



**200W Enclosed type Quad output power supply > QP-200**



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
- With power good and fail signal output(Optional)
- Built-in remote sense function for CH1,2
- 100% full load burn-in test
- CH4 can set to positive after consult us before delivery(Optional)
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty



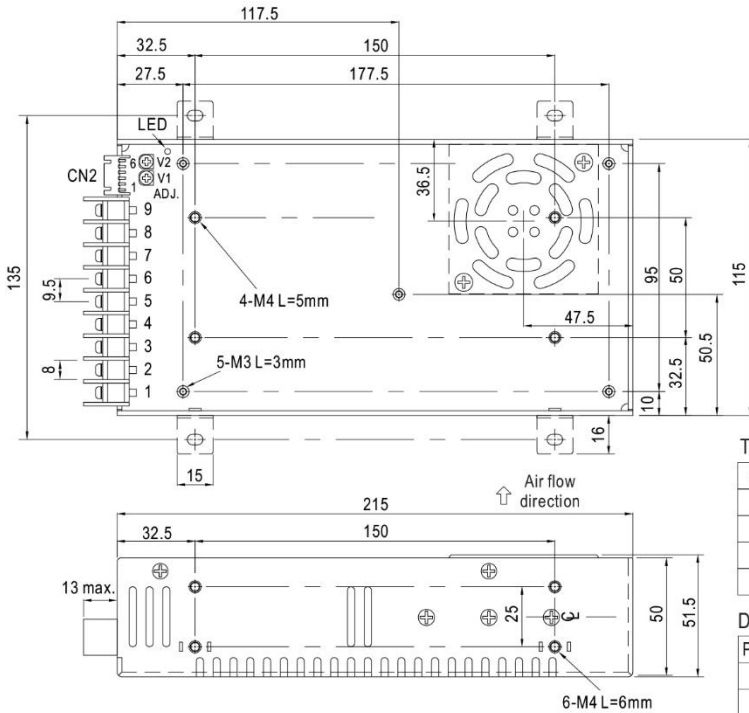
**SPECIFICATION**

MODEL	QP-200D				QP-200F				
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	5V	12V	24V	-12V	5V	15V	24V	-15V
	RATED CURRENT	15A	4A	3A	0.7A	15A	3A	3A	0.7A
	CURRENT RANGE	3 ~ 20A	0 ~ 6A	0.4 ~ 5A	0 ~ 1A	3 ~ 20A	0 ~ 5A	0.4 ~ 5A	0 ~ 1A
	RATED POWER	203.4W				202.5W			
	PEAK CURRENT <small>Note.4</small>	20A	7A	6A	1A	20A	6A	6A	1A
	RIPPLE & NOISE (max.) <small>Note.2</small>	100mVp-p	150mVp-p	150mVp-p	150mVp-p	100mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH2: 11.4 ~ 13.2V		CH1: 4.75 ~ 5.5V		CH2: 14.25 ~ 16.5V	
	VOLTAGE TOLERANCE <small>Note.3</small>	± 3.0%	± 3.0%	+10,-6%	± 6.0%	± 3.0%	± 3.0%	+10,-6%	± 6.0%
	LINE REGULATION	± 1.0%	± 1.0%	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 2.0%	± 1.0%
	LOAD REGULATION	± 2.0%	± 2.0%	± 6.0%	± 2.0%	± 2.0%	± 2.0%	± 6.0%	± 2.0%
	SETUP, RISE TIME	800ms, 50ms at full load							
	HOLD UP TIME (Typ.)	24ms at full load							
INPUT	VOLTAGE RANGE <small>Note.5</small>	90 ~ 264VAC		127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.)	PF>0.95/230VAC		PF>0.98/115VAC at full load					
	EFFICIENCY (Typ.)	75%				75%			
	AC CURRENT (Typ.)	3.5A/115VAC		2A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 30A							
	LEAKAGE CURRENT	<2mA / 240VAC							
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	CH1:5.75 ~ 6.75V		CH2:13.8 ~ 16.2V		CH1: 5.75 ~ 6.75V		CH2:17.25 ~ 20.25V	
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	POWER GOOD / POWER FAIL(OPTIONAL)	10ms/1ms							
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	± 0.03%/°C (0~50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC <small>(Note 6)</small>	SAFETY STANDARDS	UL62368-1, TUV EN62368-1, EAC TP TC 004 approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH							
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020							
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020							
	MTBF	160.6K hrs min. MIL-HDBK-217F (25°C)							
NOTE	DIMENSION	215*115*50mm (L*W*H)							
	PACKING	1.2Kg; 12pcs/15.4Kg/0.9CUFT							
<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.          2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.          3. Tolerance : includes set up tolerance, line regulation and load regulation.          4. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.          5. Derating may be needed under low input voltages. Please check the derating curve for more details.          6. 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."          7. 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).</p>									

