

PRECONDITIONED AIR SYSTEM MODEL ES-4224 48 TON ELECTRIC



48 Ton Electrical PCA System
Shown with Integrated GPU Option

OPTIONS:

- Alternate Heating Capacities (up to 90 kW)
- Mounting Configurations: Over/Under Bridge Mount, Split Side Bridge Mount, Freestanding or Mobile
- Boarding Bridge Cooling
- Temperature Probe for Aircraft or Bridge Cabin
- Programmable Logic Control
- Digital Maintenance Panel
- Remote System Monitoring
- Special Paint Schemes

MECHANICAL SPECIFICATIONS:

Length:	161 in. (4089 mm)
Width:	86 in. (2184 mm)
Height:	50 in. (1270 mm)
Weight:	5100 lbs. (2313 kgs)
Mounting:	See Options
Acoustical Noise:	85 dBA Per SAE ARP-1801

This product was manufactured in a plant whose quality management system is registered to ISO 9001:2008.

APPLICATION:

Unitron preconditioned air units are designed to provide reliable, efficient, emissions-free cooling and heating for all types of commercial aircraft. The point-of-use, all-electric, units are available in bridge-mounted (under/over/side), trailer-mounted, or free standing configurations. Additionally, the unit can be configured as a split-system to accommodate strict space limitations. Output ratings for Unitron's PCA series range from 20 to 48 tons cooling. Heater banks are available at 30 kW, 36 kW, 45 kW, 54 kW and multiples of those values (i.e. 60 kW, 72 kW etc.)

Unitron's innovative design includes modular construction and direct part access, to simplify maintenance and service activities. Designed to meet severe environmental conditions, Unitron's PCA operates efficiently in even the most humid locations.

Environmental conditions at the installed location determine the maximum size aircraft this unit is capable of servicing. Contact Unitron to determine the most cost effective solution for environmentally conditioning the aircraft at your airport.

Unitron is a leading manufacturer of solid-state GPUs, including 400 Hz, 28 VDC and combination AC/DC units.

ACCESSORIES:

- Air Delivery Hose
- Hose Basket
- Bridge Cooling Duct Assembly
- Integrated Operator Control Station
- Digital Maintenance Panel

SPECIFICATIONS / STANDARDS:

- ASHRAE Standard 37, 51, 41.1, 41.2
- SAE, ARP 5374A, ARP 1801
- NFPA 70, NEC
- IATA AHM 910, 913, 973, 974
- UL1995
- IEC
- Refrigerant F-Gas Regulation EC 842/2006
- EU Machinerics Directive (89/392/EWG) in the draft 91/386 EWG
- EN 12312-17 Machinery - Specific Safety Requirement, Part 17: Air Conditioning Equipment
- EN 61000-6-2 EMC - Immunity Standard
- EN 61000-6-4 EMC - Emission Standard
- EN 62040-1-1 LVD - Safety Standard
- EN 61558-2-6 - General Safety Requirement

GENERAL SPECIFICATIONS

DESIGN CRITERIA:

Cool 95°F dry bulb,
76°F wet bulb

Heat depending on heating
option selected

PERFORMANCE:

Airflow

Cool 250 pounds per minute
(PPM) at sea level
240 PPM at 2,000 ft.
elevation

Heat 170 PPM at 2,000 ft.
elevation

Static Pressure (at rated airflow) - Adjustable

Cool 28" H₂O

Heat 28" H₂O

Discharge Air Temperature (at rated conditions)

Cool 33°F

Heat 140°F

Cooling Capacity

Nominal 48 Tons

Heating Capacity: Single or multiple heater banks
(See Note) available at the following kW
ratings:

- 30 kW
- 36 kW
- 45 kW
- 54 kW

ELECTRICAL: (PCA Only)

Operating Voltage 480V, 3Ø, 60 Hz

Control Voltage 24 VAC

MCA (per UL 1995) 135 Amps

MOP (per UL 1995) 175 Amps

FLA (cool) 129 Amps

FLA (heat) 105 Amps

TESTING:

Cooling Per ASHRAE 37

Airflow Per ASHRAE 51

Safety Per UL 1995

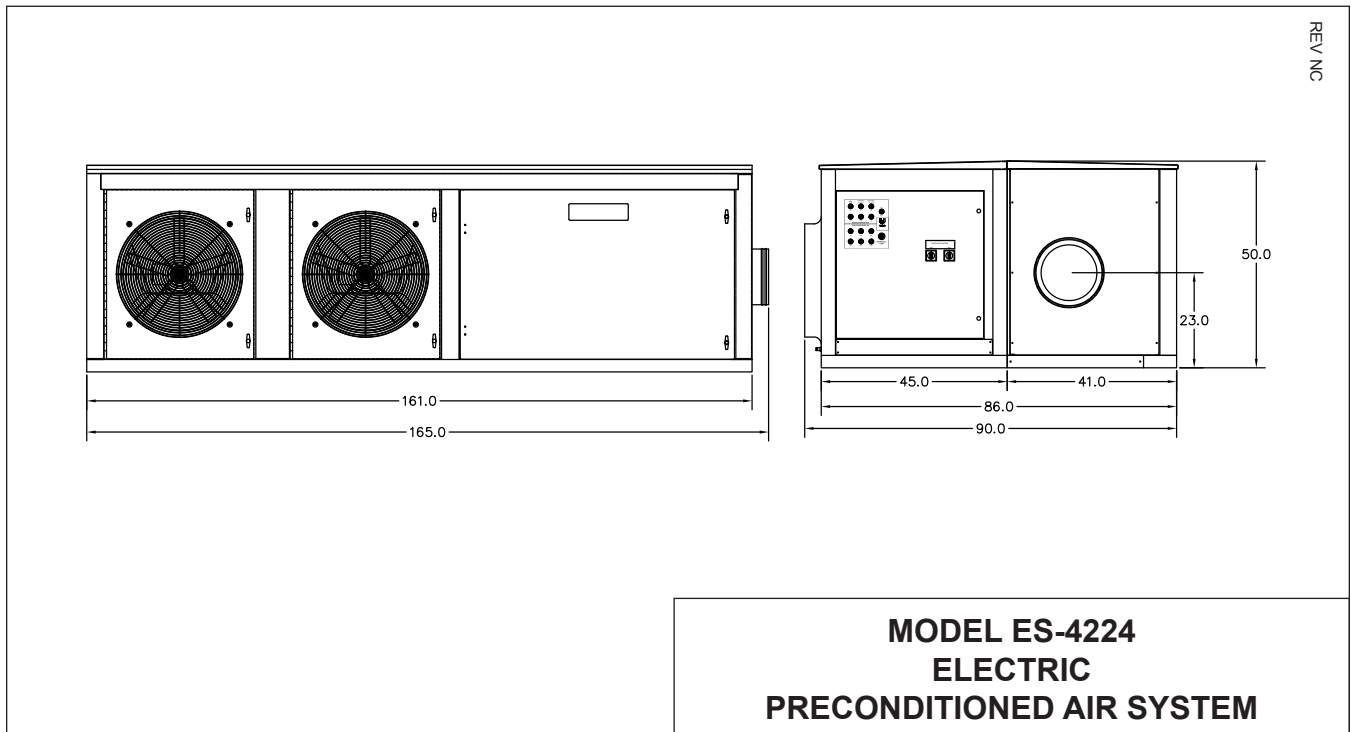
Burn-in 6 hours in environmental
chamber

REFRIGERANT:

Standard R-410a

Note: Installed power availability determines
maximum heat capacity.

FIGURE 1



**MODEL ES-4224
ELECTRIC
PRECONDITIONED AIR SYSTEM**