

ComPact 2000 DC/AC

Input: 16-34 VDC
Output: 120/230 VAC pure sine, 60/50 Hz, 2000VA

Summary

MIL-STD-810G, MIL-STD-461G, MIL-STD-1275E
RS-485 bus
(CAN bus available with future firmware upgrade)
Stand alone or mounted in 19" rack
Relay alarm outputs
RoHS compliant
IP67

Description

The ComPact 2000 DC/AC Inverter offers pure sine output at very high efficiency and can operate stand alone or be mounted in 19" rack system. The RS-485/CAN bus can be used for control, monitoring and setup (CAN bus available with future firmware upgrade). Detailed status can be retrieved. The bus is available on the signal connectors. The signal connectors also provide alarm relay outputs. The ComPact 2000 DC/AC can be software configured according to customer specification. The firmware is user upgradeable. The ComPact 2000 DC/AC is protected from overvoltage, overcurrent, short circuit, reversed input polarity and over temperature.

Part No.	NSN	Description
P600430	6130-25-162-7531	ComPact 2000 DC/AC, Green
P600431	6130-25-163-5367	ComPact 2000 DC/AC, Green Neutral bonded to chassis ground



Functions

Over temperature	The unit is protected from over temperature by shutting down. The unit automatically starts up again when the temperature drops.
Alarms	Status signals are fed to separate potential free outputs, and are indicated in separate LEDs for Power OK, Unit alarm, Overload.
Display	The display can be toggled between output voltage, output current and alarm/error codes.
Input voltage	When the input voltage is below the safe operating range, the converter is shut off. When the voltage returns, the converter is turned on again.
Connectors	DC input: Positive: Bayonet, Allied Electronics Corporation MGR 02R 20-2P SQF 36 123 LT 101E RT Negative: Bayonet, Allied Electronics Corporation MGR 02R 20-2P SQF 36 126 LT 101E RT AC output: Bayonet, Allied Electronics Corporation MG 02R 16-10S PMC-C-AG 101E NS2 or equivalent. REL 1/REL 2: Binder 09-0412-30-04 Control: Binder 09-0408-30-03 REM/COM 1/2: Binder 09-0416-30-05 (x2)
Grounding	Available in the front and back
Acoustic noise	At ambient temperatures below 45°C the acoustic noise is below 45 dBA.
Cooling	Forced air by temperature controlled fan

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ComPact 2000 DC/AC Inverter

Specification

Electrical		
DC Input		
DC input voltage range		16-34 VDC
DC input current -Load: 2000 W @ PF > 0.95	Vin: 20 VDC Vin: 34 VDC	≤ 115 A ≤ 68 A
Efficiency -Input: 28 VDC	Vout: 120 VAC Vout: 230 VAC	≥ 88 % ≥ 90 %
AC Output		
Default output voltage: Part No. P600430 Part No. P600431		230 VAC, 50 Hz 120 VAC, 60 Hz
Adjustable output voltage		100-240 VAC
Adjustable output frequency		50 Hz or 60 Hz
Maximum continuous output power :		
DC input ≥ 20V, AC output 230VAC		2000W
DC input ≥ 18V, AC output 230VAC		1800W
DC input ≥ 18V, AC output 120VAC		1800W
DC input ≥ 16V, AC output 230VAC		1600W
DC input ≥ 16V, AC output 120VAC		1600W
Frequency		50/60 Hz ±0.1 Hz
Overload		105-115 %, 120 sec 115-150 %, 10 sec Shut down, manual re-start
Short circuit current		≤ selected current limit +70 %
Total Harmonic Distortion - 2000W @ PF > 0.95	115 VAC, 60 Hz 230 VAC, 50 Hz	≤ 3 % ≤ 3 %
Output voltage ripple and noise - Bandwidth: 20MHz		≤ 2 Vp-p
Load regulation		±3 %
Line regulation		Negligible
Safety		CE marked

EMC (fully qualified unless stated)	
Electromagnetic Interference MIL-STD-461G: CE102, RE101, RE102, RS103, CS101, CS114, CS115, CS116, CS118	
Electrical systems in vehicles MIL-STD-1275E: All sections	
Electrostatic discharge EN 61000-4-2: ESD	

Environmental (fully qualified unless stated)	
High temperature <u>Operational</u> MIL-STD-810G: Method 501.5, Procedure II, +50 °C Operation at higher ambient will result in reduced power output <u>Storage</u> MIL-STD-810G: Method 501.5, Procedure I, +71 °C	
Low temperature <u>Operational</u> MIL-STD-810G: Method 502.5, Procedure II, -40 °C <u>Storage</u> MIL-STD-810G: Method 502.5, Procedure I, -51 °C	
Temperature shock MIL-STD-810G: Method 503.5, -51—+71 °C, non-operational	
Humidity MIL-STD-810G: Method 507.5, Procedure II, operational	
Vibration MIL-STD-810G: Method 514.6C Table 514.6C-VI. Composite wheeled vehicle vibration exposures figure 514.6C-3 MIL-STD-810G: Method 514.6D, Category 20, Ground Vehicles, Wheeled/Tracked/Trailer, Procedure I	
Shock MIL-STD-810G: Method 516.6, Procedure I, functional Shock, 40 g, 11 ms	
Fungus MIL-HDBK-454: Analysis of the degree of inertness to fungus growth of the components	
Salt Fog MIL-STD 810G: Method 509.5, 24 h spray, 24 h dry, 2 times	
Altitude <u>Operational</u> MIL-STD-810G: Method 500.6, Procedure II, 4572 m (15000 ft) at 57.2 kPa <u>Storage</u> MIL-STD-810G: Method 500.6, Procedure I, 12192 m (40000 ft) at 18.8 kPa	
Encapsulation IP67: Immersion in 1 m water for 30 minutes .	

Mechanical	
Enclosure	Die cast and machined aluminum.
Surface finish	Paint finish. Surface finish consistent with die casting.
Width	220 mm, 8.66"
Depth in rack	390 mm, 15.35"
Depth total	420 mm, 16.54"
Height	132 mm, 5.25", 3U
Weight	16 kg, 36.8 lbs

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