

ACU-301

AIR CONDITIONING & HEATING UNITS



DESCRIPTION

ACU-301 Series Conditioned Air Units comprise a line of diesel-electric units that provide conditioned air (and optional DC power) to small aircraft that require flood ducting, regional aircraft with up to 60 seats in any climate, or aircraft with up to 80 seats in a temperate climate. These units employ environmentally safe R-410a refrigerant. Designed with commercially available parts, the ACU-301 requires low maintenance, yielding a long life span and consistent, dependable, and quiet operation, all in a low profile, compact package.

Available in Tier 3, Tier 4F, and Stage V.

STANDARD FEATURES

- Galvanized steel frame and aluminum outer shell to reduce weight
- Low profile and compact design
- Danfoss hermetic scroll compressors
- Quiet Polychain cog belt
- Cooling and vent mode
- Blower output damper for flow control
- Tie downs and forklift pockets

- Low fuel warning/shutdown
- High performance centrifugal blower
- Maintenance-free towbar actuated brakes
- Narrow turn radius fifth wheel steering
- Heavy-duty running gear with 20.5 x 8.0 x 10 pneumatic tires
- Easy to use and intuitive HMI
- 8 hours continuous operation at 30 °C 50% RH (86 °F 50% RH)
- Integrated hose bin

SAFETY FEATURES

- Refrigerant high-low pressure shut down
- Fan motor high temperature shut down
- Blower loss of pressure interlock
- Engine safeties
 - Oil pressure
 - Coolant temp
- Power quality shutdown relay monitors
 - Loss of phase
 - Phase imbalance

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OPTIONS

- Power transfer switch to allow operation from 50 to 60 Hz facility power*
- Engine block heater
- Heating mode using electric heating elements and waste engine heat.
- Stow flange for the ACU coupler
- Hose bin storage rail
- Beacons and clearance lamps
- CE compliance
- Interlock for the GPU power cable
- Filter for JET A fuel operation (Tier 3 only)
- PowerVamp 28V DC
 - 300A continuous
 - 1200A starting

Model	ACU-301
Tier Level / Input Power	Tier 3, Tier 4F, and Stage V
Engine Manufacturer	Perkins
Engine Model	404F-E22T
Generator**	Leroy-Somer LSA 42.3 VS3
Generator Output ***	kVA/kW 36.4/29.1

** Class H insulated

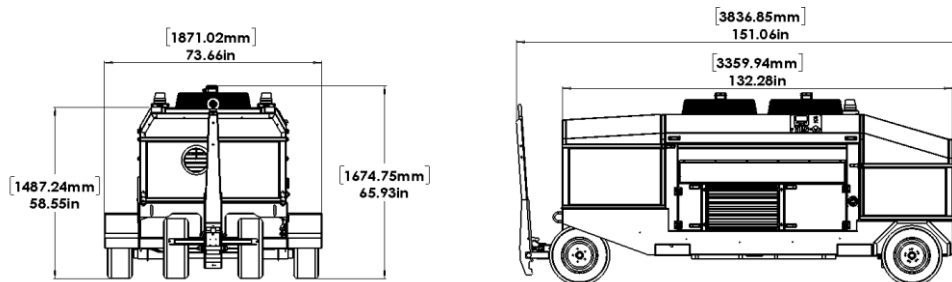
*** @ 0.8 PF Rating at class F rise

DESIGN SPECIFICATIONS

Model	ACU-301
Air Flow	kg/min (lb/min) to 32.4 (72)
Supplied Air Temp. @ 22 °C (72 °F)	°C (°F) 2 (35.6)
Heating Capacity	kW (btu/hr) 35 (120000)
Heating Ambient	°C (°F) -20 (-4)
Heating Air Temperature	°C (°F) 60 (140)
Compressor Manufacturer	Danfoss
Compressor Model	DSH-161-4
Compressor Type	Scroll
Weight	kg (lbs) 2155 (4750)

* Reduced performance when operated on 50 Hz power.

DIMENSIONS (Approximate)



Dimensions shown are for module only. Skid units are also available and can be mounted on properly rated chassis. Overall dimensions and weight depend on final mounting configuration.

Performance benchmarks are taken at 30 °C 50% RH (86 °F 50% RH)

SALES & SERVICE BY:
**AERO
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