

TruTemp™

Pre-Conditioned Air Units



DELIVERING PERFORMANCE AND
QUALITY WORLDWIDE SINCE 1998

www.northernairsystems.com

Northern-Air
Systems



State-of-the-art
controls systems

TruTemp™ PCAs

NORTHERN AIR SYSTEMS is the only PCA manufacturer with more than 20 years of expertise in specialized air conditioning design and manufacturing. Our experience in demanding environments allows us to offer cutting edge improvements for Ground Support products.

The Northern Air TruTemp™ Pre-Conditioned Air Units are completely self-contained and can be diesel and/or electric powered for conditioning passenger aircraft cabins. The superior design of Northern Air TruTemp PCAs provides a constant 32°F to 34°F

airflow without a defrost cycle, allowing for better constant concentration of cool air flow to the aircraft. Northern Air uses state-of-the-art control systems and Industrial grade components for highest reliability and longest life. Northern Air TruTemp PCAs can be ground mounted, cart mounted for tug or other vehicle towing, or bridge mounted. ETL Inspected and Labeled to UL-1995. Meets IATA AHM 974. Airflow and Pressure are automatically sensed and limited to allowable criteria from AMM published aircraft schedules.

GOING green

With skyrocketing energy prices and the push for lower carbon footprint, most manufacturers of PCAs are advertising the use of green technology. First and foremost, all PCA products eliminate the need to run the aircraft APU. This also has the biggest impact on reducing emissions. Many manufacturers are marketing their products as Green, offering a variety of configurations to reduce energy usage and CO2 emissions reductions. One popular option is offering variable speed compressors. Variable speed compressors use inverter technology that adjust the compressors output to accommodate the current load conditions. In theory, this will reduce energy when running in low or partial load conditions. However, on warm days, the savings are not substantial or are near nothing during a full load condition.

With the big push for Green Systems, organizations often overlook common sense understanding. PCAs use 100 percent outside air, the air is heated or cooled to the required temperature and is blown into the aircraft and then pushed out the door. The whole process is not providing any energy savings like in an enclosed insulated building built with green technology.

So, the question is, when should one buy this and pay for a variable-speed compressor?

Geographic location, energy rates, estimated run times, and budget are some of the determining factors. For example, if you are in a mostly hot climate with short turnaround times, it may not make sense to make a large investment in Variable speed. Northern Air Systems can help you make the best decision.

Call us for a complete evaluation.

OPTIONAL features

- Integrated Internal Bridge Cool
- Apron Management System Interface (Ethernet or Modbus)
- Customized Programming Compatible with Existing BMS
- Multiple Control Points for Unit Operation
- Touch Screen Controls
- High-Capacity Heaters
- Delivery Hose and Connectors
- Hose Storage and Retrieval Systems
- Coil Phenolic Coating
- Condensate Pump(s)
- Fire/Smoke Detection
- Remote Monitoring
- VFD Controlled Compressor for Greater Energy Savings
- Aircraft Cabin or Bridge Temperature Probes



Northern Air
Systems
www.northernairsystems.com
Rochester, NY

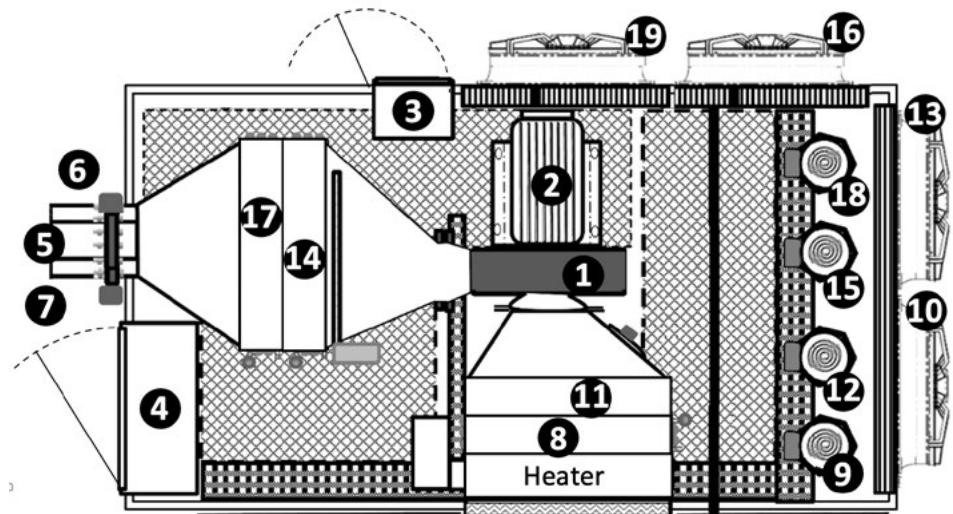


Performance that
exceeds customer
expectations

AIR COOLED direct expansion

Standard Features include Scroll Compressors, Wide-spaced Coil Fins, ECM Condenser Fan Motors, an LCD screen for diagnostic display, Pressure Transducers for pressure readout, 1,000 hour salt spray Powder-Coated finish, Gatorshield® welded tube frame construction, removable doors with tool access hardware, factory-mounted power disconnect.

