



Matrix 2000

Inverter Module

The alternative for your mission critical AC loads
With its compact design and cost efficiency, the Matrix inverter system can fit into any space and budget. It provides a high quality uninterruptible AC source without the requirement for separate batteries.

Applications

- Designed for telecom system application
- High quality pure sine wave output
- Extraordinary overload capability: 120% overload continuously, 200% overload for up to 5 seconds
- Remarkable efficiency: up to 91%
- Unity output power factor
- DSP chip design for reliable performance
- Built-in auto transfer switch for increasing alternative reliability
- LCD display for real time status monitoring and setting
- USB interface for communication and connecting to PC
- RoHS compliance
- Low audible noise < 55dBA
- Wide operation temperature range, -20~60°C

Product Description

Matrix 2000 provides incredible reliable 2000W capacity in compact 1U height, 19" width rack design metal housing. The higher efficiency, better over load performance, compact appearance makes Matrix 2000 an outstanding and perfect reliable power solutions for all types of telecom applications.

Furthermore, Matrix 2000 with built-in ATS function can largely increase the reliability by automatic switch between the inverter output and other alternative AC sources which provide extra safety for uninterruptible power. Matrix 2000 is the indispensable power equipment for your reliable telecom system.

Matrix 2000

Additional Technical Specifications

DC Input	
Nominal Voltage	48 VDC
Operating Voltage	40VDC-60VDC
Under/Over voltage warning threshold	45/58VDC
Under/Over voltage threshold	40/60VDC
Inrush current	<2 x I _{rated}
Isolation DC-enclosure	707VDC/1min
Input protection	Reverse Polarity Protection
Psophometric noise voltage	1.0mV ITU-T 0.41 (16.66-6000Hz)
Wide Band Noise	<1.0mV _{psof} (25Hz-5KHz) <20mV _{rms} (25Hz-20KHz)
Peak to peak noise	150mV up to 100mHz

AC Input (With transfer switch)	
Voltage range	110/115/120VAC: 89-138VAC 208/220/230/240VAC: 176-276VAC
Over voltage threshold	276/138VAC, adjustable
Under voltage threshold	176/89 VAC, adjustable
Frequency range	50/60 ± 2.5% Hz
Back-feed Protection	Comply with safety requirement
Transfer Time	Inverter to bypass: 8ms

AC Output	
Power Capacity	2000VA/2000W
Waveform	Pure sine wave
Nominal output voltage	110/115/120VAC or 280/220/230/240VAC
Voltage regulation	Max ± 2%
Output frequency	50/60Hz
Frequency variation	Max ± 0.5%
Frequency setting	Manually, field selectable
Crest factor	3:1
RHD	<3% for linear load, <5% for non-linear load
Capacitive/ inductive load	-1.0 to +1.0 without exceeding permissible distortion for resistive load
Current limitation	Electronic current limitation at overloads and short circuits.
Dynamic response	<±10%, according to IEC 62040-3 class 1
Over load protection	1.2 x I _{nom} permanent overload capacity @ 30 C 1.5 x I _{nom} 10s 2 x I _{nom} 5s

Other Specifications	
Efficiency	>91%@full load and nom. DC input, 91.5% max
Power Factor	1.0
Isolation AC-enclosure	Basic isolation (Pri-Gnd) 2121VDC/1min
Isolation AC/DC	Reinforced isolation (Pri-Gnd) 4242VDC/1min
General Alarm Signal	Dry contactor
Control	Keypad to setting major output values and parameters
Display	LCD and 3-LED to display major parameters, status and alarm
Remote control/ monitoring	USB
Operating temp	-20 C to +60 C (-20 C to +50 C with full performance)
Operating Altitude	1500m
Storage temp	-30 C to 80 C
Heat dissipation	Forced air
MTBF	> 200,000 hours as per Telcordia SR-332
Audible Noise	55dB ETS 300 753, Class 3.1
Operating humidity	95% Relative Humidity (no condense)
Dimensions (wxhxd)	440mm x 43.6mm x 350 mm
Weight	7.1 kg

Applicable Standards	
Safety compliance	Comply with EN 60950-1/ UL 60950-1
EMC	EN300 386:2001. Class B compliance
Certification	CE
ROHS	Compliant
Surge protection	EN61000-4-5. Telcordia GR-1089 Core ANSI C62.41-IEEE.STD 587-1980

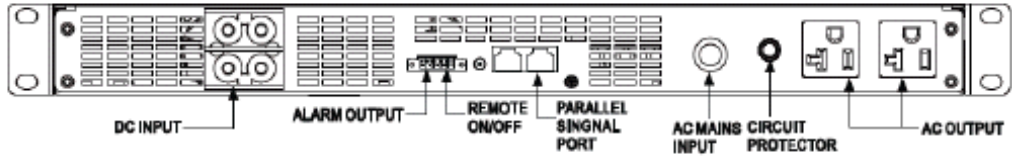
Ordering Information

Part no.	Description
241550.500	Matrix 2000 48/230
241550.501	Matrix 2000 48/110

Document no: 241550.500.DS3

Mechanical Outline Drawing

120Vac model



230Vac model

