

SPECIFICATION



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



MODEL QP-200D **QP-200F** QP-200-3A **OUTPUT NUMBER** CH1 CH₂ CH3 CH4 CH₁ CH2 CH3 CH4 CH1 CH₂ CH3 CH4 DC VOLTAGE 24V 24V -15V 3.3V 5V 12V -12V 5V 15V 5V 12V -5V RATED CURRENT 0.7A 15A 4A 3A 0.7A 15A 3A 3A 0.7A 15A 15A 6A **CURRENT RANGE** 3 ~ 20A $0 \sim 6A$ 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 1A 20A 20A 88 1A 6A **OUTPUT** 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% ±2.0% ±1.0% ±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 **VOLTAGE RANGE** Note.6 90 ~ 264VAC 127 ~ 370VDC **FREQUENCY RANGE** 47 ~ 63Hz PF>0.95/230VAC PF>0.98/115VAC at full load POWER FACTOR (Typ.) **INPUT EFFICIENCY (Typ.)** 75% 75% 72% AC CURRENT (Typ.) 3.5A/115VAC 2A/230VAC INRUSH CURRENT (Typ.) **COLD START 30A** LEAKAGE CURRENT <2mA / 240VAC 105 ~ 150% rated output power **OVERLOAD** Protection type: Constant current limiting, recovers automatically after fault condition is removed CH2:17.25 ~ 20.25V CH1:5.75 ~ 6.75V CH1:5.75 ~ 6.75V CH2:13.8 ~ 16.2V | CH1: 5.75 ~ 6.75V CH2:3.8 ~ 4.4V PROTECTION OVER VOLTAGE Protection type: Shut down o/p voltage, re-power on to recover $95^{\circ}\text{C} \pm 5^{\circ}\text{C}$ (TSW1) detect on heatsink of Q1,Q2 power transistor **OVER TEMPERATURE** Protection type: Shut down o/p voltage, recovers automatically after temperature goes down FUNCTION POWER GOOD / POWER FAIL (OPTIONAL) 10ms/1ms -10 ~ +60°C (Refer to "Derating Curve") **WORKING TEMP.** 20 ~ 90% RH non-condensing **WORKING HUMIDITY** -20 ~ +85°C, 10 ~ 95% RH STORAGE TEMP., HUMIDITY ENVIRONMENT **TEMP. COEFFICIENT** ±0.03%/°C (0~50°C) 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes **VIBRATION SAFETY STANDARDS** UL60950-1, TUV EN60950-1 approved WITHSTAND VOLTAGE I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC **SAFETY & ISOLATION RESISTANCE** I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH EMC (Note 5) **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 MTRF MIL-HDBK-217F (25°C) 160.6K hrs min. **OTHERS DIMENSION** 215*115*50mm (L*W*H) 1.2Kg; 12pcs/15.4Kg/0.92CUFT **PACKING** 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. NOTE

- 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.



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- · Built-in remote sense function for CH1,2
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- CH4 can set to positive after consult us before delivery(Optional)
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty



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MODEL		QP-200-3	В			QP-200-3	С			QP-200-3	D		
	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
OUTPUT	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											
	VOLTAGE RANGE Note.6	90 ~ 264VAC 127 ~ 370VDC											
	FREQUENCY RANGE	47 ~ 63Hz											
INPUT	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load											
	EFFICIENCY (Typ.)	72%				72%				74%			
	AC CURRENT (Typ.)	3.5A/115\	/AC 2	A/230VAC		•				•			
	INRUSH CURRENT (Typ.)	COLD ST.	ART 30A										
	LEAKAGE CURRENT	<2mA/240VAC											
		105 ~ 150% rated output power											
	OVERLOAD	Protection type : Constant current limiting, recovers automatically after fault condition is removed											
		CH1:5.75	~ 6.75V	CH2:3.8	3 ~ 4.4V								
PROTECTION	OVER VOLTAGE	Protection	type : Shu	ıt down o/p	voltage, re	-power on t	o recover						
		$95^{\circ}\!\!\!\subset\pm5^{\circ}\!\!\!\subset$ (TSW1) detect on heatsink of Q1,Q2 power transistor											
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down											
FUNCTION	POWER GOOD / POWER FAIL (OPTIONAL)	10ms/1ms	3										
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 ~ 500H	lz, 2G 10m	in./1cycle,	60min. eac	h along X, Y	/, Z axes						
SAFETY &	SAFETY STANDARDS	UL60950-	1, TUV EN	60950-1 ap	proved								
	WITHSTAND VOLTAGE	I/P-O/P:3I	KVAC I/F	P-FG:1.5KV	AC O/P-	FG:0.5KVA	С						
EMC	ISOLATION RESISTANCE	I/P-O/P, I/	P-FG, O/P-	-FG:100M	Ohms / 500	VDC / 25°C	/ 70% RH						
(Note 5)	EMC EMISSION	Complian	ce to EN55	022 (CISPI	R22) Class	B, EN6100	0-3-2,-3						
	EMC IMMUNITY	Complian	ce to EN61	000-4-2,3,4	4,5,6,8,11,	EN55024, li	ight industr	y level, crit	eria A				
	MTBF	160.6K hr	s min. N	IIL-HDBK-2	217F (25°C)							
OTHERS	DIMENSION		50mm (L*W										
	PACKING	1.2Kg; 12	pcs/15.4Kg	j/0.92CUF1	Г								
NOTE	1. All parameters NOT specia	llv mention	ed are me	asured at 2	230VAC in	out, rated lo	oad and 25	°C of amb	ient tempe	rature.			

