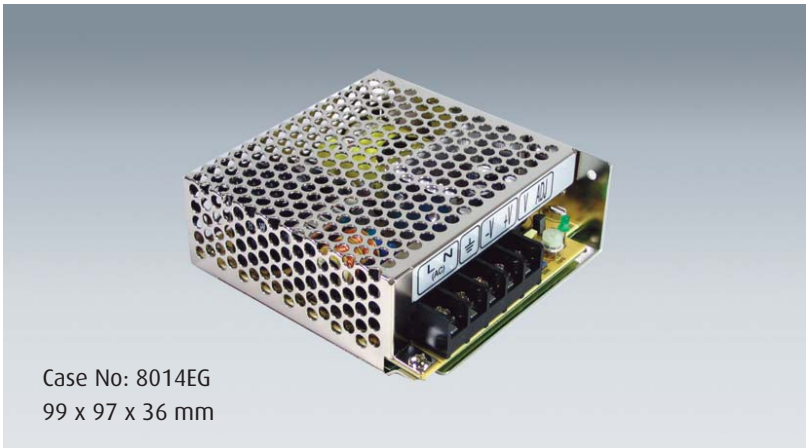
RQ-50 Series

50W Quad output Switching Power Supplies



Case No: 8014EG
99 x 97 x 36 mm

Features

- Universal AC input / Full range
- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- LED indicator for poweron
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 seconds
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability

Specification

INPUT	**Voltage**	88V ~ 264VAC universal full range or 125V ~ 373VDC							
	Frequency	47 ----- 63 Hz							
	Current	<1.3A@115V; 0.8A@230V AC input, full load							
	Inrush Current	<36A@230VAC input, Cold start at 25℃ ambient							
	Leakage Current	<2.0mA@240V AC input							
OUTPUT	**MODEL No.**	**RQ-50B**				**RQ-50C**			
	Channel	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	Voltage	5V	12V	-5V	-12V	5V	15V	-5V	-15V
	Rated Current	5A	1A	0.5A	0.5A	5A	1A	0.5A	0.5A
	Current Range	0.5~6A	0.21.5A	0~1A	0~1A	0.5~6A	0.2~1.5A	0~1A	0~1A
	Voltage Adj. Range	CH1: 4.75~5.5V				CH1: 4.75~5.5V			
	Output Tolerance	± 2%	± 6%	± 2%	± 2%	± 2%	± 6%	± 2%	± 2%
	Line Regulation	± 0.5%	± 1.5%	± 0.5%	± 0.5%	± 0.5%	± 1.5%	± 0.5%	± 0.5%
	Load Regulation	± 0.5%	± 3%	± 1%	± 1%	± 0.5%	± 3%	± 1%	± 1%
	Ripple Noise MAX.	80mV	120mV	100mV	80mV	80mV	120mV	100mV	80mV
	Efficiency (TYP.)	74%				75%			
	Power	45.5W				50W			
PROTECTION	**Over Voltage**	CH1: 5.75~6.75V							
		Hiccup mode, recovers automatically after fault condition is removed							
	Over Load	When the power supply is over 110%~ 150% max load or short circuited it will go into hiccup mode and recover automatically after the fault is removed							
ELEC. CHAR.	**Rise Time**	<20mS@230VAC; 30mS@115VAC							
	Hold up Time	>60mS@230VAC, 10mS@115VAC full load							
	Setup Time	<0.5 Sec@230VAC 1.2 Sec@115VAC							
ENVIRONMENT	**Temperature**	Operating: -25 ~ +70℃ ; Storage: -40~ +85℃							
	Humidity	Operating: 20% ~ 90% RH; Storage: 10% ~ 95% RH (non condensing)							
SAFETY	**Withstand Voltage**	I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC, 1minute							
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC							
	Safety Standard	UL60950-1, TUV EN60950-1 Approved							
EMC	**EMI**	Compliance to EN55022; EN61000-3-2,3							
	EMS	EN61000-4-2,3,4,5,6,8,11; ENV50204; EN61000-6-2							
OTHERS	**Cooling**	Natural cooling							
	M.T.B.F.	162.9Khrs min. MIL-HDBK-217F (25°C)							
	Packing	0.41Kg; 45pcs/19.5Kg/0.9 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 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 can work within current range. But total output power can't exceed rated output power.
7 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.

