



SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N: MEI-H205



1.0 INTRODUCTIONS

The model MEI-H205 is 200W convection cooling power supply, U-frame housing with cover.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

The range of input voltage is from 85VAC to 264VAC, normal line is 115VAC/230VAC.

2.2 Input frequency

The range of input frequency is from 47Hz to 63Hz.

2.3 Inrush current

The inrush current will not exceed 20A at 115V AC input or 40A at 230VAC input, cold start.

2.4 Input current

The maximum input current is 6A at 115VAC or 3A at 230VAC.

2.5 Power Factor Correction

0.95 minimum at full load and nominal line input voltage.

2.6 Input leakage current

The leakage current is less than 0.7mA at 230VAC.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

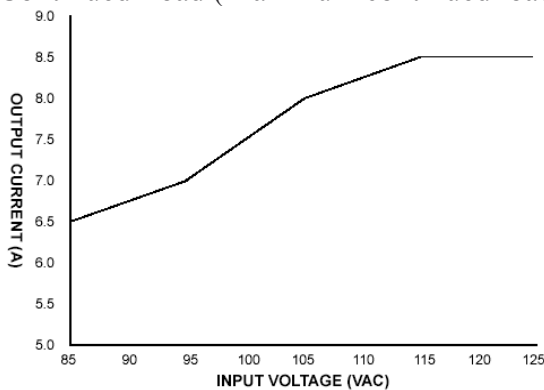
Output voltage	Min. load	Rated load	Peak load	Total voltage range
+24V	0,6A	8,5A	14A	22.8V to 25.2V

At factory, all outputs in 60% rated load and normal line condition, the output is set to between +/-5%. Peak load for max. 3sec with a duty cycle of 5min.

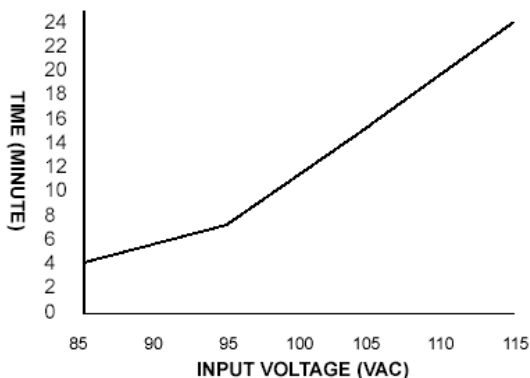
3.2 Output power

The total DC continuous total power shall be kept within 200W at nominal line input (115/230VAC) and ambient temperature of 50°C. For input voltage below 115VAC, please refer the

a. Continued Load (Maximum continued load value between 85V to 115V AC voltage.)



b. Full Load (Maximum time value between 85V to 115V AC voltage.)





3.3 Ripple and noise

The peak to peak ripple and noise for output shall be less than 240mV at rated load. Measuring is done by 20MHz bandwidth limited oscilloscope and terminated the output with a 47 μ F Electrolytic Capacitor and a 0.47 μ F Ceramic Capacitor.

3.4 Line regulation

The output line regulation for output is less than +/-2% while measuring at rated load and +/-10% of normal line input voltage changing.

3.5 Load regulation

The output voltage load regulation is less than +/-2% by changing the output load +/-40% from 60% rated load normal line. At no load condition the OP tolerance will be +10%.

3.6 Efficiency

The efficiency shall be higher than 80% while measuring at nominal line and rated load.

3.7 Hold up time

The hold up time is 20mS typical at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

3.8 Protection

3.8.1 Over Voltage Protection

For some reasons the power supply might fail to control itself, the build-in crowbar circuit will automatically shut down the outputs to avoid damaging the external circuits.

3.8.2 Short circuit protection

The power supply will go into hiccup mode when a short circuit is present, or overload >15A. If the faulty condition is removed the power supply will automatically restart.

3.8.3 Overload protection

The power supply will go latch-off mode when an overload condition (9.0A to 14A, with peak at least 10 sec.) is present and won't be able to restart until reset the input power.

3.8.4 Temperature protection

The power supply will have a temperature protection. In case of over temperature conditions, the PSU will shut down automatically and after cooling down it will switch on again automatically. Before the PSU will shut down due to over temperature, the PF signal will be switched to TTL low signal minimum 1ms before shut down of the PSU.