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.



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- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty



	QP-200-3E									
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:	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									
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									
OVERLOAD	105 ~ 150% rated output power									
	Protection type: Constant current limiting, recovers automatically after fault condition is removed									
	CH1:5.75 ~ 6.75V CH2:3.8 ~ 4.4V									
OVER VOLTAGE	Protection type : Shut down o/p voltage, re-power on to recover									
OVER TEMPERATURE	95°C ±5°C (TSW1) detect on heatsink of Q1,Q2 power transistor									
	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down									
POWER GOOD / POWER FAIL (OPTIONAL)	10ms/1ms									
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 STANDARDS	UL60950-1, TUV EN60950-1 approved									
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC 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									
MTBF	160.6K hrs min. MIL-HDBK-217F (25℃)									
	215*115*50mm (L*W*H)									
DIMENSION	215*115*50mm (L*W*H)									
	DC VOLTAGE RATED CURRENT CURRENT RANGE RATED POWER PEAK CURRENT Note.4 RIPPLE & NOISE (max.) Note.2 VOLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.3 LINE REGULATION LOAD REGULATION SETUP, RISE TIME HOLD TIME (Typ.) VOLTAGE RANGE Note.6 FREQUENCY RANGE POWER FACTOR (Typ.) EFFICIENCY (Typ.) AC CURRENT (Typ.) INRUSH CURRENT (Typ.) LEAKAGE CURRENT OVER LOAD OVER VOLTAGE OVER TEMPERATURE POWER GOOD / POWER FAIL (OPTIONAL) WORKING TEMP. WORKING HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	DC VOLTAGE 5V RATED CURRENT 10A CURRENT RANGE 3 ~ 15A RATED POWER 206W PEAK CURRENT Note.4 20A RIPPLE & NOISE (max.) Note.2 100mVp-p VOLTAGE ADJ. RANGE CH1: 4.75 ~ 5.5V CH2: VOLTAGE TOLERANCE Note.3 ±3.0% LINE REGULATION ±1.0% LOAD REGULATION ±2.0% SETUP, RISE TIME 800ms, 50ms at full load HOLD TIME (Typ.) 24ms at full load VOLTAGE RANGE 90 ~ 264VAC 127 ~ 37 FREQUENCY RANGE 47 ~ 63Hz PF>0.95/230VAC PF>0 FFICIENCY (Typ.) 74% AC CURRENT (Typ.) 3.5A/115VAC 2A/230V EFFICIENCY (Typ.) 3.5A/115VAC 2A/230V INRUSH CURRENT (Typ.) COLD START 30A LEAKAGE CURRENT <2mA / 240VAC	DC VOLTAGE 5V 3.3V RATED CURRENT 10A 15A CURRENT RANGE 3 ~ 15A 0 ~ 20A RATED POWER 206W 20A PEAK CURRENT Note.4 20A 20A RIPPLE & NOISE (max.) Note.2 100mVp-p 100mVp-p VOLTAGE ADJ. RANGE CH1: 4.75 ~ 5.5V CH2: 3.14 ~ 3.63V VOLTAGE TOLERANCE Note.3 ±3.0% ±3.0% LINE REGULATION ±1.0% ±1.0% LOAD REGULATION ±2.0% ±2.0% SETUP, RISE TIME 800ms, 50ms at full load HOLD TIME (Typ.) 24ms at full load VOLTAGE RANGE Note.6 90 ~ 264VAC 127 ~ 370VDC FREQUENCY RANGE 47 ~ 63Hz PF>0.98/115VAC at full load FFICIENCY (Typ.) 74% AC CURRENT (Typ.) 74% AC CURRENT (Typ.) 3.5A/115VAC 2A/230VAC PF>0.98/115VAC at full load FFICIENCY (Typ.) 74% AC CURRENT (Typ.) COLD START 30A LEAKAGE CURRENT <2m3 / 240VAC	DC VOLTAGE 5V 3.3V 24V						

- 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)
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