



200W Quad Output with PFC Function

QP-200 series



■ 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				QP-200-3A					
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4		
	DC VOLTAGE	5V	12V	24V	-12V	5V	15V	24V	-15V	5V	3.3V	12V	-5V		
	RATED CURRENT	15A	4A	3A	0.7A	15A	3A	3A	0.7A	15A	15A	6A	0.7A		
	CURRENT RANGE	3 ~ 20A	0 ~ 6A	0.4 ~ 5A	0 ~ 1A	3 ~ 20A	0 ~ 5A	0.4 ~ 5A	0 ~ 1A	3 ~ 20A	0 ~ 20A	0.5 ~ 8A	0 ~ 1A		
	RATED POWER	203.4W				202.5W				200W					
	PEAK CURRENT Note.4	20A	7A	6A	1A	20A	6A	6A	1A	20A	20A	8A	1A		
	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	150mVp-p	100mVp-p	150mVp-p	150mVp-p	150mVp-p	100mVp-p	100mVp-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		CH1: 4.75 ~ 5.5V		CH2: 3.14 ~ 3.63V			
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	+10,-6%	±6.0%	±3.0%	±3.0%	+10,-6%	±6.0%	±3.0%	±3.0%	+8,-10%	±6.0%		
	LINE REGULATION	±1.0%	±1.0%	±2.0%	±1.0%	±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%	±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 Note.6	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%					72%			
	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		CH1:5.75 ~ 6.75V		CH2:3.8 ~ 4.4V	
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover Shut down o/p voltage, recovers automatically after temperature goes down													
FUNCTION	POWER GOOD / POWER FAIL(OPTIONAL)	10ms/1ms													
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to "Derating Curve")													
	WORKING HUMIDITY	20 ~ 90% RH non-condensing													
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH													
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)													
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes													
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 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℃ / 70% RH													
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3													
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A													
OTHERS	MTBF	160.6K hrs min. MIL-HDBK-217F (25℃)													
	DIMENSION	215*115*50mm (L*W*H)													
	PACKING	1.2Kg; 12pcs/15.4Kg/0.92CUFT													
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 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. The power supply is considered a component which will be installed into a final equipment. 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 http://www.meanwell.com) 6. Derating may be needed under low input voltages. Please check the derating curve for more details.														



200W Quad Output with PFC Function

QP-200 series



■ 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-200-3B				QP-200-3C				QP-200-3D				
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	
	DC VOLTAGE	5V	3.3V	12V	-12V	5V	3.3V	15V	-15V	5V	3.3V	24V	-12V	
	RATED CURRENT	15A	15A	6A	0.7A	15A	15A	5A	0.7A	10A	15A	4A	0.7A	
	CURRENT RANGE	3 ~ 20A	0 ~ 20A	0.5 ~ 8A	0 ~ 1A	3 ~ 20A	0 ~ 20A	0.5 ~ 6A	0 ~ 1A	3 ~ 15A	0 ~ 20A	0.4 ~ 5A	0 ~ 1A	
	RATED POWER	204.9W				210W				203.9W				
	PEAK CURRENT Note.4	20A	20A	8A	1A	20A	20A	7A	1A	20A	20A	6A	1A	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	150mVp-p	150mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH2: 3.14 ~ 3.63V		CH1: 4.75 ~ 5.5V		CH2: 3.14 ~ 3.63V		CH1: 4.75 ~ 5.5V		CH2: 3.14 ~ 3.63V		
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	+8,-10%	±6.0%	±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%	±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%	±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 Note.6	90 ~ 264VAC		127 ~ 370VDC										
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load												
	EFFICIENCY (Typ.)	72%					72%					74%		
	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 CH2:3.8 ~ 4.4V Protection type : Shut down o/p voltage, re-power on to recover												
	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												
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)												
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes												
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 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 EN55022 (CISPR22) Class B, EN61000-3-2,-3												
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A												
	MTBF	160.6K hrs min. MIL-HDBK-217F (25°C)												
	DIMENSION	215*115*50mm (L*W*H)												
	PACKING	1.2Kg; 12pcs/15.4Kg/0.92CUFT												
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 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. The power supply is considered a component which will be installed into a final equipment. 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 http://www.meanwell.com) 6. Derating may be needed under low input voltages. Please check the derating curve for more details.													


■ Features :

