

QP-200 series



Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit/Over load/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
- Fixed switching frequency at PFC:67KHz PWM:134KHz(Optional)





MODEL		QP-200D				QP-200F				QP-200-3	Α					
	OUTPUT NUMBER	CH1	CH2	СНЗ	CH4	CH1	CH2	СНЗ	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			1	202.5W	-			200W		-0.1				
			7A	6A	1A	20A	6A	6A	1A	20A	20A	8A	1A			
OUTPUT	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	150mVp-p	100mVp-p	150mVp-p	150mVp-r	150mVp-p	100mVp-p	100mVp-p	150mVp-r	150mVp			
	VOLTAGE ADJ. RANGE	CH1: 4.75		CH2: 11.4		CH1: 4.75			25 ~ 16.5V	CH1: 4.75			4 ~ 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, 50	ms at full l	oad			1									
	HOLD TIME (Typ.)	24ms at fu	ıll load													
7 40	VOLTAGE RANGE Note.6															
	FREQUENCY RANGE	47 ~ 63Hz														
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load														
INPUT	EFFICIENCY (Typ.)	75% 75%							72%	7-11	7 777	-0.34				
	AC CURRENT (Typ.)	3.5A/115VAC 2A/230VAC														
	INRUSH CURRENT (Typ.)	COLD START 30A														
	LEAKAGE CURRENT	<2mA/240VAC														
		105 ~ 150	% rated ou	tput power			728 -									
	OVER LOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed														
	111	CH1:5.75	: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	OVER VOLTAGE	Protection type: Shut down o/p voltage, re-power on to recover														
	- 1 P. L. S.	95°C ±5°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)	FAIL(OPTIONAL) 10ms/1ms														
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)														
	WORKING HUMIDITY	20 ~ 90% RH non-condensing														
ENVIRONMENT	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			44.4						
	SAFETY STANDARDS	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes 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														
	EMI CONDUCTION & RADIATION															
EMC	LIA DIA CALIDA CALIDA CALIDA CALIDA	Compliance to EN61000-3-2,-3														
	HARMONIC CURRENT	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A														
	EMS IMMUNITY	Complian	ce to EN61	000-4-2,3,	4,5,0,8,11;	160.6K hrs min. MIL-HDBK-217F (25°C)										
							, 1100024,		on y 10101, 0	THOTIG 7 C						
EMC (Note 5)	EMS IMMUNITY	160.6K hr		IIL-HDBK-2			, 21400024,	g	, io.o., o	THO THO THE						

- 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.

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- 4. 33.3% 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. The final equipment must be re-confirmed that it still meets

6 Derating may be needed under low input voltages. Please check the derating curve for more details

300 Myles Standish Blvd., Taunton, MA 02780 Ph: 1_800_823_8082 Fav: 508-823-8181







Features:

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- Protections:Short circuit/Over load/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
- Fixed switching frequency at PFC:67KHz PWM:134KHz(Optional)
- 3 years warranty



SPECIFIC	, V 11	OD 200 2D				OD 200 20				OD 222	. D.		
MODEL		QP-200-3B				QP-200-3C				QP-200-3D			
	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	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- _I	150mVp-p	150mVp-p	100mVp-p	100mVp- _I	150mVp-p	150mV
	VOLTAGE ADJ. RANGE	CH1: 4.75	~ 5.5V	CH2: 3.14	~ 3.63V	CH1: 4.75	~ 5.5V	CH2: 3.14	1 ~ 3.63V	CH1: 4.75	~ 5.5V	CH2: 3.14	4 ~ 3.63\
	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 TIME (Typ.)	24ms at fu	ıll load										
	VOLTAGE RANGE Note.6	90 ~ 264VAC 127 ~ 370VDC											
	FREQUENCY RANGE	47 ~ 63Hz											
	POWER FACTOR (Typ.)	PF>0.95/230VAC											
INPUT	EFFICIENCY (Typ.)	72% 72% 74%											
	AC CURRENT (Typ.)	3.5A/115VAC 2A/230VAC											
	INRUSH CURRENT (Typ.)	COLD START 30A											
	LEAKAGE CURRENT	<2mA/240VAC											
		105 ~ 150% rated output power											
	OVER LOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed											
		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°C ±5°C (TSW1) Detect on heatsink of Q1,Q2 power transistor											
	OVER TEMPERATURE							y after tem	perature go	es down			
FUNCTION	POWER GOOD / POWER FAIL (OPTIONAL)	10ms/1m	s										
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)											
	WORKING HUMIDITY	20 ~ 90% RH non-condensing											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 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			P-FG:1.5KV	·	FG:0.5KVA	AC						
SAFETY &	ISOLATION RESISTANCE			-FG:100M			-						
EMC	EMI CONDUCTION & RADIATION			022 (CISPI									
(Note 4)	HARMONIC CURRENT	· ·		•	122) 0.000								
	EMS IMMUNITY	Compliance to EN61000-3-2,-3 Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A											
	MTBF	160.6K hi		11L-HDBK-2			, 11100024	, Light induc	oti y iovoi, o	THOTIA 71			
OTHERS	DIMENSION		50mm (L*W		171 (23 (,							
OTTLKS			,										
WOTE.	PACKING 1 All parameters NOT special			g/0.92CUFT		nut rated	nad and o	5°C of amb	iont tompo	raturo			
 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 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 EMC directives. 						47uf parall	·		meets				