3.9 Signals

3.9.1 PF signal

TTL logic high for normal operation and TTL logic low upon loss of input power. This signal appears at least 1ms prior to OP dropping 5% below its nominal value. This signal also provides a minimum delay of 100ms after OP is within regulation. In case of over temperature shut down, the PF signal will be switched to TTL logic low min. 1ms before shut down of PSU.

4.0 ENVIRONMENT SPECIFICATIONS

4.1 Operating temperature

0°C to 70°C (Derating from 50°C with rate 2.5% per °C)

4.2 Storage temperature

-20°C to +85°C

4.3 Operating humidity

The power supply can operate from 20% humidity to 93% humidity non-condensing at 50°C.



5.0 INTERNATIONAL STANDARDS

5.1 Safety standards

Designed to meet the following standards:

UL 60950-1

CSA 22.2 No. 950

EN 60950-1

5.2 EMI standards

Designed to meet the following limits:

FCC class “B”

EN 55022

EN 61000-3-2 class “D”

EN 61000-3-3 class “D”

EN 61204-3

5.3 EMS standards

Designed to meet the following standards:

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 61000-4-8

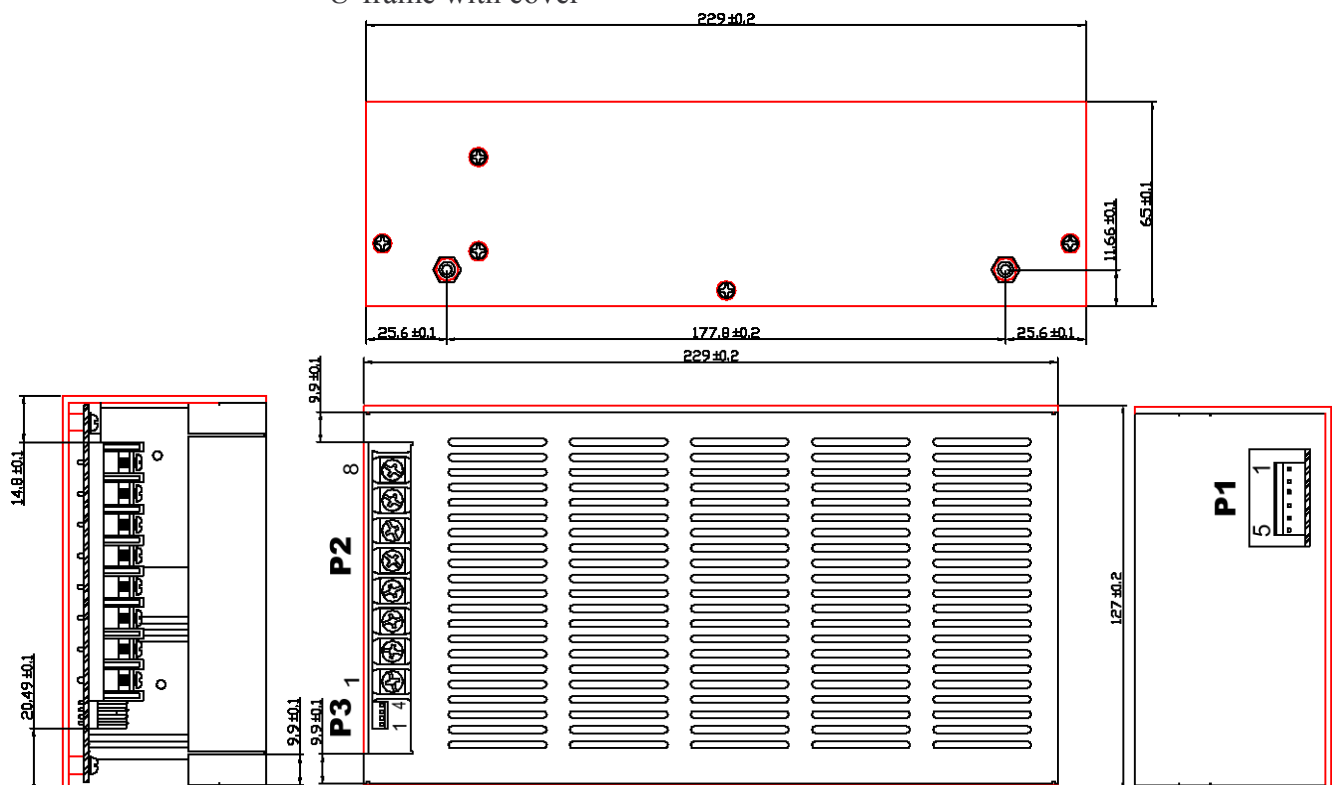
EN 61000-4-11

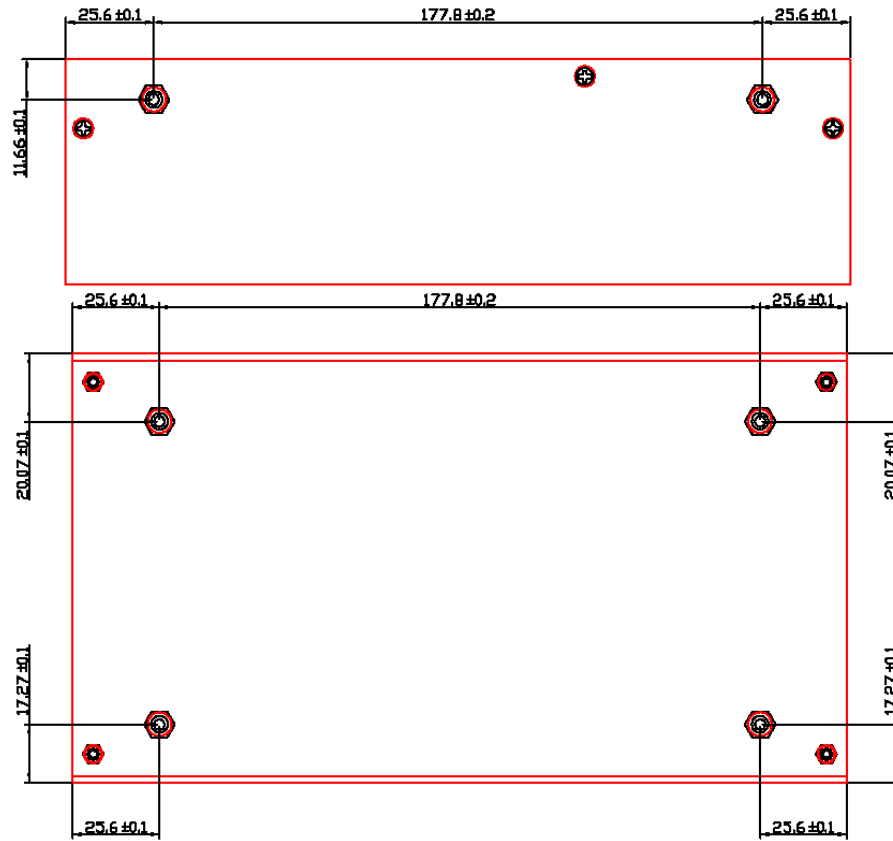
5.4 ROHS

The power supply has to be conform ROHS requirements.

6.0 MECHANICAL SPECIFICATION

- Drawing Dimensions in inch [mm], Tolerance 0.02 [0.5] maximum
- U-frame with cover





6.1 Connectors

6.1.1 IP connector P1

Molex P/N 5277-05 or similar, 180° degree type (pins are parallel to PCB).

6.1.2 OP connector P2

Beau Inc. P/N 72-5-09C or similar
Screws are #6-32 on 0.375 inch centers

6.1.3 Power fail connector P3

Connector P3 mates with Molex housing 22-01-1043 or similar and Molex 40445 series crimp terminal or similar.

6.1.4 Connector P4

Not necessary

6.1.5 Pinning

Connector	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
IP P1	AC GND	X	AC Live	X	AC Neutral	X	X	X
OP P2	OP GND	OP GND	OP GND	OP GND	+24VDC OP	+24VDC OP	+24VDC OP	+24VDC OP
PF P3	Remote Sense (-S)	Remote Sense (+S)	PF Return	PF Signal	X	X	X	X