less critical

Alternately, fixed expansion devices, such as Capillary Tubes, are fixed. Working at one preset level and have no ability to compensate for load changes, they are more commonly used in unchanging environmental temperatures such as refrigerators and freezers. Since most refrigerators are in a temperature controlled space and have limited temperature set point, they work just fine. Due to their simplicity, capillary tubes are very inexpensive (although this rarely translates into a cost saving for the purchaser of industrial enclosure air conditioning). Variations of capacity over the ambient temperature range of 80° F to 131° F can cause a performance loss of 85% with a cap tube system. A well-tuned expansion valve system will lose less than one half this amount, while maintaining better compressor temperature control.

THAT'S WHY THERMAL EDGE USES THERMAL EXPANSION VALVES.

In your demanding environment, you need enclosure cooling that you can depend on, regardless of temperature changes through out the work day or seasonal year.

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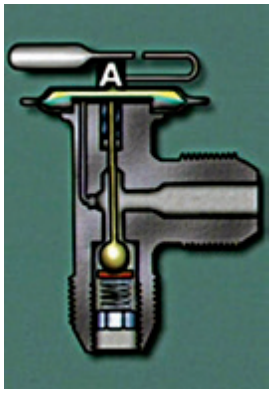

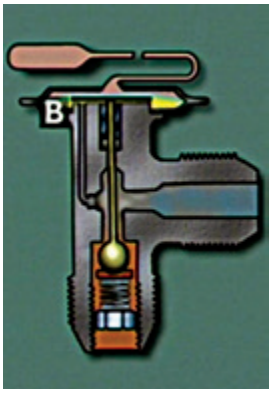

Thermal Edge Inc.™

DIGITAL, PROGRAMMABLE CONTROLLER

The microprocessor-based digital temperature controller performs the functions of controlling the enclosure temperature while monitoring operating limits and refrigerant pressures. Temperature and alarm status are indicated on the front panel. It also monitors the maximum and minimum temperatures within the enclosure.

COMPRESSOR PROTECTION

The controller includes a compressor anti short-cycle time delay for compressor protection. A bypass time delay prevents nuisance alarms caused by cold weather start ups and transient high temperature limits.
If any of the critical control parameters exceeds limits, the compressor is turned off and an alarm condition is indicated on the front panel. If the preset enclosure temperature limits are exceeded, the compressor continues to operate but there is a temperature limit alarm.

ADJUSTABLE SET POINT

The temperature set point, which is the lower limit of regulation, can be adjusted within a specified range. The High Temperature* alarm can be adjusted to suit customer needs within specified limits. The specified enclosure temperature is the set-point plus a differential.

Digital Controller Features:

- Fully programmable
- Built in alarms and alerts
- Will operate heating & cooling
- Standard on every unit
- Ethernet, Modbus RTU and EtherNet/IP communication options

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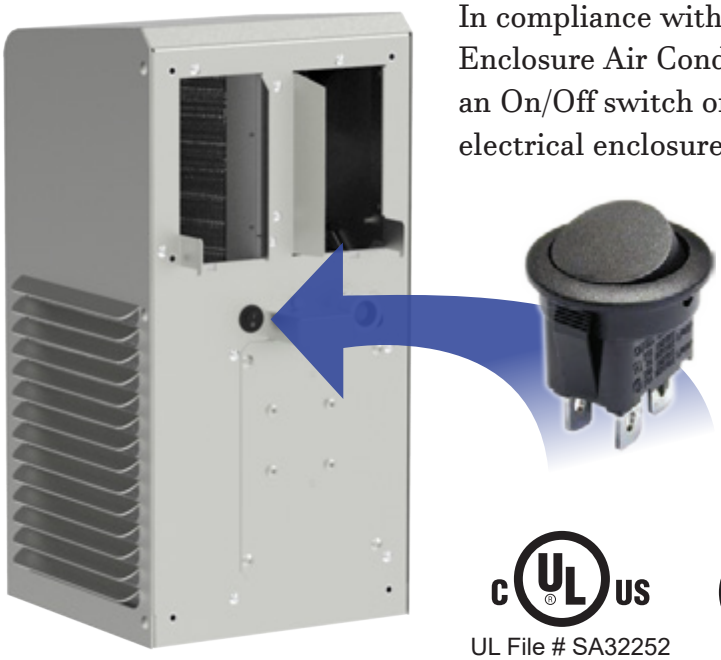
**NOTE: In high ambient operation (above 115°F) the set point temperature should not exceed 100°F/38°C, due to the need for compressor cooling.*

Thermal Edge Inc.™

ON/OFF SWITCH



In compliance with UL Standard 484, all Thermal Edge Enclosure Air Conditioners will include the safety feature of an On/Off switch on the backside of our units facing into the electrical enclosure (please see the photo for the location of this easy to use safety feature).

