





















Hemodialysis machine

Sleep apnea devices

Applications

· Medical monitors

· Pumps machine

Oral irrigator





Features

- 5"× 3" compact size
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · 110W convention, 160W force air
- EMI class B for class I configuration
- No load power consumption under 0.5W by PS-ON control (G model)
- 5Vdc standby output, Power Good, Power Fail; Remote sense for 5~15V
- · Protections: Short circuit / Overload / Over voltage / Over temperature
- Operating altitude up to 3000 meters
- 3 years warranty

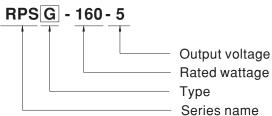
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-160 is a 160W highly reliable green PCB type medical power supply with a high power density on a 5" by 3" footprint. It accepts 90~264VAC input and offers various models with the output voltages between 5V and 48V. The working efficiency is up to 88% and the extremely low no load power consumption is down below 0.5W. RPS-160 is able to be used for Class I (with FG) system design. The extremely low leakage current is less than 160 µA. In addition, it conforms to the international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

■ Model Encoding



Туре	Description	Note
Blank	Without 5Vsb	In stock
G	With 5Vsb & No load power consumption <0.5W	In stock



160W Reliable Green Medical Power Supply

RPS-160 series

MODEL			RPS□-160-5	RPS□-160-12	RPS□-160-15	RPS□-160-24	RPS□-160-48	
	DC VOLTAG	iΕ	5V	12V	15V	24V	48V	
		RENT (20.5CFM)	30A	12.9A	10.3A	6.5A	3.25A	
		Convection	0 ~ 20A	0 ~ 9.1A	0 ~ 7.3A	0 ~ 4.6A	0 ~ 2.3A	
	CURRENT	20.5CFM	0 ~ 30A	0 ~ 12.9A	0 ~ 10.3A	0 ~ 6.5A	0 ~ 3.25A	
	DATED	Convection Note.2		112.2W	112.5W	113.4W	113.4W	
	RATED POWER							
			155W	159.8W	159.5W	161W	161W	
UTPUT		OISE (max.) Note.4		80mVp-p	120mVp-p	120mVp-p	150mVp-p	
		I. RANGE(main output)		10.8 ~ 13.2V	13.5 ~ 16.5V	22 ~ 27V	43.2 ~ 52.8V	
		OLERANCE Note.5		±3.0%	±3.0%	±2.0%	±2.0%	
	LINE REGU	LATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGI	JLATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RIS	ETIME	1800ms, 30ms/230VA	C 3500ms, 30ms	115VAC at full load			
	HOLD UP TI	МЕ (Тур.)	20ms/115VAC 25n	ns/230VAC at full load				
	VOLTAGE R	ANGE Note.6	90 ~ 264VAC 12	7 ~ 370VDC				
	FREQUENC	Y RANGE	47 ~ 63Hz					
	POWER FA	CTOR (Tvp.)	PF>0.93/230VAC	PF>0.98/115VAC at fu	ıll load			
NPUT	EFFICIENC	() ()	86%	87%	87%	87%	88%	
	AC CURREN			V/230VAC	21,70			
		RRENT (Typ.)	COLD START 35A/11		n			
		URRENT Note.7			ch current < 100µA/264VAC	`		
	LLANAGE	JONNEMI NOTE./		·	011 0011 511 × 100 #A/204 VAC	, 		
	OVERLOAD		105 ~ 135% rated out	· ·				
					matically after fault condition		1	
PROTECTION	OVER VOLTAGE			5.7 ~ 6.8V 13.8 ~ 16.2V 17.2 ~ 20.3V 27.6 ~ 32.4V 55.2 ~ 64.8V				
	OVER VOLIAGE		Protection type: Shut down o/p voltage, re-power on to recover					
	OVER TEMPERATURE		TSW1: Shut down o/p voltage, recovers automatically after temperature goes down					
	OVER I EIVIF	EKATUKE	TSW2: Shut down o/p voltage, re-power on to recover					
	5V STANDB	Y (G model)	5Vsb : 5V@0.6A without fan, 0.8A with fan 20.5CFM ; Tolerance \pm 2%, ripple : 50mVp-p(max.)					
	PS-ON INPUT	SIGNAL (G model)	Power on: PS-ON = "	Hi" or " > 2 ~ 5V"; Powe	er off: PS-ON = "Low" or " < 0) ~ 0.5V"		
FUNCTION	POWER GO	OD / POWER FAIL	500ms>PG>10ms	PF>1ms				
	REMOTE SE	NSE	5 ~ 15V					
	WORKING 1		-20 ~ +70°C (Refer to	"Derating Curve")				
	WORKING HUMIDITY		20 ~ 90% RH non-cor	<u> </u>				
NVIRONMENT		EMP., HUMIDITY		% RH non-condensing				
INVIRONWENT			±0.03%/°C (0 ~ 50°C					
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
				n./ rcycle, bumin. each a	along X, Y, Z axes			
	OPERATING	ALTITUDE Note.8	3000 meters IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2					
	SAFETY ST	ANDARDS			EN 60601-1:2006+A1+A1 EAC TP TC 004 approved			
	ISOLATION	LEVEL	Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP					
	WITHSTAND	VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC					
	ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH					
			Parameter		Standard	Test Leve	I / Note	
			Conducted emission	E	3S EN/EN55011 (CISPR11)	Class B		
	EMC EMIS	SION	Radiated emission		3S EN/EN55011 (CISPR11)	Class B		
			Harmonic current		3S EN/EN61000-3-2	Class A		
AFFTV 0			Voltage flicker		3S EN/EN61000-3-3			
SAFETY &			BS EN/EN55035, BS		50 211/21101000 0 0			
EMC Note 10)			Parameter		Standard	Test Leve	I / Nata	
Note 10)								
			ESD		3S EN/EN61000-4-2		5KV air ; Level 4, 8KV contac	
			RF field susceptibilit	y E	BS EN/EN61000-4-3		0V/m(80MHz~2.7GHz)	
			EFT bursts		DC EN/EN61000 4 4		-28V/m(385MHz~5.78GHz)	
	EMC IMM	JNITY			3S EN/EN61000-4-4	Level 3, 2h		
			Surge susceptibility		3S EN/EN61000-4-5		KV/Line-FG ; 2KV/Line-Line	
			Conducted suscepti	,	3S EN/EN61000-4-6	Level 3, 10		
			Magnetic field immu	nity E	3S EN/EN61000-4-8	Level 4, 30		
			Voltage dip, interrup	tion	3S EN/EN61000-4-11		periods, 30% dip 25 periods, uptions 250 periods	
	MTBF		2082.3K hrs min.	Telcordia SR-332 (Bellco	ore); 234.5K hrs min. MIL	-HDBK-217F (25°C)		
	DIMENSION	(I *W*H)	127*76.2*34.6mm or	5" * 3" *1.36" inch				
OTHERS	DIMENSION	(L VV 11)	127*76.2*34.6mm or 5" * 3" *1.36" inch					
THERS	PACKING	(L ** 11)	0.33Kg; 36pcs/12.9K					

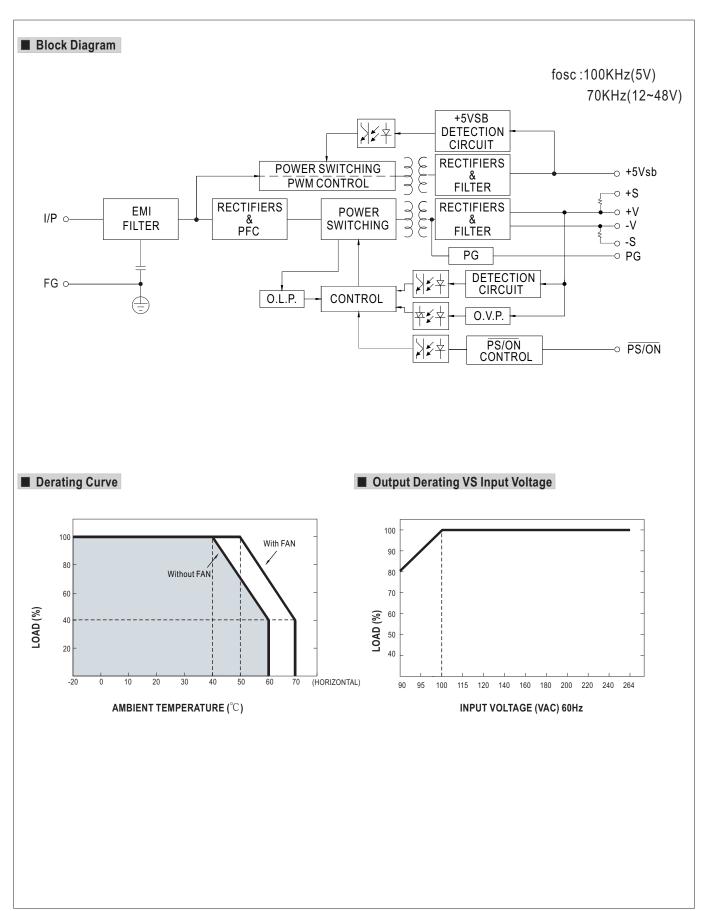
- 3. The rated power includes 5Vsb @ 0.8A.
- 4. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F parallel capacitor.

- 4. hippie a hoise are measured at 20/m2 of barlowdin by using a 12 twisted pair-wire terminated with a 0.1 \(\alpha = \text{A} \(\alp

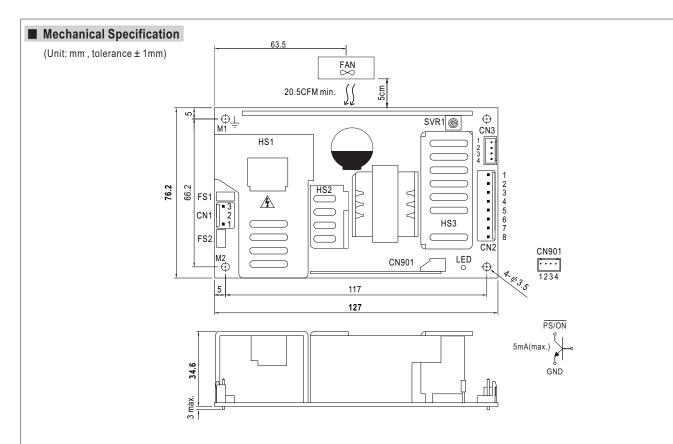
NOTE

10. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)









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

Pin No.	Assignment	Mating Housing	Terminal		
1	AC/N	1071/110	107.01/11.047.04		
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent		
3	AC/L	or equivalent			

DC Output Connector (CN2): JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3,4	+V	JST VHR	JST SVH-21T-P1.1
5,6,7,8	-V	or equivalent	or equivalent

$\stackrel{\perp}{=}$: Grounding Required

1.HS1,HS2,HS3 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

Power Good Connector(CN3):JST B4B-XH or equivalent

Pin No.	Status	Mating Housing	Terminal
1	PG		
2	GND	JST XHP	JST SXH-001T-P0.6
3	-S	or equivalent	or equivalent
4	+S		

5VSB Connector(CN901): JST B-XH or equivalent

Pin No.	o. Assignment Mating Housing		Terminal
1	PS/ON		107.07(1.0047
2,4	GND	JST XHP or equivalent	JST SXH-001T or equivalent
3	5VSB	or equivalent	or equivalent



























Features

- · 3"×2" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- Cooling by free air convection
- EMI class B for class

 ☐ configuration
- No load power consumption<0.1W
- Extremely low leakage current
- Protections: Short circuit / Overload / Over voltage
- · Lifetime > 105K hours
- · Operating altitude up to 4000 meters
- 3 years warranty

Applications

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

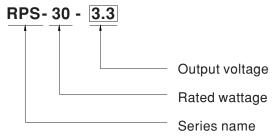
■ GTIN CODE

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Description

RPS-30 is a 30W highly reliable green PCB type medical power supply with a high power density on the 3" by 2" footprint. It accepts 80~264VAC input and offers various output voltages between 3.3V and 48V. The working efficiency is up to 92% and the extremely low no load power consumption is down below 0.1W. RPS-30 is able to be used for Class II (no FG) system design. The extremely low leakage current is less than 80 \(\mu A\). In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

