

**EQUIPMENT DATA SPECIFICATION  
AIR CONDITIONER  
NE020**

**Waste Water Treatment Package**



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## SPECIFICATION

### 1.0 SCOPE

This specification covers the minimum general and specific requirements for the Air Conditioner unit for electrical enclosures used in all levels of water treatment, disposal or purification.

### 2.0 REQUIREMENTS

- Type of Heat Exchange Compressor based air conditioner
- Ambient Operating Temperature 60°F – 125°F
- Approvals and Stamps UL, cUL, CE
- UL Type 4X
- Voltage 103.5-126.5 VAC, 60 Hz, 16.42A Inrush, 3.76A Running  
207-253 VAC, 60 Hz, 13.41A Inrush, 3.07A Running  
414-506 VAC, 60 Hz, 4.11A Inrush, 0.93A Running
- BTU Rating 2000 BTUH, Nominal
- Material Type 304 or 316 Stainless Steel, #4 Finish
- Construction Chassis: Rigid, insulated, closed loop  
Shroud: Seam welded, sloped top, insulated
- Refrigeration Circuit Protection Electrostatic epoxy coated coils, copper tubing brazed with 45% silver solder & epoxy coated
- Condensate Removal Active evaporation utilizing superheated refrigerant coil
- Refrigerant R422d
- Refrigerant Metering Thermal expansion valve
- Refrigerant Service Ports High pressure  
Low pressure

- Digital Controller
  - Controls
    - Cooling set point
    - Cooling set point differential
    - Compressor protection:
      - Anti-short cycle delay
      - Condenser high temperature limit
      - Evaporator low pressure limit
    - Probes displayed:
      - Evaporator temperature
      - Condenser temperature
    - Auxiliary set points:
      - Heater
      - Dry contact
    - Auxiliary set point differential
  - Alarms
    - Enclosure probe failure (P1)
    - Condenser probe failure (P2)
    - Maximum temperature for 3 minutes (HA)
    - Minimum temperature for 3 minutes (LA)
    - Condenser high temperature for 3 minutes (HA2)
    - Condenser low temperature for 3 minutes (LA2)
    - Evaporator low pressure for 2 minutes (CA)
  - Remote Mount
    - Digital controller supplied with 8 ft. cable & bracket for installation inside equipment cabinet
- Compressor Head Pressure Control Pressure controlled condenser fan switch
- Compressor Protection Thermal/current overload switch (self-resetting)
- Condenser Filter Standard: Expanded aluminum, 250 micron, 60% efficiency
- Electrical Connection Terminal block  
Power On/Off switch
- Dimensions 115 V / 230 V: 32”H x 11.8”W x 9.5”D  
460 V: 38”H x 11.8”W x 9.5”D
- Unit Weight 115 V: 65 lbs.  
230 V: 72 lbs.  
460 V: 99 lbs.
- Shipping Corrugated packaging and pallet
- Warranty 5 years

**3.0 OPTIONS**

- High Capacity Condenser Filter 2” Pleated, 304 Stainless steel mesh, 250 micron, 94% efficiency
- Louvered Security Filter Cover 304 or 316 Stainless Steel
- Integrated Heater 500W  
1000W
- Low Ambient For operation at ambient temperatures below 60°F
- Dry Contact Normally open  
(Operation when enclosure Normally closed  
temperature exceeds maximum limit) Normally open & normally closed
- Custom Programming Factory programming of digital controller for Celsius temperature or deviation from default settings
- External Heater Control 100 W – 950W
- High Ambient For operation at ambient temperatures above 125°F
- Open Door Kill Switch Disables power to air conditioner when equipment enclosure door is open
- Adjustable Temperature Probe Monitor & maintain temperature at any point inside equipment enclosure
- Controller Communication Output Modbus RTU  
EtherNet/IP
- Vibration Package Protects air conditioner components from effects of moderate or severe vibration
- Redundant System Alternating operation of two air conditioners including backup mode in the event that one unit fails

**4.0 ACCESSORIES**

- Replacement Filters Standard  
High Capacity
- Alarm & Controlling Web Server XWEB300D

## 5.0 CODES AND STANDARDS

- ANSI/UL 484 Room Air Conditioners (Special Purpose)
- ANSI/NFPA 70 National Electrical Code
- CSA-C22.2 No. 236-M90 Heating and Cooling Equipment
- CSA-C22.2 No. 117 Room Air Conditioners (Special Purpose)
- CAN/CSA-C22.1 Canadian Electrical Code, Part I.
- EN Harmonized European Standards
  - EN 378-1 through -4 Refrigerating Systems and Heat Pumps
  - EN 60204-1 Electrical Equipment of Machinery
  - EN 60529, IP IP Code
  - EN 61000-3-11 Electromagnetic Compatibility
  - EN 61000-6-2 Emission
  - EN 61000-6-4 Immunity