500 Watt HV Series

Shindengen America, Inc.

FEATURES

- Meets International Safety & Conducted Noise Specifications
  - -UL1950 Recognized
  - -CSA 22.2 No. 234 Certified
  - -IEC950/EN60950 (TUV Certified)
  - -Independently Tested to FCC Level A VDE level A, VCCI Class 1
- Wide Range Input Voltage
- MTBF > 300,000 Hours, Field Failure Rate < 0.01%
- Remote ON/OFF; Power Fail
- Power Factor Corrected 0.99 typ
- Overtemperature, Overload and Overvoltage Alarm
- Fan-Cooled
- Parallel Operation

AUXILIARY FEATURES

Operating Indication	LED
EPO	Emergency power off
Remote ON/OFF	Output voltage ON - closed contacts +RC, -RC Output voltage OFF - open contacts +RC, -RC
Thermal Protection	Automatic shutdown under overtemperature condition.
AC Power Fail	Provided.
Power Alarm	Provided.
Parallel Operation	Units with like output voltage rating can be operated in parallel regardless of current rating.

SPECIFICATIONS

INPUT

Voltage	85 - 264 VAC (continuous)
Frequency	47 - 63 Hz
Current	
Full Load	120V - 6.2A (RMS)
	240V - 3.2A (RMS)
Inrush	120V - 15A
	240V - 30A

OUTPUT

Regulation	
Total	±5.0%
Drift	±0.3% (for 8 hours after 10 min. warm-up)
Temp. Coefficient	±0.01%/°C max.
Ripple & Noise (peak-to-peak)	
	1.50V max.
	(measured at 25°C with a bandwidth of 50 MHz)
Hold-up Time	10 mS min.
	(measured at nominal input voltage, full load, 25°C)
Converter Topology	Forward Converter
Operating Frequency	400 KHz

PROTECTION

Overvoltage — All models are protected against overvoltage. Control circuit is preset so output voltage does not exceed the following values:

Output V	24	48
OVP	32	60

Overload — All models are protected against overload. The control circuit has a foldback characteristic with the knee set at 110% of full-rated load. Recovery is automatic after removal of the fault.

INSULATION

All models meet the requirements of UL1950, CSA 22.2 No. 234, and EN60950 for Input-to-Chassis, Input-to-Output, Output-to-Chassis and Leakage Current specifications. See Engineering Section.

ENVIRONMENT

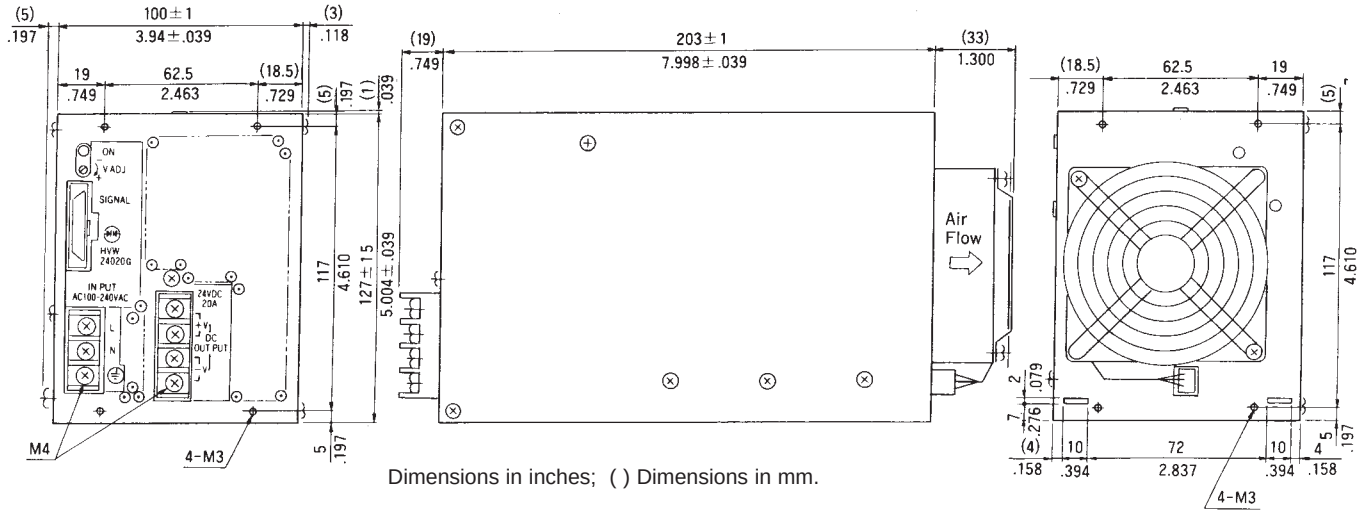
Operating Temp.	–10 to +50°C at full load.
Operating Humidity	20 - 90% relative humidity (non-condensing)
Storage Temp.	–25 to +75°C
Storage Humidity	10 - 95% relative humidity (non-condensing)
Shock	< 10G
Vibration	4.5G, 10 - 55 Hz, 0.75 mm amplitude (non-operating)

MODEL SPECIFICATIONS

Model Number	Output Voltage (±10%)	Output Current	Efficiency
HVW24020G	24.0V	20A	83%
HVW48010G	48.0V	10A	83%

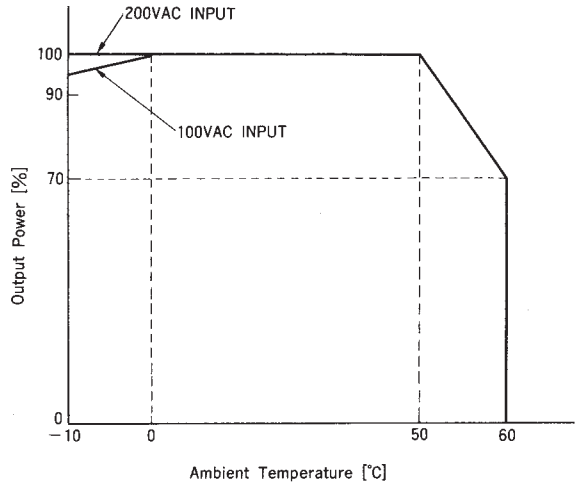
MECHANICAL SPECIFICATIONS

Size (W x D x H)	8.0 x 5.0 x 3.94 inches (203 x 127 x 100 mm)
Weight	6.0 lb (2.6 kg)



Dimensions in inches; ( ) Dimensions in mm.

DERATING CHART



CONNECTOR DESIGNATIONS

J1-1	Chassis Ground
J1-2	AC 1
J1-3	AC 2
J2-1	-V
J2-2	-V
J2-3	+V
J2-4	+V

Connections made to J1 with M4 hardware; to J2 with 15-pin D-shell connector Hirose, Inc. P/N EC1B-15P-2.5DP5A or equivalent (supplied); DC output connections made to copper bars drilled with 0.35" clearance holes.

SIGNAL CONNECTOR PIN

Pin ①	RC (remote ON/OFF control) positive side
Pin ②	RC (remote ON/OFF control) and PF (power fail) negative side
Pin ③	PF (power fail) positive side
Pin ④	No connection
Pin ⑤	EPO (emergency power off) positive side
Pin ⑥	EPO (emergency power off) negative side
Pin ⑦	ALM (alarm signal) positive side
Pin ⑧	ALM (alarm signal) negative side
Pin ⑨⑩	No connection