Model Encoding





30W Reliable Green Medical Power Supply

ORDER NO		RPS-30-3.3	RPS-30-5	RPS-30-7.5	RPS-30-12	RPS-30-15	RPS-30-24	RPS-30-48	
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	48V	
	RATED CURRENT	6A	6A	4A	2.5A	2A	1.25A	0.625A	
	CURRENT RANGE	0 ~ 6.6A	0 ~ 6.6A	0 ~ 4.4A	0 ~ 2.75A	0 ~ 2.2A	0 ~ 1.375A	0 ~ 0.687A	
	RATED POWER	19.8W	30W	30W	30W	30W	30W	30W	
UTPUT	PEAK LOAD(10sec.) Note.:	2 21.8W	33W	33W	33W	33W	33W	33W	
	RIPPLE & NOISE (max.) Note.		80mVp-p	80mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	
	VOLTAGE ADJ.RANGE	3.1~3.6V	4.7~5.5V	7.12~8.3V	11.4~13.2V	13.5~16.5V		45.6~52.8	
	VOLTAGE TOLERANCE	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	土0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE TIME	200ms, 30ms / 2		, 30ms / 115VAC at		,		,	
	HOLD UP TIME (Typ.)	30ms / 230VAC	16ms / 115VAC	,	Tull load				
		5 80 ~ 264VAC	1011137 113 VAC	at full load					
	FREQUENCY RANGE	47 ~ 63Hz							
IPUT	.,	1 1	0.00/	0.40/	000/	000/	00.50/	020/	
IPUI	EFFICIENCY (Typ.)	80%	82%	84%	88%	89%	89.5%	92%	
	AC CURRENT (Typ.)	1A / 115VAC	0.5A / 230VAC	201/40					
	INRUSH CURRENT (Typ.)		A/115VAC 60A/23	BUVAC					
	LEAKAGE CURRENT(max.) Note.								
	OVERLOAD	115 ~ 150% rate							
		7.	1	overs automatically		1		T	
ROTECTION	OVER VOLTAGE	3.8~5V	5.7~6.8V	8.6~11.3V	13.8~16.2V	17.2~20.3V	28.4~32.4V	55.2~64.8\	
	OVER VOLINGE	Protection type: Shut down o/p voltage, re-power on to recover							
	WORKING TEMP.	-30 ~ +70 °C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
NVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85 $^{\circ}\text{C}$, 10 ~ 95% RH non-condensing							
EIII	TEMP. COEFFICIENT	±0.03% / °C (0~50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
	OPERATING ALTITUDE Note.	7 4000 meters	• • • • • • • • • • • • • • • • • • • •						
	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by request)							
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP							
	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC							
	ISOLATION RESISTANCE	I/P-O/P:100M O	nms / 500VDC / 25°	C/70% RH					
		Parameter		Standard		1	Test Level / Note		
		Conducted emission		BS EN/EN5	5011 (CISPR11)	(Class B		
	EMC EMISSION	Radiated emissi	Radiated emission		BS EN/EN55011 (CISPR11)		Class B		
AFETY &		Harmonic current			BS EN/EN61000-3-2		Class A		
MC		Voltage flicker BS EN/EN61000-3-3							
			, BS EN/EN60601-			-	Fact Lavel / Nata		
Note. 8)		Parameter ESD		Standard BS EN/EN6	1000.4.2		Test Level / Note	1.4. 9K\/.contoc	
Note. 8)		I EOU		B3 EN/ENC	1000-4-2		evel 4, 15KV air ; Leve evel 3, 10V/m(80MHz		
Note. 8)			RF field susceptibility		BS EN/EN61000-4-3			,	
Note. 8)		RF field suscep	tibility	BS EN/EN6	BS EN/EN61000-4-4		Table 9, 9~28V/m(385MHz~5.78GHz Level 3, 2KV		
Note. 8)	EMC IMMUNITY	RF field suscep	tibility		51000-4-4	L	evel 3, 2KV		
Note. 8)	EMC IMMUNITY		,				evel 4, 2KV/Line-Line		
Note. 8)	EMC IMMUNITY	EFT bursts	bility	BS EN/EN6	1000-4-5	L	·		
Note. 8)	EMC IMMUNITY	EFT bursts Surge susceptil	oility ceptibility	BS EN/EN6	61000-4-5 61000-4-6	L L	evel 4, 2KV/Line-Line evel 3, 10V evel 4, 30A/m		
Note. 8)	EMC IMMUNITY	EFT bursts Surge susceptil	pility ceptibility nmunity	BS EN/EN6 BS EN/EN6 BS EN/EN6	61000-4-5 61000-4-6 61000-4-8	L L L 1	evel 4, 2KV/Line-Line evel 3, 10V evel 4, 30A/m 00% dip 1 periods, 30% dip 00% interruptions 250 per		
Note. 8)	EMC IMMUNITY MTBF	EFT bursts Surge susceptil Conducted susc Magnetic field in	bility ceptibility nmunity	BS EN/EN6 BS EN/EN6 BS EN/EN6	61000-4-5 61000-4-6 61000-4-8 61000-4-11	L L L 1	evel 4, 2KV/Line-Line evel 3, 10V evel 4, 30A/m 00% dip 1 periods, 30% dip		
		EFT bursts Surge susceptil Conducted susc Magnetic field in Voltage dip, inte	bility ceptibility nmunity	BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG	61000-4-5 61000-4-6 61000-4-8 61000-4-11	L L L 1	evel 4, 2KV/Line-Line evel 3, 10V evel 4, 30A/m 00% dip 1 periods, 30% dip 00% interruptions 250 per		
Note. 8)	MTBF	EFT bursts Surge susceptil Conducted susc Magnetic field in Voltage dip, inte 3550.0K hrs m 76.2*50.8*24mm	ceptibility ceptibility nmunity erruption in. Telcordia S	BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG BS EN/ENG	61000-4-5 61000-4-6 61000-4-8 61000-4-11	L L L 1	evel 4, 2KV/Line-Line evel 3, 10V evel 4, 30A/m 00% dip 1 periods, 30% dip 00% interruptions 250 per		

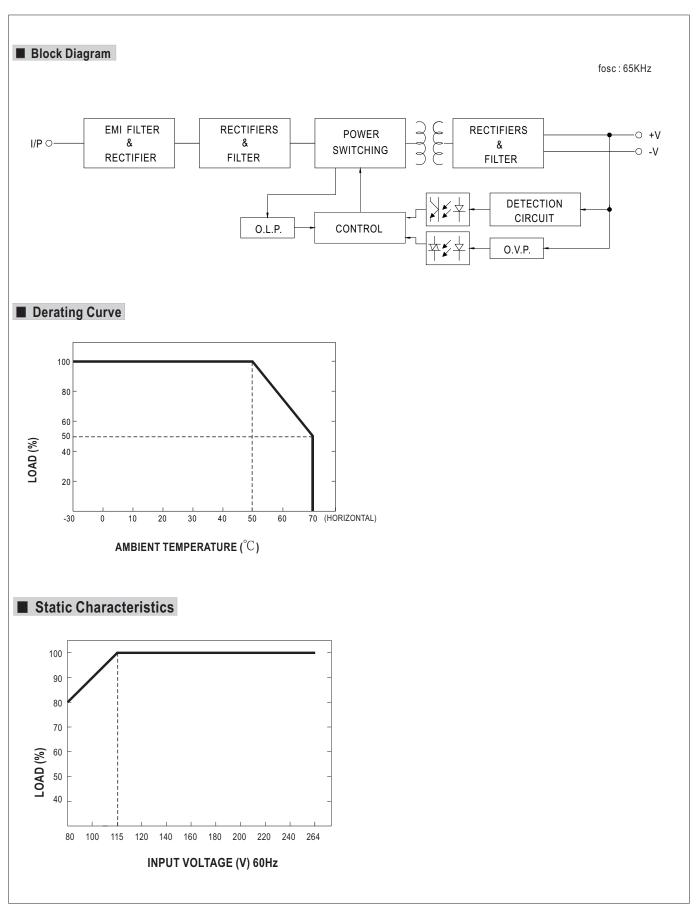
- 3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F parallel capacitor. 4. Tolerance : includes set up tolerance, line regulation and load regulation.
- 5. Derating may be needed under low input voltages. Please check the derating curve for more details.

NOTE

- 6. Touch current was measured from primary input to DC output.

 7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- 8. 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
- Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx



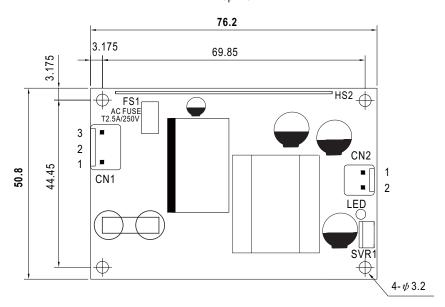


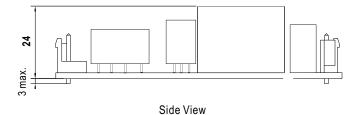


■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

Top View





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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	ICTVIID	ICT CVIII 24T D4 4
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	or oquivalent	or oquivalent

DC Output Connector (CN2): JST B2P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	+V	JST VHR	JST SVH-21T-P1.1
2	-V	or equivalent	or equivalent

■ Installation Manual

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





















- · 3"×2" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · Cooling by free air convection
- EMI class B for class Ⅱ configuration
- No load power consumption<0.1W
- Extremely low leakage current
- · Protections: Short circuit / Overload / Over voltage
- · Lifetime > 50K hours
- Operating altitude up to 4000 meters
- 3 years warranty







Applications

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

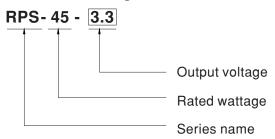
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Description

RPS-45 is a 45W highly reliable green PCB type medical power supply with a high power density on the 3" by 2" footprint. It accepts 80~264VAC input and offers various output voltages between 3.3V and 48V. The working efficiency is up to 91% and the extremely low no load power consumption is down below 0.1W. RPS-45 is able to be used for Class II (no FG) system design. The extremely low leakage current is less than 100μA. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

