



**Features**

- Universal AC input / Full range
- Low leakage current <math><150\mu A</math>
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Free air convection for 140W and forced air convection for 200W
- Medical safety approved (2 x MOPP between primary to secondary)(Note.8)
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- Fixed switching frequency at 100KHz
- 3 years warranty



**GTIN CODE**

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

**Specification**

**AC INPUT VOLTAGE**

90~264 VAC, 47~63Hz / 127~370VDC.

**POWER FACTOR (Typ.)**

PF>0.95/230VAC PF>0.98/115VAC at full load

**AC INPUT CURRENT (Typ.)**

Maximum input current 3.5A at 115VAC, 60Hz or 1.6A at 230VAC, 60Hz with 100% output load.

**INRUSH CURRENT (Typ.)**

Inrush current is less than 25A at 115VAC or less than 40A at 230VAC under cold start conditions. Limiting provided by internal thermistors.

**SETUP, RISE TIME**

1000ms, 20ms / 230VAC at full load  
3000ms, 20ms / 115VAC at full load

**HOLD-UP TIME (Typ.)**

16ms / 230VAC at full load  
16ms / 115VAC at full load

**LEAKAGE CURRENT Note.7**

Earth leakage current <math><150\mu A/264VAC</math> ,  
Touch current <math><100\mu A/264VAC</math>

**DC OUTPUT ADJ. RANGE**

DC output voltage (or CH1 of multiple output models) can be adjusted between -5%~+10% rated output voltage by potential meter.

**OVERLOAD PROTECTION**

Fully protected against short circuit and output overload. The hiccup type protection will be activated at 120~160% rated load and recovers automatically after fault condition is removed.

**OVER VOLTAGE PROTECTION**

Provided on output channel 1 only at 115%~135% rated output voltage. Output will be shut down when this protection is activated.

**OVER TEMPERATURE PROTECTION**

When the temperature of TSW1 which detect on heat sink of power transistor reaches 95°C, This protection is activated. Then output will be shut down and recovers automatically after temperature goes down.

**POWER GOOD / FAIL SIGNAL**

TTL logic high for power good and TTL low for power fail. When the output voltage reaches 90% of rated value, a +5V TTL signal will be sent out with a 10~500ms delay; At least 1ms before the output voltage goes below 90% of the rated value, the TTL signal will be turned off.

**REMOTE CONTROL**

RC+/RC-:0 ~ 0.8V=power on; 4 ~ 10V=power off sink current<math><4\sim 10mA</math>



**WORKING TEMP.**

Whole series can operate from -20~70°C. Please refer to the derating curves.

**WORKING HUMIDITY**

20~90% RH non-condensing.

**STORAGE TEMP., HUMIDITY**

-40~+85°C, 10~90% RH

**TEMP. COEFFICIENT**

$\pm 0.04\%/^{\circ}C$  on all outputs at full load between 0~50°C of ambient temperature.

**VIBRATION**

2G of acceleration, vibrating frequency adjust from 10Hz ~500Hz within a 10-minute cycle. 6 testing cycles (60 minutes) each along X, Y, Z axes.

**SAFETY STANDARDS**

IEC 60601-1:2005+A1,TUV BS EN/ EN 60601-1:2006+A1+A12+A2  
ANSI/AAMI ES60601-1:2005+A2,CAN/CSA C22.2 No. 60601-1:2014+A2  
EAC TP TC 004 approved

**WITHSTAND VOLTAGE**

4000VAC between input and output  
2000VAC between input and F.G.  
1500VAC between output and F.G.

**ISOLATION RESISTANCE**

>100M Ohms for I/P-O/P, I/P-FG, O/P-FG by using 500VDC test voltage.

**EMI COMPLIANCE**

EMI Specifications  
Conducted & Radiation  
Harmonic distortion  
Voltage flicker

Compliance Level  
BS EN/EN55011, Class B  
EAC TP TC 020  
BS EN/EN61000-3-2  
BS EN/EN61000-3-3

**EMS COMPLIANCE**

EMS Specification  
ESD air  
ESD contact

Compliance Level  
BS EN/EN61000-4-2, Level 3, 8KV  
BS EN/EN61000-4-2, Level 2, 4KV  
BS EN/EN61000-4-3, Level 2, 3V/m  
Level 3, 10V/m  
BS EN/EN61000-4-4, Level 2, 1KV/5KHz  
Level 3, 2KV/5KHz  
BS EN/EN61000-4-5, Level 4, 2KV/Line-Line  
4KV/Line-Earth  
BS EN/EN61000-4-6, Level 2, 3Vrms/m  
Level 3, 10Vrms/m  
BS EN/EN61000-4-8, Level 2, 3A/m  
Level 3, 10A/m  
BS EN/EN61000-4-11, Compliance  
BS EN/ENV50204, Level 2, 3V/m, 900MHz  
Level 3, 10A/m, 900MHz  
EAC TP TC 020

RF field susceptibility

EFT(Electrical Fast Transient)/Burst

Lightning/Surge

Conducted RF susceptibility

Magnetic field immunity

Voltage dip, interruption

Digital phone carrier immunity

**MTBF**

1679.6K hrs min. Telcordia SR-332 (Bellcore) ; 213.8K hrs min. MIL-HDBK-217F (25°C)

**DIMENSION (L\*W\*H)**

177.8x107.2x35.5mm or 7"x4.22"x1.4"

