

Jasper Electronics

UNIVERSAL INPUT AC-DC MEDICAL APPLICATION OPEN FRAME SINGLE OUTPUT 40 WATTS INTERNAL SWITCHING POWER SUPPLIES HMI40 SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- COMPACT 5" x 3" PCB FORMAT
- MEET MEDICAL STANDARD EN 60601-1/
UL 2601-1
- EMI MEET EN 55011 & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Range typ. 90-264Vac.
Rating 100 to 240Vac.

Input Connector: V-M connector.

Input Frequency: 47-63Hz.

Inrush Current: Typ. 2.36Arms @230Vac.

Input Current: Typ. 0.66A@115Vac, 0.37A @230Vac.

Dielectric Withstand: Meet IEC 60601-1.

EMI: Meet EN55011 & FCC Class B.

Hold-up Time: Typ. 14mS @115Vac, 78.4mS @ 230Vac.

Earth Leakage: Less than 0.12mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Output Connector: V-M connector.

Output Wattage: Typ. 40 watts.

Line Regulation: Typ. 0.2-0.8%.

Load Regulation: Main VO1 typ $\pm 3\%$.
Aux. VO2 typ. $\pm 3.8\%$.
Aux. VO3 typ. $\pm 0.3\%$.

Noise & Ripple: Typ. 1.0% peak to peak.

OVP: Built-in at main output (Latch).

Adjustability: Available at Main output.

Overload Protection (OLP):
Fully protected against outputs overload and short circuit.
Typ. OLP set at 125-150% of rating output power.
Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 71% (Various with output voltage).

Switching Frequency: 45 KHz.

Circuit Topology: Fixed frequency flyback circuit.

Transient Response: Output voltage returns in less than 2mS following a 25% load change.

Safety Standard: Meet Medical standards UL 2601-1/
EN 60601-1 Class I.

Operating Temperature: -20 to +50 °C.
(Various with output voltage).

Storage Temperature: -20 to +85°C.

Temperature Coefficient: Typ. 0.04%/°C.

Cooling: Free air convection.

Power Density: 2.18Watts / Cubic Inch.

Construction: 5" x 3" PCB format.

Note: Due to requests in market and advances in technology, specifications subject to change without notification.

OUTPUT VOLTAGE/CURRENT RATINGS CHART

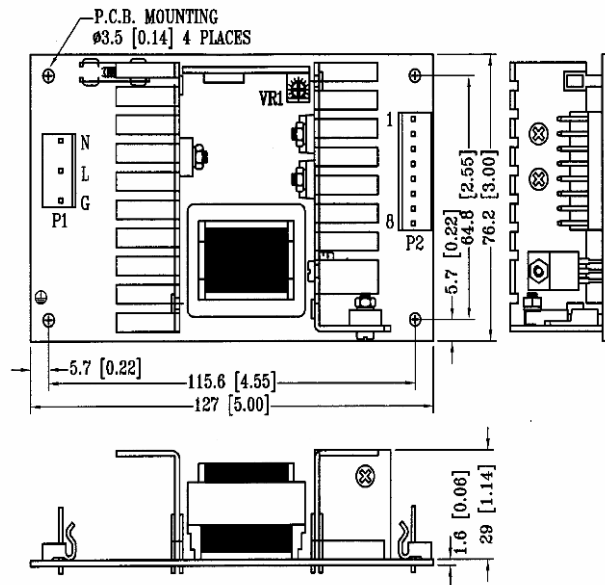
TRIPLE OUTPUT

MODEL NO.	MAIN +VO1 ★				AUX. +VO2				AUX. VO3 ◇			
	Min.	Typ.	Volt.	Max.	Min.	Typ.	Volt.	Max.	Min.	Typ.	Volt.	Max.
HMI40-T033EI	0A	6.0A	+3.3V	6.9A	0A	1.5A	+5V	1.7A	0A	1.0A	12V	1.1A
HMI40-T050II	0A	4.0A	+5.0V	6.0A	0A	1.5A	+12V	2.0A	0A	0.5A	12V	0.5A
HMI40-T050KK	0A	4.0A	+5.0V	6.0A	0A	1.0A	+15V	1.5A	0A	0.5A	15V	0.5A
HMI40-T050MI	0A	4.0A	+5.0V	6.0A	0A	0.7A	+24V	1.0A	0A	0.5A	12V	0.5A

Symbol: "★" OVP built-in "◇"floating.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 145g (5.12 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			SINGLE OUTPUT				
	AC-L	AC-N	AC-G	VO1	VO2	+VO3	-VO3	DC COM
CNTR/PIN#	P1-L	P1-N	G	P2-2,3	P2-1	P2-7	P2-8	P2-4,5

Mating connector: P1,2 Molex # 5195 or 5239 series.