

**EQUIPMENT DATA SPECIFICATION
AIR CONDITIONER
CS011**



TABLE OF CONTENTS

- 1.0 SCOPE**
- 2.0 REQUIREMENTS**
- 3.0 OPTIONS**
- 4.0 ACCESSORIES**
- 5.0 CODES AND STANDARDS**

SPECIFICATION

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
- NEMA Type 12, 04, or 4X
- Voltage 110-120 VAC, 60 Hz, 10.1A Inrush, 2.7A Running
- BTU Rating 1000 – 2000 BTUH, Nominal
- Material Type
NEMA 12, 04: Powder coated cold rolled steel
NEMA 4X: 304 or 316 Stainless Steel, #4 Finish
- Construction
Chassis: Rigid, insulated, closed loop
Shroud: Seam welded, insulated
- Enclosure Mounting Two coil design with condenser air intake from either or both sides, permits installation on right or left side of wall mounted enclosure
- 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)
- Compressor Head Pressure Control
 - Pressure controlled condenser fan switch
- Compressor Protection
 - Thermal/current overload switch (self-resetting)
- Electrical Connection
 - Power cord with plug
 - Power On/Off switch
- Dimensions
 - 17”H x 7”W x 7”D
- Unit Weight
 - 30 lbs.
- Shipping
 - Corrugated packaging and pallet

3.0 OPTIONS

- Refrigeration Circuit Protection Electrostatic epoxy coated coils
Passivated refrigeration tubing joints
- 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 Heat Output 100 W – 950W
- 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
- High Ambient For operation at ambient temperatures above 131°F
- Low Ambient For operation at ambient temperatures below 60°F
- Controller Communication Output Modbus RTU
Ethernet/IP

4.0 ACCESSORIES

- Alarm & Controlling Web Server XWEB300D-8B000 – for up to 6 air conditioners
XWEB300D-8F000 – for up to 18 air conditioners

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
- Hazardous Location Standards
 - ANSI/UL 1203 Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
 - UL 698 Industrial Control Equipment for Use in Hazardous (Classified) Locations
 - ANSI/UL 877 Circuit Breakers and Circuit-Breaker Enclosures for Use in Hazardous (Classified) Locations
 - UL 886 Outlet Boxes and Fittings for Use in Hazardous (Classified) Locations
 - ANSI/UL 894 Switches for Use in Hazardous (Classified) Locations
 - ANSI/UL 1002 Electrically Operated Valves for Use in Hazardous (Classified) Locations
 - ANSI/UL 1010 Receptacle-Plug Combinations for Use in Hazardous (Classified) Locations
 - ANSI/UL 913 Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous (Classified) Locations
 - ANSI/ISA-12.12.01 Non-Incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
 - UL 1604 Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations
 - ANSI/NFPA 496 Purged and Pressurized Enclosures for Electrical Equipment
 - IEC 60529 Classification of Degrees of Protection Provided by Enclosures
 - CSA-C22.2 No. 30-1986 Explosion-Proof Enclosures for Use in Class I Hazardous Locations
 - CSA-C22.2 No. 25-1966 Enclosures for Use in Class II Groups E, F and G Hazardous Locations
 - CAN/CSA-E61241-1-1-2002 Limitation - Specification for Apparatus Electrical Apparatus for Use in the Presence of Combustible Dust - Part 1-1: Electrical Apparatus Protected by Enclosures and Surface Temperature
 - CAN/CSA-C22.2 No. 157-1992 Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
 - CSA-C22.2 No. 213-1987 Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
 - ANSI/NFPA 496 Purged and Pressurized Enclosures for Electrical Equipment