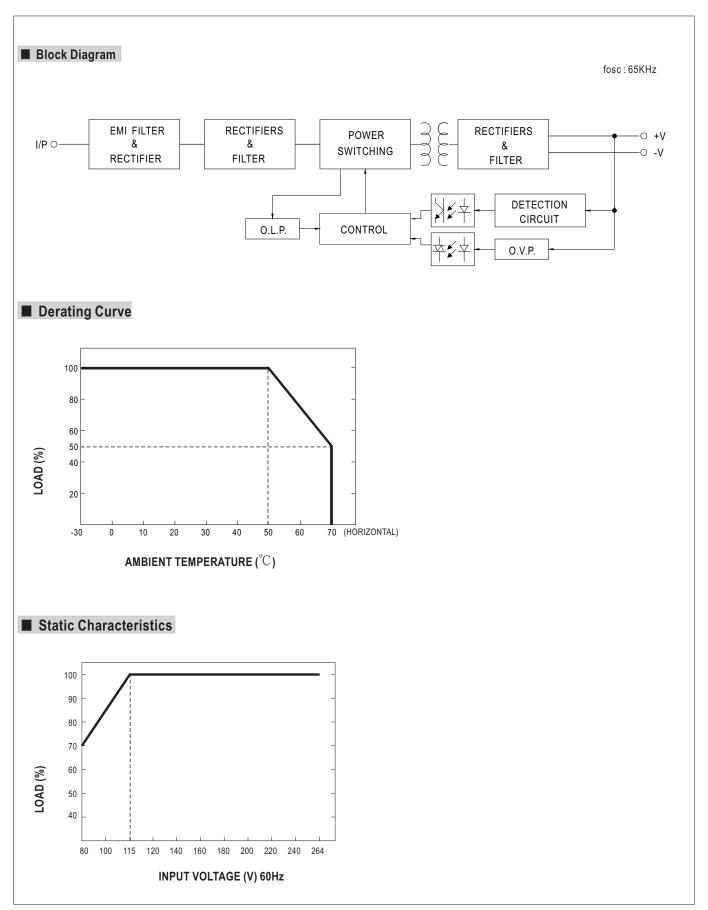
■ Model Encoding



45W Reliable Green Medical Power Supply

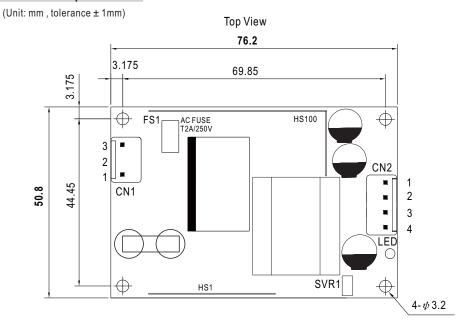
SPECIFIC ORDER NO.		RPS-45-3.3	RPS-45-5	RPS-45-7.5	RPS-45-12	RPS-45-15	RPS-45-24	RPS-45-48	
ONDER NO.	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	48V	
	RATED CURRENT	8A	8A	5.4A	3.8A	3A	1.9A	0.94A	
	CURRENT RANGE	0 ~ 8.8A	0 ~ 8.8A	0 ~ 5.95A	0 ~ 4.18A	0 ~ 3.3A		0.94A 0 ~ 1.03A	
							0 ~ 2.1A		
OUTDUT	RATED POWER	26.4W	40W	40.5W	45.6W	45W	45.6W	45.1W	
OUTPUT	PEAK LOAD(10sec.) Note.2		44W	44.6W	50.2W	49.5W	50.2W	49.4W	
	RIPPLE & NOISE (max.) Note.3		60mVp-p	80mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p	
	VOLTAGE ADJ.RANGE	3.1~3.6V	4.7~5.5V	7.12~8.3V	11.4~13.2V	13.5~16.5V	1 1	45.6~52.8V	
	VOLTAGE TOLERANCE Note.4		±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE TIME	500ms, 30ms / 23	OVAC 500ms	, 30ms / 115VAC a	t full load				
	HOLD UP TIME (Typ.)	30ms / 230VAC	16ms / 115VAC	at full load					
	VOLTAGE RANGE Note.5	80 ~ 264VAC							
	FREQUENCY RANGE	47 ~ 63Hz							
INPUT	EFFICIENCY (Typ.)	80.5%	83%	85%	88%	89%	90%	91%	
	AC CURRENT (Typ.)	1.2A / 115VAC	1A / 230VAC						
	INRUSH CURRENT (Typ.)	COLD STAR 30A	/115VAC 60A/23	0VAC					
	LEAKAGE CURRENT(max.) Note.6	Touch current< 1	00μA/264VAC						
		115 ~ 150% rate	d output power						
	OVERLOAD	Protection type:	Hiccup mode, rec	overs automaticall	y after fault condit	ion is removed			
PROTECTION		3.8~5V	5.7~6.8V	8.6~11.3V	13.8~16.2V	17.2~20.3V	28.4~32.4V	55.2~64.8V	
	OVER VOLTAGE	Protection type :		tage, re-power on					
	WORKING TEMP.	• • •	<u>.</u>						
	WORKING HUMIDITY	-30 ~ +70 °C (Refer to "Derating Curve") 20% ~ 90% RH non-condensing							
ENVIRONMENT	STORAGE TEMP., HUMIDITY		~ 95% RH non-con	ndensing					
LINVINONIILINI	TEMP. COEFFICIENT			laononig					
	VIBRATION	±0.03% / °C (0~50°C)							
	OPERATING ALTITUDE Note.7		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
	OI ENATING ALTHODE Note./								
	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by request)							
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP							
	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC							
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH							
		Parameter		Standard		Т	est Level / Note		
		Conducted emiss	sion	BS EN/EN	BS EN/EN55011 (CISPR11)		Class B		
SAFETY &	EMC EMISSION	Radiated emission	on	BS EN/EN	55011 (CISPR11)	C	Class B		
EMC		Harmonic currer	nt	BS EN/EN	61000-3-2	C	Class A		
(Note. 8)		Voltage flicker		BS EN/EN	BS EN/EN61000-3-3				
			BS EN/EN60601-1-2						
		Parameter		Standard			Test Level / Note		
		ESD		BS EN/EN	BS EN/EN61000-4-2		Level 4, 15KV air; Level 4, 8KV contact Level 3, 10V/m(80MHz~2.7GHz)		
		RF field suscept	ibility	BS EN/EN	BS EN/EN61000-4-3		Table 9, 9~28V/m(385MHz~5.78GHz)		
		EFT bursts		BS EN/EN	BS EN/EN61000-4-4		Level 3, 2KV		
	EMC IMMUNITY	Surge susceptib	ility	BS EN/EN	BS EN/EN61000-4-5		Level 4, 2KV/Line-Line		
		Conducted susc	eptibility	BS EN/EN	BS EN/EN61000-4-6		Level 3, 10V		
		Magnetic field in	nmunity	BS EN/EN	61000-4-8	L	evel 4, 30A/m		
		Voltage dip, inte	rruption	BS EN/EN	61000-4-11		00% dip 1 periods, 30% dip		
	MEDE	100% interruptions 250 periods							
OTHERS	MTBF	3334.3K hrs mi			, 120.21\ IIFS MIN	. WIL-HUBI	K-217F (25°C)		
OTHERS	DIMENSION (L*W*H)		or 3" * 2" *0.945" i	IICH					
	PACKING 1 All parameters NOT specially		4.2Kg/0.94CUFT	innut rated load and	1 25°C of ambient to	emnerature			
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. 3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor. 4. Tolerance: includes set up tolerance, line regulation and load regulation. 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. Touch current was measured from primary input to DC output. 7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000. 8. The power supply is considered a component which will be installed into a final equipment. "All the EMC tests are been executed by mounting."					itude higher than 2000 ecuted by mounting	m(6500ft).			
	For guidance on how to perfo (as available on https://www.n	metal plate with 1mm of thickness." The final equipment must be re-confirmed that it still meets EMC directives. rm these EMC tests, please refer to "EMI testing of component power supplies." neanwell.com//Upload/PDF/EMI_statement_en.pdf) For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx File Name:RPS-45-SPEC 2024-11-2							

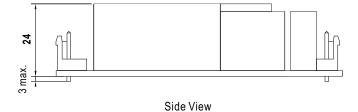






■ Mechanical Specification





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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	IOTAUD	IOT OVILL DAT DA A
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	or oquivaloni	or oquivalent

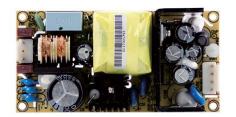
DC Output Connector (CN2): JST B4P-VH or equivalent

		(- /	
Pin No.	Assignment	Mating Housing	Terminal
1	+V		
2	+V	JST VHR	JST SVH-21T-P1.1
3	-V	or equivalent	or equivalent
4	-V		

■ Installation Manual

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













BS FN/FN62368-1 JFC62368-1













Features

- · 4"x2" compact size
- IT & Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1, IEC/BS EN/EN60601-1 and IEC/BS EN/EN/UL 62368-1
- 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
- Operating altitude up to 3000 meters
- 3 years warranty

Applications

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

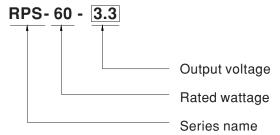
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

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 90~264VAC 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 μ A. In addition, it conforms to international IT and medical regulations (2*MOPP) and EMC BS EN/EN55022/BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

Model Encoding





60W Reliable Green Medical Power Supply

SPECIFICATION

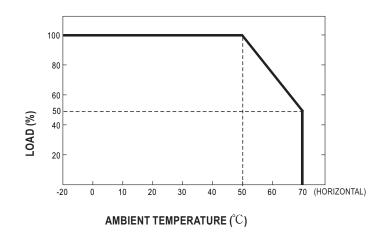
	3.3V	5V	12V	15V	24V	48V			
DATED CURRENT						1.0.			
RATED CURRENT	10A	10A	5A	4A	2.5A	1.25A			
CURRENT RANGE	0 ~ 11A	0 ~ 11A	0 ~ 5.5A	0 ~ 4.4A	0 ~ 2.75A	0 ~ 1.375A			
RATED POWER	33W	50W	60W	60W	60W	60W			
PEAK LOAD(10sec.) Note.2	36.3W	55W	66W	66W	66W	66W			
, ,	60mVp-p	60mVp-p	60mVp-p	100mVp-p	100mVp-p	100mVp-p			
, ,	3.1 ~ 3.6V			13.5 ~ 16.5V		45.6 ~ 52.8V			
VOLTAGE TOLERANCE Note.4	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%			
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	±1.0%		±1.0%	±1.0%		±1.0%			
	500ms 30ms/230\		ms/115VAC at full load	d					
,	•	•		-					
() ,									
		127 070720							
		70%	8/1%	85%	87%	86%			
			0470	0070	0170	0070			
			115\/AC						
() . ,				0 \ /264\ / \ C					
LEARAGE CORRENT(IIIax.) Note.5		-	ic, fouch current < 10	υ <i>μ</i> Α/204 VAC					
OVER LOAD			ro outomotically after f	oult condition in res	o d				
	• .								
OVER VOLTAGE					28.4 ~ 32.4V	55.2 ~ 64.8V			
Protection type: Shut down o/p voltage, re-power on to recover									
WORKING TEMP.									
WORKING HUMIDITY									
STORAGE TEMP., HUMIDITY	· · · · · · · · · · · · · · · · · · ·								
TEMP. COEFFICIENT									
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
OPERATING ALTITUDE Note.6 3000 meters									
SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2, CAN/CSA C22.2 No. 60601-1:2014+A2, IEC 62368-1:2014, UL 62368-1, 2nd Ed, CSA C22.2 No. 62368-1-14, 2nd Ed, TUV BS EN/ EN 62368-1:2014+A11, EAC TP TC 004 approved								
ISOLATION LEVEL	Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP								
WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC								
ISOLATION RESISTANCE	I/P-O/P I/P-FG O	P-FG·100M Ohms	500VDC/ 25°C/ 70% F						
	Parameter				Test Level / Note				
	Conducted emissi	n .		11 (CISPR11)					
EMC EMISSION				,					
		BS FN/FN60601-		• •					
		DO LIVILIVOUGO I			Test Level / Note				
				00.4.2					
	RF field susceptib	oility	BS EN/EN610	00-4-3	. ,	(385MHz~5.78GHz			
EMC IMMUNITY	EFT bursts		BS EN/EN610	00-4-4	Level 3, 2KV				
EMC IMMUNITY	Surge susceptibil	ity	BS EN/EN610	00-4-5	Level 4, 4KV/Line	-FG; 2KV/Line-Line			
	Conducted susce	ptibility	BS EN/EN610	00-4-6	Level 3, 10V				
	Magnetic field im	nunity	BS EN/EN610	00-4-8	Level 4, 30A/m				
	Voltage dip, inter	uption	BS EN/EN610	00-4-11	100% dip 1 periods, 100% interruptions				
MTBF	5153.0K hrs min.	Telcordia SR-332	(Bellcore); 353.6K hrs	s min. MIL-HDBK-21					
					, ,				
, ,									
All parameters NOT special	0. 1		C input, rated load an	nd 25°C of ambient ten	nperature				
	RATED POWER PEAK LOAD(10sec.) Note.2 RIPPLE & NOISE (max.) Note.3 VOLTAGE ADJ. RANGE VOLTAGE TOLERANCE Note.4 LINE REGULATION LOAD REGULATION SETUP, RISE TIME HOLD UP TIME (Typ.) VOLTAGE RANGE FREQUENCY RANGE EFFICIENCY (Typ.) AC CURRENT (Typ.) INRUSH CURRENT (Typ.) LEAKAGE CURRENT(max.) Note.5 OVER LOAD OVER VOLTAGE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION OPERATING ALTITUDE Note.6 SAFETY STANDARDS ISOLATION LEVEL WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY	RATED POWER 33W PEAK LOAD(10sec.) Note.2 36.3W RIPPLE & NOISE (max.) Note.3 60mVp-p VOLTAGE ADJ. RANGE 3.1 ~ 3.6V VOLTAGE TOLERANCE 42.0% LINE REGULATION ±0.5% LOAD REGULATION ±1.0% SETUP, RISE TIME 500ms, 30ms/230V HOLD UP TIME (Typ.) 60ms/230VAC VOLTAGE RANGE 90 ~ 264VAC FREQUENCY RANGE 47 ~ 63Hz EFFICIENCY (Typ.) 74% AC CURRENT (Typ.) 1.8A/115VAC INRUSH CURRENT (Typ.) COLD START 60A LEAKAGE CURRENT (max.) Note.5 Earth leakage curron over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated of Protection type : Secondary over 115 ~ 150% rated over 115 ~ 150%	RATED POWER 33W 50W PEAK LOAD (10sec.) Note.2 36.3W 55W RIPPLE & NOISE (max.) Note.3 60mVp-p 60mVp-p VOLTAGE ADJ. RANGE 3.1 ~ 3.6V 4.75 ~ 5.5V VOLTAGE TOLERANCE Note.4 ±2.0% ±2.0% ±2.0% LINE REGULATION ±0.5% ±0.5% ±0.5% LOAD REGULATION ±1.0% ±1.0% SETUP, RISE TIME 500ms, 30ms/230VAC 500ms, 30 HOLD UP TIME (Typ.) 60ms/230VAC 12ms/115VAC atf VOLTAGE RANGE 90 ~ 264VAC 127 ~ 370VDC FREQUENCY RANGE 47 ~ 63Hz EFFICIENCY (Typ.) 74% 79% AC CURRENT (Typ.) 1.8A/115VAC 1.A/230VAC INRUSH CURRENT (Typ.) 1.8A/115VAC 1.A/230VAC SAFETY STANDADS 5.7 ~ 6.8V Protection type : Hiccup mode, recove 3.8 ~ 5V 5.7 ~ 6.8V Protection type : Shut down o/p voltage WORKING TEMP. 20 ~ +70°C (Refer to "Derating Curve WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY 40 ~ +85°C, 10 ~ 95% RH non-conde ±0.03%/C (0 ~ 50°C) VIBRATION 10 ~ 500Mz, 2 G 10min/1cycle, period 00 PERATING ALTITUDE Note.6 3000 meters IEC G0601-1:2005+A1+A2, TUV BS EN EN 62368-1:2014+A1, EP ISOLATION LEVEL Primary-Secondary: 2xMOPP, Primary 10 × 500Mz, 2 G 10min/1cycle, period 10 × 500Mz, 2 G 10 × 500Mz, 2 G 10 × 50	RATED POWER 33W 50W 60W FEAK LOAD(10sec.) Note.2 36.3W 55W 66W 66W RIPPLE & NOISE (max.) Note.3 60mVp-p 60mVp-	RATED POWER 33W 50W 66W 60W 66W 66W 66W 66W 66W 60W 66W 60W 66W 66W 60W 66W 66W 66W 66W 66W 66W 60W 60W	RATED POWER 33W 50W 60W 60			

- NOTE
- 5. Touch current was measured from primary input to DC output.
 6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
 7. Heat Sink HS1,HS2 can not be shorted.
 8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
 - Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

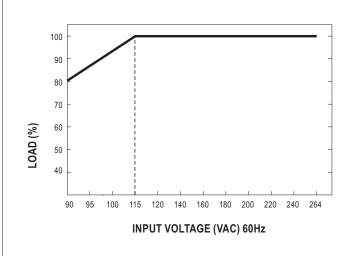


■ Block Diagram fosc: 100KHz **RECTIFIERS RECTIFIERS** POWER EMI SWITCHING **FILTER** FILTER FILTER DETECTION FG O CIRCUIT O.L.P. CONTROL O.V.P.