**PACKING**

0.66Kg; 24pcs/16.8Kg/1.17CUFT

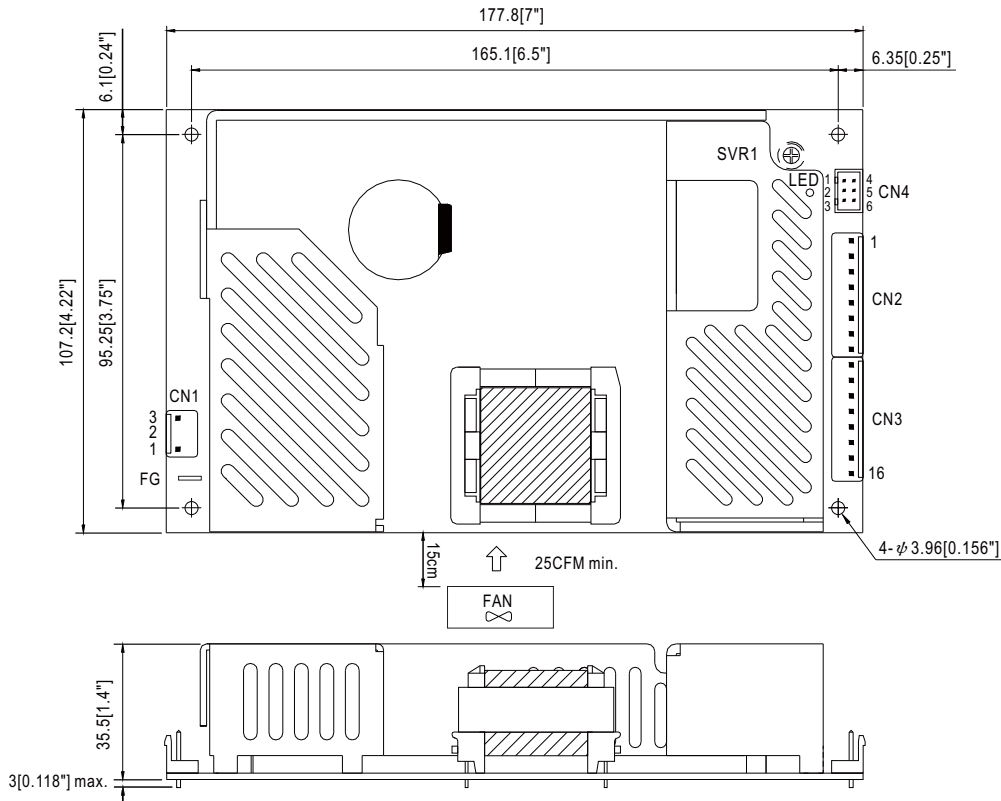


■ Output Chart

MODEL	OUTPUT VOLTAGE	RATED CURRENT	OUTPUT CURRENT				RIPPLE & NOISE (Max.) (Note 2)	VOLTAGE TOLERANCE (Note 3)	LINE REGULATION	LOAD REGULATION	EFFICIENCY (typ.)
			MINIMUM LOAD	CONVECTION (max.)	WITH FAN (25CFM)	PEAK LOAD WITH 25CFM FAN (Note 4)					
MPQ-200B	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	78%
	12V	7A	0.7A	5.3A	7A	8.4A	120mVp-p	±8.0%	±1.0%	±5.0%	
	-5V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200C	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	78%
	15V	5A	0.5A	4A	5A	6A	150mVp-p	±6.0%	±1.0%	±5.0%	
	-5V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200D	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	79%
	24V	3A	0.3A	2.3A	3A	3.6A	180mVp-p	±8.0%	±1.0%	±5.0%	
	12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-12V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
MPQ-200F	5V	15A	3A	12A	15A	18A	80mVp-p	±2.0%	±0.5%	±1.0%	81%
	24V	2.7A	0.3A	2.1A	2.7A	3.3A	180mVp-p	±8.0%	±1.0%	±5.0%	
	15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	
	-15V	2A	0A	1A	2A	2.4A	80mVp-p	±5.0%	±0.5%	±1.0%	

- Notes :
- All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
  - Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor.
  - Tolerance : includes set up tolerance, line regulation and load regulation.
  - 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.
  - The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm\*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on [https://www.meanwell.com/Upload/PDF/EMI\\_statement\\_en.pdf](https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf))
  - Derating may be needed under low input voltages. Please check the derating curve for more details.
  - Touch current was measured from primary input to DC output.
  - Suitable for BF application with appropriate system consideration.
  - The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- ※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

## Mechanical Specification



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

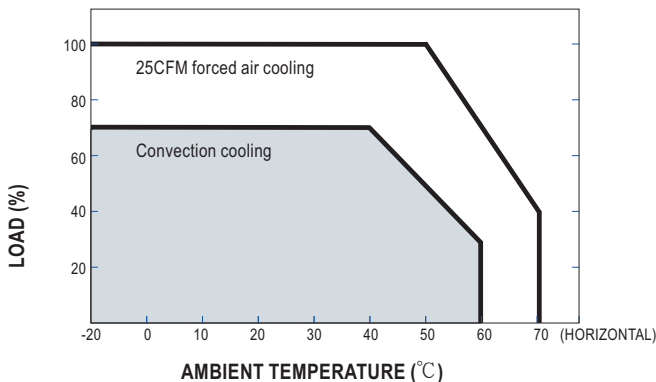
DC Output Connector (CN4) : JS-2008-03\*2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	PG	JS-2007-03*2 or equivalent	JS-2007-T or equivalent
2	RS-		
3	GND		
4	RC+		
5	RS+		
6	RC-		

DC Output Connector (CN2,3) : JST B8P-VH\*2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3,4	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
5~11	COM		
12,13	V2		
14	V3		
15	No pin		
16	V4		

## Derating Curve



## Static Characteristics

