

HiTRON

**Universal input AC-DC Medical and ITE application open frame
internal switching power supplies convection-cooled
200-250 Watts dual output HICM250 series**



Features

- 6x4 inch Compact size
- Very High Efficiency up to 90%
- 200-250W Convection/300W Forced-cooled
- U-Bracket or Box format optional
- Medical and ITE application
- Class I construction



Specification

Input

| | |
|-----------------------|---|
| Input Voltage | 90-264VAC |
| Input Frequency | 47-63Hz |
| Input Current | Typical 2-2.45A at 115VAC Typical 1-1.2A at 230VAC |
| Inrush Current | Typical 18.6A rms at 230VAC |
| Power Factor | Typical 0.97 at 230VAC |
| Input Connector | B-S connector |
| Earth Leakage Current | Less than 0.15mA |

Output

| | |
|------------------|-------------------------|
| Output Connector | B-S connector |
| Line Regulation | Typical 0.1% |
| Load Regulation | Typical $\pm 1\%$ |
| Total Regulation | Typical $\pm 2\%$ |
| Noise & Ripple | Typical 1% peak to peak |
| Adjustability | Available at V1 |
| Hold-up Time | 27-30mS min. at 230VAC |

Protection

| | |
|------------------|---|
| Over Voltage | Built-in (Latch) |
| Over Load | Typical set about 140-175% of (depending on model) rating output wattage |
| Over Temperature | Installed by NTC |

General

| | |
|----------------------|--|
| Efficiency | Typical 90-92% (depending on model) |
| Switching Frequency | 90-110KHz (depending on model) |
| Dielectric Withstand | IEC60601-1 and IEC60950-1 |
| Circuit Topology | LLC circuit |
| Transient Response | Output voltage returns in less than (depending on model) 0.01-0.2mS for a 25% load change |
| Power OK | Available |
| Remote ON/OFF | Available |
| Power Density | 5.3-6.6W / Cubic Inch |
| Construction | U-Bracket and Box format optional |

Environmental

| | |
|-----------------------|--|
| Operating Temperature | -25°C to +70°C derate with (Refer to the derating chart) derating |
| Storage Temperature | -30°C to +85°C |
| Cooling | Convection-cooled: 200-250W Forced-cooled: 300W with 15CFM |
| Operating Humidity | 10-95% RH, non-condensing |
| Storage Humidity | 5-95% RH |

Safety/EMC

| | |
|-----------------------|---------------------------------|
| Emissions (conducted) | CISPR EN55011 & EN55032 Class B |
| Harmonic Current | IEC61000-3-2 |
| Safety Standard | IEC60601-1/IEC60950-1 Class I |

Notes:

- (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.
- (2) Load regulation is measured at 115VAC or 230VAC in percentage to indicate the change in output voltage as the load varied from half load to full load ($\pm\%$).
- (3) The power supply is considered a component installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
- (4) Due to requests in market and advances in technology, specifications subject to change without notice.

Output voltage & current rating chart

Single Output

| Model No. (Model no. for example Please refer to note 1 & 2) | V1 ★ @ | | | | Stand-by Output | |
|--|--------|-----------------------------|-------|-------------------------|-----------------|-------|
| | Min. | Typ. (Convection-cooled) | Volt. | Max. (Forced-cooled) | Typ. | Volt. |
| HICM250-D120E-C1B | 0A | 16.5A | 12V | 24.6A | 1A | 5V |
| HICM250-D120E-C1U | 0A | 18.5A | 12V | 24.6A | 1A | 5V |
| HICM250-D190E-C1B | 0A | 10.3A | 19V | 15.5A | 1A | 5V |
| HICM250-D190E-C1U | 0A | 11.6A | 19V | 15.5A | 1A | 5V |
| HICM250-D240E-C1B | 0A | 10.2A | 24V | 12.3A | 1A | 5V |
| HICM250-D240E-C1U | 0A | 10.2A | 24V | 12.3A | 1A | 5V |
| HICM250-D560E-C1B | 0A | 4.4A | 56V | 5.3A | 1A | 5V |
| HICM250-D560E-C1U | 0A | 4.4A | 56V | 5.3A | 1A | 5V |

