



AS 9100
REV. D CERTIFIED
COMPANY

MAK CONTROLS AND SYSTEMS PVT. LTD.
AIR+MAK INDUSTRIES INC.

MOBILE AIR CONDITIONER & GROUND POWER COMBO UNIT



MAK design and manufacture Air Conditioner and Power Supply Combo Units. These units are suitable for Regional passenger aircraft and Code C aircraft. MAK ACUs boast of several hours of incident free operation and satisfied customers among major civil airlines and defense organizations across the world.

MAK GPCU comes with a touchscreen control panel. MAK GSEM V8-C and MAK RDMS-A feature rich fleet management software which transmits live operational data to a remote computer/ mobile and alerts users in real-time of faults, alerts. With this software, users can plan maintenance schedules, ad-hoc service records, order spare parts... and much more, eliminating need for dedicated manpower per operation location.



TECHNICAL CHARACTERISTICS

MOBILE AIR CONDITIONER/28.5VDC POWER SUPPLY COMBO UNIT

GPCU MODELS



GPCU 15-400

GPCU 30-400

AIRCRAFT TYPES SERVED

Regional Jet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Narrow Body, B737, A319/20/21, ERJ 190-100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

ENGINE/GENERATOR

Engine	Cummins/Deutz/Equivalent	Cummins/Deutz/Equivalent
Continuous Rating HP(kW)	62(46)	127(95)
Emission	Tier 3/Tier 4 Final	Tier 3/Tier 4 Final
Aspiration	Turbocharged	Turbocharged
No. of Cyliner	4	4
No. of Stroke	4	4
Fuel	Diesel	Diesel

Generator	Marathon/Stamford/Sincro/Equivalent	Marathon/Stamford/Sincro/Equivalent
AC output*	460V, 3PH, 60Hz, 4 wire	460V, 3PH, 60Hz, 4 wire
Continuous Rating kVA(kW)	72.5(58)	128(102.4)
Insulation Class	H	H

COMPRESSOR

Compressor	Bitzer/Danfoss/Equivalent	J&E Hall/Bitzer/Equivalent
Type of compressor	Hermetically sealed Scroll compressor	Semi Hermetic Screw Compressor
TR Rating as per ARI 540	24	50
Refrigerant	R410A/ R134a	R410A/ R134a

PERFORMANCE/AIR CONDITIONER

Nominal Cooling Tons	15	30
Information are based upon design conditions of:35°C DB/26°C WB (95°F DB/78°F WB @ Sea Level) Note: Contact factory for other specific ambient conditions.		
Nominal Air flow PPM (kg/s)	75(0.57)	180(1.36)
Nominal Static Pressure Inches of WG(Pa)	13(3250)	27(6750)
Rated Heat Output (Blower + Heater) Btu/hr(kW)	137,143(40)	240,000(70)

PERFORMANCE/POWER SUPPLY

Short circuit protected	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
28.5VDC	400A Continuous, 1600A peak, Voltage regulation ± 0.5% up to rated load	400A Continuous, 1600A peak, Voltage regulation ± 0.5% up to rated load

ENVIRONMENTAL

Operating Temperature	-4°F to +125°F(-20°C to +52°C)	-4°F to +125°F(-20°C to +52°C)
Relative Humidity	0-100%	0-100%

Physical Dimensions Inches(mm)	L4133 x W2122 x H2055	L5044 x W2200 x H2065
Note: Width does not include lifting tackle	(L163 x W84 x H81)7056(3200)	(L199 x W87 x H81.3)10364(4700)
Weight Lbs(kg's)		



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PROTECTION

AIR CONDITIONING

High Discharge Air Temperature shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refrigerant High Pressure shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refrigerant low Pressure shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refrigerant High Discharge Temperature shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Low Compressor Oil Level shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Overload protection for all motors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

ENGINE

Low fuel warning / shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Low Lube Oil Pressure Shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High Coolant Temperature Shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Over Speed Shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Low Fuel Shut down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Low Coolant Indication	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Charge Fail Indication	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air Filter Clog Indication	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