This switch provides a convenient way to turn the air conditioner off when entering the enclosure in order to prevent excessive condensation due to high ambient humidity. The power switch should also be used to power down the air conditioner when performing field maintenance or repair.

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THERMAL EDGE SUCCESS STORY

MILLERCOORS MINIMIZES DOWNTIME LOSSES WITH THERMAL EDGE NETWORK-CAPABLE ACs

THE HIGH COST OF REACTIVE MAINTENANCE ON PRODUCTIVITY AND SERVICE LIFE

MillerCoors initially housed their PLCs in cabinets equipped with filtered fan packages. Open-loop cooling proved incapable of maintaining consistent cabinet temperatures and exposed the internal components to ambient humidity and contaminants. Microscopic paper fibers shed from product packaging clogged the filters and collected on the electronics, resulting in heat build-up and premature failure.

Although MillerCoors adopted closed-loop air conditioners in the early 1990s, heat related issues persisted. Technicians had no way to identify air conditioner failures between routine maintenance inspections unless equipment overheated.

Service personnel sometimes failed to identify premature air conditioner failure as the cause of the malfunction. Since the underlying problem remained, the electronics inevitably overheated again. Recurring failures resulted in significant downtime and repair costs, as well as reduced component service life.

Sanitation and maintenance were also major concerns. Air conditioners from previous vendors had flat top panels, allowing moisture to collect on the surface creating sanitation issues. The filters were either disposable or too flimsy to withstand repeated cleaning, adding to total maintenance costs.

Replacing an obsolete or malfunctioning unit with a current model, or one from a different manufacturer, created logistical problems. Technicians were required to fabricate adapter mounting plates, increasing installation costs.

MillerCoors

MillerCoors is a 150 year old company that operates ten breweries located throughout the United States. The company produces such popular brands as Coors, Miller, as well as a wide variety of specialty and craft beers. The company relies upon Programmable Logic Controllers (PLCs) housed in electronic enclosures to control their automated brewing and packaging operations. These critical devices can cost over $100,000. They raise internal cabinet temperatures to 131° Fahrenheit and would quickly overheat without proper cooling.

"Thus far, we haven't had any failures on the Thermal Edge Units. If there's ever an issue or question, they respond immediately. They have an excellent track record versus the competition."

Larry Truneck
VP of Engineering

MILLERCOORS SEARCHES FOR A PROACTIVE THERMAL MANAGEMENT SOLUTION

MillerCoors needed enclosure air conditioners capable of communicating with their PLCs that could report problems before high internal temperatures impacted component longevity and potential productivity. The search for a solution ended when Thermal Edge Inc. approached MillerCoors in 2010. Thermal Edge began shipping air conditioners equipped with an EtherNet/IP port* and communication software within two months.

THERMAL EDGE AIR CONDITIONERS OFFER REMOTE MONITORING CAPABILITY, REDUCED MAINTENANCE AND SIMPLE RETROFIT

An example of the benefits of Thermal Edge air conditioners comes from the packaging room floor of the MillerCoors brewery in Fort Worth, Texas. The outside temperature routinely reaches 105° F in summer, with temperatures within the facility reaching 115° F. Internal control cabinet temperatures are maintained at 90° F.

Personnel use the PLC communication software to adjust settings such as the alarm and cabinet temperature set points. The PLC polls the air conditioner for the thermostat set point and internal temperature. **The air conditioner alerts the staff before damage can occur** by sending an alarm and fault code to the PLC in the case of a compressor shutdown or if the cabinet temperature exceeds the programmed warning level.

