EQUIPMENT DATA SPECIFICATION
AIR CONDITIONER
CS020

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 – 131°F
- Approvals and Stamps: UL, cUL, CE
- UL Type: 4X
- Voltage: 103.5-126.5 VAC, 60 Hz, 10.63A Inrush, 4.1A Running
  207-253 VAC, 60 Hz, 8.84A Inrush, 2.00A Running
- BTU Rating: 2000 BTUH, Nominal
- Material Type: 304 or 316 Stainless Steel, #4 Finish
- Construction: Chassis: Rigid, insulated, closed loop
  Shroud: Seam welded, 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: R134a
- 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 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: 20"H x 10"W x 10"D

- Unit Weight
  - 115 V / 230 V: 44 lbs.

- Shipping
  - Corrugated packaging and pallet

- Warranty
  - 5 years
3.0 OPTIONS

- Integrated Heater 500W
- Dry Contact
  (Operation when enclosure temperature exceeds maximum limit)
  - Normally open
  - Normally closed
  - Normally open & normally closed
- Custom Programming
  Factory programming of digital controller for Celsius temperature or deviation from default settings
- External Heater Control 100 W – 950 W
- High Ambient
  For operation at ambient temperatures above 131°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

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