

## 6000VA, 3-Phase Sine Wave Output Inverter Rugged, Industrial Quality ITP 6K Series



**6U x 19" chassis  
(4 x 3U3)**

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

The ITP 6K Series is a rugged modular DC/AC inverter system that uses a microprocessor controlled, field-proven technology to deliver 3-Phase, 6000VA continuous output power. It is a mature design with a track record in numerous applications. The standard 3-phase outputs are 380Vrms or 400Vrms (L-L). Phase-to-neutral voltages can also be used: 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 unit in the photograph is a typical example of one 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**

48V, 125V or 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**

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: 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. Size varies depending on  
input/output combination.  
For 6KVA output, typically:  
6U x 19" (4 x 3U3) chassis:  
264 x 483 x 432 mm  
(10.4" x 19" x 17") including  
connectors.

#### **Weight**

For 4 x 3U3 chassis: 28 kg (62 lb)

#### **Connections**

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