

### 100W Quad Output Switching Power Supply

# PQ-100 series



- Features :
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- With power good signal output(Optional)
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty



#### SPECIFICATION

MODEL	MODEL					PQ-100C	PQ-100C				
	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4		
OUTPUT	DC VOLTAGE	5V	12V	-5V	-12V	5V	15V	-5V	-15V		
	RATED CURRENT	10A	3.5A	0.5A	0.5A	8A	3.5A	0.5A	0.5A		
	CURRENT RANGE	2~10A	0.5~4.5A	0~1A	0 ~ 1A	2~8A	0.5 ~ 4A	0~1A	0~1A		
	RATED POWER	100.5W				102.5W					
	RIPPLE & NOISE (max.) Note.2	80mVp-p	250mVp-p	80mVp-p	120mVp-p	80mVp-p	150mVp-p	80mVp-p	150mVp-p		
	VOLTAGE ADJ. RANGE	CH1:4.75~5.5				CH1:4.75~5					
	VOLTAGE TOLERANCE Note.3		±12%	±6.0%	±6.0%	±2.0%	±6.0%	±6.0%	±6.0%		
	LINE REGULATION	±1.0%	±5.0%	±1.0%	±1.0%	±1.0%	±3.0%	±1.0%	±1.0%		
	LOAD REGULATION	±2.0%	±5.0%	±1.0%	±1.0%	±1.0%	±5.0%	±1.0%	±1.0%		
	SETUP, RISE TIME	1200ms, 50ms at full load									
	HOLD UP TIME (Typ.)	80ms at full load									
INPUT	VOLTAGE RANGE	100 ~ 264VAC 141 ~370VDC (90 ~ 100VAC 90% load max.)									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY(Typ.)	72%	74%								
	AC CURRENT (Typ.)	3A/115VAC 1.5A/230VAC									
	INRUSH CURRENT (Typ.)	COLD START 50A									
	LEAKAGE CURRENT	<1mA/240VAC									
PROTECTION		105% ~ 135% rated output power									
	OVERLOAD	Protection type : Hiccup mode, recovers automatically after fault condition is removed									
		CH1: 5.75 ~ 6.75VDC									
	OVER VOLTAGE	Protection type : Hiccup mode, recovers automatically after fault condition is removed									
FUNCTION	POWER GOOD	≥1ms									
	WORKING TEMP.	-10 ~ +50°C,60 °C with cooling fan(Refer to output load 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, period for 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									
SAFETY &	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
EMC (Note 4)	EMI CONDUCTION & RADIATION										
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3									
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,11; ENV50204, light industry level, criteria A									
OTHERS	MTBF	258.6K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	177.8*107.95*46mm (L*W*H)									
	PACKING		14.5Kg/1.19CU	IFT							
NOTE	<ol> <li>Ripple &amp; noise are measure</li> <li>Tolerance : includes set up</li> <li>The power supply is consid EMC directives. For guidan</li> </ol>	eters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. a : includes set up tolerance, line regulation and load regulation. er supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets citives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."									



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#### **SPECIFICATION**

NUMBER AGE JRRENT I RANGE DWER NOISE (max.) Note.2 ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	CH1:4.75~5.5	CH2 12V 2A 0.5~4.5A 120mVp-p V ±6.0%	CH3 24V 2A 0.4~2A 180mVp-p	CH4 -12V 0.5A 0~1A	CH1 5V 8A 2~8A	CH2 12V 3A	CH3 15V 0.6A	CH4 24V				
URRENT FRANGE DWER NOISE (max.) Note.2 ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	5A 2 ~ 5A 103W 80mVp-p CH1:4.75 ~ 5.5 ±2.0%	2A 0.5 ~ 4.5A 120mVp-p V	2A 0.4 ~ 2A	0.5A	8A		-					
F RANGE OWER NOISE (max.) Note.2 ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	2 ~ 5A 103W 80mVp-p CH1:4.75 ~ 5.5 ±2.0%	0.5 ~ 4.5A 120mVp-p V	0.4~2A			3A	0.64	0.01				
DWER NOISE (max.) Note.2 ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	103W 80mVp-p CH1:4.75 ~ 5.5 ±2.0%	120mVp-p V		0~1A	2~ 8^		0.04	0.6A				
NOISE (max.) Note.2 ADJ. RANGE TOLERANCE Note.3 IULATION GULATION ISE TIME	80mVp-p CH1:4.75 ~ 5.5 ±2.0%	V	180mVp-p		1 Z ~ 0A	0.5 ~ 3A	0~1A	0~1A				
ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	CH1:4.75 ~ 5.5 ±2.0%	V	180mVp-p					99.4W				
ADJ. RANGE TOLERANCE Note.3 ULATION GULATION ISE TIME	CH1:4.75 ~ 5.5 ±2.0%			120mVp-p	80mVp-p	120mVp-p	150mVp-p	120mVp-p				
ULATION GULATION ISE TIME		10.00/	CH1:4.75 ~ 5.5V				CH1:4.75 ~ 5.5V					
GULATION ISE TIME	±1.0%	±0.0%	±10%	±6.0%	±2.0%	±6.0%	±6.0%	±6.0%				
ISE TIME		±3.0%	±1.0%	±1.0%	±1.0%	±3.0%	±1.0%	±1.0%				
	±1.0%	±5.0%	±5.0%	±1.0%	±1.0%	±5.0%	±1.0%	±1.0%				
<b>F</b> ( <b>T</b> <sub>1</sub> , )	1200ms, 50ms at full load											
IE (Typ.)	80ms at full load											
RANGE	100 ~ 264VAC 141 ~370VDC (90 ~ 100VAC 90% load max.)											
ICY RANGE	47 ~ 63Hz											
CY (Typ.)	77%				74%							
ENT (Typ.)	3A/115VAC 1.5A/230VAC											
URRENT (Typ.)	COLD START 50A											
CURRENT	<1mA /240VAC											
AD	105% ~ 135% rated output power											
OVER VOLTAGE												
600D	≥1ms											
GHUMIDITY	20 ~ 90% RH non-condensing											
,												
	±0.03%/°C (0~50°C)											
N	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes											
	Compliance to EN61000-3-2,-3											
UNITY	Compliance to EN61000-4-2,3,4,5,6,11; ENV50204, light industry level, criteria A											
			-217F (25℃)									
N		· · · ·										
	0.1	•										
	JRRENT (Typ.) CURRENT D TAGE DOD TEMP. HUMIDITY TEMP., HUMIDITY EFFICIENT N FANDARDS D VOLTAGE I RESISTANCE CTION & RADIATION C CURRENT NITY N meters NOT specia & noise are measure ce : includes set up wer supply is consid	JRRENT (Typ.)         COLD START 6           CURRENT         <1mA/240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA/240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA/240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA/240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA /240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA/240VAC	JRRENT (Typ.)       COLD START 50A         CURRENT       <1mA/240VAC				



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