RIPEENERGY
The Power Conversion Company

RCTP500 3-PHASE INDUSTRIAL SINEWAVE INVERTER

SERIES RCTP500

This rugged industrial quality DC-AC inverter uses field-proven, microprocessor controlled high frequency PWM technology to generate the required output power with 3-phase sine wave output voltage.

The use of high frequency conversion enables a compact construction, low weight and high efficiency.

The input and output are filtered for low noise.
Cooling is by high quality built-in fans and by additional conduction via the baseplate. The fans draw air into the unit.

All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness.

Conformal coating provides protection against humidity and airborne contaminants.

Full electronic protection, generous design headroom and the exclusive use of components with established reliability also contribute to high MTBF.

The unit is manufactured at our plant under strict quality control.

Pure Sinewave | 3-Phase output | High frequency technology | Light weight, compact size | Full electronic protection | Optional Remote enable or shutdown | Optional Extended temperature range

APPLICATIONS

- Industrial Controls
- Mining
- Oil Rigs
- Steel Mills
- Marine & other rugged environments
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power
- Telecom Power Plants
- Railway / Transportation
- Military Applications
- Manufacturing Location
- OEM Applications

FEATURES

- 3-Phase sine wave output voltage
- Up to 125Vdc input voltage
- Field-proven rugged design
- Cooling by internal fans
- Filtered input and output
- Full electronic protection
- Compact size
- Low profile
- 500VA of output power

SPECIFICATIONS

Input Voltage	24Vdc 36Vdc 48Vdc 110Vdc 125Vdc ± 15% are standard Consult factory for other inputs
Input Protection	Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit
Isolation	According to input/output as minimum 1500Vdc input to chassis 1500Vdc input to output 2250Vdc output to chassis
Output Voltage	380Vrms or 400Vrms (L-L)/ 3-phase continuous at 50 or 60Hz or 208Vrms (L-L)/ 3-phase continuous at 60 or 400Hz Phase-to-neutral voltages can also be used Floating output Neutral can be grounded if required Consult factory for other voltages, frequencies and options
Output Wave Form	Sinusoidal
Total Harmonic Distortion	Less than 5% at full load
Line/Load Regulation	Maximum ± 6% from no load to full load.
Load Crest Factor	2 at 90% load
Output Ripple Noise	High frequency ripple is less than 500mVrms (20MHz BW)
Efficiency	Typically 85% at full load
Output Overload Protection	Current limiting with short circuit protection
Output Overvoltage Protection	By internal supply voltage limiting

Standards	Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN 60950-1
EMI	EN 55022 Class A with margins
Operating Temperature	0 to +50°C for full specification without derating Derating linearly 2.5% per °C rise above +50°C to +70°C max. Extended temperature range available on request
Humidity	5 - 95% non-condensing
Temperature Drift	0.05% per °C over operating temperature range
Cooling	By high quality built-in fans by additional conduction via the baseplate
Environmental Protection	Basic ruggedizing Conformal coating Full ruggedizing available as option
Shock/Vibration	IEC 61373 Cat 1 A&B
Dimensions	48, 110, 125Vdc input: F7: 254 x 67 x 356 mm (W x H x L) 24, 36Vdc input: F7W: 280 x 67 x 356 mm (W x H x L) Mounting holes are clear
Weight	F7: 3.2 Kg F7W: 4 Kg
Connections	Input: 6-pole terminal block, 3/8" spacing Output: 12-pole terminal block, 3/8" spacing
MTBF	110,000 hours at 45°C Demonstrated MTBF is significantly higher
Indicators	None
Control Input	None Remote shutdown or enable as option
Alarm output	None
RoHS Compliance	Fully compliant
Warranty	2 years

Terminal Block Pin-out

3-PHASE OUTPUT												DC INPUT					
GND ⏚	PH 1 ~	NOT USED	NOT USED	NOT USED	PH 2 ~	NOT USED	NOT USED	NOT USED	PH 3 ~	NOT USED	GND ⏚	GND ⏚	GND ⏚	–	–	+	+
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6

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Specifications Subject to Change Without Notice

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