Symbol: ★ "OVP" built-in " @" Adjustable

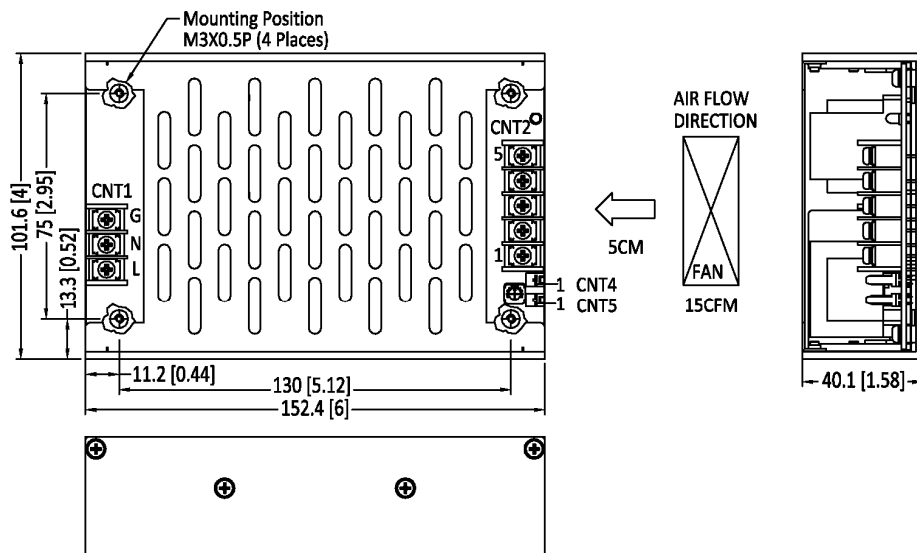
Notes: (1) Please add suffix to model number to define type: add "-B" for enclosure (metal box) version, and "-U" for U-Bracket version.

For example: HICM250-D120E-C1B is for Class I and Metal Box version; HICM250-D120E-C1U is for Class I and U-bracket version.

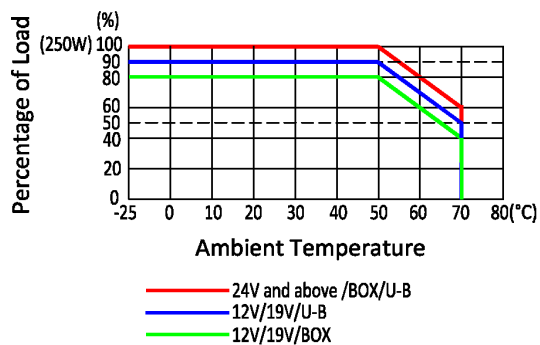
(2) Other output voltages are available. Please contact sales for details.

(3) 15CFM fan-cooling is required if the output wattage is 300Watt.

Mechanical Dimensions (Note: All dimensions are in mm[inch])



Derating Chart



NoteS:

(1) 15 CFM fan cooling is required if total output power is 300W.

(2) The 100% load is 250W at convection-cooled.

Derate output power by 20% for Metal Box version at 12V & 19V.

Derate output power by 10% for U-Bracket version at 12V & 19V.

Pin assignment

| Assignment | Pin No. |
|---------------|--------------------------|
| AC-Line | CNT1-L |
| AC-Neutral | CNT1-N |
| AC-Ground | CNT1-G |
| V1 | CNT2-3,4 |
| DC COM | CNT2-1,2, CNT4-2, CNT5-2 |
| V2 | CNT2-5 |
| Power OK | CNT4-1 |
| Remote ON/OFF | CNT5-1 |

Notes:

Remote ON/OFF: CNT5-1 & CNT5-2 must be shorted to switch on the output.