

EQUIPMENT DATA SPECIFICATION AIR CONDITIONER

Dust & Dirt Environment Package HC201

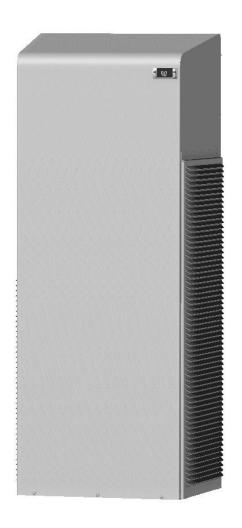


TABLE OF CONTENTS

- 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 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 – 131°F

• Approvals and Stamps UL, cUL, CE

• UL Type 12 or 4

Voltage
 207-253 VAC, 60 Hz, 76.3A Inrush, 13.7A Running

414-506 VAC, 60 Hz, 38.2A Inrush, 6.9A Running

• BTU Rating 20,000 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 R407f

Refrigerant Metering
 Thermal expansion valve

Refrigerant Service Ports
 High pressure

Low pressure

•	Digital Controller
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Controls
 Cooling set point

Cooling set point differential

o Compressor protection:

Anti-short cycle delay

o Condenser high temperature limit

o Evaporator low pressure limit

Probes displayed:

o Evaporator temperature

o Condenser temperature

Auxiliary set points:

o Heater

Dry contact

Auxiliary set point differential

Alarms o Enclosure probe failure (P1)

o Condenser probe failure (P2)

Maximum temperature for 3 minutes (HA)

o Minimum temperature for 3 minutes (LA)

Condenser high temperature for 3 minutes (HA2)

o 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 230 V: 56.61"H x 23.4"W x 15.2"D

460 V: 65.7"H x 23.4"W x 15.2"D

Unit Weight 230 V: 205 lbs.

460 V: 337 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 1500W

• 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 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 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
 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

o EN 378-1 through -4 Refrigerating Systems and Heat Pumps

o EN 60204-1 Electrical Equipment of Machinery

o EN 60529, IP IP Code

o EN 61000-3-11 Electromagnetic Compatibility

○ EN 61000-6-2 Emission ○ EN 61000-6-4 Immunity