■ Output Derating



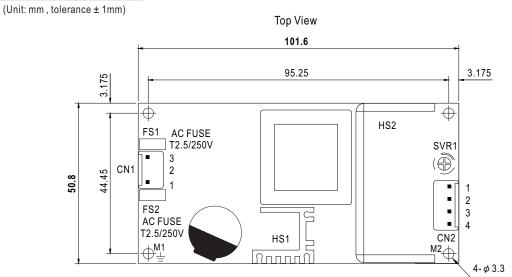
■ Output Derating VS Input Voltage

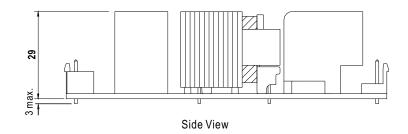


4- \phi 3.3



■ Mechanical Specification





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

Pin No.	Assignment Mating Housing		Terminal
1	AC/N	ICTVIID	JST SVH-21T-P1.1
2	No Pin	JST VHR or equivalent	or equivalent
3	AC/L	or oquivaloni	or oquivalone

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







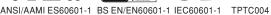




















■ Features

- · 3"×2" compact size
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · Cooling by free air convection
- $^{\bullet}$ EMI class B for class ${\rm I\hspace{-.1em}I}$ configuration
- No load power consumption<0.1W
- · Extremely low leakage current
- · Protections: Short circuit / Overload / Over voltage
- Operating altitude up to 4000 meters
- · 3 years warranty

Applications

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

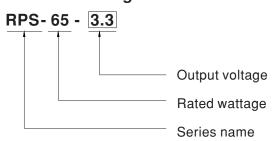
■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-65 is a 65W highly reliable green PCB type medical power supply with a high power density on the 3" by 2" footprint. It accepts $80\sim264$ VAC input and offers various output voltages between 3.3V and 48V. The working efficiency is up to 91% and the extremely low no load power consumption is down below 0.1W. RPS-65 is able to be used for Class II (no FG) system design. The extremely low leakage current is less than $100\,\mu$ A. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

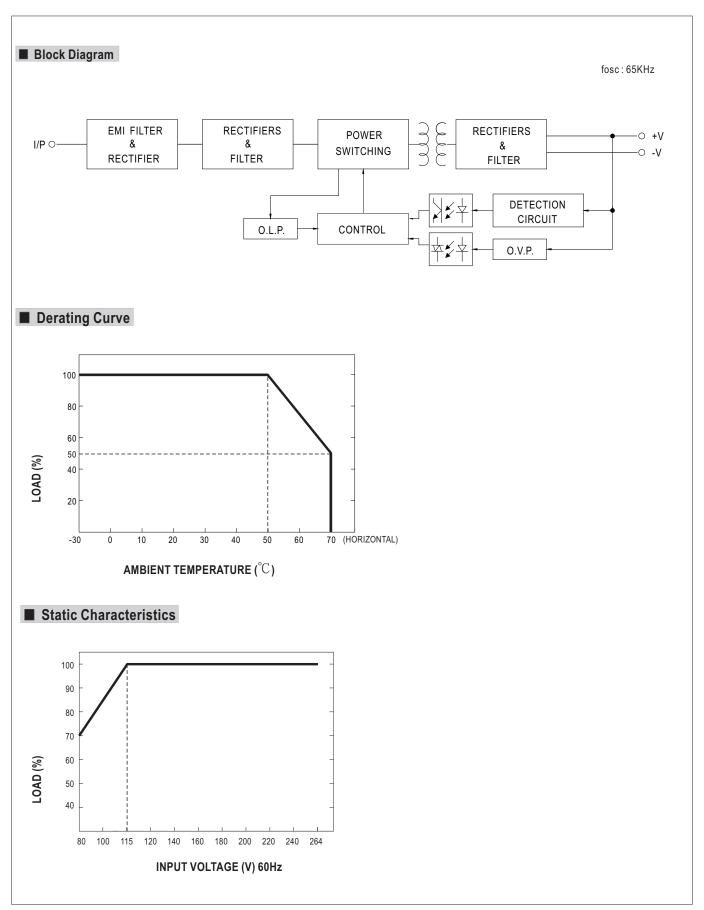
■ Model Encoding



SPECIFICATION

ORDER NO.		RPS-65-3.3	RPS-65-5	RPS-65-7.5	RPS-65-12	RPS-65-	15 RPS-65-24	RPS-65-48		
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	48V		
	RATED CURRENT	10A	10A	8A	5.42A	4.34A	2.71A	1.36A		
	CURRENT RANGE	0 ~ 11A	0 ~ 11A	0 ~ 8.8A	0 ~ 5.96A	0 ~ 4.77A	0 ~ 2.98A	0 ~ 1.49A		
	RATED POWER	33W	50W	60W	65W	65.1W	65W	65.3W		
OUTPUT	PEAK LOAD(10sec.)	36.3W	55W	66W	71.5W	71.6W	71.5W	71.5W		
	RIPPLE & NOISE (max.) Note.2		80mVp-p	80mVp-p	120mVp-p	120mVp-		150mVp-p		
	VOLTAGE ADJ.RANGE	2.9~3.6V	4.7~5.5V	7.12~8.3V	11.4~13.2V	13.5~16.5		45.6~52.8V		
	VOLTAGE TOLERANCE Note.3		±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%		
		500ms, 30ms / 23		30ms / 115VAC at		<u>1.0 /6</u>	1.0 /0	1.0 /0		
	SETUP, RISE TIME	,		,	. Iuli loau					
	HOLD UP TIME (Typ.)	30ms / 230VAC	12ms / 115VA	at full load						
		80 ~ 264VAC								
	FREQUENCY RANGE	47 ~ 63Hz								
NPUT	EFFICIENCY (Typ.)	80%	84%	85%	88%	89%	90%	91%		
	AC CURRENT (Typ.)	1.5A / 115VAC	1A / 230VAC							
	INRUSH CURRENT (Typ.)	COLD STAR 30	A/115VAC 50A/2	30VAC						
	LEAKAGE CURRENT(max.) Note.5	Touch current<	100 µ A/264VAC							
	OVERLOAR	115 ~ 150% rate	d output power							
	OVERLOAD	Protection type:	Hiccup mode, red	overs automatically	y after fault condit	ion is remove	d			
PROTECTION	01/50 1/0/ 74 05	3 8~4 5V 5 7~6 8V 8 6~11 3V 13 8~16 2V 17 2~20 3V 27 6~32 4V								
	OVER VOLTAGE	Protection type :	Shut down o/p vo	Itage, re-power on t	o recover	1	-			
	WORKING TEMP.	-30 ~ +70°C (Re	fer to "Derating Cu	rve")						
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
NVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing								
LINVINONIILINI	TEMP. COEFFICIENT	±0.03% / °C (0~50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
	-									
	OPERATING ALTITUDE Note.6									
	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by request)								
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP								
	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC	ary. Zalvior i							
			mo / 500\/DC / 25°	C / 700/ DU						
	ISOLATION RESISTANCE	/P-O/P:100M Ohms / 500VDC / 25 °C / 70% RH				Test Level / Note				
		Conducted emiss	sion		BS EN/EN55011 (CISPR11)		Class B			
	EMC EMISSION	Radiated emission			BS EN/EN55011 (CISPR11)		Class B			
	Lino Linioolon	Harmonic currer	***		BS EN/EN61000-3-2		Class A			
SAFETY &		Voltage flicker		BS EN/EN6						
EMC			,BS EN/EN60601-	1-2						
Note. 7)		Parameter		Standard	ndard		Test Level / Note			
		ESD		BS EN/EN6	BS EN/EN61000-4-2		Level 4, 15KV air ; Leve	el 4, 8KV contact		
		RF field suscept	tibility	BS EN/EN6	\$1000-4-3		Level 3, 10V/m(80MHz~2.7GHz)			
		·					Table 9, 9~28V/m(385MHz~5.78GHz			
	EMC IMMUNITY	EFT bursts Surge susceptib	sility		BS EN/EN61000-4-4		Level 3, 2KV			
		Conducted susc			BS EN/EN61000-4-5 BS EN/EN61000-4-6		Level 4, 2KV/Line-Line Level 3, 10V			
		Magnetic field in		BS EN/EN			Level 4, 30A/m			
		-	<u> </u>	BO ENVEN	71000 1 0		100% dip 1 periods, 30% di	n 25 periods		
		Voltage dip, inte	erruption	BS EN/EN6	51000-4-11		100% interruptions 250 pe			
	MTBF	3334.3K hrs m	3334.3K hrs min. Telcordia SR-332 (Bellcore) ; 959.1K hrs min. MIL-HDBK-217F (25°C)							
THERS	DIMENSION (L*W*H)	NSION (L*W*H) 76.2*50.8*24mm or 3" * 2" *0.945" inch								
	PACKING	0.11Kg; 120pcs/	14.2Kg/0.94CUFT							
NOTE	All parameters NOT specially Ripple & noise are measured Tolerance: includes set up to Derating may be needed und Touch current was measured The ambient temperature de The power supply is consider	d at 20MHz of ba blerance, line regider low input volta from primary input rating of 3.5°C/10 red a component	ndwidth by using a ulation and load re ages. Please chec out to DC output. 000m with fanless	a 12" twisted pair-wagulation. It the derating curve models and of 5°C, alled into a final equ	ire terminated with e for more details. (1000m with fan n uipment. The final	h a 0.1μ F & nodels for ope equipment m	47 μ F parallel capacitons erating altitude higher the state of the capacitons are the capacitons.	nan 2000m(6500 at		

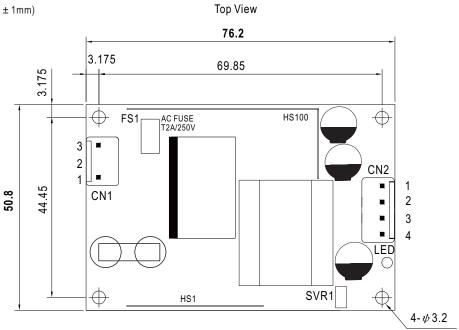


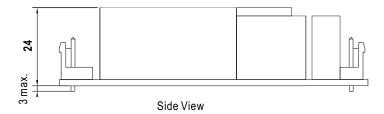




■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)





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

Pin No.	Assignment Mating Housing		Terminal
1	AC/N	IOTALID	IOT OVILLOAT DA A
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	or equivalent	or oquivalent

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

Pin No.	Assignment	Mating Housing	Terminal
1	+V		
2	+V	JST VHR	JST SVH-21T-P1.1
3	-V	or equivalent	or equivalent
4	-V		

■ Installation Manual

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

























Features

- 5"×3" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · 75W convection,100W force air
- EMI Class B for Class I configuration
- No load power consumption<0.75W
- · Remote sense functiom
- Protections: Short circuit / Overload / Over voltage
- Lifetime > 80K hours
- Operating altitude up to 3000 meters
- 3 years warranty

Description

Applications

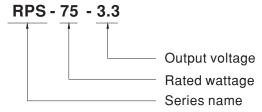
- Oral irrigator
- · Hemodialysis machine
- Medical computer monitors
- · Sleep apnea devices

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

RPS-75 is a 75W highly reliable green PCB type medical power supply with a high power density on the 5" by 3" footprint. It accepts 90~264VAC 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-75 is able to be used for Class I (with FG) system design. The extremely low leakage current is less than 150 µA. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

