



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

User's Manual



## 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%						
INPUT	SETUP, RISE TIME	800ms, 50ms at full load																	
	HOLD UP TIME (Typ.)	24ms at full load																	
	VOLTAGE RANGE Note.5	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%									
PROTECTION	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																	
	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 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 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 (Note 6)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP 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 BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020																	
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level, criteria A, EAC TP TC 020																	
OTHERS	MTBF	160.6K hrs min. MIL-HDBK-217F (25 °C)																	
	DIMENSION	215*115*50mm (L*W*H)																	
	PACKING	1.2Kg; 12pcs/15.4Kg/0.9CUFT																	
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 °C of ambient temperature.</li> <li>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.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.</li> <li>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</li> <li>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." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>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).</li> </ol> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>																		



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- 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

User's Manual



## 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							
	RIPLLE & 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%							
INPUT	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.5	90 ~ 264VAC 127 ~ 370VDC																		
	FREQUENCY RANGE	47 ~ 63Hz																		
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load																		
PROTECTION	EFFICIENCY (Typ.)	72%		72%		74%														
	AC CURRENT (Typ.)	3.5A/115VAC 2A/230VAC																		
	INRUSH CURRENT (Typ.)	COLD START 30A																		
FUNCTION	LEAKAGE CURRENT	<2mA / 240VAC																		
	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																		
ENVIRONMENT	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down																		
	POWER GOOD / POWER FAIL(Optional)	10ms/1ms																		
SAFETY & EMC (Note 6)	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																		
OTHERS	SAFETY STANDARDS	UL62368-1, TUV BS EN/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 BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020																		
	EMC IMMUNITY	Compliance to BS EN/EN1000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level, criteria A, EAC TP TC 020																		
NOTE	MTBF	160.6K hrs min. MIL-HDBK-217F (25°C)																		
	DIMENSION	215*115*50mm (L*W*H)																		
	PACKING	1.2Kg; 12pcs/15.4Kg/0.9CUFT																		
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. 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." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 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). ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>																				



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- 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)
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- 3 years warranty

User's Manual



## SPECIFICATION

MODEL	QP-200-3E			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3
	DC VOLTAGE	5V	3.3V	24V
	RATED CURRENT	10A	15A	4A
	CURRENT RANGE	3 ~ 15A	0 ~ 20A	0.4 ~ 5A
	RATED POWER	206W		
	PEAK CURRENT Note.4	20A	20A	6A
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-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%
	LINE REGULATION	± 1.0%	± 1.0%	± 2.0%
	LOAD REGULATION	± 2.0%	± 2.0%	± 6.0%
	SETUP, RISE TIME	800ms, 50ms at full load		
INPUT	HOLD UP TIME (Typ.)	24ms at full load		
	VOLTAGE RANGE Note.5	90 ~ 264VAC	127 ~ 370VDC	
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.95/230VAC		
	EFFICIENCY (Typ.)	PF>0.98/115VAC at full load		
	AC CURRENT (Typ.)	3.5A/115VAC		
PROTECTION	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		
OVER VOLTAGE	OVER VOLTAGE	CH1:5.75 ~ 6.75V		
	OVER TEMPERATURE	CH2:3.8 ~ 4.4V Protection type : Shut down o/p voltage, re-power on to recover		
FUNCTION	POWER GOOD / POWER FAIL(Optional)	Shut down o/p voltage, recovers automatically after temperature goes down		
ENVIRONMENT	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 non-condensing		
	TEMP. COEFFICIENT	± 0.03%/°C (0~50°C)		
SAFETY & EMC (Note 6)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		
	SAFETY STANDARDS	UL62368-1, TUV BS EN/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	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020		
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level, criteria A, EAC TP TC 020		
OTHERS	MTBF	160.6K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	215*115*50mm (L*W*H)		
	PACKING	1.2Kg; 12pcs/15.4Kg/0.9CUFT		
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. 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." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 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). ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>			

