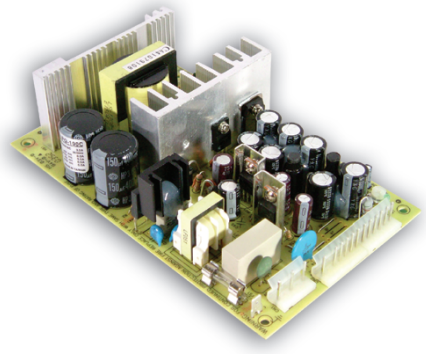
100W Quad Output Switching Power Supply PQ-100 series



■ 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

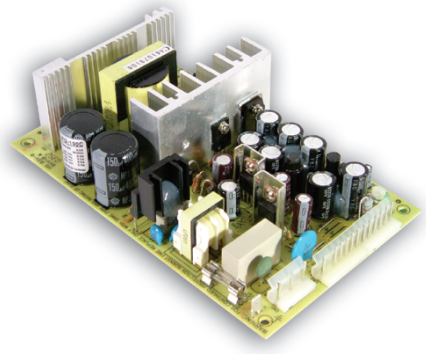
SPECIFICATION

MODEL		PQ-100B				PQ-100C			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	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 ~ 5.5V				CH1:4.75 ~ 5.5V			
	VOLTAGE TOLERANCE Note.3	±3.0%	±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	OVERLOAD	105% ~ 135% rated output power							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	CH1: 5.75 ~ 6.75VDC							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
FUNCTION	POWER GOOD	≧1ms							
ENVIRONMENT	WORKING TEMP.	-10 ~ +50℃,60 ℃ with cooling fan(Refer to output load 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							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	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℃)							
	DIMENSION	177.8*107.95*46mm (L*W*H)							
	PACKING	0.56Kg; 24pcs/14.5Kg/1.19CUFT							
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.								

File Name:PQ-100-SPEC 2008-03-25

MEAN WELL

100W Quad Output Switching Power Supply PQ-100 series



■ Features :

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

SPECIFICATION

MODEL		PQ-100D				PQ-100E			
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	5V	12V	24V	-12V	5V	12V	15V	24V
	RATED CURRENT	5A	2A	2A	0.5A	8A	3A	0.6A	0.6A
	CURRENT RANGE	2 ~ 5A	0.5 ~ 4.5A	0.4 ~ 2A	0 ~ 1A	2 ~ 8A	0.5 ~ 3A	0 ~ 1A	0 ~ 1A
	RATED POWER	103W				99.4W			
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	180mVp-p	120mVp-p	80mVp-p	120mVp-p	150mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1:4.75 ~ 5.5V				CH1:4.75 ~ 5.5V			
	VOLTAGE TOLERANCE Note.3	±2.0%	±6.0%	±10%	±6.0%	±2.0%	±6.0%	±6.0%	±6.0%
	LINE REGULATION	±1.0%	±3.0%	±1.0%	±1.0%	±1.0%	±3.0%	±1.0%	±1.0%
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	SETUP, RISE TIME	1200ms, 50ms at full load							
	HOLD TIME (Typ.)	80ms at full load							
INPUT	VOLTAGE RANGE	100 ~ 264VAC 141 ~370VDC (90 ~ 100VAC 90% load max.)							
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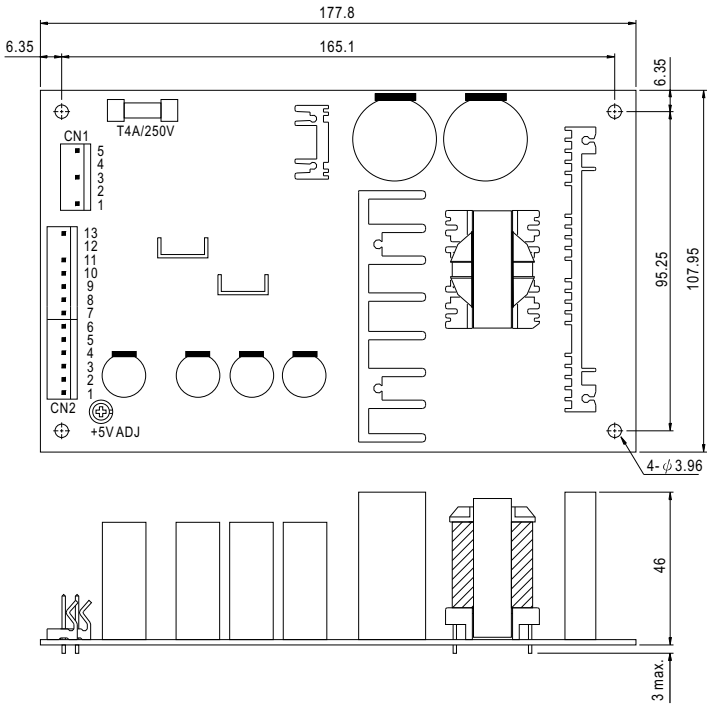
■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 5273-05 or equivalent