The innovative design of Thermal Edge air conditioners resolves issues of maintenance and routine cleaning. The **sloping top panel** and smooth seam-welded edges prevent water from collecting on the surface. The No. 4 finish on the stainless steel exteriors hides fingerprints, but does not trap contaminants. Thermal Edge filters provide a larger surface area than those of competitors, allowing for extended maintenance intervals. The robust filters are washable and can withstand repeated cleaning, minimizing replacement costs.

Thermal Edge provides adapter plates for any manufacturer's existing cut-out pattern, eliminating the need for fabrication. **The adapter plates ensure fast, simple installation and allow uniformity across MillerCoors facilities.** MillerCoors has standardized on Thermal Edge air conditioners due to their communication capability, reduced cost of maintenance, and ease of installation and cleaning.

THERMAL EDGE INC. IS PROUD TO BE MILLERCOORS' PREFERRED SUPPLIER OF ENCLOSURE AIR CONDITIONERS.

Thermal Edge Inc.™

**Thermal Edge also offers its customers Modbus RTU and Intranet/EtherNet connectivity to communicate with their air conditioners' digital controllers.*

THERMAL EDGE SUCCESS STORY

MOTION CONTROL ENGINEERING REACHES NEW HEIGHTS IN FIELD RELIABILITY WITH THERMAL EDGE ACs

TECHNICAL CHALLENGES

Elevator control systems require electronic enclosures to house the control board, high voltage wiring, transformers and other heat-generating components. Thermal management issues may result in unnecessary downtime, expensive repairs and significant customer inconvenience. Failure of the cabinet cooling system often goes unnoticed until after damage has occurred, so MCE requires cooling equipment offering the utmost reliability.

In locations where airborne particulates, caustic chemicals and liquids are present, forced air ventilation using fans draws contaminates into the enclosure. MCE relies on closed-loop air conditioners to maintain suitable operating temperatures and protect sensitive electronic components under these extreme conditions.

Dimensional constraints at some locations demanded a control cabinet with a shallow depth, sometimes requiring expensive custom enclosures. The disposal of condensate produced by the air conditioner posed additional maintenance and safety issues. A hose was needed to direct condensate into a separate container or open drain to prevent water from collecting on the floor.

CHOOSING THERMAL EDGE

Motion Control Engineering began its search for a new air conditioner vendor in mid-2007. MCE executives evaluated numerous potential manufacturers, taking under consideration such key factors as supply chain complexity, manufacturing lead-time, unit cost, reliability, warranty coverage, technical supportand compatibility with existing equipment.

MCE
Motion Control Engineering®
A Kinetek Company®

Motion Control Engineering Inc. is a leading manufacturer of custom designed elevator control systems headquartered in Rancho Cordova, California. Founded in 1983, MCE employs 250 workers and has fielded 200,000 systems world-wide, including custom installations at the Statue of Liberty, the Washington Monument and Carlsbad Caverns.

"The reliability and flexibility of the Thermal Edge units have been very beneficial to our products and our customers. If any concerns and/or issues arise, the support of their engineering staff has been most helpful as we work towards a solution."

Ron Ong
Senior Project Engineering Lead | Motion Control Engineering

Replacing an obsolete or malfunctioning unit with a current model, or one from a different manufacturer, created logistical problems. Technicians were required to fabricate adapter mounting plates, increasing installation costs. Thermal Edge provided a **cost-effective alternative** to expensive custom-made enclosures with its Narrow Edge Series air conditioners. Available in capacities up to 8,000 BTUH's, the Narrow Edge Series covered all of MCE's cooling requirements with a standard 12-in. deep enclosure. The Narrow Edge Series also **eliminated condensate disposal concerns** thanks to its internal condensate elimination system.

MCE has been in business for over 25 years, so **ease of retrofitting** older enclosures was a major concern. Thermal Edge air conditioners ensured hassle-free installation with available factory-installed mounting brackets to accommodate virtually any existing bolt-hole pattern.

These advantages led MCE to select Thermal Edge as their air conditioner supplier of choice.

THERMAL EDGE RELIABILITY AND SUPPORT

Motion Control Engineering installs air conditioners on approximately 10% of its control cabinets. The first MCE production units equipped with Thermal Edge Narrow Edge Series air conditioners went into service in September 2008. MCE reports that its Thermal Edge air conditioners have demonstrated a total reliability rate of 95.17% and a field reliability rate of 97.18%.