Model Encoding

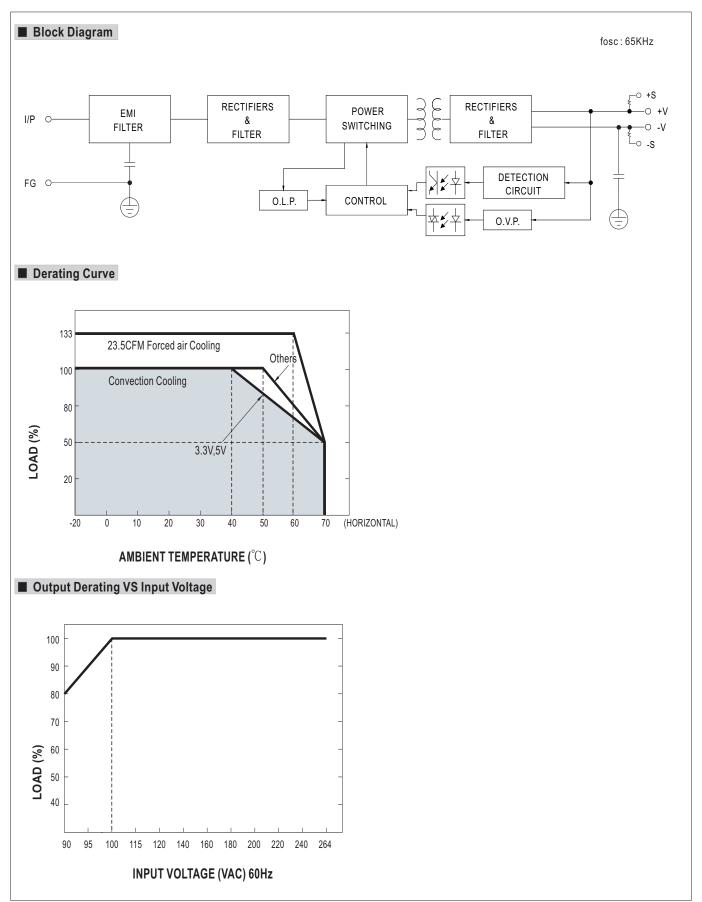




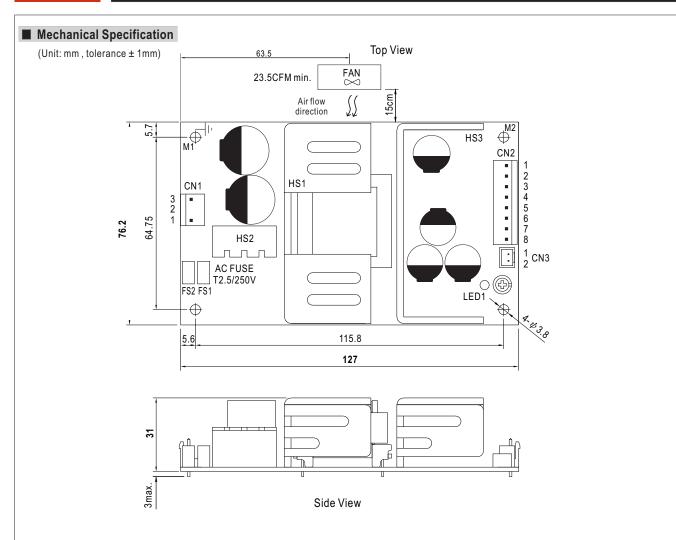
SPECIFICATION

		RPS-75-3.3	RPS-75-5	RPS-75-12	RPS-75-15	RPS-75-24	RPS-75-36	RPS-75-48		
	DC VOLTAGE	3.3V	5V	12V	15V	24V	36V	48V		
	RATED CURRENT	15A	14A	6.3A	5A	3.2A	2.1A	1.6A		
	CURRENT RANGE	0 ~ 20A	0 ~ 18.7A	0 ~ 8.3A	0 ~ 6.7A	0 ~ 4.2A	0 ~ 2.8A	0 ~ 2.1A		
	RATED POWER	49.5W	70W	75.6W	75W	76.8W	75.6W	76.8W		
	PEAK LOAD (23.5CFM)	66W	93.5W	99.6W	100.5W	100.8W	100.8W	100.8W		
UTDUT	RIPPLE & NOISE (max.) Note.2	60mVp-p	60mVp-p	60mVp-p	60mVp-p	100mVp-p	100mVp-p	100mVp-p		
UTPUT	VOLTAGE ADJ. RANGE	2.9 ~ 3.6V	4.75 ~ 5.5V	11.4 ~ 13.2V	13.5 ~ 16.5V	22.8 ~ 27.6V	34.2 ~ 39.6V	45.6 ~ 52.8V		
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1.5%	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	SETUP, RISE TIME	500ms, 30ms/23	0VAC 500m	s, 30ms/115VAC at	full load	<u>'</u>		'		
	HOLD UP TIME (Typ.)	90ms/230VAC	20ms/115VAC	at full load						
	VOLTAGE RANGE	90 ~ 264VAC	127 ~370VDC							
	FREQUENCY RANGE	47 ~ 63Hz								
NDUT.	EFFICIENCY(Typ.)	73%	78%	82%	83%	85%	86%	86%		
NPUT	AC CURRENT (Typ.)	1.5A/115VAC	1A/230VAC	1 5276	2270	1270	1 22,70	1 2270		
	INRUSH CURRENT (Typ.)	COLD START 2		50A/230VAC						
	LEAKAGE CURRENT(max.) Note.4			64VAC , Touch curre	ent < 100 #A/264VA	C				
	, ,	140 ~ 180% rate		71770, 100011 0011	7100 pt (2017)					
	OVERLOAD			covers automatical	v after fault condition	on is removed				
ROTECTION		3.8 ~ 4.5V	5.7 ~ 6.8V	13.8 ~ 16.2V	17.2 ~ 20.3V	27.6 ~ 32.4V	41.4 ~ 48.6V	55.2 ~ 64.8V		
	OVER VOLTAGE			oltage, re-power to		21.0 02.40	71.7 70.00	33.2 04.01		
	WORKING TEMP	,,	fer to "Derating C		ecovei					
	WORKING TEMP.	,		uive)						
WINDOWS THE	WORKING HUMIDITY		20 ~ 90% RH non-condensing							
NVIRONMENT	STORAGE TEMP., HUMIDITY		40 ~ +85°C, 10 ~ 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								
	OPERATING ALTITUDE Note.5	3000 meters								
	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by request)								
	ISOLATION LEVEL	Primary-Secondary:2xMOPP, Primary-Earth:1xMOPP								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
		Parameter		Standar	Standard		est Level / Note			
		Conducted emis	ssion	BS EN/E	BS EN/EN55011 (CISPR11)		Class B			
	EMC EMISSION	Radiated emiss	ion	BS EN/E	N55011 (CISPR11)	C	Class B			
SAFETY &		Harmonic curre	nt	BS EN/E	N61000-3-2	0	Class A			
EMC		Voltage flicker		BS EN/E	N61000-3-3					
Note 7)		BS EN/EN5503	5, BS EN/EN6060	1-1-2						
		Parameter		Standar	d	T	est Level / Note			
		ESD		BS EN/E	N61000-4-2	L	Level 4, 15KV air ; Level 4, 8KV contac			
		DE (DO EN1/5	104000 4 0	L	Level 3, 10V/m(80MHz~2.7GHz)			
		RF field suscep	unilly	RS FN/F	N61000-4-3	Ta	able 9, 9~28V/m(38	5MHz~5.78GHz)		
	EMO IMMALIANTY	EFT bursts		BS EN/E	N61000-4-4	L	Level 3, 2KV			
		Surge suscepti	bility	BS EN/E	N61000-4-5	L	evel 4, 4KV/Line-FG	; 2KV/Line-Line		
	EMC IMMUNITY	Surge suscepti			BS EN/EN61000-4-6		Level 3, 10V			
	EMC IMMUNITY	Conducted sus	ceptibility	BS EN/E	N6 1000-4-6	J L				
	EMCIMMUNITY		. ,		N61000-4-6 N61000-4-8		evel 4, 30A/m			
	EMC IMMUNITY	Conducted sus	mmunity	BS EN/E		L 1	evel 4, 30A/m 00% dip 1 periods, 30% 00% interruptions 250			
	MTBF	Conducted sus Magnetic field i	mmunity erruption	BS EN/E	N61000-4-8 N61000-4-11	L 1	00% dip 1 periods, 30% o 00% interruptions 250 p			
OTHERS		Conducted sus Magnetic field i Voltage dip, int 2837.6K hrs mir	mmunity erruption	BS EN/E BS EN/E -332 (Bellcore) ; 44	N61000-4-8 N61000-4-11	1 1	00% dip 1 periods, 30% o 00% interruptions 250 p			
OTHERS	МТВГ	Conducted sus Magnetic field i Voltage dip, int 2837.6K hrs mir 127*76.2*31mm	mmunity erruption i. Telcordia SR	BS EN/E BS EN/E -332 (Bellcore) ; 44 nch	N61000-4-8 N61000-4-11	1 1	00% dip 1 periods, 30% o 00% interruptions 250 p			
OTHERS IOTE	MTBF DIMENSION (L*W*H)	Conducted sus Magnetic field i Voltage dip, int 2837.6K hrs mir 127*76.2*31mm 0.26Kg; 63pcs/1 Illy mentioned are ed at 20MHz of to tolerance, line re ed from primary is errating of 3.5°C/ an not be shorted ered a compone ate with 1mm of to tolease refer to "E v.meanwell.com//	erruption Telcordia SR or 5" * 3" *1.22" i 6.3Kg/1.28CUFT measured at 23 pandwidth by usin gulation and load enput to DC outpu 1000m with fanle: 1. Int which will be in hickness. The fin MI testing of com Upload/PDF/EMI	BS EN/E BS EN/E BS EN/E 332 (Bellcore); 44 nch OVAC input, rated g a 12" twisted pad d regulation. it. ss models and of 5 nstalled into a final al equipment must upponent power sup _statement_en.pdi	N61000-4-8 N61000-4-11 6.8K hrs min. MI load and 25°C of a r-wire terminated v s°C/1000m with far equipment. All the be re-confirmed the lies."	L-HDBK-217F (25) ambient temperate with a 0.1 μ F & 4 and a models for oper EMC tests are benat it still meets E	00% dip 1 periods, 30% 00% interruptions 250 CC) ure. 7 μ F parallel capacating altitude higher een executed by m MC directives. For significant capacating altitudes.	periods citor. than 2000m(650 ounting the unit c		





75W Reliable Green Medical Power Supply



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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	ICTVIID	JST SVH-21T-P1.1
2	No Pin	JST VHR or equivalent	or equivalent
3	AC/L	or oquivalone	or oquivalone

DC Output Connector (CN2): JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3,4	+V	JST VHR	JST SVH-21T-P1.1
5,6,7,8	-V	or equivalent	or equivalent

 $\stackrel{\perp}{=}$: Grounding Required

1.HS1,HS2,HS3 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

Remote Sense(CN3): JST B2B-XH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	RS+	JST XHP	JST SXH-001T-P0.6
2	RS-	or equivalent	or equivalent



























Features

- · 4"×2" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- 84W convention, 120W force air
- EMI Class B for both Class I (with FG) & Class II (no FG) configuration
- No load power consumption<0.3W
- Extremely low leakage current
- 12V/0.5A fan supply
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Operating altitude up to 4000 meters
- 3 years warranty

Applications

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

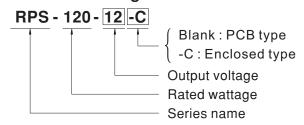
■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-120 is a 120W highly reliable green PCB type medical power supply with a high power density on a 4" by 2" footprint. It accepts 80~264VAC input and offers various models with the output voltages between 12V and 48V. The working efficiency is up to 91% and the extremely low no load power consumption is down below 0.3W. RPS-120 is able to be used for both Class I (with FG) or Class II (no FG) system design. The extremely low leakage current is less than 150 μ A. In addition, it conforms to the international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

■ Model Encoding





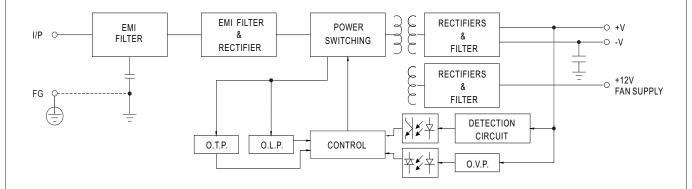
MODEL			RPS-120-12	RPS-120-15	RPS-120-24	RPS-120-27	RPS-120-48			
	DC VOLTAGE		12V	15V	24V	27V	48V			
		10CFM	10A	8A	5A	4.5A	2.5A			
	CURRENT	Convection	7.0A	5.6A	3.5A	3.15A	1.75A			
	RATED	10CFM	120W	120W	120W	121.5W	120W			
	POWER	Convection	84W	84W	84W	85W	84W			
	RIPPLE & NOIS	E (max.) Note.2		120mVp-p	150mVp-p	150mVp-p	150mVp-p			
DUTPUT	VOLTAGE AD	, ,	11.4~12.6V	14.3~15.8V	22.8~25.2V	25.6 ~ 28.4V	45.6 ~50.4V			
	VOLTAGE TOLERANCE Note.3			±2.0%	±1.0%	±1.0%	±1.0%			
	LINE REGULATION		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	LOAD REGUI		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%			
	SETUP, RISE		500ms, 30ms/230VAC		s/115VAC at full load	_ 1.070	_ 1.0 /0			
	HOLD UP TIM			Oms/115VAC at full						
		NGE Note.4		3 ~ 370VDC	1000					
				5~ 370VDC						
	FREQUENCY		47 ~ 63Hz	89%	90%	000/	040/			
NPUT	EFFICIENCY		89%		90%	90%	91%			
AC CURRENT (T		· • · · ·		2A/230VAC	0) (A O					
	INRUSH CURRENT (Typ.)		COLD START 30A/11			100.43.44.0				
	LEAKAGE CURR	ENT(max.) Note.5		·	C, Touch current < 80 μA	/264VAC				
	OVERLOAD		115~150% rated outp							
			,,		automatically after fault o					
PROTECTION	OVER VOLTA	GE	13.2 ~ 15.6V	16.5 ~ 19.5V	26.4 ~ 31.2V	29.7 ~ 35V	52.8 ~ 62.4V			
	OVER VOLIAGE		Protection type : Shut	down o/p voltage,	re-power on to recover					
	OVER TEMPI	ERATURE	• • • • • • • • • • • • • • • • • • • •	, ,	re-power on to recover					
FUNCTION	FAN SUPPLY		12V@0.5A for driving	a fan ; tolerance	15% ~ +10% at main ou	tput 40% rated curren	t (10CFM)			
	WORKING TE	MP.	-30 ~ +70°C (Refer to	-30 ~ +70 °C (Refer to "Derating Curve")						
ENVIRONMENT	WORKING HI	JMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TE	MP., HUMIDITY	-40 ~ +85°C, 10 ~ 95%	6 RH non-condens	ng					
	TEMP. COEF	FICIENT	±0.03%/°C (0~50°C)							
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
	OPERATING AL	TITUDE Note.6	4000 meters							
	SAFETY STA	NDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by reque							
	ICOL ATION D	ECICTANCE					:in/Einousss-T(by requ			
		ESISTANCE		Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP						
	WITHSTAND			FG:2KVAC O/P-						
	ISOLATION	RESISTANCE	Parameter	I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C / 70% RH		Took Level	Test Level / Note			
			Conducted emission		tandard S EN/EN55011 (CISPR11)	Class B				
	EMC EMISS	ION	Radiated emission		S EN/EN55011 (CISPR11)	Class B				
SAFETY &			Harmonic current	В	S EN/EN61000-3-2	Class A				
EMC 7			Voltage flicker		S EN/EN61000-3-3					
Note 7)			BS EN/EN55035,BS EN/ Parameter		tandard	Test Level	/ Note			
			ESD		S EN/EN61000-4-2		V air ; Level 4, 8KV contact			
							//m(80MHz~2.7GHz)			
			RF field susceptibility		S EN/EN61000-4-3	Table 9, 9~2	8V/m(385MHz~5.78GHz			
	EMC IMMUN	IITY	EFT bursts Surge susceptibility		S EN/EN61000-4-4 S EN/EN61000-4-5	Level 3, 2KV				
			Conducted susceptibility		S EN/EN61000-4-6	Level 4, 4KV	/Line-FG; 2KV/Line-Line			
			Magnetic field immunity		S EN/EN61000-4-8	Level 4, 30A				
			Voltage dip, interruption	В	S EN/EN61000-4-11	1 1	riods, 30% dip 25 periods,			
	MTBF		3732.9K hrs min. Te	lcordia SR-332 (Bell	core) ; 653.6K hrs min.	· .	ptions 250 periods			
OTHERS	DIMENSION	(L*W*H)			"inch; Enclosed type:1	, ,	" * 2.44" *1.57" inch			
	PACKING	/			Enclosed type:0.24Kg; 60					
	1. All paramete		ly mentioned are measur	red at 230VAC input	rated load and 25 of ambie	ent temperature.				
	2. Ripple & no	ise are measure		n by using a 12" twis	ted pair-wire terminated wit		capacitor.			
	4. Derating ma	ay be needed ur	nder low input voltages. F	Please check the der	ating curve for more details					
NOTE			ed from primary input to Derating of 3.5°C/1000m w		nd of 5° C/1000m with fan n	nodels for operating altitu	de higher than 2000m/65			
1012	o. The ambien									

