

















■ Features

- · 4"x2" compact size
- IT & Medical safety approved (2 x MOPP) accroding to ANSI/AAMI ES60601-1, IEC/EN60601-1 and IEC/EN/UL 60950-1
- Suitable for BF application with appropriate system consideration
- · Cooling by free air convection
- EMI class B for class I configuration
- No load power consumption<0.75W
- · Protections: Short circuit / Overload / Over voltage
- 3 years warranty

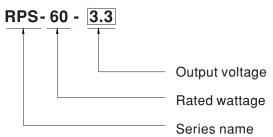
Applications

- · Oral irrigator
- · Hemodialysis machine
- · Medical computer monitors
- · Sleep apnea devices

Description

RPS-60 is a 60W highly reliable green PCB type medical power supply with a high power density on the 4" by 2" footprint. It accepts $90{\sim}264\text{VAC}$ input and offers various output voltages between 3.3V and 48V. The working efficiency is up to 86% and the extremely low no load power consumption is down below 0.75W. RPS-60 is able to be used for Class I (with FG) system design. The extremely low leakage current is less than $130\mu\text{A}$. In addition, it conforms to international IT and medical regulations (2*MOPP) and EMC EN55022/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

■ Model Encoding



60W Reliable Green Medical Power Supply

SPECIFICATION

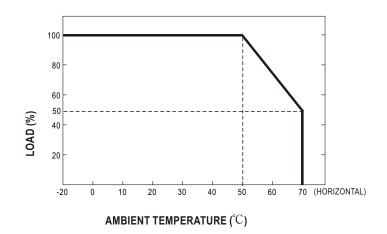
MODEL		RPS-60-3.3	RPS-60-5	RPS-60-12	RPS-60-15	RPS-60-24	RPS-60-48		
	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V		
	RATED CURRENT	10A	10A	5A	4A	2.5A	1.25A		
	CURRENT RANGE	0 ~ 11A	0 ~ 11A	0 ~ 5.5A	0 ~ 4.4A	0 ~ 2.75A	0 ~ 1.375A		
	RATED POWER	33W	50W	60W	60W	60W	60W		
	PEAK LOAD(10sec.) Note.2	36.3W	55W	66W	66W	66W	66W		
	RIPPLE & NOISE (max.) Note.3	60mVp-p	60mVp-p	60mVp-p	100mVp-p	100mVp-p	100mVp-p		
OUTPUT	VOLTAGE ADJ. RANGE	3.1 ~ 3.6V	4.75 ~ 5.5V	11.4 ~ 13.2V	13.5 ~ 16.5V	22.8 ~ 27.6V	45.6 ~ 52.8V		
	VOLTAGE TOLERANCE Note.4		±2.0%	±2.0%	±2.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	SETUP, RISE TIME			1	± 1.0 /0	_ 1.0 /0			
	,	500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load 60ms/230VAC 14ms/115VAC at full load							
	HOLD UP TIME (Typ.)			oau					
	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz	I	I			1		
NPUT	EFFICIENCY (Typ.)	74%	79%	84%	85%	87%	86%		
	AC CURRENT (Typ.)	1.8A/115VAC	1 A/230VAC						
	INRUSH CURRENT (Typ.)	COLD START 60A/230VAC 30A/115VAC							
	LEAKAGE CURRENT(max.) Note.5	Earth leakage current < 130μ A/264VAC , Touch current < 100μ A/264VAC							
	OVER LOAD	115 ~ 150% rated output power							
		Protection type : Hic	cup mode, recovers a	automatically after fault	condition is remove	ed			
ROTECTION		3.8 ~ 5V	5.7 ~ 6.8V	13.8 ~ 16.2V	17.2 ~ 20.3V	28.4 ~ 32.4V	55.2 ~ 64.8V		
	OVER VOLTAGE			re-power on to recover	20.01	2011	00.2 001		
		-20 ~ +70°C (Refer to		to power on to recover					
	WORKING TEMP.	,	- '						
	WORKING HUMIDITY	20 ~ 90% RH non-co							
NVIRONMENT	STORAGE TEMP., HUMIDITY	$-40 \sim +85^{\circ}$ C, $10 \sim 95\%$ RH non-condensing							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
		3000 meters							
	OPERATING ALTITUDE Note.6	3000 meters			,				
			0950-1, TUV EN609	950-1, IEC60601-1,		UL ANSI/AAMI E	S60601-1(3.1 versi		
	SAFETY STANDARDS	IEC60950-1, UL60		950-1, IEC60601-1, dition 3 approved; D	TUV EN60601-1,		S60601-1(3.1 versi		
	SAFETY STANDARDS	IEC60950-1, UL60 CAN/CSA-C22.2 N	No. 60601-1:14 - Ed	dition 3 approved; D	TUV EN60601-1, esign refer to EN		S60601-1(3.1 versi		
	SAFETY STANDARDS ISOLATION LEVEL	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary:	No. 60601-1:14 - Eo 2xMOPP, Primary-Ea	dition 3 approved; Darth:1xMOPP, Seconda	TUV EN60601-1, esign refer to EN		S60601-1(3.1 versi		
	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F	dition 3 approved; Darth:1xMOPP, Seconda FG:1.5KVAC	TUV EN60601-1, esign refer to EN		S60601-1(3.1 versi		
	SAFETY STANDARDS ISOLATION LEVEL	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P-	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN	160335-1	`		
	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH Standard	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note	`		
	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note	`		
	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B	`		
AFETY &	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note	`		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B	`		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A	`		
EMC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A	Ð		
EMC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/25°C/70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A	9		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A	e ; Level 4, 8KV conta		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/25°C/70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(&	e ; Level 4, 8KV conta		
EMC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(&	e ; Level 4, 8KV contar		
EMC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibili	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/25°C/70% RH	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV	e ; Level 4, 8KV contar 30MHz~2.7GHz) 1(385MHz~5.78GHz		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC OVDC/ 25°C/ 70% RH Standard EN55011 (CISPR: EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-4	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line	e ; Level 4, 8KV conta		
МС	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility EFT bursts Surge susceptibility Conducted suscept	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 iity iity	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-5 EN61000-4-6	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V	e ; Level 4, 8KV contar 30MHz~2.7GHz) 1(385MHz~5.78GHz		
MC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 iity iity	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC OVDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-5	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m	e ; Level 4, 8KV contai 30MHz~2.7GHz) i(385MHz~5.78GHz		
MC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility EFT bursts Surge susceptibility Conducted suscept	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50 iity iity iity iity iity iity	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-5 EN61000-4-6	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods,	e ; Level 4, 8KV contar 30MHz~2.7GHz) 1(385MHz~5.78GHz 8-FG; 2KV/Line-Line 30% dip 25 periods,		
MC	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P;4KVAC I/F I/P-O/P, I/P-FG, O/P-Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility EFT bursts Surge susceptibility Conducted suscept Magnetic field immu	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ibility unity otion	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-8 EN61000-4-11	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m	e ; Level 4, 8KV contar 30MHz~2.7GHz) 1(385MHz~5.78GHz 8-FG; 2KV/Line-Line 30% dip 25 periods,		
