RIPEENERGY
The Power Conversion Company

RSW2000-MIL SINEWAVE INVERTER

The RSW2000-MIL Inverter offers pure sine output at very high efficiency.

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 RSW2000-MIL can be software configured according to customer specification. The firmware is user upgradeable.

The RSW2000-MIL is protected from overvoltage, overcurrent, short circuit, reversed input polarity and over temperature.

Pure Sinewave | Programmable | Waterproof | Digital display | Remote control port | Extended temperature range | Multiple electronic protection

FUNCTIONS

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.

Grounding
Available in the front and back

Acoustic noise
At ambient temperatures below 45°C the acoustic noise is 45dBA.

Cooling
Forced air by temperature controlled fan

FEATURES

– Output: 120/230 VAC pure sine, 60/50 Hz, 1500/2000VA
– RS-485
– Alarm relay outputs
– Environmentally Tolerant
– IP67
– RoHS compliant

SPECIFICATIONS

Electrical data	
Input voltage	2000W: 20-34 VDC 1800W: 18-34 VDC 1600W: 16-34 VDC
DC input current Load: 2000 W @ PF > 0.95	Vin: 20 VDC ≤ 115 A Vin: 34 VDC ≤ 68 A
Efficiency Input: 28 VDC	≥ 88 % @ Vout: 120 VAC ≥ 90 % @ Vout: 230 VAC
Default output voltage	230 VAC, 50 Hz
Adjustable output voltage	200-240 VAC, 50 Hz 100-120 VAC, 60 Hz
Output current limit	9 A @ Vout: 120 VAC 9 A @ Vout: 230 VAC
Adjustable output current limit	9 A @ Vout: 120 VAC 9 A @ Vout: 230 VAC
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	≤ 3 % @ 115 VAC, 60 Hz ≤ 3 % @ 230 VAC, 50 Hz
Output voltage ripple and noise	≤ 2 Vp-p, 20 MHz bandwidth
Load regulation	±3 %
Line regulation	Negligible

Standards	
Electromagnetic Interference	MIL-STD-461G; Ground Army; CE102, RE101, RE102, RS103, CS101, CS114, CS115, CS116, CS118
Electrical systems in vehicles	MIL-STD-1275E All sections
Electrostatic discharge	EN 61000-4-2 for ESD
Safety	CE marked

Environmental	
High temperature	Operation MIL-STD-810G: Method 501.5, Procedure II, +50°C Operation at higher ambient will result in reduced power output Storage MIL-STD-810G: Method 501.5, Procedure I, +71°C
Low temperature	Operation MIL-STD-810G: Method 502.5, Procedure II, - 40°C Storage MIL-STD-810G: Method 502.5, Procedure I, -51°C
Temperature shock	MIL-STD-810G: Method 503.5, -51°C - +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, 40g 11ms
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	Operational MIL-STD-810G: Method 500.5, Procedure II, 4572 m (15000 ft) at 57.2 kPa Storage MIL-STD-810G: Method 500.5, Procedure I, 12192 m (40000 ft) at 18.8 kPa
Encapsulation	IP67: Immersion in 1 m water for 30 minutes.

Dimensions, Weight and Connectors	
W x D x H Weight	220 x 420 x 132 mm 16kg
Mounting	Any direction
DC input neg DC input pos AC output Alarm 1 Alarm 2 COM	MG 02R 20-2P-SQF 36 126 LT-003E-RT. Bayonet MG 02R 20-2P-SQF 36 123 LT-003E-RT. Bayonet 97B-3102E-16-10S or equivalent. Bayonet, RoHS Binder 09-0404-30-02 Binder 09-0412-30-04 2 pieces Binder 09-0416-30-05

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Specifications Subject to Change Without Notice

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