- ① Blower
- ② TEFC blower motor
- ③ Blower Motor VFD
- ④ Electrical Box
- ⑤ Main Air Outlet
- ⑥ Optional PBB Cool Outlet
- ⑦ Optional 2nd Air Outlet
- ⑧ Stage 1 Cooling Coil
- ⑨ Stage 1 Compressor
- ⑩ Condenser Fan
- ⑪ Stage 2 Cooling Coil
- ⑫ Stage 2 Compressor
- ⑬ Condenser Fan
- ⑭ Stage 3 Cooling Coil
- ⑮ Stage 3 Compressor
- ⑯ Condenser Fan
- ⑰ Stage 4 Cooling Coil
- ⑱ Stage 4 Compressor
- ⑲ Condenser Fan

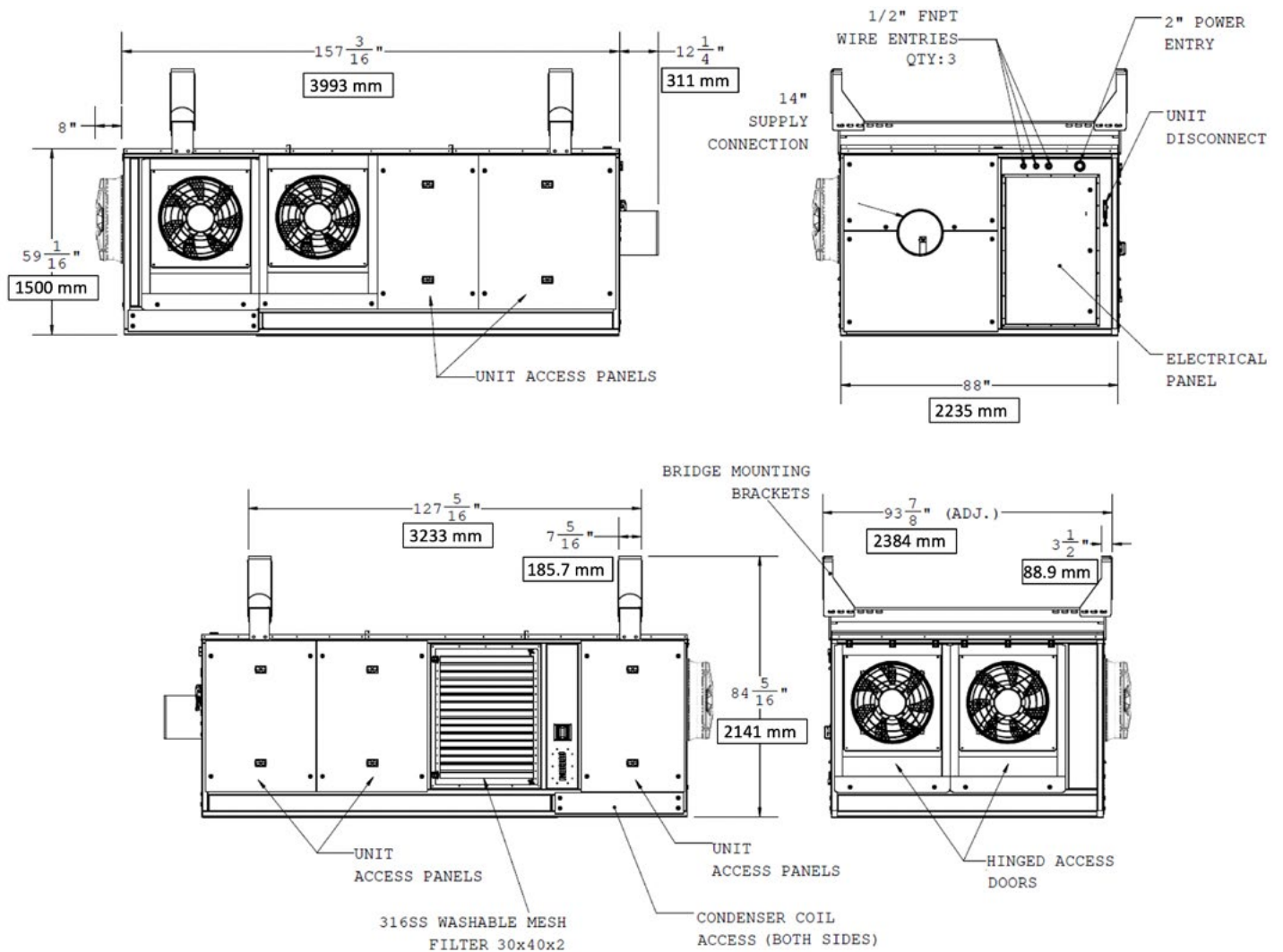


Specifications

	NAS030 30 Ton	NAS045 45 Ton	NAS060 60 Ton	NAS090 90 Ton	NAS120 120 Ton
Weight	3,735 lbs. (1,694 kg)	4,925lbs. (2,234 kg)	5,285 lbs. (2,397 kg)	8,680 lbs. (3,937 kg)	11,074 lbs. (5,023 kg)
Electrical	480 V/3 Ph/60 Hz or 400 V/3 Ph/50 Hz				
Cooling FLA/MCA	88 A/95 A	135 A/143 A	179 A/189A	257 A/273 A	400 A/356 A
Cooling ROP/MOP	100 A/125 A	150 A/175 A	200 A/225 A	300 A/350 A	400 A/356 A
Standard Heater	36 kW	54 kW	54 kW	60 kW	90kW
Large Heater-MCA	54 kW-107 A	100 kW-193 A	100 kW-205 A	120 kW-264 A	144 kw-326 A
ROP/MOP	110 A/125 A	200 A/200 A	225 A/225 A	300 A/350 A	400 A/450 A
per NEC 440.33	ROP=Recommended Overcurrent Protection device based on soft-start blower. MOP=largest overcurrent protection device allowed.				
Blower (HP. Type)	20 BHP, Centrifugal	30 BHP, Centrifugal	40BHP, Centrifugal	60 BHP, Centrifugal	80BHP, Centrifugal
Mass Airflow (Variable)	180 ppm@24" WG	284 ppm@28" WG	340 ppm@30" WG	480 ppm@36" WG	588 ppm@42" WG
Mass Airflow (Variable)	1.36kg/s@6.1 kPa	2.15 kg/s@7.1 kPa	2.57 kg/s@7.6 kPa	3.63 kg/s@9.2 kPa	4.45 kg/s@10.7 kPa