MC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. N	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ibility unity otion MIL-HDBK-217F (25°C	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-8 EN61000-4-11 C)	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods,	e ; Level 4, 8KV contar 30MHz~2.7GHz) 1(385MHz~5.78GHz 8-FG; 2KV/Line-Line 30% dip 25 periods,		
EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H)	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P;4KVAC I/F I/P-O/P, I/P-FG, O/P. Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. M 101.6*50.8*29mm 0	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ity ity otion IIL-HDBK-217F (25°C r 4" * 2" * 1.141" inc	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-8 EN61000-4-11 C)	TUV EN60601-1, esign refer to EN rry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods,	e ; Level 4, 8KV contac 30MHz~2.7GHz) 1(385MHz~5.78GHz 2-FG; 2KV/Line-Line 30% dip 25 periods,		
EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P-Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. M 101.6*50.8*29mm 00.15Kg; 96pcs/15.4K	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity / ibility unity otion All-HDBK-217F (25°C r 4" * 2" * 1.141" inc (g/0.89CUFT	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/ 70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-4-2 EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11 C)	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(8 Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contac 30MHz~2.7GHz) 1(385MHz~5.78GHz) 8-FG; 2KV/Line-Line		
SAFETY & EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING 1. All parameters NOT special	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. N 101.6*50.8*29mm oi 0.15Kg; 96pcs/15.4Kly mentioned are me	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 iity iity iity otion IIL-HDBK-217F (25°C r 4" * 2" *1.141" inc (g/0.89CUFT asured at 230VAC ir	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-3 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11 C) ch	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contac 30MHz~2.7GHz) 1(385MHz~5.78GHz) 8-FG; 2KV/Line-Line		
EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING 1. All parameters NOT special 2. 33% Duty cycle maximum in the company of the com	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility Conducted suscept Magnetic field immu Voltage dip, interrut 353.6K hrs min. M 101.6*50.8*29mm 0 0.15Kg; 96pcs/15.4K ly mentioned are mewithin every 30 secon	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ity ity otion MIL-HDBK-217F (25°C r 4" * 2" *1.141" inc (g/0.89CUFT assured at 230VAC in ds. Average output	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-3-3 Standard EN61000-4-2 EN61000-4-2 EN61000-4-5 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11 C) ch	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP 11) 11) 11) 5°C of ambient ten eed the rated powe	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contacts 30MHz~2.7GHz) 1(385MHz~5.78GHz) 2-FG; 2KV/Line-Line 30% dip 25 periods, 250 periods		
EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING 1. All parameters NOT special	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. M 101.6*50.8*29mm 0 0.15Kg; 96pcs/15.4K Illy mentioned are me within every 30 second at 20MHz of bande	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea P-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity // ibility unity ption MIL-HDBK-217F (25°C r 4" * 2" *1.141" inc (g/0.89CUFT assured at 230VAC in ds. Average output width by using a 12"	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC OVDC/25°C/70% RH Standard EN55011 (CISPR: EN55011 (CISPR: EN61000-3-2 EN61000-4-2 EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-6 EN61000-4-7 EN61000-4-8 EN61000-4-11 C) ch	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP 11) 11) 11) 5°C of ambient ten eed the rated powe	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(& Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contacts 30MHz~2.7GHz) 1(385MHz~5.78GHz) 2-FG; 2KV/Line-Line 30% dip 25 periods, 250 periods		
EMC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING 1. All parameters NOT special 2. 33% Duty cycle maximum v. 3. Ripple & noise are measure 4. Tolerance: includes set up 5. Touch current was measure 5. Touch current was measure 4. Tolerance: includes set up 5. Touch current was measure 5. Touch current was measure 6. Touch	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibilit EFT bursts Surge susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. M 101.6*50.8*29mm 01 0.15Kg; 96pcs/15.4K Ily mentioned are me within every 30 secondat 20MHz of bands tolerance, line regulared from primary input	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ity ity ity ity ity it	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-4-2 EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-6 EN61000-4-11 C) ch	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(8 Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contacts 30MHz~2.7GHz) 1(385MHz~5.78GHz) 2-FG; 2KV/Line-Line 30% dip 25 periods, 250 periods		
MC Note 8)	SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION MTBF DIMENSION (L*W*H) PACKING 1. All parameters NOT special 2. 33% Duty cycle maximum via Ripple & noise are measure 4. Tolerance: includes set up	IEC60950-1, UL60 CAN/CSA-C22.2 N Primary-Secondary: I/P-O/P:4KVAC I/F I/P-O/P, I/P-FG, O/P- Parameter Conducted emission Radiated emission Harmonic current Voltage flicker EN60601-1-2 Parameter ESD RF field susceptibility Conducted suscept Magnetic field immu Voltage dip, interrup 353.6K hrs min. N 101.6*50.8*29mm oi 0.15Kg; 96pcs/15.4K Ily mentioned are me within every 30 second at 20MHz of bandtotel and rom primary input erating of 5°C/1000me	No. 60601-1:14 - Ec 2xMOPP, Primary-Ea 2-FG:2KVAC O/P-F -FG:100M Ohms / 50 ity ity ity ity ity ity ity it	dition 3 approved; D arth:1xMOPP, Seconda FG:1.5KVAC 0VDC/ 25°C/70% RH Standard EN55011 (CISPR: EN61000-3-2 EN61000-4-2 EN61000-4-2 EN61000-4-5 EN61000-4-6 EN61000-4-6 EN61000-4-11 C) ch	TUV EN60601-1, esign refer to EN iry-Earth:1xMOPP	Test Level / Note Class B Class B Class A Test Level / Note Level 4, 15KV air Level 3, 10V/m(8 Table 9, 9~28V/m Level 3, 2KV Level 4, 4KV/Line Level 3, 10V Level 4, 30A/m 100% dip 1 periods, 100% interruptions	e ; Level 4, 8KV contar 30MHz~2.7GHz) i(385MHz~5.78GHz e-FG; 2KV/Line-Line 30% dip 25 periods, 250 periods		

