

# MAK PCA 20HP

Efficient Ground Cooling for Aircraft



The MAK High pressure preconditioned air unit is designed for cater continuous cooling during ground power-on and maintenance of fighter jet aircraft. It is used to control the heat generation of onboard electronics.

## SALIENT FEATURES

- ▶ Diesel engines from Deutz/Cummins equivalent conforming to latest EPA/Euro emission norms
- ▶ PLC based control system with user HMI
- ▶ Electric driven models
- ✔ Interactive GUI visible under all weather conditions
- ▶ Automatic temperature control
- ✔ Graphical representation of operational data
- ▶ Cabin heater (Optional)
- ✔ Fault log chart & troubleshooting guide
- ▶ Meets MIL, AHM & ARP standards
- ▶ MAK RDMS – Remote Diagnostic and Monitoring System (Optional)

PCA MODEL	PCA20-HP
Fighter Jet - F35 and F16	X
<b>SUPPLY AIR</b>	
Air Flow kg/s (lbs/min)	0.45 (60)
Outlet Pressure Max. PSI (kPa)	up to 5.8 (40)
Cooling Mode - Unit Outlet Air Temperature °C ( °F)	Up to -4 (24.8)
Heating Mode - Unit Outlet Air Temperature °C ( °F)	Up to 50(122)
Air Temperature at Aircraft Inlet °C ( °F)	2-10(36-50)
Aircraft Outlet Hose(s)	8" Dia 40' Main hose with end connection of 4" Dia 10' and suitable aircraft connector P/N. F20736-2
Actual Cooling Capacity in Tons	20
<b>AMBIENT TEMPERATURE</b>	
Summer	35°C DB/25°C WB (95°F DB/77°F WB)
Winter	-20°C DB (-4°F WB)
<b>BLOWER</b>	
Type of Blower Fan (incl. material of construction)	Variable speed high performance and high speed blower with latest technology
Blower Motor Rating kW (Hp)	30(40)
Blower Quantity	1
<b>ELECTRICAL/PHYSICAL</b>	
Nominal Voltage	415V, 3Ø, 50Hz/460V, 3Ø, 60Hz
Power at operating point, KWH	53
Full Load Amps (FLA)	80
MCA (Minimum Circuit Ampacity)	100
<b>CONTROL SYSTEM</b>	
Controller	PLC based Intelligent Controller
Expansion and Hot Gas Valves	Highly precise, accurate and reliable Electronic Valves
Speed Control for Compressors, Condenser / Blower fans	VFD Controlled
<b>COMPRESSORS/CONDENSERS/EVAPORATORS</b>	
Type of Compressor	Hermetic Scroll, R410A
Quantity	1
Stages	1
Rating	20 Tons x 1 no
Coils	Copper Tube, Aluminium Fins
<b>ADDITIONAL INFORMATION</b>	
Type of filter / filtration level	MERV8 / 3-10 micron
<b>PHYSICAL CHARACTERISTICS</b>	
Dimensions excluding mounting frame in mm. Note: Length does not include outlet pipe	L4501 x W2200 x H2511 (L177 x W87 x H99)
Maximum Operating Weight Kg's (Lbs)	3200 (7056)

#### OPTIONAL FEATURES

Remote Diagnostic and Monitoring System (RDMS)

Heating Mode Operation

Remote Operating Panel

Note: Built-In Diesel generator model is available based on the request.

For Detailed technical specifications or any other queries please contact us



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