POWER SUPPLY

Over load	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Under/Over frequency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Under/Over voltage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Phase reversal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DISPLAYS/MONITORING

Engine Oil Pressure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Engine Coolant Temperature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Engine RPM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fuel Level	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Battery Voltage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Output Air Temperature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set output Air Temperature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Output Pressure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Compressor Discharge Temperature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Engine Hours Run	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Battery Charging Current	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Maintenance Shedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Operator Guide lines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

GPCU MODELS OPTIONAL FEATURES

GPCU 15-400

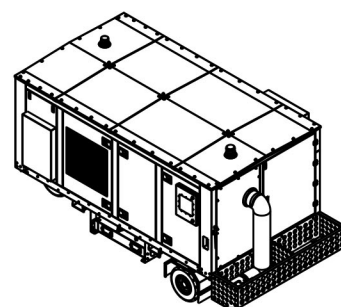
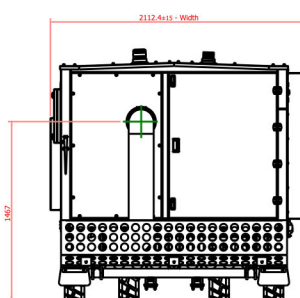
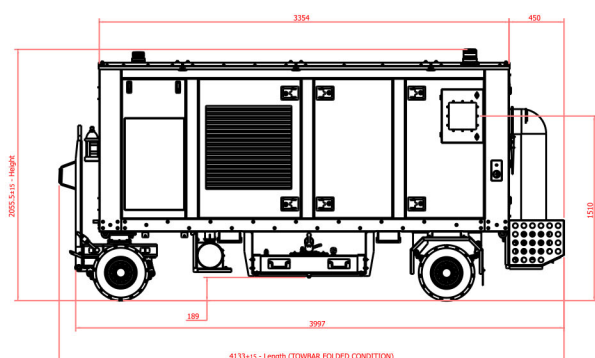
GPCU 30-400

Truck Mounted(Contact Factory)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Shore Power Cable & Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DC Cable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Special Paint Scheme	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Winter Kit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

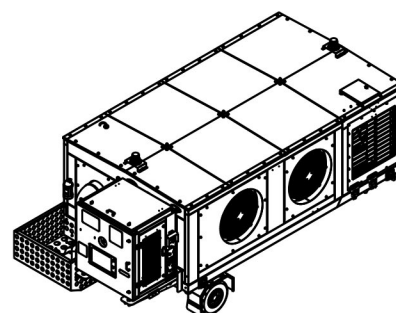
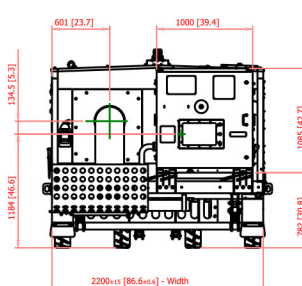
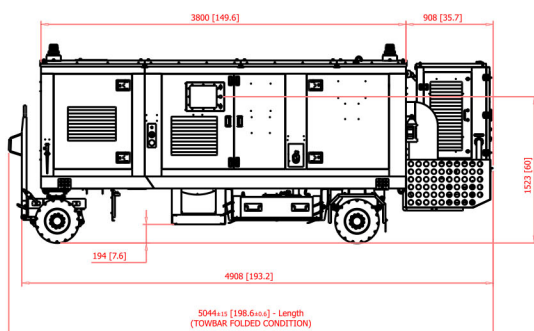
SALIENT FEATURES

- Diesel engines from Deutz/Cummins equivalent conforming to latest EPA/Euro emission norms
- Electric driven models
- Automatic temperature control
- No noise level
- Meets MIL, AHM & ARP standards
- Digital control system with touchscreen panel (MAK GSEM V8-C)
 - ✔ Interactive GUI visible under all weather conditions
 - ✔ Graphical representation of operational data
 - ✔ Fault log chart & troubleshooting guide
- MAK RDMS – Remote Diagnosis and Monitoring System (RDMS)

GPCU 15-400



GPCU 30-400



For detailed technical specifications or any other queries please contact us

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