a 360mm '360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)

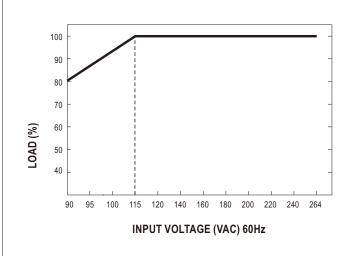


Block Diagram Fig. 100KHz RECTIFIERS POWER SWITCHING FILTER FILTER SWITCHING FILTER FILTER DETECTION CIRCUIT O.L.P. CONTROL

■ Output Derating



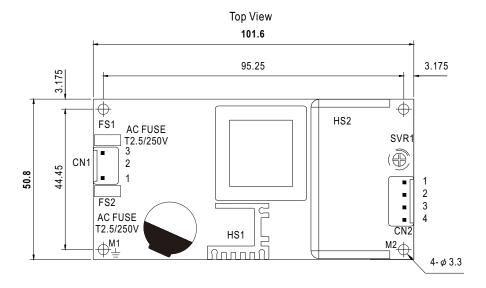
■ Output Derating VS Input Voltage

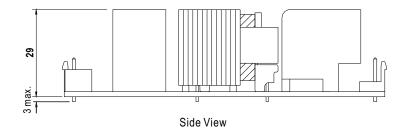




■ Mechanical Specification

Unit:mm





AC Input Connector (CN1): JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	ICTVIID	IOT 0\/II 04T D4 4
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	or oquivaloni	or oquivarone

DC Output Connector (CN2): JST B4P-VH or equivalent

		\ /	'	
Pin No.	Assignment	Mating Housing	Terminal	
1,2	+V	JST VHR	JST SVH-21T-P1.1	
3,4	-V	or equivalent	or equivalent	

 \pm : Grounding Required



1.HS1,HS2 cannot be shorted.

2.M1 is safety ground. For better EMC performance, Please secure an electrical connection between M1,M2 and chassis grounding.

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html