If a customer reports an issue to MCE and their support staff determines the air conditioner requires service, MCE simply contacts Thermal Edge for technical support or on-site field service. Should the customer require a replacement, the new unit is shipped within 24 to 48 hours.

MCE has expressed great satisfaction with the excellent customer service and technical support provided by Thermal Edge, as well as the technical superiority and reliability of their products.

THERMAL EDGE IS PROUD TO BE A VALUED SUPPLIER TO MCE AND TO HAVE ITS PRODUCTS INTEGRATED INTO SUCH CRITICAL APPLICATIONS AS ELEVATOR CONTROL SYSTEMS.

MCE
Motion Control Engineering®
A Kinetek Company®

"Thermal Edge provides us with the complete technical information we need to properly interface with their air conditioning units, including proper fuse sizes and type, inrush and loading current, and even the minimum transformer kVA we need to provide in our control equipment to power the air conditioner. Their engineers have always been knowledgeable, helpful and courteous whenever we've had technical or code-related questions regarding anything relating to the air conditioners."

Debbie Prince
Code Specialist | Motion Control Engineering

THERMAL EDGE SUCCESS STORY

THERMAL EDGE HELPS MAJOR COMMUNICATIONS FIRM SOLVE CLIMATE CONTROL AND DISTRIBUTION CHALLENGES

CONTROLLING SERVER TEMPERATURES UNDER CHALLENGING ENVIRONMENTAL CONDITIONS

Servers and other networking equipment need to be kept cool and free from contaminates for the best reliability, but some installations require placing cabinets in areas where climate-controlled rooms are impractical or not available.

For these situations, Black Box offers ClimateCab, a line of NEMA 12 rated IT cabinets with closed-loop cooling. These tough cabinets are a miniature server room in a box. They isolate their interior from the environment and allow clients to place their networking equipment just about anywhere.

BLACK BOX SEARCHES FOR A NEW CLIMATECAB COOLING SOLUTION

Black Box manufactures the cabinets, but relies on an outside source for the cooling equipment. The cooling units they were using had analog controls located inside the cabinet. This meant service personnel had to open the cabinet to read and adjust the thermostat, exposing the equipment inside to environmental hazards.

Disposing of condensate was also a challenge. Moisture in the air that condensed on the evaporator coil in the air conditioner had to be removed. The client needed to route a hose from the air conditioner to a drain to dispose of the water.

Black Box requires their cooling vendor to send the air conditioning units to them for distribution. When a customer orders a ClimateCab, Black Box ships the cabinet and air conditioning unit out to the customer for installation. The old air conditioners arrived at Black Box with multiple units on the same pallet, complicating inventory and logistics.

BLACK BOX® NETWORK SERVICES

Black Box is a leading technology solutions provider of IT infrastructure, cable, high-performance KVM, specialty networking, and ProAV products. Some of their clients require control cabinets or server rack systems in locations where dust, humidity and heat present unique challenges. Black Box relies exclusively on Thermal Edge to provide closed-loop cooling for networking equipment in these hostile environments.

"Switching to Thermal Edge has been a good move for us. They appreciate our business and treat us well. They have great engineering minds, and they know how to design and build good products."

Gina Dickson
Director of Infrastructure Products | Black Box Network Services

BLACK BOX CHOOSES THERMAL EDGE AIR CONDITIONERS FOR EASE OF LOGISTICS, INSTALLATION AND USE

Black Box needed a closed-loop cooling unit supplier that would provide air conditioners with exterior controls in a manner that would simplify logistics. They approached Thermal Edge in 2011 after an introduction and endorsement from a mutual contact. The first ClimateCabs with Thermal Edge air conditioners went out to customers within six months. Thermal Edge's air conditioners feature a **programmable thermostat with digital controls** on the outside of the housing, so personnel can read the temperature and adjust the settings without opening the cabinet. Customers appreciate the illuminated control panel that makes it easy to use in dark rooms, and the audible alarm that sounds if the interior temperature exceeds a programmed set point.

Also, Thermal Edge air conditioners use an **energy saving method to evaporate any condensation into the air** outside the cabinet. This eliminated the need to install the ClimateCab near a drain and greatly expanded the possible installation locations. Black Box clients are free to install ClimateCabs almost anywhere.