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**Mechanical Specification**

Case No. 912B Unit:mm



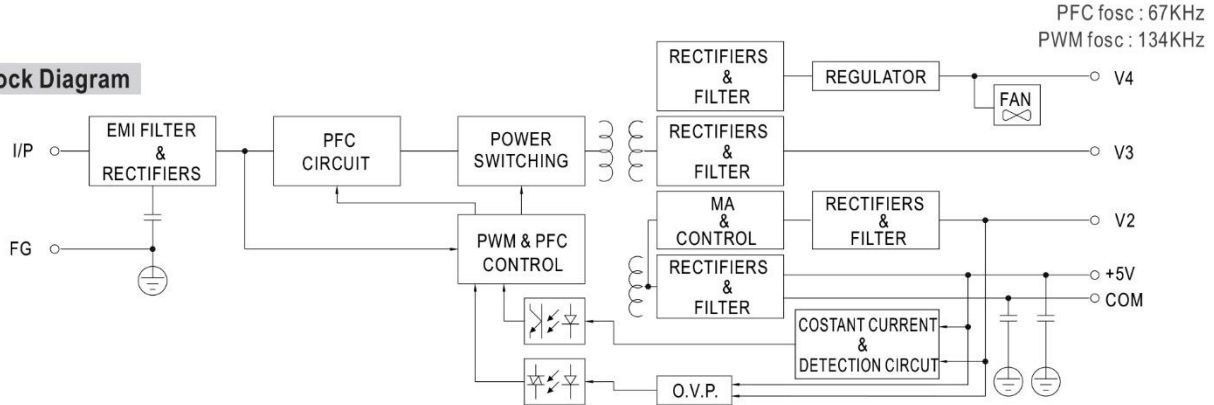
**Terminal Pin No. Assignment**

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6	DC OUTPUT V1
3	FG $\perp$	7,8	DC OUTPUT COM
4	DC OUTPUT V4	9	DC OUTPUT V2

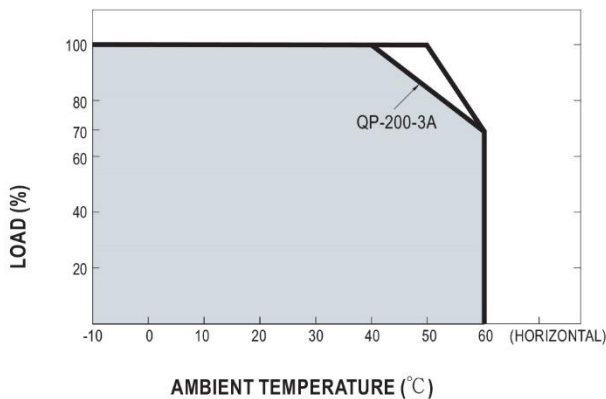
DC Output Connector (CN2) : JST S6B-XH-A-1 or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	V1(+S)	4	V2(-S)	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	V1(-S)	5	PF/PG		
3	V2(+S)	6	GND		

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**