- mounting the unit or 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
- % Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

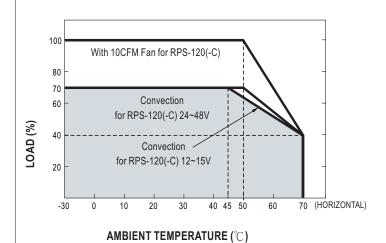


■ Block Diagram

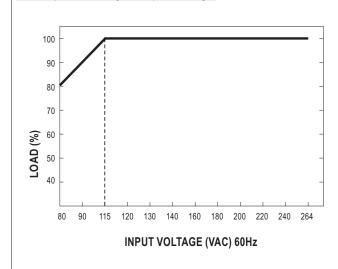
fosc: 65KHz



■ Derating Curve



■ Output Derating VS Input Voltage

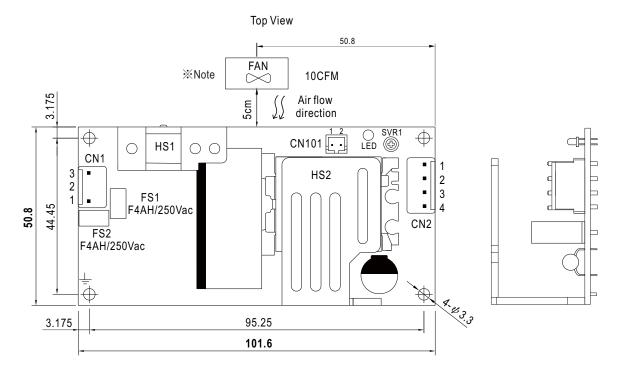


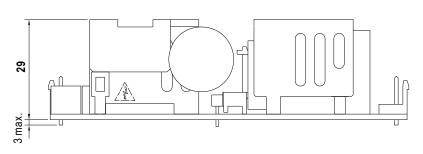


■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

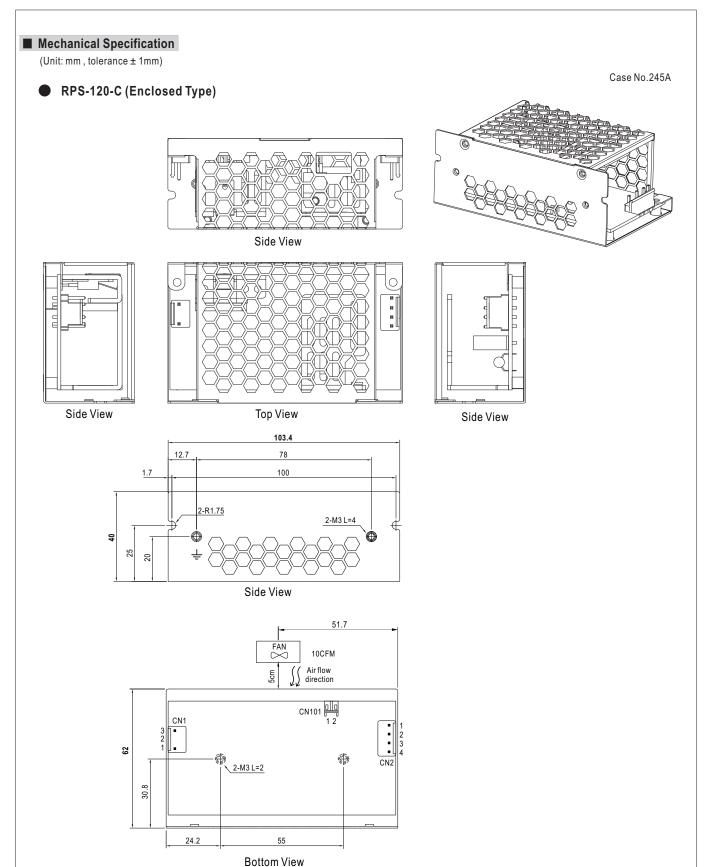
RPS-120 (PCB Type)





Side View







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

Pin No.	Assignment Mating Housing		Terminal
1	AC/N	ICTVIID	ICT CVIII DAT DA A
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/L	3. 344.7410111	or oquivalent

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

FAN Connector(CN101): JST S2B-PH-K-S or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM(FAN-)	JST PHR-2	JST SPH-002T-P0.5S
2	+12V(FAN+)	or equivalent	or equivalent

1.HS1,HS2 cannot be shorted.

2.HS1 must have safety isolation distance with system case.

- enabling the full load delivery and assuring the best life span of the product. Please do not use this FAN supply to drive other devices.
 - 2.The PCB type(Blank type)model delivers EMI Class B for both conducted emission and radiated emission for the power supply, when configured into either Class $\, I \,$ (with FG) or Class $\, II \,$ (no FG) system.
 - 3. The Enclosed type(-C type) model is not suitable for the configuration within a Class II (no FG) system but is suggested to used within a Class $\ I\ (\text{with FG})\ \text{system}.$

■ Installation Manual

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



























Features

- · 3"×2" compact size
- · 120W convention, 150W peak (10sec.)
- · Medical safety approved (2 x MOPP) accroding to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- · Suitable for BF application with appropriate system consideration
- EMI for both Class I & Class II configuration
- -30~+85°C wide range operating temperature
- No load power consumption<0.3W
- · Extremely low leakage current
- · Protections: Short circuit / Overload / Over voltage / Over temperature
- Operating altitude up to 4000 meters (Note.6)
- · 3 years warranty

Applications

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

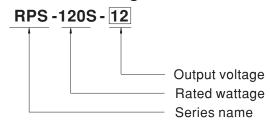
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-120S is a 120W highly reliable green PCB type medical power supply with a high power density on a 3" by 2" footprint. It accepts 80~264VAC input and offers various models with the output voltages between 12V and 48V. The working efficiency is up to 94% and the extremely low no load power consumption is down below 0.3W. RPS-120S is able to be used for both Class I (with FG) & Class II (no FG) system design. The extremely low leakage current is less than 150 µA. In addition, it conforms to the international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

Model Encoding





OUTPUT VOLTAGE A VOLTAGE A VOLTAGE A VOLTAGE A LOAD REGU SETUP, RIS HOLD UP TI VOLTAGE R FREQUENC POWER FA EFFICIENC' AC CURREN INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING I WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTAND	Peak(10 sec Convection Peak(10 sec Convection ISE (max.) Note ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. CY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	n 9.5A .) 141.6W n 114W .2 100mVp-p 11.4~12.6V .3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC		24V 6.25A 5A 150W 120W 150mVp-p 22.8~25.2V ±1.0% ±0.5% ±1.0%	27V 5.55A 4.44A 149.8W 119.9W 150mVp-p 25.6 ~ 28.4V ±1.0% ±0.5%	48V 3.125A 2.5A 150W 120W 200mVp-p 45.6 ~50.4V ±1.0%			
RATED POWER RIPPLE & NO VOLTAGE A VOLTAGE TO LINE REGUL LOAD REGIL SETUP, RIS HOLD UP TO VOLTAGE R FREQUENCY AC CURREN INRUSH CU LEAKAGE CUR OVER LOAD OVER VOLT OVER TEMIL WORKING TO WORKING TO WORKING TO VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMIS	Convection Peak(10 sec Convection ISE (max.) Note ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. BY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	n 9.5A .) 141.6W n 114W .2 100mVp-p 11.4~12.6V .3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 1:	7.6A 142.5W 114W 120mVp-p 14.3~15.8V ±2.0% ±0.5% ±1.0% 600ms, 30ms/	5A 150W 120W 150mVp-p 22.8~25.2V ±1.0% ±0.5%	4.44A 149.8W 119.9W 150mVp-p 25.6 ~ 28.4V ±1.0%	2.5A 150W 120W 200mVp-p 45.6 ~50.4V			
RATED POWER RIPPLE & NO VOLTAGE A VOLTAGE TO LINE REGUL LOAD REGIL SETUP, RIS HOLD UP TO VOLTAGE R FREQUENCY AC CURREN INRUSH CU LEAKAGE CUR OVER LOAD OVER VOLT OVER TEMIN WORKING TO WORKING TO WORKING TO VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMIS	Peak(10 sec Convection ISE (max.) Note ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.)	141.6W 114W 100mVp-p 11.4~12.6V 3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 180~264VAC 113	142.5W 114W 120mVp-p 14.3~15.8V ±2.0% ±0.5% ±1.0% 600ms, 30ms/	150W 120W 150mVp-p 22.8~25.2V ±1.0% ±0.5%	149.8W 119.9W 150mVp-p 25.6 ~ 28.4V ±1.0%	150W 120W 200mVp-p 45.6 ~50.4V			
POWER RIPPLE & NO VOLTAGE A VOLTAGE A VOLTAGE TO LINE REGUI LOAD REGI SETUP, RIS HOLD UP TI VOLTAGE R FREQUENC POWER FA EFFICIENCY AC CURREN INRUSH CU LEAKAGE CUR OVER LOAD OVER VOLT OVER TEMI WORKING I WORKING I WORKING A SAFETY ST. ISOLATION WITHSTAND ISOLATION MC MC NOTE TO ISOLATION WITHSTAND ISOLATION EMC EMIS	Convection ISE (max.) Note ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	n 114W 2 100mVp-p 11.4~12.6V 3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 1 80 ~ 264VAC 113	114W 120mVp-p 14.3~15.8V ±2.0% ±0.5% ±1.0% 600ms, 30ms/	120W 150mVp-p 22.8~25.2V ±1.0% ±0.5%	119.9W 150mVp-p 25.6 ~ 28.4V ±1.0%	120W 200mVp-p 45.6 ~50.4V			
RIPPLE & NO VOLTAGE A VOLTAGE TO LINE REGUI LOAD REGUI SETUP, RIS HOLD UP TI VOLTAGE R FREQUENCY AC CURRENT INRUSH CUI LEAKAGE CUR OVER LOAD OVER VOLT OVER TEMI WORKING TO WORK	ISE (max.) Note ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	2 100mVp-p 11.4~12.6V 3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 1:	120mVp-p 14.3~15.8V ±2.0% ±0.5% ±1.0% 600ms, 30ms/	150mVp-p 22.8~25.2V ±1.0% ±0.5%	150mVp-p 25.6 ~ 28.4V ±1.0%	200mVp-p 45.6 ~50.4V			
NUTPUT VOLTAGE A VOLTAGE A VOLTAGE TO LINE REGUI LOAD REGUI SETUP, RIS HOLD UP TO VOLTAGE R FREQUENCY POWER FA EFFICIENCY AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING TO WORKING TO TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTAND ISOLATION MC MC MC Note 7)	ADJ. RANGE LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	11.4~12.6V .3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 1: 4 80~264VAC 11:	14.3~15.8V ±2.0% ±0.5% ±1.0% 600ms, 30ms/	22.8~25.2V ±1.0% ±0.5%	25.6 ~ 28.4V ±1.0%	45.6 ~50.4V			
NOLTAGE A VOLTAGE A VOLTAGE TO LINE REGUI LOAD REGUI SETUP, RIS HOLD UP TO VOLTAGE R FREQUENCY AC CURRENT INRUSH CUI LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMMORKING TO WORKING TO WORKING TO VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTAND ISOLATION EMC EMIS SAFETY & SAF	LERANCE Note LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	3 ±2.0% ±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 11 4 80 ~ 264VAC 11	±2.0% ±0.5% ±1.0% 600ms, 30ms/	±1.0% ±0.5%	±1.0%				
INPUT INPUT ROTECTION NVIRONMENT NVIRONMENT AC CURRENT INRUSH CU LEAKAGE CUR OVER LOAD WORKING TO WORKIN	LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 11 4 80 ~ 264VAC 11	±0.5% ±1.0% 600ms, 30ms/	±0.5%	±1.0%				
INPUT INPUT INPUT ROTECTION OVER VOLT OVER TEMI WORKING T W	LATION ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	±0.5% ±1.0% 600ms, 30ms/230VAC 15ms/230VAC 11 4 80 ~ 264VAC 11	±0.5% ±1.0% 600ms, 30ms/	±0.5%					
INPUT INPUT INPUT AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC EMIS	ULATION E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	±1.0% 600ms, 30ms/230VAC 15ms/230VAC 1 80 ~ 264VAC 11:	±1.0%			±0.5%			
ROTECTION	E TIME IME (Typ.) RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	600ms, 30ms/230VAC 15ms/230VAC 1 80 ~ 264VAC	600ms, 30ms/	- 1.0 /0	±1.0%	±1.0%			
INPUT INPUT FREQUENC POWER FA EFFICIENCY AC CURREN INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING I WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMC Note 7)	IME (Typ.) RANGE Note. RY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	15ms/230VAC 113		115\/AC at full load	± 1.070	= 1.0 /0			
INPUT AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING TO WORKING TO WORKING TO VIBRATION OPERATING AS SAFETY STA ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC EMIS	RANGE Note. EY RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	4 80 ~ 264VAC 113							
INPUT FREQUENCY POWER FA EFFICIENCY AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC Note 7)	Y RANGE CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)								
INPUT EFFICIENCY AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMIN WORKING TO WOR	CTOR Y (Typ.) NT (Typ.) RRENT (Typ.)	47 ∼ 63Hz	3 ~ 370VDC						
INPUT AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COE VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMIS	Y (Typ.) NT (Typ.) RRENT (Typ.)	55112							
AC CURRENT INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING IT WORKING IT TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC Note 7)	NT (Typ.) RRENT (Typ.)	PF>0.94/230VAC	PF>0.98/115VAC	at full load					
INRUSH CU LEAKAGE CUR OVERLOAD OVER VOLT OVER TEMI WORKING TO WORKING TO TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC Note 7)	RRENT (Typ.)	91%	92%	93%	94%	93.5%			
ROTECTION OVER VOLT OVER TEMI WORKING T WORKING T TEMP. COE VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMIS	() ()	2.3A/115VAC 1.	1A/230VAC						
OVERLOAD ROTECTION OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC EMIS	DENT/may \ Nat-	COLD START 30A/	115VAC 60A/2	30VAC					
ROTECTION OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC Note 7)	INEM I (IIIAX.) NOTE	.5 Earth leakage curren	Earth leakage current < 150 μA/264VAC , touch current < 80 μA/264VAC						
OVER VOLT OVER TEMI WORKING I WORKING I TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC Note 7)		130~160% rated output power							
OVER VOLT OVER TEMI WORKING TO WORKING TO TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC Note 7)	i .	Protection type : Hicc	up mode, recovers a	utomatically after fault of	ondition is removed				
OVER VOLT OVER TEMI WORKING TO WORKING TO TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC Note 7)		13.2 ~ 15.6V	16.5 ~ 19.5V	26.4 ~ 31.2V	29.7 ~ 35V	52.8 ~ 62.4V			
WORKING TO WORKING TO WORKING TO WORKING TO TEMP. COEING A SAFETY ST. ISOLATION WITHSTAND ISOLATION EMC EMIS SAFETY & EMC EMIS	AGE	Protection type : Shut down o/p voltage, re-power on to recover							
WORKING TO WORKING TO WORKING TO WORKING TO TEMP. COEING A SAFETY ST. ISOLATION WITHSTAND ISOLATION EMC EMIS SAFETY & EMC Note 7)	DEDATURE	Protection type: Shut down o/p voltage, re-power on to recover Protection type: Shut down o/p voltage, recovers automatically after temperature goes down							
WORKING F STORAGE TI TEMP. COEI VIBRATION OPERATING A ISOLATION WITHSTAND ISOLATION EMC EMIS SAFETY & EMC (Note 7)		-30 ~ +85°C (Refer to "Derating Curve")							
STORAGE TI TEMP. COEI VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTANE ISOLATION EMC EMIS SAFETY & EMC (Note 7)		20 ~ 90% RH non-condensing							
TEMP. COEI VIBRATION OPERATING A SAFETY ST. ISOLATION WITHSTANI ISOLATION EMC EMIS SAFETY & EMC (Note 7)			derioning						
VIBRATION OPERATING A SAFETY STA ISOLATION WITHSTAND ISOLATION EMC EMIS SAFETY & EMC (Note 7)		1	-40 ~ +85°C						
SAFETY ST. ISOLATION WITHSTAND ISOLATION EMC EMIS EMC Note 7)		±0.03%/°C (0~50°C)							
SAFETY STATION WITHSTAND ISOLATION EMC EMIS SAFETY & EMC (Note 7)		10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
ISOLATION WITHSTAND ISOLATION EMC EMIS EMC Note 7)	ALTITUDE Note.	4000 meters							
SAFETY & EMC EMIS (Note 7)	ANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by reque							
SAFETY & EMC EMIS (Note 7)	RESISTANCE	Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP							
SAFETY & EMC EMIS (Note 7)		-			lary-Lartii. IXWOT I				
EMC EMIS EMC Note 7)		I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC							
SAFETY & EMC Note 7)	RESISTANC	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH		/ Noto					
SAFETY & EMC Note 7)		Conducted emission		EN/EN55011 (CISPR11)	Class B	/ Note			
EMC Note 7)	SION	Radiated emission		EN/EN55011 (CISPR11)	Class I : Cl	ass B , Class II : Class A			
Note 7)		Harmonic current	BS	EN/EN61000-3-2	Class A	,			
		Voltage flicker BS EN/EN61000-3-3							
EMC IMMU			BS EN/EN60601-1-2						
EMC IMMU		Parameter ESD		andard EN/EN61000-4-2		Test Level / Note Level 4, 15KV air ; Level 4, 8KV contact			
EMC IMMU						//m(80MHz~2.7GHz)			
EMC IMMU		RF field susceptibility	BS	EN/EN61000-4-3		Table 9, 9~28V/m(385MHz~5.78GHz			
	JNITY	EFT bursts		EN/EN61000-4-4		Level 3, 2KV			
		Surge susceptibility		EN/EN61000-4-5		Level 4, 4KV/Line-FG; 2KV/Line-Line			
		Conducted susceptibility Magnetic field immunity		EN/EN61000-4-6 EN/EN61000-4-8		Level 3, 10V Level 4, 30A/m			
						iods, 30% dip 25 periods,			
		Voltage dip, interruption		EN/EN61000-4-11		tions 250 periods			
MTBF		4050.3K hrs min. Tel	cordia SR-332 (Bello	ore) ; 468.0K hrs min.	MIL-HDBK-217F (25°C)				
OTHERS DIMENSION		76.2*50.8*28mm or 3	" * 2" *1.1" inch	ch					
PACKING	(L*W*H)	0.13Kg; 100pcs/14Kg	0.13Kg; 100pcs/14Kg/1.13CUFT						
	(L*W*H)	ially mentioned are measured at 20MHz of bandwidt							