Thermal Edge worked with Black Box to **provide a shipping arrangement to suit their inventory and distribution needs.** They provide Black Box with one unit per pallet, making it easy to ensure each customer gets the correct number of air conditioners with their cabinets.

Black Box is extremely pleased with Thermal Edge's cooling solutions, technical expertise and customer service. They plan to continue the relationship indefinitely and are adding Thermal Edge units to more of their products.

THERMAL EDGE IS PROUD TO BE BLACK BOX'S COOLING SOLUTION OF CHOICE.

Thermal Edge Inc.™

SIZING CALCULATIONS FOR THERMAL EDGE PRODUCTS

There are options to choose from when considering the controlling of temperature issues inside your electrical enclosures.

CLOSED LOOP, THERMOSTATICALLY CONTROLLED AIR CONDITIONERS...
provide the ultimate protection and temperature controls. Our units will prevent the mixing of ambient conditions and your enclosure atmosphere and maintain a tight tolerance of temperature control including both cooling and fully integrated heating where needed.

AIR TO AIR HEAT EXCHANGERS...
also work when the ambient temperature is lower than the enclosure temperature and they are closed loop so as to prevent environmental particulate from entering your enclosure.

FILTERED FAN PACKAGES...
are not closed loop and therefore introduce environmental conditions into your enclosure. They can lower the enclosure temperature only if the ambient temperature is lower than the enclosure temperature.

VENTILATION...
a passive way to transfer heat to the outside but offers no real forced cooling and is open to the environment.

ENCLOSURE TEMPERATURE MANAGEMENT CALCULATOR
Installing the appropriate temperature control solution for an electrical enclosure is important for protecting the valuable electrical equipment housed inside. To help you save time and ensure that you select the right product for your electrical enclosure, we have created the Enclosure Temperature Management (ETM) Calculator.

Use this calculator to help you decide:

- The required cooling or heating capacity of a temperature control product for your enclosure.
- Whether your enclosure cooling or heating needs will require an air conditioner, air to air heat exchanger, filtered fan.
- Which enclosure air conditioner model provides the calculated cooling capacity needed.
- Which product will be the most energy and cost efficient for your enclosure.

HTTPS://THERMALEDGE.COM/ENCLOSURE-TEMPERATURE-MANAGEMENT-CALCULATOR/

Thermal Edge Inc.™

TERMS AND CONDITIONS

ACKNOWLEDGMENT: All orders will be faxed an acknowledgment and terms and conditions clause with an estimated shipment date.

PRICES: All prices quoted are F.O.B. factory and do not include any sales, excise or use tax, either Federal or State. Buyer assumes responsibility/liability for payment of all state or municipal taxes applicable to use or resale of products purchased herein. Title and risk of loss to equipment pass to the buyer upon delivery to carrier. Not responsible for typographical errors. Prices are subject to change without notice.

TERMS AND PAYMENT POLICIES: 1%, 10 days, Net, Thirty (30) days to those customers of known and acceptable financial standing. A credit application MUST be completed and returned to Thermal Edge, Inc. for open terms. Otherwise, orders must be accompanied by cash, credit card or will be shipped COD. We accept Visa, MasterCard and American Express. Wire transfer of funds will also be accepted. For all sales outside the United States, wire transfer prior to release of materials will be required. Contact Sales Office for details.

SPECIAL ORDERS: All special orders must be prepaid and are not subject to cancellation or return. No work will be started until payment is received.

RESTOCKING AND RETURNS: Merchandise must not be returned without prior approval and return authorization number, which will be given or withheld at our sole discretion. All returned merchandise must be sent freight PREPAID to the following address:

Thermal Edge, INC. ATTN: RMA #
1800 HURD DRIVE
IRVING, TX 75038

If the merchandise is in a new, unused condition and in its original carton with all the original packaging and prior approval will be given a credit allowance amounting to the original selling prices less the restocking charge as follows:

- Within 60 days of the invoice date and not a special order – 25% of applicable selling price.
- Within 61 - 120 days of the invoice date and not a special order – 30% of applicable selling price.
- Within 121 - 180 days of the invoice date and not a special order – 35% of applicable selling price.
- Beyond 180 days of the invoice date are subject to discretion of the Business Manager.