Volumetric Airflow	2,430 CFM	3,830 CFM	4,590 CFM	6,480 CFM	7,940 CFM
	(4126 m3/s)	(6510 m3/s)	(7790 m3/s)	(11,000 m3/s)	(13,480 m3/s)
Discharge Air Temp	24° F to 40° F (-4.4 to 4.4° C)				
Sound Level	85 dBA @ 15 Ft.				
Evaporator Coils	4-Row				
Tube/Fin Materials	Cu/Al (enhanced)				
Defrost interval	20-90 Min.				
Compressors	2x15 Tons, Scroll	3x15 Tons, Scroll	4x15 Tons, Scroll	2x15 2x30, Scroll	4x30 Tons, Scroll
Refrigerant	410 A				
Condenser Coils	4-Row				
Tube/Fin Materials	Cu/Al (enhanced)				
Condenser Fans	2x5 BHP	3x5 BHP	4x5 BHP	4x7.5 BHP	4x10 BHP
Diameter	36 in. (914 mm)				
Meets Airbus Compliance Documents for suppliers X21RP1146224_v7. Boeing Aircraft Maintenance Manual (AMM) and Facility Planning Guide.					
IATA AHM 974 and IATA AHM 997, AHRI-410. Labeling Process by ETL to UL-1995. Specifications subject to change without notice.					

* Additional capacities available.

DIMENSION drawings



CONDENSER FANS:

- 1 Quantity 2, rear-mounted
- 2 Quantity 1, side-mounted
- 3 Quantity 2, side-mounted

When there can be no time
any time of the day or night
for down time.

24/7 WORLDWIDE SERVICE NETWORK

+1 888-723-9230
service@northernairtech.com

NORTHERN AIR SYSTEMS HEADQUARTERS

3605 Buffalo Road
Rochester NY 14624

sales@northernairtech.com
+1 585-594-5050

Northern-Air
S y s t e m s
www.northernairsystems.com
Rochester, NY

TruTemp™ is a trademark of Northern Air Systems, Inc.



www.northernairsystems.com

Northern-Air
S y s t e m s