Sunpower Technology LLP Orion House, Calleva Park, Aldermaston, Berkshire RG7 8SN Tel: +44 (0)118 981 1001 • E-mail: sales@sunpower-uk.com

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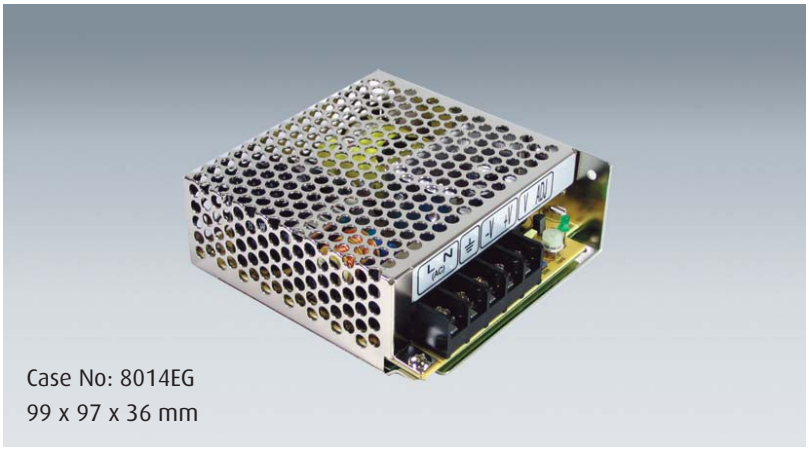

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	Inrush Current	<36A@230VAC input, Cold start at 25℃ ambient				
	Leakage Current	<2.0mA@240VAC input				
OUTPUT	**MODEL No.**	**RQ-50D**				
	Channel	CH1	CH2	CH3	CH4	
	Voltage	5V	12V	24V	-12V	
	Rated Current	3A	0.9A	0.9A	0.5A	
	Current Range	0.5~6A	0.2~1.5A	0.1~1A	0~1A	
	Voltage Adj. Range	CH1: 4.75~5.5V				
	Output Tolerance	± 2%	± 6%	+7 -5%	± 2%	
	Line Regulation	± 0.5%	± 1.5%	± 2%	± 0.5%	
	Load Regulation	± 0.5%	± 3%	± 3%	± 1%	
	Ripple Noise MAX.	80mV	120mV	180mV	80mV	
	Efficiency (TYP.)	79%				
	Power	53.4W				
PROTECTION	**Over Voltage**	CH1: 5.75~6.75V				
		Hiccup mode, recovers automatically after fault condition is removed				
	Over Load	When the power supply is over 110%~ 150% max load or short circuited it will go into hiccup mode and recover automatically after the fault is removed				
ELEC. CHAR.	**Rise Time**	<20mS@230VAC; 30mS@115VAC				
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	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC				
	Safety Standard	UL60950-1, TUV EN60950-1 Approved				
EMC	**EMI**	Compliance to EN55022; EN61000-3-2,3				
	EMS	EN61000-4-2,3,4,5,6,8,11; ENV50204; EN61000-6-2				
OTHERS	**Cooling**	Natural cooling				
	M.T.B.F.	162.9Khrs min. MIL-HDBK-217F (25°C)				
	Packing	0.41Kg; 45pcs/19.5Kg/0.9 CUFT				

