

## EQUIPMENT DATA SPECIFICATION AIR CONDITIONER

### Dust & Dirt Environment Package NE030



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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 environments with dust from flour, coal, paper, wood, etc., that will clog the air conditioner filters and coils. The airborne oil in machine shops also will be captured by the air conditioner coils and restrict air flow.

### 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 12 or 4
- Voltage 103.5-126.5 VAC, 60 Hz, 23.42A Inrush, 5.15A Running  
207-253 VAC, 60 Hz, 13.65A Inrush, 3.07A Running  
414-506 VAC, 60 Hz, 5.86A Inrush, 1.3A Running
- BTU Rating 3000 BTUH, Nominal
- Material Type Powder coated cold rolled steel
- Construction Chassis: Rigid, insulated, closed loop  
Shroud: Seam welded, sloped top, insulated
- Refrigeration Circuit Protection Electrostatic epoxy coated coils
- 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)
- Compressor Head Pressure Control      Pressure controlled condenser fan switch
- Compressor Protection                      Thermal/current overload switch (self-resetting)
- Condenser Filter                              High Capacity: 2" Pleated, 304 Stainless steel mesh, 250 micron, 94% 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: 66 lbs.  
230 V: 72 lbs.  
460 V: 99 lbs.
- Shipping                                        Corrugated packaging and pallet
- Warranty                                         5 years

**3.0 OPTIONS**

- Louvered Security Filter Cover Powder coated mild steel
- NEMA Type 4X
- Refrigeration Circuit Protection Electrostatic epoxy coated coils, copper tubing brazed with 45% silver solder & epoxy coated
- Integrated Heater 500W  
1000W
- Low Ambient For operation at ambient temperatures below 60°F
- Remote Controller Digital controller supplied with 10 ft. cable & bracket for installation inside equipment cabinet
- Dry Contact Normally open  
(Operation when enclosure temperature exceeds maximum limit) Normally closed  
Normally open & normally closed
- Custom Programming Factory programming of digital controller for Celsius temperature or deviation from default settings
- External Heat 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 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