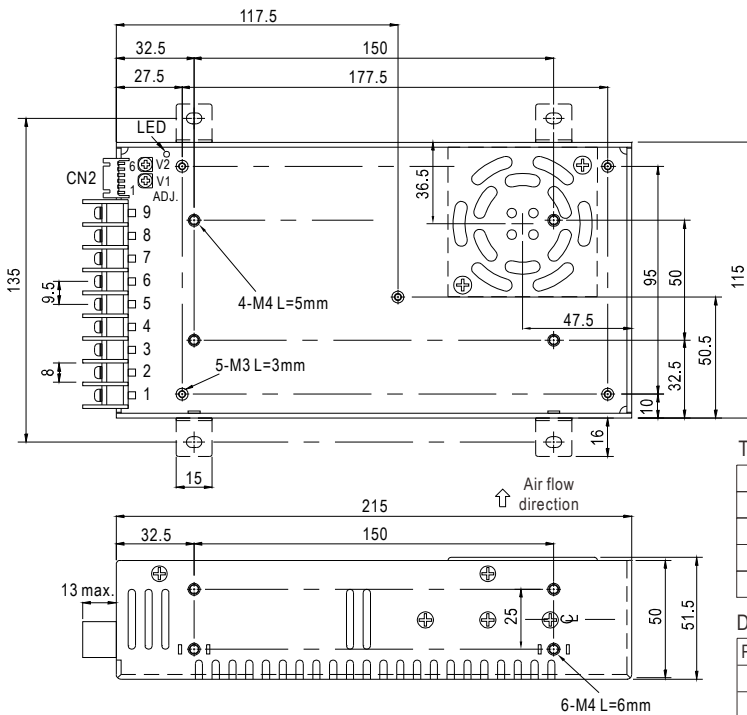
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
- With power good and fail signal output(Optional)
- Built-in remote sense 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-200-3E			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4
	DC VOLTAGE	5V	3.3V	24V	-15V
	RATED CURRENT	10A	15A	4A	0.7A
	CURRENT RANGE	3 ~ 15A	0 ~ 20A	0.4 ~ 5A	0 ~ 1A
	RATED POWER	206W			
	PEAK CURRENT Note.4	20A	20A	6A	1A
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V CH2: 3.14 ~ 3.63V			
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	+10,-6%	±6.0%
	LINE REGULATION	±1.0%	±1.0%	±2.0%	±1.0%
	LOAD REGULATION	±2.0%	±2.0%	±6.0%	±2.0%
	SETUP, RISE TIME	800ms, 50ms at full load			
HOLD TIME (Typ.)	24ms at full load				
INPUT	VOLTAGE RANGE Note.6	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load			
	EFFICIENCY (Typ.)	74%			
	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 CH2:3.8 ~ 4.4V Protection type : Shut down o/p voltage, re-power on to recover			
	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			
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 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 EN55022 (CISPR22) Class B, EN61000-3-2,-3			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A			
OTHERS	MTBF	160.6K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	215*115*50mm (L*W*H)			
	PACKING	1.2Kg; 12pcs/15.4Kg/0.92CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 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. The power supply is considered a component which will be installed into a final equipment. 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 http://www.meanwell.com) 6. Derating may be needed under low input voltages. Please check the derating curve for more details.				

Case No. 912B Unit:mm

Mechanical Specification



Terminal Pin No. Assignment

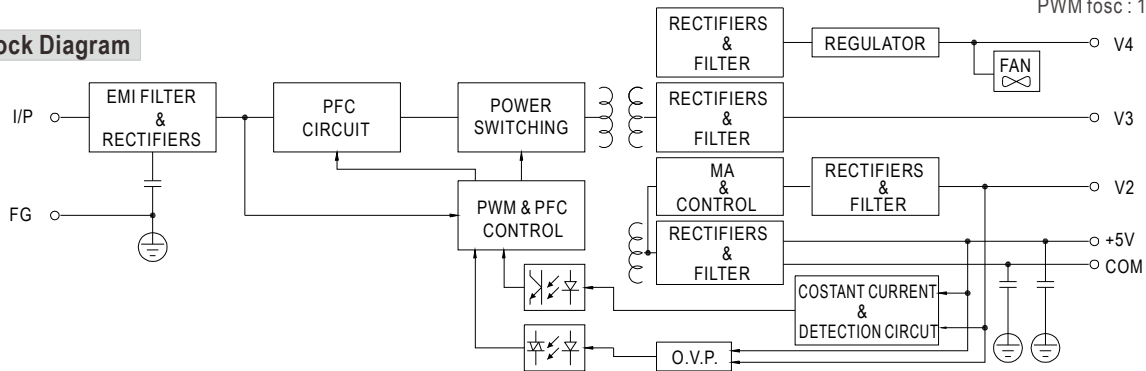
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6	DC OUTPUT V1
3	FG $\perp$	7,8	DC OUTPUT COM
4	DC OUTPUT V4	9	DC OUTPUT V2

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

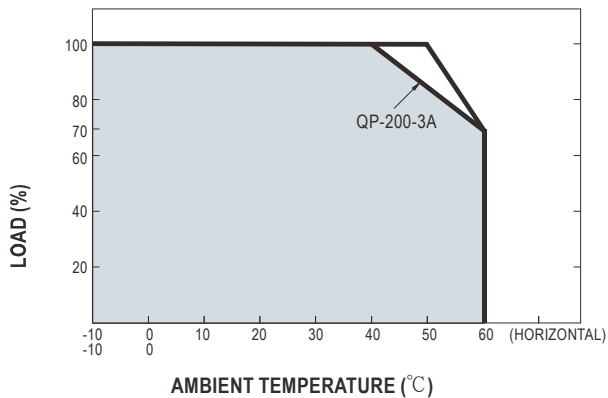
Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	V1(+S)	4	V2(-S)	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	V1(-S)	5	PF/PG		
3	V2(+S)	6	GND		

PFC fosc : 67KHz
PWM fosc : 134KHz

Block Diagram



Derating Curve



Output Derating VS Input Voltage

