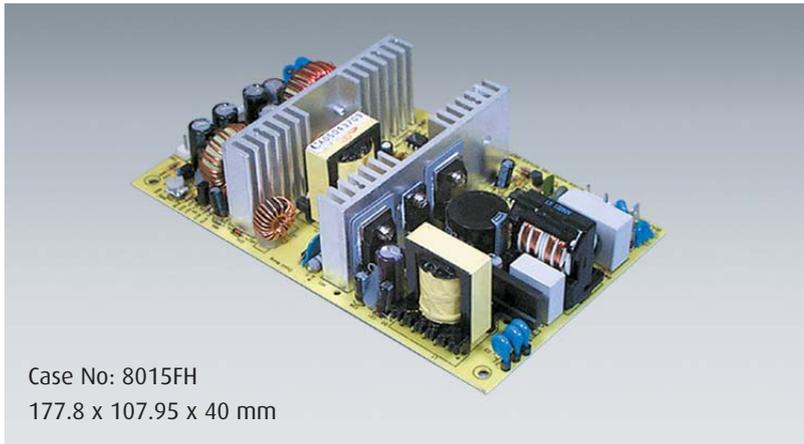


# PPQ-100 Series

100W Quad Output Open Frame Power Supply



Case No: 8015FH  
177.8 x 107.95 x 40 mm

## 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 70KHz (Optional)



## Specification

INPUT	<b>Voltage</b>	90V ~ 264VAC universal full range or 127V ~ 370VDC							
	<b>Frequency</b>	47 ----- 63 Hz							
	<b>Current</b>	<1.65A@115VAC; 0.85A@230VAC full load							
	<b>Inrush Current</b>	Cold start 30A							
	<b>Leakage Current</b>	<3.5mA@240VAC							
OUTPUT	<b>MODEL No.</b>	PPQ-100B				PPQ-100C			
	<b>Channel</b>	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	<b>Voltage</b>	5V	12V	-12V	-5V	5V	15V	-15V	-5V
	<b>Rated Current</b>	10A	3.4A	0.6A	0.6A	10A	2.6A	0.6A	0.6A
	<b>Current Range</b>	2~15A	0.3~4A	0~1A	0~1A	2~15A	0.3~4A	0~1A	0~1A
	<b>Output Tolerance</b>	± 3%	± 8%	± 5%	± 5%	± 3%	+10,-6%	± 5%	± 5%
	<b>Line Regulation</b>	± 1%	± 2%	± 2%	± 1%	± 1%	± 2%	± 2%	± 1%
	<b>Load Regulation</b>	± 2%	± 6%	± 2%	± 2%	± 2%	± 6%	± 2%	± 2%
	<b>Ripple Noise MAX.</b>	100mV	150mV	100mV	100mV	100mV	150mV	100mV	100mV
	<b>Efficiency (TYP.)</b>	75%				76%			
PROTECTION	<b>Rated Power</b>	101W				101W			
	<b>Over Voltage</b>	CH1:5.75~6.75V				CH1:5.75~6.75V			
	<b>Over Load</b>	Shut down o/p voltage, re-power on to recover 105~135% rated output power Hiccup mode; recovers automatically after fault condition is removed							
ELEC. CHAR.	<b>Rise Time</b>	<50mS@115~230VAC, full load							
	<b>Hold up Time</b>	>24mS@115~230VAC, full load							
	<b>Setup Time</b>	<0.8 Sec@115; 1.2Sec@230VAC, full load							
ENVIRONMENT	<b>Temperature</b>	Operating: -10 ~ +60°C ; Storage: -20~ +85°C							
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH							
SAFETY	<b>Withstand Voltage</b>	I/P-O/P3KVAC; I/P-FG:1.5KVAC; O/P-FG:0.5KVAC							
	<b>Isolation Resistance</b>	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC							
	<b>Safety Standard</b>	UL60950-1, TUV EN60950-1 Approved							
EMC	<b>EMI</b>	EN55022 (CISPR22) Class B, EN61000-3-2,3							
	<b>EMS</b>	EN61000-4-2,3,4,5,6,8,11; EN55024, Light industry level, criteria A							
OTHERS	<b>Cooling</b>	Cooling by free air convection							
	<b>M.T.B.F.</b>	162.5K hrs min. MIL-HDBK-217F (°C)							
	<b>Packing</b>	0.62Kg; 24pcs/15.9Kg/1.34 CUFT							

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 parallel capacitor

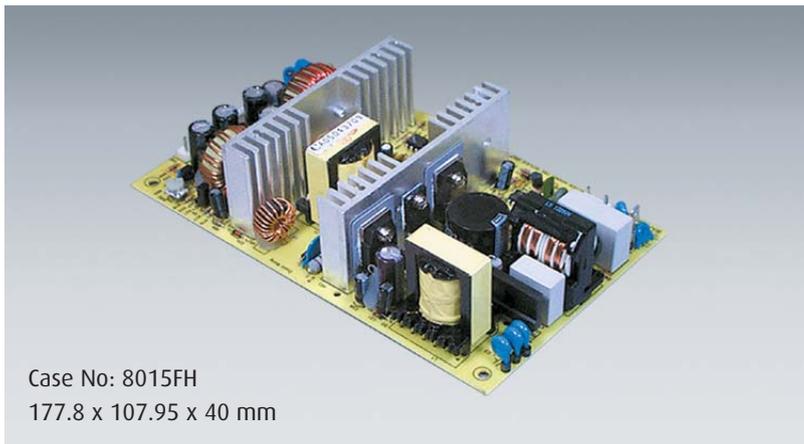
3 Tolerance: includes set up tolerance, line regulation and load regulation

