

HiTRON

UNIVERSAL INPUT AC-DC MEDICAL APPLICATION INTERNAL OPEN FRAME SWITCHING POWER SUPPLIES 40-42 WATTS SINGLE OUTPUT HMI43 SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC INPUT
- COMPACT 4"x2"x1" PCB FORMAT
- MEET MEDICAL STANDARD IEC60601-1
- EMI MEET EN 55011 / FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

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

Input Connector: Molex connector or equivalent.

Input Frequency: 47-63Hz.

Inrush Current: $\leq 12A$ rms cold start at 230Vac.

Input Current: Typical 0.7A at 115Vac, 0.35A at 230Vac.

Dielectric Withstand: Meet IEC 60601-1.

EMI: Meet EN55011 / FCC Class B.

Hold-up Time: Typical 20mS at 115Vac,
Typical 100mS at 230Vac.

Leakage Current: Less than 0.1mA at 230Vac.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Output Connector: Molex connector or equivalent

Output Wattage: Typical 40-42 Watts.

Line Regulation: Typical 0.2%.

Load Regulation: Typical $\pm 2-3\%$.

Noise & Ripple: Typical 1.0% peak to peak.

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

Adjustability: Factory set.

Overload Protection (OLP):
Fully protected against outputs overload and short circuit.
Typical OLP set at 105-120% of rating output power.
Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typical 85-90% (various with output voltage).

Switching Frequency: 85 KHz.

Circuit Topology: Fixed frequency flyback circuit.

Transient Response: Output voltage returns in less than
0.5mS following a 50% load change.

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

Power Density: 5-5.25Watts / Cubic Inch.

Operating Temperature: 0 to +50 °C under forced air flow
for full load. Derate by 1.3W/ °C
from 40°C to 50 °C.

Storage Temperature: -20 to +85°C.

Cooling: At least 5 CFM(100LFM) direct forward air flow is
required to achieve full rating power.

Construction: 4 x2 x1 inch PCB format.

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.

(2) Due to requests in market and advances in technology, specifications subject to change without notification.



In application.

OUTPUT VOLTAGE / CURRENT RATINGS CHART

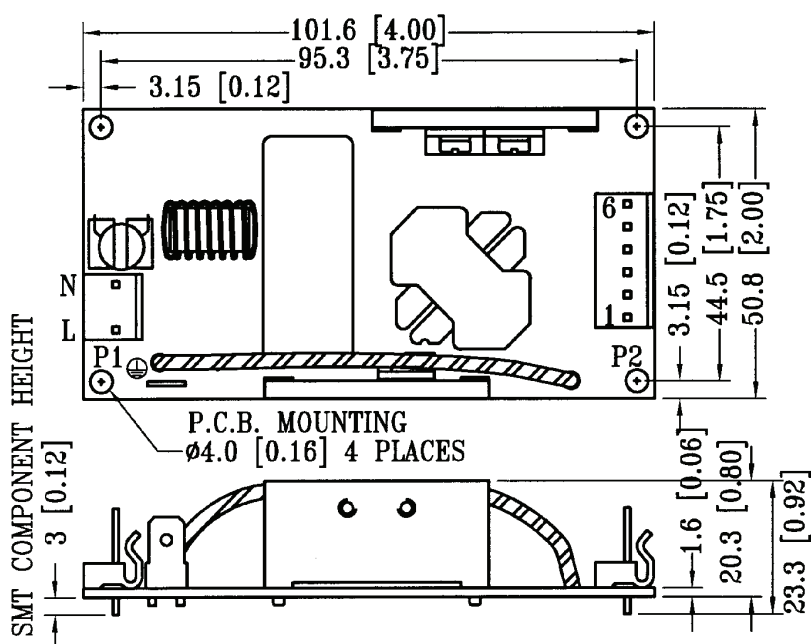
SINGLE OUTPUT

| MODEL NO. | MAIN OUTPUT | |
|---------------|-------------|-------|
| | Typ. | Volt. |
| HMI43-S120350 | 3.50A | 12.0V |
| HMI43-S150270 | 2.70A | 15.0V |
| HMI43-S240170 | 1.70A | 24.0V |
| HMI43-S480085 | 0.85A | 48.0V |

Symbol: “★” OVP built-in.

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 | DC COM |
| CNTR/PIN# | P1-L | P1-N | G | P2-1,2 | P2-3,4 |

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