

1500VA, 3-Phase Sine Wave Output Inverter

Rugged, Industrial Quality

ITP 1K5 Series

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



Photo: 3U7
Chassis-mount



Photo: 3U7
Rack-mount

The ITP 1K5 Series is a rugged modular DC/AC inverter system that uses a microprocessor controlled, field-proven technology to deliver 3-Phase, 1,500VA continuous output power. 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. 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 unit is manufactured at our plant under strict quality control. The system can be customized for exact requirements.

SPECIFICATIONS

Input Voltage

24V, 36V, 48V, 125V, 250Vdc
+/-15% are standard
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 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 EN60950

EMI

EN 55022 Class A
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, frequencies and options

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

Maximum \pm 6% from no load to full load.

Load Crest Factor

2.5 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 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

Built-in fans drawing air into the unit

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal coating available as option

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.
3U x 19” (3U7) chassis:
132 x 483 x 407 mm
(5.2" x 19" x 16") including connectors

Weight

14 kg (30 lb.)

Connections

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

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications are subject to change



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