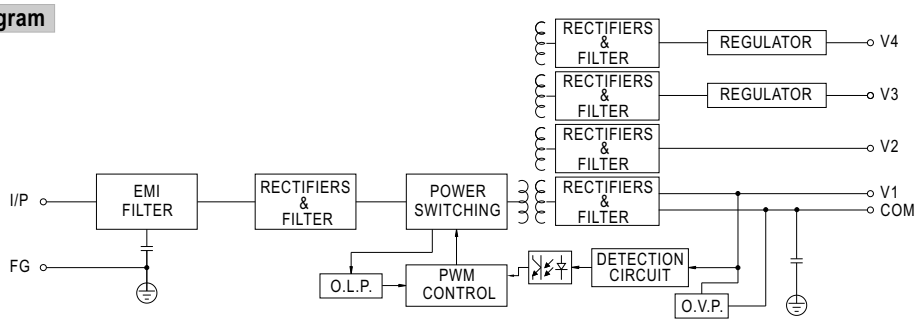
Pin No.	Assignment	Mating Housing	Terminal
1	FG ⏚	Molex 5195 or equivalent	Molex 5194 or equivalent
2,4	No Pin		
3	AC/N		
5	AC/L		

DC Output Connector (CN2) : Molex 5273-06,07 or equivalent

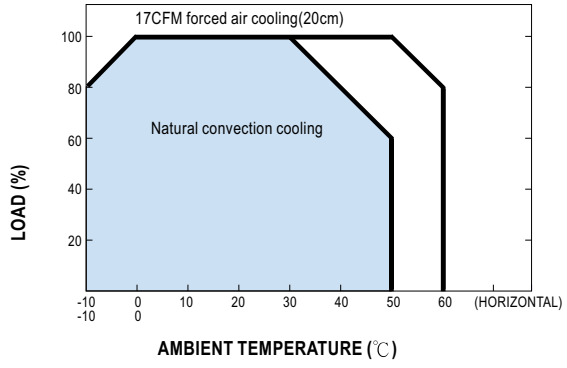
Pin No.	Assignment	Mating Housing	Terminal
1,2,3	V1	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5,6,7	COM		
8,9	V2		
10	Power Good(Option)		
11	V3		
12	No Pin		
13	V4		

fosc : 45KHz

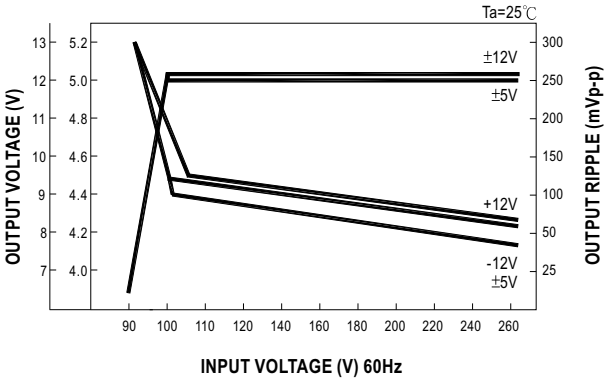
■ Block Diagram



■ Derating Curve



■ Static Characteristics (B)



Experts on Design-In
Angst+Pfister Sensors and Power

Angst+Pfister
Sensors and Power

We are here for you. Addresses and Contacts.

Headquarter Switzerland:

Angst+Pfister Sensors and Power AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:

Angst+Pfister Sensors and Power Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 00
sensorsandpower.de@angst-pfister.com

Scan here and get an overview of personal contacts!

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