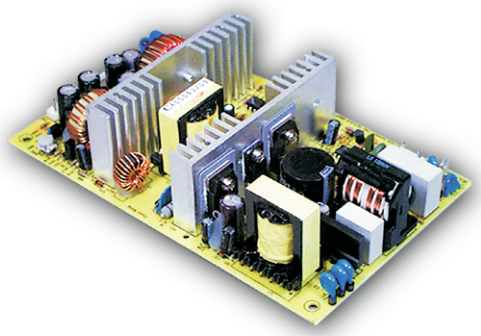
100W Quad Output with PFC Function

PPQ-1003 series



Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at PFC:67KHz PWM:134KHz(Optional)
- 2 years warranty

SPECIFICATION

MODEL		PPQ-1003A				PPQ-1003B			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	3.3V	5V	12V	-5V	3.3V	5V	12V	-12V
	RATED CURRENT	10A	10A	2A	0.3A	10A	10A	2A	0.3A
	CURRENT RANGE	0 ~ 15A	2 ~ 15A	0.2 ~ 3A	0 ~ 1A	0 ~ 15A	2 ~ 15A	0.2 ~ 3A	0 ~ 1A
	RATED POWER	108.5W				110.6W			
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	150mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	3.14 ~ 3.63V	4.75 ~ 5.5V	------	------	3.14 ~ 3.63V	4.75 ~ 5.5V	------	------
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±6.0%	±6.0%	±3.0%	±3.0%	±6.0%	±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%	±1.0%	±2.0%	±2.0%	±6.0%	±1.0%
	SETUP, RISE TIME	800ms, 50ms at full load							
	HOLD UP TIME (Typ.)	18ms at full load							
INPUT	VOLTAGE RANGE	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%							
	AC CURRENT (Typ.)	1.65A/115VAC 0.85A/230VAC							
	INRUSH CURRENT (Typ.)	COLD START 40A							
	LEAKAGE CURRENT	<1mA /240VAC							
PROTECTION	OVER LOAD	105% ~ 135% rated output power							
		Protection type : Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	CH1: 3.6 ~ 4.3V CH2: 5.75 ~ 6.75V							
		Protection type : Shut down o/p voltage, re-power on to recover							
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, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 4)	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℃/ 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	150.6K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	177.8*107.95*40mm (L*W*H)							
	PACKING	0.62Kg; 24pcs/15.5Kg/1.34CUFT							
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. 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) 5. Heat Sink HS1,HS2 can not be shorted.								

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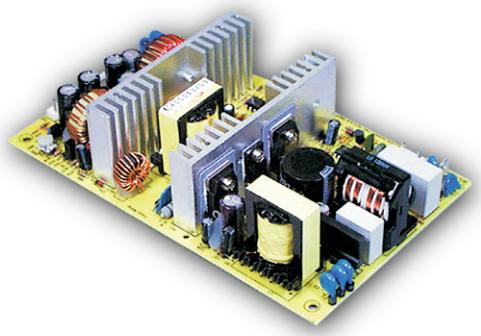

Features :

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- Protections:Short circuit/Over load/Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at PFC:67KHz PWM:134KHz(Optional)
- 2 years warranty

