



MEAN WELL

SWITCHING POWER SUPPLY
ISO-9001 CERTIFIED MANUFACTURER

PPQ-1003 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED
- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE



SPECIFICATION	MODEL	PPQ-1003A				PPQ-1003B			
		CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
DC OUTPUT VOLTAGE		3.3V	5V	12V	-5V	3.3V	5V	12V	-12V
OUTPUT V. TOLERANCE		±3%	±3%	±6%	±6%	±3%	±3%	±6%	±6%
OUTPUT RATED CURRENT		10A	10A	2A	0.3A	10A	10A	2A	0.3A
OUTPUT CURRENT RANGE		0-15A	2-15A	0.2-3A	0-1A	0-15A	2-15A	0.2-3A	0-1A
RIPPLE & NOISE(Vp-p)		100m	100m	150m	100m	100m	100m	150m	120m
LINE REGULATION		±1%	±1%	±2%	±1%	±1%	±1%	±2%	±1%
LOAD REGULATION		±2%	±2%	±6%	±1%	±2%	±2%	±6%	±1%
DC OUTPUT POWER		108.5W				110.6W			
EFFICIENCY		72%							
DC VOLTAGE ADJ.		CH1,2:±10%,-5%							
INPUT VOLTAGE RANGE		90~264VAC 47~63Hz; 127~370VDC							
AC CURRENT		1.65A/115V 0.85A/230V							
INRUSH CURRENT		COLD START 40A							
LEAKAGE CURRENT		<1mA/240VAC							
OVERLOAD PROTECTION		105%~135% RESET:AUTO RECOVERY							
OVER VOLTAGE PROTECTION		CH1:3.6~4.3V, CH2:5.75~6.75V							
OVER TEMP. PROTECTION		-----							
TEMP. COEFFICIENT		±0.03% / °C (0~50°C)							
SETUP, RISE, HOLD UP TIME		800ms, 50ms, 16ms							
POWER FACTOR		PF>0.95/230VAC, PF>0.98/115VAC							
VIBRATION		10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES							
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:500VDC / 100M Ohms							
WORKING TEMP., HUMIDITY		-10°C~+60°C (REFER TO OUTPUT DERATING CURVE), 20%~90% RH							
STORAGE TEMP., HUMIDITY		-20°C~+85°C, 10%~95% RH							
DIMENSION		7"*4.25"*1.6" (177.8*107.95*40.64mm)							
WEIGHT		0.5Kgs							
SAFETY STANDARDS		MEET UL1950, TUV EN60950							
EMC STANDARDS		MEET CISPR22 (EN55022) CLASS B							

- NOTE :
1. ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
 2. TOLERANCE INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
 3. RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1µF & 47µF CAPACITOR.
 4. LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
 5. LOAD REGULATION IS MEASURED FROM 20% TO 100% RATED LOAD, AND OTHER OUTPUT AT 60% RATED LOAD.
 6. EACH OUTPUT PROVIDE UP TO MAXIMUM CURRENT, BUT TOTAL LOAD CAN NOT EXCEED MAX. OUTPUT POWER.

2000-11-02

[NEXT \(MECHANICAL INFO\)](#)



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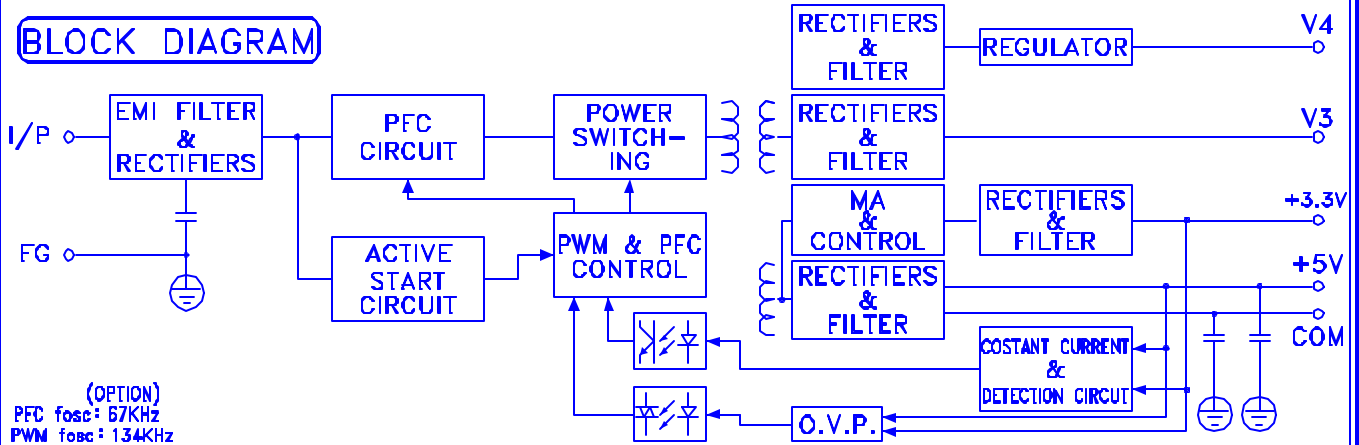
SPECIFICATION	MODEL	PPQ-1003C				PPQ-1003D			
		CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
DC OUTPUT VOLTAGE		3.3V	5V	15V	-15V	3.3V	5V	12V	24V
OUTPUT V. TOLERANCE		±3%	±3%	+10,-5%	±6%	±3%	±3%	±6%	±6%
OUTPUT RATED CURRENT		10A	10A	1.5A	0.3A	10A	10A	2A	0.3A
OUTPUT CURRENT RANGE		0-15A	2-15A	0.2-3A	0-1A	0-15A	2-15A	0.2-3A	0-1A
RIPPLE & NOISE(Vp-p)		100m	100m	180m	150m	100m	100m	150m	150m
LINE REGULATION		±1%	±1%	±2%	±1%	±1%	±1%	±2%	±1%
LOAD REGULATION		±2%	±2%	±6%	±1%	±2%	±2%	±6%	±1%
DC OUTPUT POWER		110W				114.2W			
EFFICIENCY		72%							
DC VOLTAGE ADJ.		CH1,2:+10%,-5%							
INPUT VOLTAGE RANGE		90~264VAC 47~63Hz; 127~370VDC							
AC CURRENT		1.65A/115V 0.85A/230V							
INRUSH CURRENT		COLD START 40A							
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TEMP. COEFFICIENT		±0.03% / °C (0~50°C)							
SETUP, RISE, HOLD UP TIME		800ms, 50ms, 16ms							
POWER FACTOR		PF>0.95/230VAC, PF>0.98/115VAC							
VIBRATION		10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES							
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:500VDC / 100M Ohms							
WORKING TEMP., HUMIDITY		-10°C~+60°C (REFER TO OUTPUT DERATING CURVE), 20%~90% RH							
STORAGE TEMP., HUMIDITY		-20°C~+85°C, 10%~95% RH							
DIMENSION		7"*4.25"*1.6" (177.8*107.95*40.64mm)							
WEIGHT		0.5Kgs							
SAFETY STANDARDS		MEET UL1950, TUV EN60950							
EMC STANDARDS		MEET CISPR22 (EN55022) CLASS B							

