

## DAC90 Mobile Pre-Conditioned Air Unit



Model DAC90 Trailer Mounted

### TRILECTRON/AIR-A-PLANE:

Trilectron Industries and air-a-plane products division have led the industry in product design and innovation. The best combination of experience, new technology and customer input has resulted in a product line you can trust for your aircraft's needs.

### APPLICATION:

Completely self-contained diesel powered PCAir unit for comfortable conditioning of wide body and jumbo passenger aircraft cabins. Endurance: approximately 8 hours of continuous operation per full fuel tank.

### OPTIONS:

Units can be trailer mounted for towing or truck mounted on a suitable chassis (consult factory). Power for the Generator/Engine set can be Detroit Diesel, Perkins, Cummins or Deutz.

### CE AND EMISSIONS CERTIFIED:

All engines meet current Tier Emissions Certifications as specified by EPA and CARB. CE Certification and international labeling is an added feature of this equipment.

### PERFORMANCE FEATURES:

#### Proven design:

- Hermetic scroll compressor refrigeration circuits with oversized condensing coils
- Multi-stage electric resistance heaters
- Steel frame and aluminum panels
- Meets all UL, NEMA, CE, NEC, OSHA, NFPA, ASHRAE, ASME and AHM 73 & 74 standards

#### Easy to Operate:

- Simple lighted button operator station mounted at ramp level
- Manual heat/vent/cool mode selection

#### Economical:

- Blower fan mounted directly to the fan motor requiring no clutches, gears or pulleys
- Fewer moving parts equate to lower maintenance costs
- High efficiency output through the use of multiple refrigerant circuits in a "cascading series" arrangement
- Significantly less cost than running the aircraft APU

#### Durable:

- Designed to endure the rigors of the airport environment
- Easy access to all components for maintenance

Model	Cooling Capacity	Heating Capacity	Length	Width	Height	Weight
DAC90	90 Tons (316 kW)	140 kW	229" (582 cm)	102" (259 cm)	113" (287 cm)	18,500 lb (8,391 kg)

# Trilectron's DAC90 Mobile Pre-Conditioned Air Unit Specifications

## Construction

- Base Unit Weight: 18,500 lb
- Painted steel frame construction
- Aluminum body access panels and doors with stainless steel hardware
- NEMA 4 Electrical enclosure and weather tight wiring conduit
- Large operational switches, buttons and latches for cold weather operation in heavy gloves

## Finish

- Anti-corrosive polyester powder provides excellent weather resistance, flexibility and adhesion, plus a strong resistance to chemical agents such as glycol and skydrol
- Standard colors are high gloss white over black frame
- Custom colors require a paint chip or swatch for accurate color match

## Performance

- Nominal Cooling Capacity: 90 tons
- Nominal Airflow: 500 ppm (3.78 kg/s)
- Nominal Static Press: 37"wg (9.22 kPa)
- Nominal Electric Heater: 90 kW, 4 stg
- Nominal Water Heater: 27.9 kW
- Rating Condition: 95°Fdb/78°Fwb (35°Cdb / 26°Cwb ), 460/3/60, R22, sea level
- Rated Cooling Capacity: 1,080,000 Btu/hr (316 kW)
- Rated Condenser Airflow: 76,000 CFM (35,866 L/s)
- Rated Condensate Flow: 0.57 GPM (36 mL/s)
- Rated Heat Output (Blower+Heater+Engine): 477,700 Btu/hr (140 kW)
- Refrigerants: R22, 407c
- *Regional temperatures and elevation affect unit performance. Consult factory for specific unit selection data.*

## Environmental

- Operation Temperature: -40° F to +125° F (-40° C to + 52° C)
- Relative humidity 0-100%

## Electrical

- Blower Motor: 60 HP (44.7 kW)
- Condenser Fan Motors: 6 @ 3 HP (6 @ 2.2 kW)
- Electric heater (optional): 90 kW, 4 stage, finned-tube enclosed element

## Control

- 24VAC Control Voltage
- Manual Mode Selection
- Damper Airflow Control
- Operator panel with large lighted momentary push buttons

## Generator/Engine Set

### Generator

- AC output: 480V, 3PH, 4 wire
- Continuous Duty Alternator

### Engine

- Detroit Diesel, Cummins, Perkins or Deutz
- Turbocharged 4-stroke, inline 6 cylinder

## Protection

### Air Conditioning

- High discharge air temperature (with heat option)
- Airflow loss
- High refrigerant pressure
- Low refrigerant pressure
- Circuit breakers and overloads on all motors

### Engine

- High Temperature Shutdown
- Low Oil Pressure Shutdown
- Overvoltage Shutdown
- Undervoltage Shutdown
- Overcrank Starting Protection
- Output Circuit Breaker

## Displays/Instrumentation

- Meters: Discharge air temperature, fuel level, hour meter, water temperature, oil pressure, battery volt meter, AC volt meter, AC amp meter, AC hertz meter
- Indicator Lights: Lighted pushbuttons (see below)
- Buttons: Start, stop, mode, Aircraft class selection, second hose, emergency stop

## Available Options

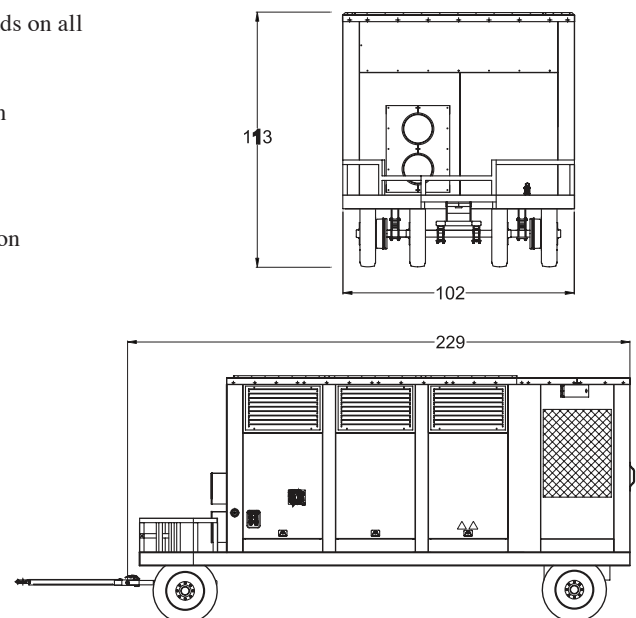
### Configuration

- 14"D Insulated, Flat Air Delivery Hoses (2)
- Electric/Hot Water Heat System
- Truck Mounted (consult factory)
- Exterior hazard lights
- Proximity Crash Rail
- CE Package
- Low Fuel Warning Beacon
- Operation Indicator beacon
- Operation Station with Discharge Pressure Gauge
- Special paint scheme

### Engine

- Engine Block Heater
- Cold Weather Starting Aides
- Racor® Fuel Filter

*Specifications subject to change without notice.*



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