# 1000VA, Compact, 3-Phase Industrial Quality DC/AC Inverter with Sine Wave Output Voltage CTP 1K-3U3SF Series

- 3-Phase sinusoidal output voltage
- Filtered input/output
- Cooling by high quality built-in fans
- Compact construction
- Full electronic protection
- Rugged, field-proven design
- Cost-effective design



This rugged modular DC/AC inverter system uses microprocessor controlled, field-proven technology to deliver 3-Phase, 1000VA continuous output power with pure sine wave output voltage. A new design topology simplifies the circuitry and enables a significantly more compact construction, lower weight, lower cost and higher MTBF than earlier designs. The standard 3-phase outputs are 208Vrms, 380Vrms or 400Vrms (L-L) at the required frequency. Phase-to-neutral voltages can also be used: 115Vrms, 220Vrms or 240Vrms. The input and output are filtered for low noise. Cooling is by high quality built-in fan(s) with which draw air into the unit, and by conduction via the baseplate. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures 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.

#### **SPECIFICATIONS**

#### **Input Voltage**

24V, 48V, 110V, 125Vdc are standard Other inputs available on request

#### Input Protection

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

#### 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 EN 60950-1

#### ΕM

EN55022 Class A.
Please consult factory for a 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 (Phase-to-neutral voltages can also be used: 115Vrms, 220Vrms or 240Vrms)
Consult factory for other voltages, frequencies and options

#### **Output Wave Form**

Sinusoidal

#### **Total Harmonic Distortion**

Less than 5% at full load

#### Line/Load Regulation

 $\label{eq:maximum} \mbox{Maximum} \pm 6\% \mbox{ from no load} \\ \mbox{to full load}.$ 

#### 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 insufficient cooling

# **Output Overvoltage Protection**

Output voltage is limited by internal supply voltage

#### Efficiency

Depends on input and output voltage combination.
Typically 80% at full load

### **Operating Temperature Range**

0°C to +50°C for full specification without de-rating Extended temperature ranges available

#### **Temperature Drift**

0.05% per °C over operating temperature range

#### Cooling

High quality built-in fans draw air into the unit

#### **Environmental Protection**

Basic ruggedizing Conformal coating Full ruggedizing as an option

# Shock/Vibration

IEC 61373 Cat 1 A&B

# Humidity

5 - 95% non-condensing

#### MTRE

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

# Indicators

None

#### **Control Input**

None

Remote shutdown or enable available as an option

#### **Alarm Output**

None

Output fail alarm (Form C) as option

# Package/Dimensions (H x W x D)

3U3SF: 127 x 191 x 318 mm (5" x 7.5" x 12.5") excluding terminals and L-brackets

#### Weight

6.5 kg (14 lb)

# Connections

Input: Terminal block Output: Terminal block

# **RoHS Compliance**

Fully compliant

#### Warranty

Two years subject to application within good engineering practice.

Please note that ABSOPULSE inverters are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic specifications are subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



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