Shipments of returned merchandise sent collect will not be accepted. If there is any repair work of any nature required at the time of receiving inspection at our plant there will be an additional charge for repair work over and above the applicable restocking charge. Returns must be banded to a pallet and marked “Must remain upright and banded to the pallet”. Any returns not banded to a pallet and are not marked as such, will be closely evaluated before any credit will be issued. Merchandise that has been “customer modified” or has any special finishes applied cannot be returned for credit.

WARRANTY

Thermal Edge products are warranted to be free of defects in workmanship, materials and components. The warranty period applies from date of shipment for five years. Replacement components have a one year warranty period, except for hermetic system components, which have a 90 day warranty period. Any warranty repair work must be issued a return authorization number *prior* to return.

CLAIMS: In the event of shortage or damage, notify the carrier FIRST as well as Thermal Edge, Inc. immediately upon receipt. We are not responsible for damage occurring in transit, but will gladly render any assistance necessary to pursue your claim against the transportation company. Merchandise must be inspected for concealed damage within 15 days of receipt.

ORDER CANCELLATION: A charge of 25% of the net price will be applied on any cancellation of a formally acknowledged order. If modifications, specifically ordered by the customer, are being made of the cancelled merchandise, the cancellation charge will also include such modifications made up to the date of cancellation. Any order canceled after product is shipped will be subject to restocking charges and all shipping costs.

ORDER QUANTITY CHANGE: In the event that a large quantity order is placed that requires special requests to our vendors for the necessary material to complete the order and the order is reduced for any reason after an order acknowledgment has been sent, there will be a charge. This charge will be based on the quantity, specialty and the requested delivery dates of the original order and the cost from our vendors to stop or reduce the special request. Any large order discount will be re-evaluated upon quantity change.

DESIGN CHANGES: Thermal Edge, Inc. reserves the right to make design, hardware, engineering and packaging changes, which do not interfere with the use for which such products were designed and manufactured. If ordering a replacement for a Thermal Edge air conditioner, please include the part number and serial number of the unit being replaced in your order. This will assure that we ship a replacement that is compatible with the cutout dimensions and power connection features of the older model.

SHIPPING: FOB Factory, pre-pay and add to invoice. All shipments are routed motor freight via our carriers unless otherwise specified by the customer. Our products are packaged in heavy duty cartons and are banded to a pallet. Most items are one per carton unless otherwise stated.

CONTINGENCIES: All orders received are contingent upon accidents, strikes and other causes beyond our control. Shipments are subject to Accounting and Business Office approval.

MINIMUM ORDER: A minimum order of $50.00 is required unless otherwise cleared through the Accounting and Business Office.

Thermal Edge Inc.™

WARRANTY INFORMATION

ADDITIONAL INFORMATION

Thermal Edge products are warranted to be free of defects in workmanship, materials and components. The warranty period applies from date of shipment for five years. Replacement components have a one year warranty period, except for hermetic system components, which have a 90 day warranty period.

THE ABOVE WARRANTY APPLIES WHEN THE EQUIPMENT IS OPERATED UNDER THE FOLLOWING CONDITIONS:

- Ambient temperature not in excess of performance rating in normal atmosphere or as stated on product nameplate
- Voltage variation within limits stated in User & Technical Manual
- Frequency variation no greater than ± 3Hz from nameplate rating
- Maximum cooling load no higher than air conditioner nameplate rating
- Waiting five minutes before restarting air conditioner after intentional or accidental shutoff
- Compliance to all other installation, maintenance and operating instructions, as supplied

Thermal Edge cannot assume responsibility for misapplication of its products or the erroneous selection of an inappropriate product by a non-authorized Thermal Edge representative. Our applications engineers will gladly assist in the selection of the proper product provided all required details of the application are furnished. Thermal Edge assumes no liability beyond the repair or replacement of its own product.