NOTE :

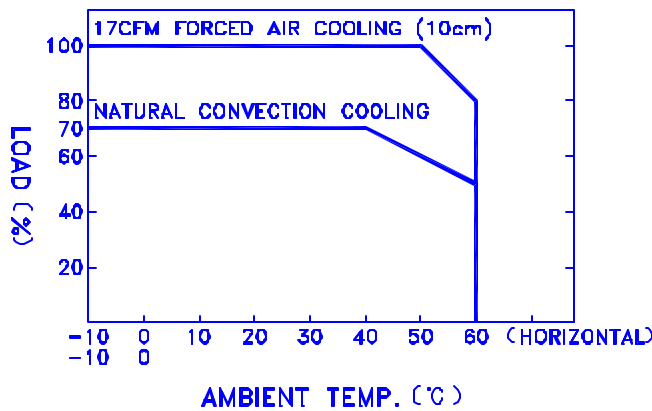
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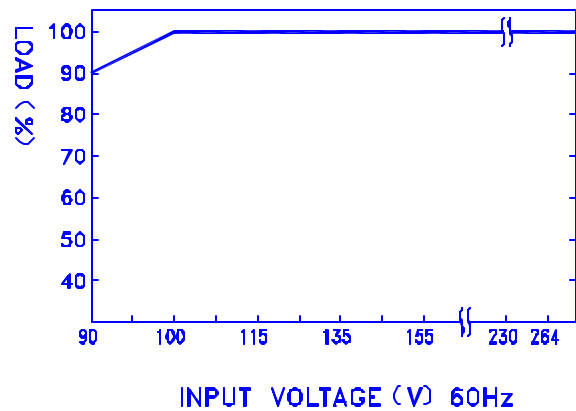
BLOCK DIAGRAM



OUTPUT DERATING VS T_a



OUTPUT DERATING VS INPUT VOLTAGE



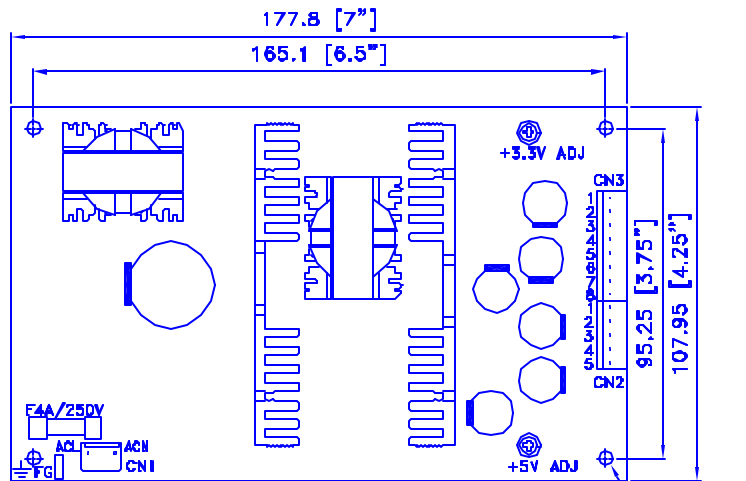
DIMENSION (mm)

☒ TERMINAL PIN NO. ASSIGNMENT

- ☒ CN1 : JST B3P-VH
PIN 1,3 : AC INPUT
- ☒ CN2 : JST B5P-VH
PIN 1,2,3 : DC OUTPUT V2
PIN 4 : DC OUTPUT V3
PIN 5 : DC OUTPUT V4
- ☒ CN3 : JST B8P-VH
PIN 1,2,3 : DC OUTPUT V1
PIN 4,5,6,7,8 : DC OUTPUT COM

☒ MATING CONNECTORS

- ☒ CN1,2,3 MATING CONNECTOR TYPE
JST VHR SERIES OR EQUIVALENT WITH
JST SVH-21T-1.1 OR EQUIVALENT
CRIMP TERMINALS.



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