

3-phase, 400Vac Input, 200Vdc Output, 1000W Industrial Quality AC-DC Power Supply HTH 1K-F6W

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



This rugged, industrial quality AC-DC power supply with 3-phase input utilizes field-proven technology to generate 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.

SPECIFICATIONS

Input Voltage

400Vac, 3-phase (L-L)
340-460Vac operating range,
47-63Hz
Input current: 2.6Arms max per phase
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

2250Vdc input to chassis
4300Vdc input to output
5600Vdc type test
1500Vdc output to chassis

Standards

Designed to meet EN60950-1
and related standards

EMI

EN55022 Class A with margins

Hold-Up Time

Min. 10ms at any input for 5%
drop of the output voltage

Switching Frequency

55kHz \pm 3kHz

Output Voltage/Current

200Vdc \pm 0.5V/5A
Output is floating, either
terminal can be grounded

Output Separation Diode

Installed internally

Line/Load Regulation

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 200mVrms or
900mVpp
(@ 20MHz BW)

Output Overload Protection

Rectangular current limiting with
short-circuit protection (no
hiccup)
Thermal shutdown in case of
insufficient airflow (self-resetting)
Current Limit: 5.5A \pm 0.4A

Output Overvoltage Protection

Second regulator loop, completely
stable and independent of main
regulator loop
OVP limit: 220V \pm 10V

Efficiency

Min 85% 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

140,000 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: 7-pole terminal block with
3/8" spacing
Output: 12-pole terminal block
with 3/8" spacing

RoHS Compliance

Compliant

Warranty

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

Terminal Block Pin-Out

200VDC OUTPUT												380VAC (L-L), 3-PHASE INPUT						
HOT USED	HOT USED	+	+	-	-	HOT USED	HOT USED	HOT USED	GND	X	HOT USED	X	PH 3	X	PH 2	X	PH 1	X
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7

Please note that ABSOPULSE power supplies 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 converters, inverters, 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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