EQUIPMENT DATA SPECIFICATION
AIR CONDITIONER
TM081

Waste Water Treatment Package
1.0 SCOPE

This specification covers the minimum general and specific requirements for the Air Conditioner unit for electrical enclosures.

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, 43.3A Inrush, 11.6A Running
  207-253 VAC, 60 Hz, 33.7A Inrush, 7.0A Running
  414-506 VAC, 60 Hz, 16.85A Inrush, 3.5A Running
- BTU Rating: 8000 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: R438a
- Refrigerant Metering: Thermal expansion valve
- Refrigerant Service Ports: High pressure
  Low pressure
• Digital Controller
  o Controls
    o Cooling set point
    o Cooling set point differential
    o Compressor protection:
      o Anti-short cycle delay
      o Condenser high temperature limit
      o Evaporator low pressure limit
    o Probes displayed:
      o Evaporator temperature
      o Condenser temperature
    o Auxiliary set points:
      o Heater
      o Dry contact
    o Auxiliary set point differential
  o Alarms
    o Enclosure probe failure (P1)
    o Condenser probe failure (P2)
    o Maximum temperature for 3 minutes (HA)
    o Minimum temperature for 3 minutes (LA)
    o Condenser high temperature for 3 minutes (HA2)
    o Condenser low temperature for 3 minutes (LA2)
    o Evaporator low pressure for 2 minutes (CA)
  o Remote Mount
    o Digital controller supplied with 10 ft. cable & bracket for installation inside equipment cabinet
• Compressor Protection
  Thermal/current overload switch (self-resetting)
• Condenser Filter
  Filter free
• Electrical Connection
  Terminal block
  Power On/Off switch
• Dimensions
  15.6"H x 30.6"W x 20.2"D
• Unit Weight
  115 V: 111 lbs.
  230 V: 111 lbs.
  460 V: 154 lbs.
• Shipping
  Corrugated packaging and pallet
• Warranty
  5 years
3.0 OPTIONS

- Condenser Filter
  Standard Capacity: Expanded aluminum, 250 micron, 60% efficiency
  High Capacity: 2” Pleated, 304 Stainless steel mesh, 250 micron, 94% efficiency

- Integrated Heater
  500W
  1000W

- Low Ambient
  For operation at ambient temperatures below 60°F

- Dry Contact
  Normally open
  Normally closed
  Normally open & normally closed

- Remote Controller
  Digital controller supplied with 10 ft. cable & bracket for installation inside equipment cabinet

- 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 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

- 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