

## 3-phase, 400V or 480V Input, 1000W Industrial Quality Power Supply HTP 1K-F6W

- Rugged industrial quality
- 3-Phase input
- Cooling by internal fans
- Full electronic protection
- Field-proven design topology



This rugged, industrial quality AC-DC power converter with 3-phase input generates the required output power. The design is based on field proven topology which has a track record in numerous applications. The unit is built on a single PCB. High quality built-in fans provide sufficient airflow for operation without de-rating within the specified temperature range. 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 ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control. Other models with higher and lower output power are also available.

### SPECIFICATIONS

#### Input Voltage

400Vac, 3-phase (360-440V)  
480Vac, 3-phase (430-530V)  
47-63Hz  
Other input voltages on request

#### Input Protection

Inrush current limiting  
Varistors  
Internal safety fuses  
Lower voltage than the specified minimum input will not damage the unit

#### Isolation

3000Vdc input to chassis  
4300Vdc input to output  
5600Vdc type test  
1000Vdc output to chassis

#### Standards

Designed to meet EN60950-1 and related standards

#### EMI

EN55022 Class A with margins

#### Switching Frequency

55kHz  $\pm$ 3kHz

#### Output Voltage

24V, 48V, or 125Vdc.  
Other voltages upon request  
Output is floating; either terminal can be grounded

#### Redundancy Diode

Not installed  
Available on request

#### Line/Load Regulation

$\pm$ 1% combined from zero load to full load

#### Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

#### Output Ripple/Noise

Better than 0.2% rms or 1% peak-to-peak of the output voltage (20MHz BW)

#### Output Overload Protection

Rectangular current limiting with short-circuit protection  
Thermal shutdown in case of insufficient cooling (self-resetting)

#### Output Overvoltage Protection

Second regulator loop completely stable and independent of the main regulator loop

#### Efficiency

Min 80% at full load depending on input/output configuration

#### Operating Temperature Range

0°C to 50°C for full specification  
Wider range available as option

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

By high quality built-in fans and by conduction by installing unit on heat-sinking surface (chassis or cabinet wall)

#### Environmental Protection

Basic ruggedizing  
Conformal coating

#### Shock/Vibration

IEC 61373 Cat 1 A&B

#### Humidity

5 - 95% non-condensing

#### MTBF

130,000 hours @ 45 °C (fans excluded)  
Demonstrated MTBF is significantly higher.

#### Indicators

Output ON LED visible through the cooling slots

#### Control Input

None on standard version  
Available as option

#### Alarm Outputs

Not installed  
Available as option

#### Package/Dimensions (W x H x D)

F6W: 254 x 65 x 349 mm  
10" x 2.6" x 13.75" including connectors and flanges

#### Weight

Approx. 3.4 kg (7.5lb)

#### Connections

Input: 3-pole terminal block with 1/2" spacing

Output: 12-pole terminal block with 3/8" spacing

#### RoHS Compliance

Compliant

#### Warranty

Two years subject to application within good engineering practice

#### Terminal block Pin-Out

OUTPUT											
NOT USED	NOT USED	+	+	-	-	NOT USED	NOT USED	NOT USED	GND		N
1	2	3	4	5	6	7	8	9	10	11	12

INPUT						
	PH		PH		PH	
1	2	3	4	5	6	7



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