3000VA, 3-Phase Rugged, Industrial Quality Sine Wave Output Inverter CTP 3K Series

- 3-Phase sinewave output voltage
- Filtered input
- · Cooling by internal fan
- Full electronic protection
- Field-proven design topology

3U7 rack-mount chassis



6Ux19" rack-mount chassis (4 x 3U3)



This rugged, modular 3-Phase DC-AC inverter system that uses a microprocessor controlled field-proven technology to deliver the required output power with pure sine wave output voltage. It is a mature design with a track record in numerous applications. The standard 3-phase outputs are 208Vrms, 380Vrms or 400Vrms (L-L). Phase-to-neutral voltages can also be used: 115Vrms, 220Vrms or 240Vrms. All output neutrals are internally connected to chassis (GND) in "Y" configuration. The number of modules depends on the input/output combination. (The above units are typical examples of mechanical configurations). Input modules convert the input voltage to an internal DC voltage, which feeds the DC-AC output module. The high frequency conversion enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise. The use of components with established reliability results in high MTBF. Cooling is by built-in fans, which draw air into the unit. The inverter is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

24V, 36V, 48V, 125V or 250Vdc ±15%

Consult factory for other inputs

Input Protection

Inrush current limiting
Varistors
Reverse polarity protection
Internal safety fuse
Lower voltage than the specified
minimum input will not damage the

Isolation

Compliant to input and output voltages according to the corresponding standards

Standards

Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1

EMI

EN 55032 Class A with margins Consult factory for higher level of filtering

Output Voltage

208Vrms (L-L)/3-phase continuous at 60 or 400Hz or 380Vrms or 400Vrms (L-L)/3-phase continuous at 50 or 60Hz All neutrals are internally connected to chassis (GND) in "Y" configuration (Phase-to-neutral voltages can also be used: 115Vrms, 220Vrms or 240Vrms)
Consult factory for other voltages,

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

frequencies and options

Line/Load Regulation

 $\label{eq:maximum} \begin{tabular}{ll} Maximum \pm 6\% \ from \ no \ load \\ to \ full \ load. \\ \end{tabular}$

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is less than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection

Thermal shutdown with automatic recovery in case of continuous overload or insufficient airflow

Output Overvoltage Protection

Output voltage is limited by internal supply voltage

Efficiency

Depends on input and output voltage combination. Typically 78% at full load

Operating Temperature Range

0° C to +50° C for full specification without derating Extended temperature ranges available

Temperature Drift

0.05% per [°]C over operating temperature range

Cooling

Forced air by high quality built-in fans Fans draw air into the unit

Environmental Protection

Ruggedizing Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

Min. 95,000 hours at 45°C Demonstrated MTBF is significantly higher Fans excluded

Indicators

None

Control Input

None

Remote shutdown as option

Alarm Output

None

Option: output fail alarm (Form C)

Package/Dimensions (H x W x D)

19" rack-mount or chassis mount assembly available Size varies from 3U x 19" to 6U x 19" depending on input/output combination

Weight

6U x 19" chassis: 28 kg, 62 lb 3U7 x 19" chassis: 14 kg, 31 lb

Connections

Input: Terminal block or threaded studs depending on input voltage Output: Terminal block Interconnections: Terminal blocks

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice Contamination related failures and shipping cost excluded

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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