SPECIFICATION

MODEL		PPQ-1003C				PPQ-1003D			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	3.3V	5V	15V	-15V	3.3V	5V	12V	24V
	RATED CURRENT	10A	10A	1.5A	0.3A	10A	10A	2A	0.3A
	CURRENT RANGE	0 ~ 15A	2 ~ 15A	0.2 ~ 3A	0 ~ 1A	0 ~ 15A	2 ~ 15A	0.2 ~ 3A	0 ~ 1A
	RATED POWER	110W				114.2W			
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	180mVp-p	150mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	3.14 ~ 3.63V	4.75 ~ 5.5V	------	------	3.14 ~ 3.63V	4.75 ~ 5.5V	------	------
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	+10,-5%	±6.0%	±3.0%	±3.0%	±6.0%	±6.0%
	LINE REGULATION	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±1.0%	±2.0%	±1.0%
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	SETUP, RISE TIME	800ms, 50ms at full load							
	HOLD UP TIME (Typ.)	18ms at full load							
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~370VDC							
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PROTECTION	OVER LOAD	105% ~ 135% rated output power							
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	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
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	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℃/ 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	150.6K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	177.8*107.95*40mm (L*W*H)							
	PACKING	0.62Kg; 24pcs/15.5Kg/1.34CUFT							
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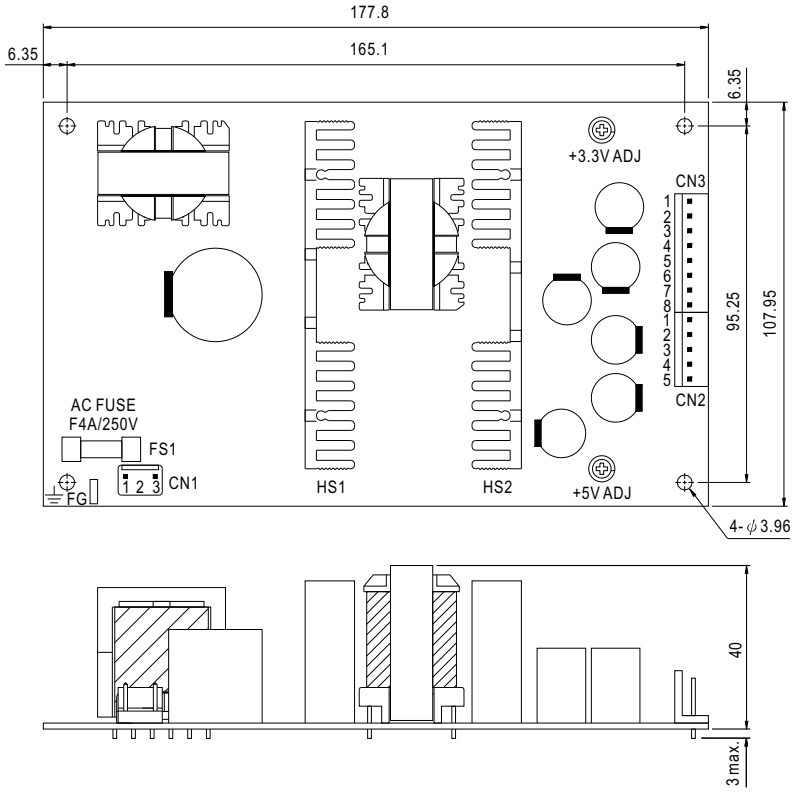
■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/N		

DC Output Connector (CN2) : JST B5P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	V2	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4	V3		
5	V4		

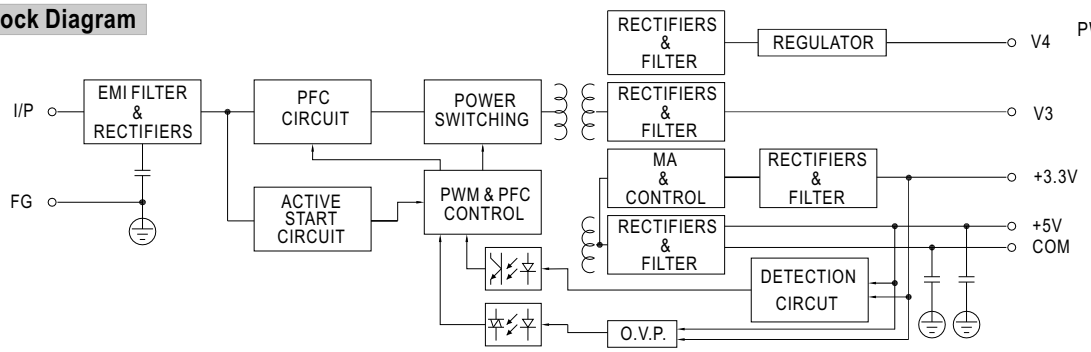
DC Output Connector (CN3) : JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1~3	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4~8	COM		

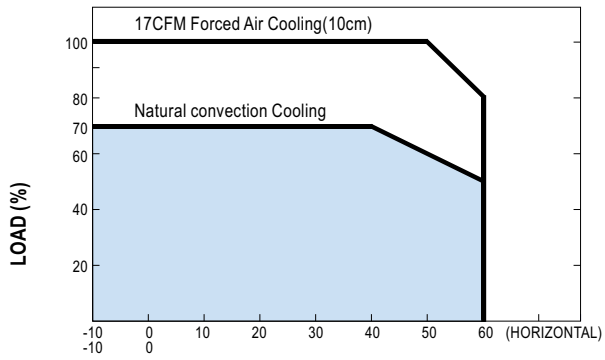
⚠ HS1,HS2 can not be shorted

■ Block Diagram

PFC fosc : 67KHz
PWM fosc : 134KHz
(Option)

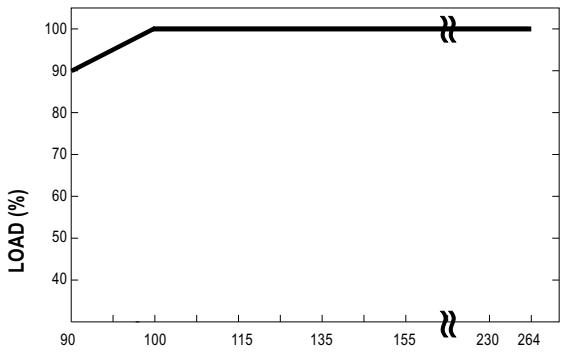


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (V) 60Hz