

PRECONDITIONED AIR SYSTEM MODEL DS-3215 30 TON DIESEL-ELECTRIC



Towable Diesel-Electric System
Shown with integrated GPU Option -
Exterior compartment door removed to show
slide-out GPU maintenance feature.

FEATURES:

- Towable Operation
- Integral Engine-Generator
- 8-Hour Fuel Tank
- Lighted Fuel-Fill Panel
- On-Off Generator Control Panel (Front-Mounted)
- Hose and Cable Storage Area
- Both Surge and Mechanical Braking Standard
- Diesel and Jet Fuel Capability

ACCESSORIES:

- Air Delivery Hose
- Digital Maintenance Panel
- 400 Hz and 28 VDC Power Output Cables

MECHANICAL SPECIFICATIONS:

Length:	223 in. (5664 mm)
Width:	96 in. (2438 mm)
Height:	84 in. (2134 mm)
Weight: ¹	9,619 lbs. (4363 kgs)
Mounting:	Towable
Acoustical Noise:	82.5 dBA Maximum Per SAE ARP-1801

ISO 9001



Registered to ISO 9001:2000

APPLICATION:

Unitron preconditioned air units are designed to provide reliable and efficient cooling and heating for all types of commercial aircraft. The DS Series PCA system is a mobile configuration capable of being towed at speeds up to 15 mph to its "point-of-use." The **multi-fuel engine generator system**, mounted on the rear of the unit, is ready to provide all the power required for the PCA system and optional ground power unit. Output ratings for Unitron's PCA series range from 20 to 45 tons cooling and 136,000 BTUH to 337,500 BTUH heating.

Unitron provides an engine capable of running on No. 2 Diesel, Jet-A, Jet-A1, JP-5 and JP-8 without adding lubricant to the fuel. The engine complies with EPA Emission Standard, CFR 40.

Unitron's innovative PCA design includes modular construction and direct part access to simplify maintenance and service activities. The entire generator housing is removable for rapid replacement of an engine-generator set, if the need should ever arise.

To service narrow-body commercial aircraft and regional jets, Unitron offers the Model DS-3215. This model is available with an optional 400 Hz, 28 VDC or combination AC/DC ground power unit (GPU) integrated into the PCA system. The resulting "4-in-1" PCA system reduces equipment costs, and conserves valuable space on the ramp by reducing the number of GSE pieces required.

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

OPTIONS:

- Alternate Heating Capacities (up to 327,000 BTUH)
- 400 Hz Power Module: 40, 60 or 90 kVA (specify)
- 28 VDC Power Module: 400 or 600 Amps (specify)
- Combined 400 Hz and 28 VDC Power Module
- Programmable Logic Control
- Digital Maintenance Panel
- Remote System Monitoring
- Power Transfer Switch
- Utility Connection Cable and Plug
- Auxiliary Battery Charger
- Beacon or Auxiliary Ground Illumination
- Cold Weather Starting Package
- Truck Mount Upon Request

GENERAL SPECIFICATIONS

DESIGN CRITERIA:

Cool 95°F dry bulb, 78°F wet bulb
 Heat 15°F or 0°F, varies depending on heating option selected

PERFORMANCE:

Airflow

Cool 165 pounds per minute (PPM) at sea level
 150 PPM at 2,000 ft. elevation
 Heat 109 PPM at sea level
 100 PPM at 2,000 ft. elevation

Static Pressure (at rated airflow) - Adjustable

Cool 26" H₂O
 Heat 26" H₂O

Discharge Air Temperature (at rated airflow)

Cool 33°F
 Heat 140°F

Cooling Capacity

Nominal 30 Tons

Heating Capacity (Specify)

142,500 BTUH
 173,500 BTUH
 265,500 BTUH
 296,000 BTUH
 327,000 BTUH

ELECTRICAL: (PCA Only)

Operating Voltage 480V, 3Ø, 60 Hz
 Control Voltage 24 VAC
 MCA (per UL 1995) 95 Amps
 MOP (per UL 1995) 125 Amps
 FLA (cool) 84 Amps
 FLA (heat) 72 Amps

TESTING:

Cooling Per ASHRAE 37
 Airflow Per ASHRAE 51
 Safety Per UL 1995
 Burn-in 12 hours in environmental chamber

REFRIGERANT:

Standard R-22
 Option R-134a (without de-rating)
 R-407c
 R-410a

GENERATOR:

Specifications ² 150 kW Engine Generator
 Cummins Model DGFA
 UL 2200 Listed

- NOTES: 1. Weight varies with options selected.
 2. Generator ratings vary with system configuration. Alternate manufacturers available upon request.

FIGURE 1