THIS WARRANTY DOES NOT COVER:

- Labor or reimbursement of labor for evaluation, removal, installation, repair, or cost of any warranted part, except at the Thermal Edge factory in Dallas, Texas
- Use of equipment for other than its designed purpose or operating conditions
- Operation in harsh, oily, corrosive or other abnormal environmental conditions, without the proper filtration, sealing, protective coatings and/or weather protection, or cosmetic corrosion that does not affect operation
- Damage to hermetic system resulting from continuous operation with dirty or clogged air filters or improper or negligent maintenance
- Use of refrigerant other than designated
- Customer modification or abuse
- Shipping damage or other accident
- Repair or service by unauthorized personnel

Thermal Edge Inc.™

WARRANTY INFORMATION

ADDITIONAL INFORMATION

Thermal Edge must be notified of a claim in writing not later than fourteen (14) days from the date when buyer has become aware of such occurrence, or immediately, when the defect is such that it may cause damage.

If air conditioner is to be shipped or transported at any time, it is best to pack in original packaging and strap to pallet to prevent damage. Air conditioner must be kept upright at all times. Air conditioners that have internal damage due to shipping are not covered under the Warranty.

Claims for shipping damage are the responsibility of the Consignee. Damage must be noted on Bill of Lading at time of receipt. Timely claims must be filed with the freight carrier.

The purchaser assumes the responsibility of grounding the unit and installing it in accordance with local electrical and safety codes, as well as the 2008 National Electric Code (NEC) and OSHA.

THIS WARRANTY CONSTITUTES THE ENTIRE WARRANTY WITH RESPECT TO THE PRODUCT AND IS IN LIEU OF ALL OTHERS, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND IN NO EVENT IS THERMAL EDGE RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.

Thermal Edge Inc.™

REPAIR SERVICE PROCEDURE

Before contacting Technical Support, please follow the instructions in the trouble shooting guide included in the user manual. If the manual has been misplaced, it can be found at www.thermaledge.com/literature or you can scan the "QR" code on the side of your Thermal Edge enclosure air conditioner.

If the problem cannot be resolved using the trouble shooting guide, please email Thermal Edge Technical Support at **support@thermaledge.com**, and a case reference number will be generated and emailed back to you. Technical Support will attempt to diagnose and resolve any product issues over the telephone. If an issue is not resolved, you may be instructed to return the product to Thermal Edge for repair, or Thermal Edge may dispatch a field service technician to the product site.

RETURN MATERIAL AUTHORIZATION (RMA) PROCEDURE

All returns require a Return Material Authorization (RMA) number for warranty or non-warranty repair, rotation of stock, damage or any other reason.

IMPORTANT

Returns without an RMA number will be refused and returned. Improper packaging may void the warranty. Air Conditioners shipped laying down will void the warranty. Collect shipments will be refused. Returns received after 60 days will be refused and RMA will be canceled.

TO BE ISSUED AN RMA NUMBER, PLEASE BE READY TO PROVIDE:

- Purchase Order Number & Date
- Product Description & Reason for Request
- Model Number & Serial Number
- Customer name and contact info (email, phone number and address)
- Shipping method

Pack unit in suitable packing for shipment, preferably the original packaging if available.

PREPARING YOUR UNIT FOR SHIPMENT:

- Air Conditioners must be returned in an upright position properly secured to a pallet.
- Tip unit to empty water from the evaporator and boil off pans.
- Clearly mark the RMA number on the box.

After the unit is received and diagnosed, you will receive a cost estimate on the work and parts needed. The repairs and test process may uncover other issues of which you will be informed and given quotes for the work needed.

Thermal Edge Inc.™

POST WARRANTY SERVICE

WHEN YOU NEED FAST SERVICE/REPAIR, OUR EXPERIENCED SERVICE TECHNICIANS ARE READY TO HELP WITH ANY THERMAL EDGE PRODUCT EVER BUILT!

NEED SOME HELP?
Email: support@thermaledge.com

IF YOUR THERMAL EDGE PRODUCT IS OUT OF WARRANTY AND REQUIRES REPAIR...

please email for prompt attention. A case reference number will be generated and emailed back to you. Technical Support will help you determine what repairs or parts are needed and, if possible, will provide a cost estimate.
If it is necessary to return the product to Thermal Edge, an RMA number will be issued. After the unit is received and diagnosed, you will receive a cost estimate on the work and parts needed. The repairs and test process may uncover other issues of which you will be informed and given quotes for the work needed.

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- Tip unit to empty water from the evaporator and boil off pans.
- Clearly mark the RMA number on the box.
- Customer will pay all freight charges.