4 The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives

5 Heat sink HS1, HS2 can not be shorted

# PPQ-100 Series

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### Specification

<b>INPUT</b>	<b>Voltage</b>	90V ~ 264VAC universal full range or 127V ~ 370VDC			
	<b>Frequency</b>	47 ----- 63 Hz			
	<b>Current</b>	<1.65A@115VAC; 0.85A@230VAC full load			
	<b>Inrush Current</b>	Cold start 30A			
	<b>Leakage Current</b>	<3.5mA@240VAC			
<b>OUTPUT</b>	<b>MODEL No.</b>	<b>PPQ-100D</b>			
	<b>Channel</b>	CH1	CH2	CH3	CH4
	<b>Voltage</b>	5V	24V	12V	-12V
	<b>Rated Current</b>	8A	2A	0.6A	0.6A
	<b>Current Range</b>	2~10A	0.3~4A	0~1A	0~1A
	<b>Output Tolerance</b>	± 3%	± 8%	± 5%	± 5%
	<b>Line Regulation</b>	± 1%	± 2%	± 2%	± 1%
	<b>Load Regulation</b>	± 2%	± 6%	± 2%	± 2%
	<b>Ripple Noise MAX.</b>	100mV	200mV	100mV	100mV
	<b>Efficiency (TYP.)</b>	78%			
<b>PROTECTION</b>	<b>Rated Power</b>	102.4W			
	<b>Over Voltage</b>	CH1:5.75~6.75V			
	<b>Over Load</b>	Shut down o/p voltage, re-power on to recover 105~135% rated output power Hiccup mode; recovers automatically after fault condition is removed			
<b>ELEC. CHAR.</b>	<b>Rise Time</b>	<50mS@115~230VAC, full load			
	<b>Hold up Time</b>	>24mS@115~230VAC, full load			
	<b>Setup Time</b>	<0.8 Sec@115; 1.2Sec@230VAC, full load			
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: -10 ~ +60°C ; Storage: -20~ +85°C			
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH			
<b>SAFETY</b>	<b>Withstand Voltage</b>	I/P-O/P3KVAC; I/P-FG:1.5KVAC; O/P-FG:0.5KVAC			
	<b>Isolation Resistance</b>	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC			
	<b>Safety Standard</b>	UL60950-1, TUV EN60950-1 Approved			
<b>EMC</b>	<b>EMI</b>	EN55022 (CISPR22) Class B, EN61000-3-2,3			
	<b>EMS</b>	EN61000-4-2,3,4,5,6,8,11; EN55024, Light industry level, criteria A			
<b>OTHERS</b>	<b>Cooling</b>	Cooling by free air convection			
	<b>M.T.B.F.</b>	162.5K hrs min. MIL-HDBK-217F (°C)			
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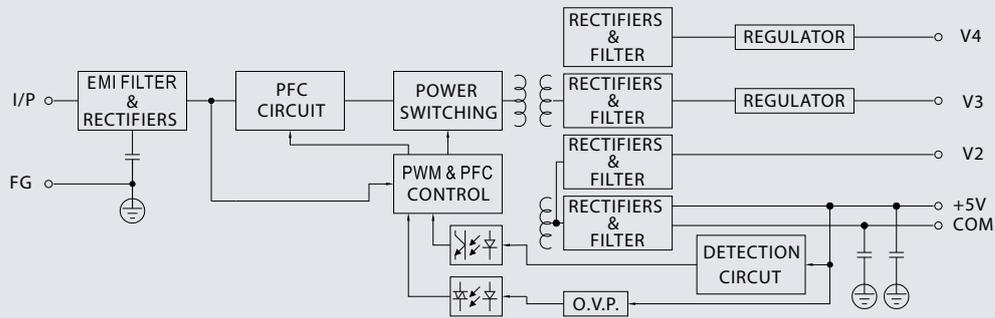
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100W Quad Output Open Frame Power Supply

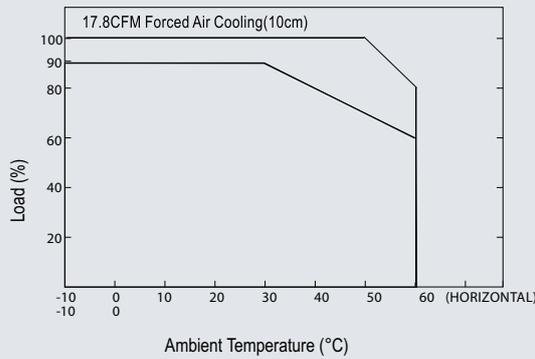


## Block Diagram

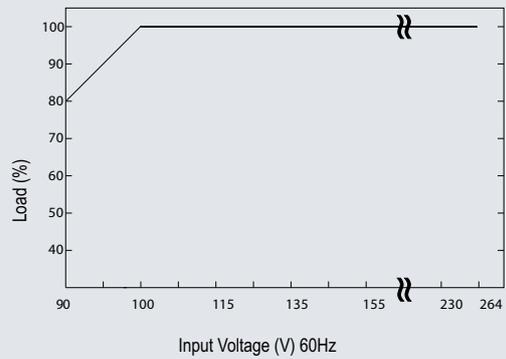


fosc : 70KHz  
(Option)

## De-Rating Curve



## Output Derating Vs Input Voltage



## Dimensions

AC Input Connector (CN1): JST B5P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	FG	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2,4	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
5	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent

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

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

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

Pin No.	Assignment	Mating Housing	Terminal
1~4	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
5~8	COM	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent