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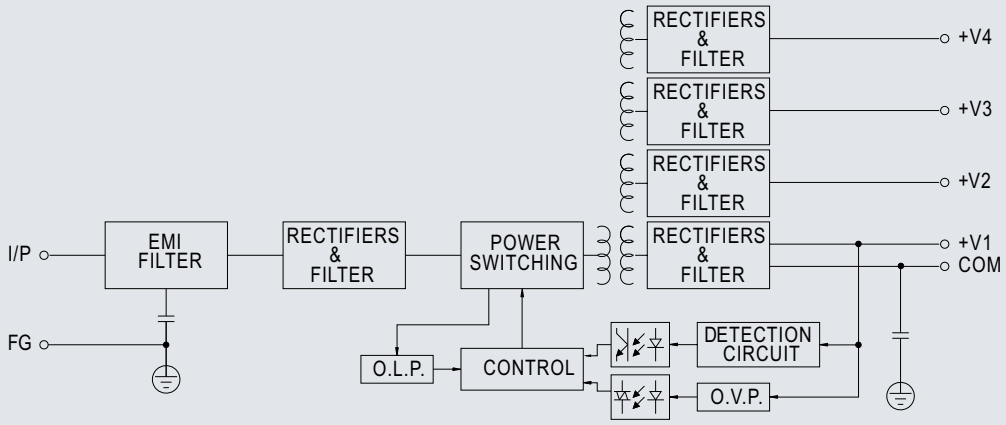
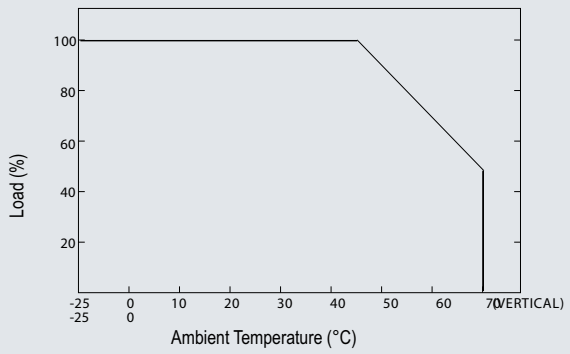
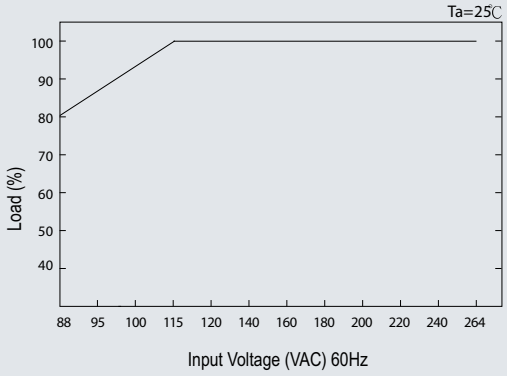
Block Diagram



De-Rating Curve



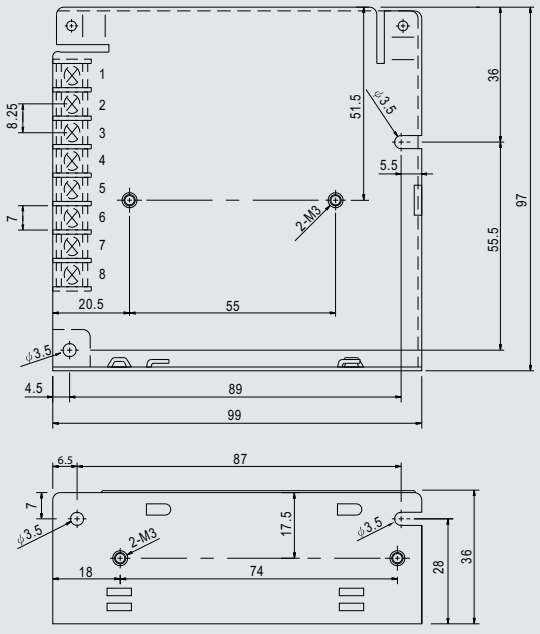
Output Derating Vs Input Voltage



Dimensions

Terminal Pin. No Assignment:

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG
4	DC OUTPUT -V4
5	DC OUTPUT V3
6	DC OUTPUT +V2
7	DC OUTPUT COM
8	DC OUTPUT +V1



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