6. Derating may be needed under low input voltages. Please check the derating curve for more details.



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- Built-in active PFC function, PF>0.95
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- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
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- · CH4 can set to positive after consult us before delivery
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- 3 years warranty

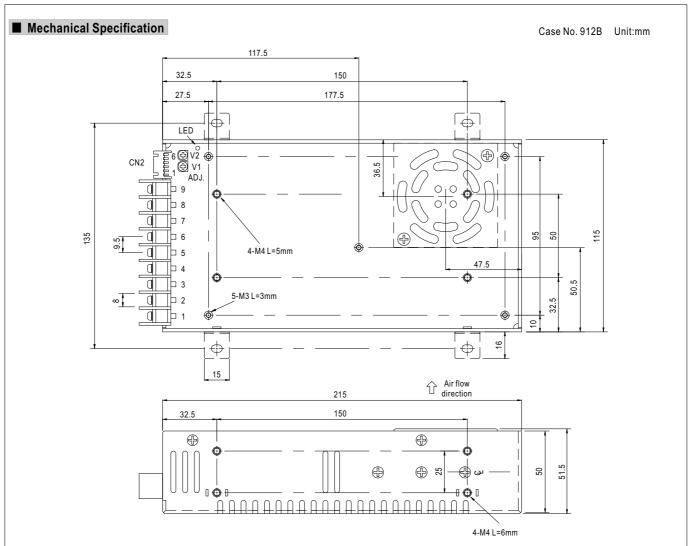


MODEL		QP-200-3E									
	OUTPUT NUMBER	CH1	CH2	CH3	CH4						
	DC VOLTAGE	5V	3.3V	24V	-15V						
	RATED CURRENT	10A	15A	4A	0.7A						
	CURRENT RANGE	3 ~ 15A	0 ~ 20A	0.4 ~ 5A	0 ~ 1A						
	RATED POWER	206W			1						
	PEAK CURRENT Note.4	20A	20A	6A	1A						
OUTPUT	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	150mVp-p	150mVp-p						
	VOLTAGE ADJ. RANGE		3.14 ~ 3.63V		The state of the s						
	VOLTAGE TOLERANCE Note.3		±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									
	FREQUENCY RANGE	90 ~ 284VAC 127 ~ 370VDC 47 ~ 63Hz									
	POWER FACTOR (Typ.)	4/ ~ 63HZ PF>0.95/230VAC PF>0.98/115VAC at full load									
INPUT	EFFICIENCY (Typ.)	74%									
INFUI	AC CURRENT (Typ.)	3.5A/115VAC 2A/230VAC									
	INRUSH CURRENT (Typ.)	0.0LD START 30A									
	LEAKAGE CURRENT	<2mA/240VAC									
	LLANAGE CORNERT										
	OVER LOAD	105 ~ 150% rated output power									
		CH1:5.75 ~ 6.75V CH2:3.8 ~ 4.4V									
PROTECTION	OVER VOLTAGE	ACE									
		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									
FUNCTION	POWER GOOD / POWER FAIL(OPTIONAL)	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down									
FUNCTION											
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)									
F111/15 A1114 F117	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
ENVIRONMENT	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 WITHSTAND VOLTAGE	UL60950-1, TUV EN60950-1 Approved I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC									
SAFETY &				10							
		I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC									
EMC (Note 5)	HARMONIC CURRENT	Compliance to EN55022 (CIS	· · · · · · · · · · · · · · · · · · ·								
(Compliance to EN61000-3-2,		L ENEROOA Linksin dan landa	and the other A						
	EMS IMMUNITY	·		1, EN55024, Light industry level,	criteria A						
	MTBF		K-217F (25°C)								
OTHERS	DIMENSION	230*115*50mm (L*W*H)									
	PACKING	1.2Kg; 12pcs/15.4Kg/0.92CL		land and OF°O (12):							
NOTE	Ripple & noise are measure Tolerance : includes set up 3.3% Duty cycle maximum The power supply is conside EMC directives.	ally mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. m within every 30 seconds. Average output power should not exceed the rated power. dered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets nder low input voltages. Please check the derating curve for more details.									

300 Myles Standish Blvd., Taunton, MA 02780







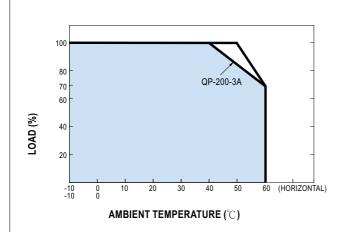
Terminal pin number assignment :

To this is a second to the sec											
Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment						
1	AC/L	4	DC OUTPUT V4	7,8	DC OUTPUT COM						
2	AC/N	5	DC OUTPUT V3	9	DC OUTPUT V2						
3	FG ±	6	DC OUTPUT V1								

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	JST SXH-001T-P0.6		
2	V1(-S)	5	PF/PG	or equivalent	or equivalent		
3	V2(+S)	6	G				

■ Derating Curve



■ Output Derating VS Input Voltage