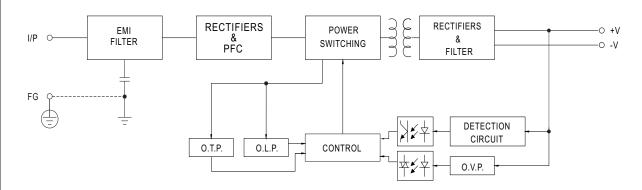
NOTE

- 5. Touch current was measured from primary input to DC output.
 6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
 7. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
- ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

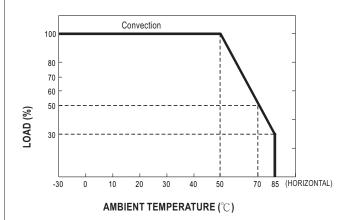


■ Block Diagram

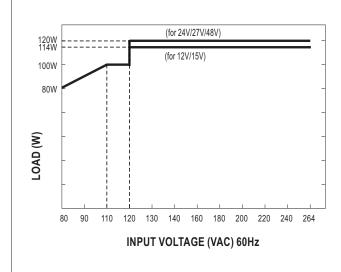
fosc: 85KHz



■ Derating Curve



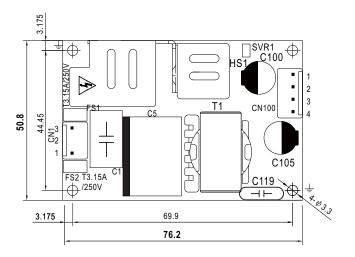
■ Output Derating VS Input Voltage

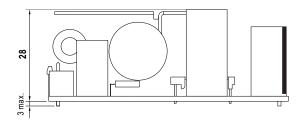


120W 3"×2" Reliable Green Medical Power Supply

■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)





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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	ICTVIID	IOT OVILL DAT DA A
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/N	o. oquivaioni	or oquiraioni

DC Output Connector (CN100): 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

1.HS1 must have safety isolation distance with system case.

※Note:

- 1.RPS-120S model delivers EMI Class B for both conducted emission and radiated emission for the power supply, when configured into Class $\ I$ (with FG) system.
- 2.RPS-120S model delivers EMI Class B conducted emission and Class A radiated emission with King Core K5B RC (12*15*7) in output cable for the power supply when configured into Class $\,\mathrm{II}\,$ (no FG) system.

■ Installation Manual

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



























■ Features

- 4"x2" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · 140W convention, 200W force air
- EMI Conduction for Class B Radiation for Class B with FG(Class I) and Class A without FG(Class II)
- No load power consumption<0.5W
- Extremely low leakage current
- 12V/0.5A fan supply
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Lifetime > 65K hours
- Operating altitude up to 5000 meters
- 3 years warranty

Applications

- · Oral irrigator
- Hemodialysis machine
- Medical monitors
- Sleep apnea devices
- · Pumps machine
- · Electric bed

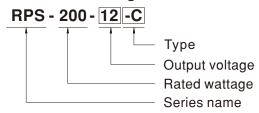
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-200 is a 200W highly reliable green PCB type medical power supply with a high power density (21.9W/in) on the 4" by 2" footprint. It accepts 80~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 95% and the extremely low no load power consumption is down below 0.5W. RPS-200 is able to be used for both Class I (with FG) and Class II (no FG) system design. The extremely low leakage current is less than 130 μ A. In addition, it conforms to the international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment.

Model Encoding



Туре	Description	Note
Blank	PCB Type	In stock
С	Enclosed casing Type	In stock



MODEL			RPS-200-12	RPS-200-15	RPS-200-24	RPS-200-27	RPS-200-48		
	DC VOLTAGE		12V	15V	24V	27V	48V		
	CURRENT	10CFM	16.7A	13.4A	8.4A	7.5A	4.2A		
	CURRENT	Convection	11.7A	9.4A	5.9A	5.3A	3A		
	RATED	10CFM	200.4W	201W	201.6W	202.5W	201.6W		
	POWER	Convection	140.4W	141W	141.6W	143.1W	144W		
	RIPPLE & NOISE (max.) Note.2		100mVp-p	100mVp-p	120mVp-p	120mVp-p	120mVp-p		
DUTPUT	VOLTAGE A	J. RANGE	11.4~12.6V	14.3~15.8V	22.8~25.2V	25.6 ~ 28.4V	45.6 ~50.4V		
	VOLTAGE TOLERANCE Note.3		±2.0%	±2.0%	±1.0%	±1.0%	±1.0%		
	LINE REGULATION		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	SETUP, RISE TIME		700ms, 30ms/230VAC 700ms, 30ms/115VAC at full load						
	HOLD UP TIME (Typ.)		16ms/230VAC 16ms/115VAC at full load						
	VOLTAGE RA	NGE Note.4	80 ~ 264VAC 113 ~ 370VDC						
	FREQUENCY RANGE		47 ~ 63Hz						
	POWER FACTOR		PF>0.94/230VAC PF>0.98/115VAC at full load						
NPUT	EFFICIENCY		93%	93.5%	94%	94%	95%		
01	AC CURREN			/230VAC	2 . 70	1 5 . 7 0	3370		
	INRUSH CUR		COLD START 30A/1		N/ΔC				
						/264\/AC			
	LEAKAGE CURRENT(max.)Note.								
	OVERLOAD		110 ~ 140% rated output power						
			Protection type: Hiccup mode, recovers automatically after fault condition is removed						
ROTECTION	OVER VOLTA	GE	13.2 ~ 15.6V						
	OVER TEMPERATURE		Protection type: Shut down o/p voltage, re-power on to recover						
UNCTION		ERATURE	Protection type: Shut down o/p voltage, re-power on to recover				+ (100FM)		
ONCTION	FAN SUPPLY		12V@0.5A for driving a fan ; tolerance +15% ~ -15% at main output 20% rated current (10CFM) -30 ~ +70°C (Refer to "Derating Curve")						
	WORKING TEMP. WORKING HUMIDITY		20 ~ 90% RH non-condensing						
NVIRONMENI	STORAGE TE		±0.03%/°C (0~50°C)						
	TEMP. COEF	FICIENT	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes						
	VIBRATION	I TITUDE N							
	OPERATING A	LTITUDE Note.6	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES6				260601 1:2005+42		
	SAFETY STA	NDARDS		EN/EN60335-1(by reque					
	ISOLATION F	RESISTANCE	Primary-Secondary	: 2xMOPP, Primary-	Earth:1xMOPP, Second	lary-Earth:1xMOPP			
	WITHSTAND	VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC						
	ISOLATION	RESISTANCE	E I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C / 70% RH						
			Parameter	St	tandard	Test Leve	Test Level / Note		
			Conducted emission		BS EN/EN55011 (CISPR11) Clas				
	EMC EMISSION		Radiated emission		` '		s A (for Class II);Class B (for Clas		
SAFETY &			Voltage flicker	armonic current BS EN/EN61000-3-2 Class A ultage flicker BS EN/EN61000-3-3					
EMC			BS EN/EN55035, BS		S ENVENTO 1000 0 0				
Note 7)			Parameter		tandard	Test Leve	/ Note		
	EMC IMMUNITY		ESD	B	S EN/EN61000-4-2		KV air ; Level 4, 8KV contac		
			RF field susceptibility	B	BS EN/EN61000-4-3 Level 3, 10V/m(80MHz~		,		
			EFT bursts	BS EN/EN61000-4-4			Table 9, 9~28V/m(385MHz~5.78GHz) Level 3, 2KV		
			Surge susceptibility			V/Line-FG ; 2KV/Line-Line			
			Conducted susceptibi	,	BS EN/EN61000-4-6 Level 3, 10V				
			Magnetic field immuni	ty B	BS EN/EN61000-4-8 Level 4, 30A/m				
			Voltage dip, interruption	on B:	S EN/EN61000-4-11		eriods, 30% dip 25 periods, uptions 250 periods		
	MTBF		2669.7K hrs min. Telcordia SR-332		2 (Bellcore) ; 500.3K hrs min. MIL-HDBK-217F (25°C)				
		/I *\ \ /*∐\			14"inch; Enclosed type:103.4*62*40mm or 4.07"*2.44"*1.57"inch				
OTHERS	DIMENSION (L VV II)			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	closed type:0.3Kg; 60pcs/19Kg/1.06CUFT			
THERS	DIMENSION ((L W H)	PCB:0.19Kg; 72pcs/	14.7Kg/0.84CUFT : I	Enclosed type:0.3Kg; 60i	ocs/19Kg/1.06CUFT			

- 5. Touch current was measured from primary input to DC output.

