H HiTRON

UNIVERSAL INPUT AC-DC MEDICAL APPLICATION OPEN FRAME SINGLE & MULTI-OUTPUT 19-20 WATTS INTERNAL SWITCHING POWER SUPPLIES HMI19 SERIES



FEATURES:

- **ACCOMMODATE UNIVERSAL AC SOURCES**
- **MEET MEDICAL STANDARD EN 60601-1/ UL 2601-1**
- **EMI MEET EN 55011 & FCC CLASS B**
- **CE MARKING COMPLIANCE**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: 90-264Vac typical.

Input Connector: Molex 5273 or equivalent.

Input Frequency: 47-63Hz.

Inrush Current: 16A @ 230Vac.

Input Current: 0.4A@115Vac & 0.22A@230Vac.

Dielectric Withstand: Meet IEC 60601-1.

EMI: Meet EN55011 & FCC Class B.

Hold-up Time: Typ. 14mS @ 115Vac.
Typ. 70mS @ 230Vac.

Earth Leakage: Less than 0.10 mA.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 19-20W.
Output Connector: Molex 5273 or 41671.
Line Regulation: Typ. 0.2-1.0%.
Load Regulation: Main VO1 typ. ±1.0%.
Aux. VO2 typ. ±2-3.0%(Stacked).
Aux. VO3 typ. ±1-2.0%(P.R.).
Noise & Ripple: Typ. 1% peak to peak.
OVP: Built-in at main output VO1.
Adjustability: Factory set.
Over Load Protection (OLP):
Fully protected against overload or short circuit.
Typ. 120-150% max. load.
Consult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 73%.
Switching Frequency: Typ. 67K Hz.
Circuit Topology: Fixed-frequency Flyback Circuit.
Transient Response: Output voltage returns in less than 0.2mS following a 25% load change.
Safety standard: Meet Medical standards UL2601-1/ EN 60601-1 Class I.

Operating Temperature: 0 to +50°C.
Storage Temperature: -20 to +85°C.
Temperature Coefficient: Typ. 0.04% /°C.
Cooling: Free air convection.
Construction: L-Bracket open frame format.
Power Density: 3.3 Watts / Cubic Inch.

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

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CE

In application

OUTPUT VOLTAGE/CURRENT RATINGS CHART

SINGLE OUTPUT

MODEL NO.	MAIN VO1@★		
	Typ.	**Volt.**	Max.
HMI19-S033050	5.0A	**+3.3V**	6.0A
HMI19-S050043	4.3A	**+5.0V**	5.0A
HMI19-S120017	1.7A	**+12.0V**	2.0A
HMI19-S240009	0.9A	**+24.0V**	1.0A

DUAL OUTPUT

MODEL NO.	MAIN VO1@★			AUX. VO2 † or ●			
	Typ.	**Volt,**	Max.	Typ.	**Volt.**	Max.	Pk.
HMI19-D033I	4.0A	**+3.3V**	5.0A	0.3A	**+12V**	0.6A	1A
HMI19-D033M	4.0A	**+3.3V**	5.0A	0.3A	**+24V**	0.5A	1A
HMI19-D050M	4.0A	**+5.0V**	5.0A	0.3A	**+24V**	0.5A	1A
HMI19-D050I	4.0A	**+5.0V**	5.0A	0.3A	**+12V**	0.6A	1A

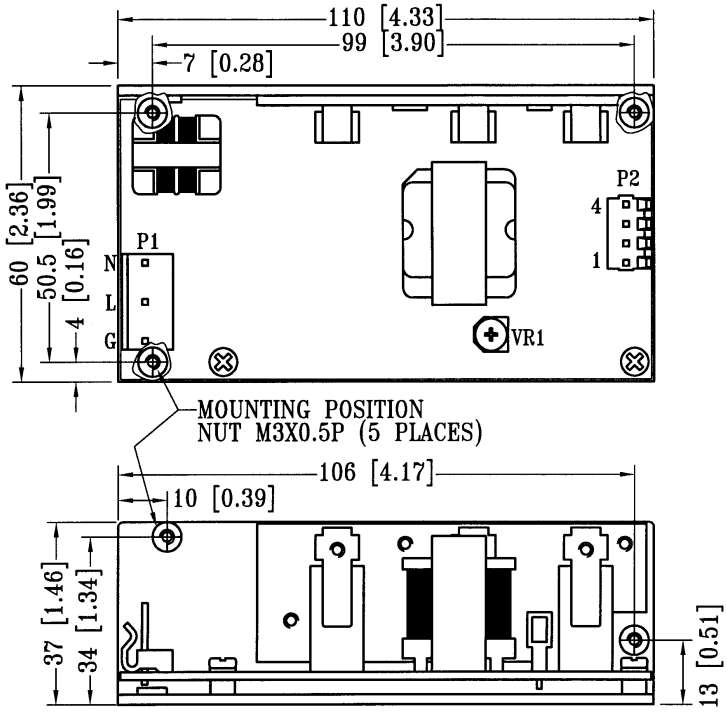
TRIPLE OUTPUT

MODEL NO.	MAIN VO1@★			AUX. VO2 †				AUX. VO3 ●			
	Typ.	**Volt.**	Max.	Typ.	**Volt.**	Max.	Pk.	Typ.	**Volt.**	Max.	Pk.
HMI19-T033II	4.0A	**+3.3V**	5.0A	0.5A	**+12V**	1.0A	2A	0.3A	**+12V**	0.6A	1A
HMI19-T033MI	4.0A	**+3.3V**	5.0A	0.3A	**+24V**	0.5A	1A	0.3A	**+12V**	0.6A	1A
HMI19-T050II	3.0A	**+5.0V**	4.0A	0.5A	**+12V**	1.0A	2A	0.3A	**+12V**	0.6A	1A
HMI19-T050MI	3.0A	**+5.0V**	4.0A	0.3A	**+24V**	0.5A	1A	0.3A	**+12V**	0.6A	1A
HMI19-T050KK	3.0A	**+5.0V**	4.0A	0.4A	**+15V**	0.8A	1A	0.3A	**-15V**	0.6A	1A

Symbol: "★" OVP built-in. "@" Adjustable. "●" Installed with Post Regulator (P.R.). "†" Stacked-on main O/P.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 373.0g (13.2 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	AC INPUT			SINGLE OUTPUT			DUAL OUTPUT				TRIPLE OUTPUT			
ASSIGNMENT	**AC-L**	**AC-N**	**AC-G**	**VO1**	**N/A**	**DC COM.**	**VO1**	**VO2**	**N/A**	**DC COM.**	**VO1**	**VO2**	**VO3**	**DC COM.**
CNTR & PIN #	P1-L	P1-N	P1-G	P2-2	P2-3,4	P2-1	P2-2	P2-4	P2-3	P2-1	P2-2	P2-3	P2-4	P2-1

Mating connector: P1: Molex 5195 or 5239 series. P2: Molex 5195 or 5239 series/ 3069 series.