 6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).

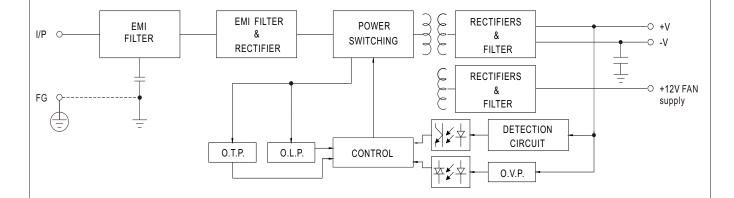
 7. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm'360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."

 (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
- ** Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx



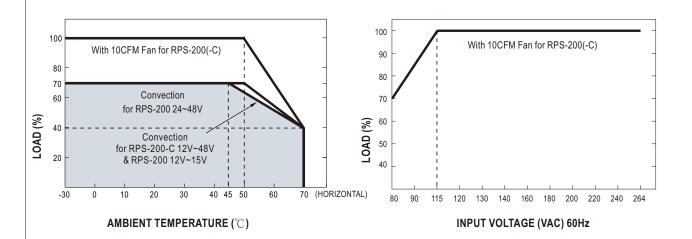
■ Block Diagram

fosc: 65KHz



■ Derating Curve

■ Output Derating VS Input Voltage

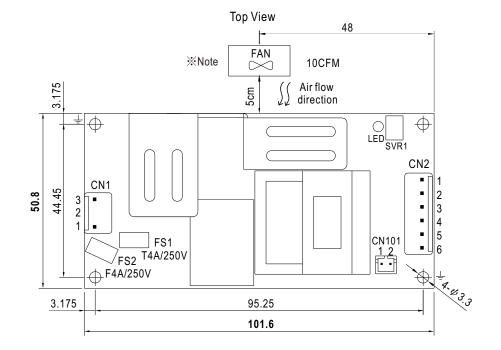


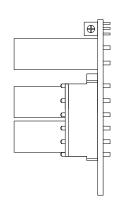


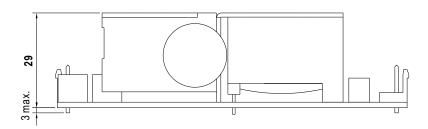
■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

RPS-200 (PCB Type)

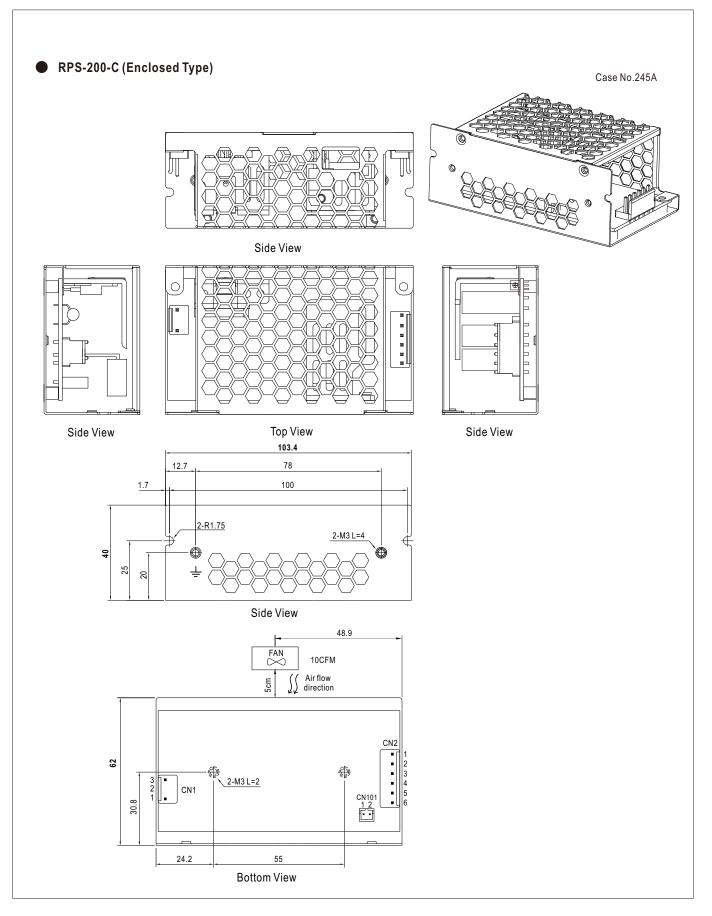






Side View







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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	ICTVIID	ICT CV/II 24T D4 4
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/N	or oquivalone	or oquivaloni

DC Output Connector (CN2): JST B6P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	JST VHR	JST SVH-21T-P1.1
4,5,6	-V	or equivalent	or equivalent

FAN Connector(CN101): JST B2B-PH-K-S or equivalent

	,	,	
Pin No.	Assignment	Mating Housing	Terminal
1	+12V	JST PHR-2	JST SPH-002T-P0.5S
2	DC COM	or equivalent	or equivalent

- Note: 1. The FAN supply is designed to serve as the source of the additive external fan for the cooling of the power supply, enabling the full load delivery and assuring the best life span of the product. Please do not use this FAN supply to drive other devices.
 - 2. The PCB type(Blank type)EMI Conduction for Class B. Radiation for Class B with FG(Class I) and Class A without FG(Class II)
 - 3. The enclosed type(-C type) model is not suitable for the configuration within a Class $\ II\$ (no FG) system but is suggested to used within a Class $\ I\$ (with FG) system.

■ Installation Manual

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

































- 5"×3" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- · 200W convection,300W force air
- No load power consumption<0.5W by PS-ON control
- Extremely low leakage current
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Typical Lifetime > 40K hours
- 3 years warranty

Applications

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

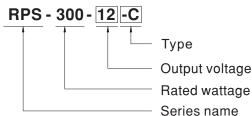
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-300 is a 300W highly reliable green PCB type medical power supply with a high power density on the 5" by 3" footprint. It accepts 90~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 93% and the extremely low no load power consumption is down below 0.5W. The extremely low leakage current is less than 150 μ A. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment. RPS-300 series also offers the enclosed style model (RPS-300-C).

Model Encoding



Туре	Description	Note
Blank	PCB Type	In stock
С	Enclosed casing Type	In stock



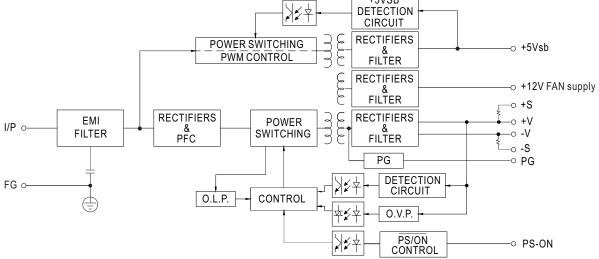
Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 5V STANDBY 5Vsb: 5V@0.6A without fan, 1A with fan 20.5CFM; tolerance ± 2%, ripple: 150mVp-p(max.) 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL POWER GOOD / POWER FAIL WORKING TEMP. -30 ~ +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP, HUMIDITY -40 ~ +85°C , 10 ~ 95% RH non-condensing TEMP. COEFFICIENT ±0.03%/°C (0 ~ 50°C) VIBRATION Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 150mVp-p(max.) 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL POWER GOOD / POWER FAIL 150mVp-p(max.) 10 ~ 500ms >PS-ON = "Low" or " < 0 ~ 0.5V" FAN SUPPLY 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) FENOR GOOD / POWER GOOD / POWER FAIL 150mVp-p(max.) 150mVp-p(max.) 10 ~ 500ms >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V" 150mws >PS-ON = "Low" or " < 0 ~ 0.5V"	MODEL			RPS-300-12	RPS-300-15	RPS-300-24	RPS-300-27	RPS-300-48
CURRENT Convection 0 - 16.67A 0 - 13.33A 0 - 8.33A 0 - 7.4A 0 - 4.17A		DC VOLTA	GE	12V	15V	24V	27V	48V
CURRENT 20.5CFM 0 - 25A 0 - 20A 0 - 12.5A 0 - 11.12A 0 - 6.25A		RATED CUR	RENT (20.5CFM)	25A	20A	12.5A	11.12A	6.25A
Q.0.FCM		AUDDENIE	Convection	0 ~ 16.67A	0 ~ 13.33A	0 ~ 8.33A	0 ~ 7.4A	0 ~ 4.17A
OUTPUT FUNCTION COURT		CURRENT	20.5CFM	0 ~ 25A	0 ~ 20A	0 ~ 12.5A	0 ~ 11.12A	0 ~ 6.25A
POWER 20.5CFM 300W 300		RATED	Convection	200W	200W	200W	200W	200.2W
RIPPLE & NOISE (max.) wesz 120m/Vp-p 120m/Vp-p 150m/Vp-p 200m/Vp-p 250m/Vp-p 250m/Vp-p V0ITAGE ADJ, RANGE (main output) 11.4 - 12.6V 14.25 - 15.75V 22.8 - 25.2V 25.65 - 28.35V 45.6 ~ 50.4V V0LTAGE TOLERANCE wesz 23.0% ±3.0% ±2.0%	OUTDUT	1	20.5CFM	300W	300W	300W	300W	300W
VOLTAGE TOLERANCE Mosks ±3.0% ±3.0% ±2.0%	OUIPUI	RIPPLE & NO	DISE (max.) Note.2	120mVp-p	120mVp-p	150mVp-p	200mVp-p	250mVp-p
LINE REGULATION		VOLTAGE ADJ. F	RANGE (main output)	11.4 ~ 12.6V	14.25 ~ 15.75V	22.8 ~ 25.2V	25.65 ~ 28.35V	45.6 ~ 50.4V
LOAD REGULATION		VOLTAGE TO	DLERANCE Note.3	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%
SETUP, RISE TIME		LINE REG	ULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
HOLD UP TIME (Typ.) 13ms/230VAC/115VAC at full load		LOAD REG	GULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
VOLTAGE RANGE Note.4 90 ~ 264VAC 127 ~ 370VDC		SETUP, RI	SE TIME	2500ms, 30ms/230	VAC 3000ms,	30ms/115VAC at full I	oad	
FREQUENCY RANGE		HOLD UP	TIME (Typ.)	13ms/230VAC/115\	/AC at full load			
POWER FACTOR (Typ.) PF>0.93/230VAC PF>0.98/115VAC at full load		VOLTAGE RANGE Note.4		90 ~ 264VAC	127 ~ 370VDC			
INPUT EFFICIENCY (Typ.) 90% 90% 92.5% 93% 93% 93% AC CURRENT (Typ.) 3.5A/115VAC 1.8A/230VAC INRUSH CURRENT (Typ.) COLD START 35A/115VAC 70A/230VAC TOA/230VAC TOA/230VAC EAKAGE CURRENT (Max.) Notate PCB Type: Earth leakage current <150 \(\triangle A \) / 264VAC, Touch current <70 \(\triangle A \) / 264VAC Enclosed Type: Earth leakage current <200 \(\triangle A \) / 264VAC, Touch current <70 \(\triangle A \) / 264VAC Enclosed Type: Earth leakage current <200 \(\triangle A \) / 264VAC, Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current <70 \(\triangle A \) / 264VAC Touch current \(\triangle A \) / 264VAC Touc		FREQUENCY RANGE						
AC CURRENT (Typ.) INRUSH CURRENT (Typ.) INRUSH CURRENT (Typ.) COLD START 35A/115VAC 70A/230VAC PCB Type: Earth leakage current <150 µA / 264VAC, Touch current <70 µA/264VAC Enclosed Type: Earth leakage current <200 µA / 264VAC, Touch current <70 µA/264VAC OVERLOAD OVER VOLTAGE OVER TEMPERATURE To tection type: Hiccup mode, recovers automatically after fault condition is removed 13.5 ~ 15V		POWER FA	ACTOR (Typ.)	PF>0.93/230VAC	PF>0.98/115VA	C at full load		
INRUSH CURRENT (Typ.) COLD START 35A/115VAC 70A/230VAC LEAKAGE CURRENT(max.) Notes PCB Type: Earth leakage current <150 µA / 264VAC, Touch current <70 µA/264VAC Enclosed Type: Earth leakage current <200 µA / 264VAC, Touch current <70 µA/264VAC OVERLOAD OVER VOLTAGE OVER TEMPERATURE OVER TEMPERATURE To stand by the standard output gower or to protection type: (TSW1) Shut down o/p voltage, re-power on to recover Protection type: (TSW1) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type: (TSW2) Shut down o/p voltage, re-power on to recover Protection type	INPUT	T EFFICIENCY (Typ.)		90%	90%	92.5%	93%	93%
PCB Type: Earth leakage current <150 \(\times A \) / 264 VAC, Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 264 VAC Touch current <70 \(\times A \) / 28 \(\times A \) / 30 V 29.5 \(\times 3 \) / 3.5 V 29.5 \(\times 3 \) / 3.5 V 20.5 \(\times 4 \) / 30 V 29.5 \(\times 3 \) / 3.5 V 20.5 \(\times 4 \) / 30 V 29.5 \(\times 3 \) / 3.5 V 20.5 \(\times 4 \) / 30 V 29.5 \(\times 3 \) / 3.5 V 20.5 \(\times 4 \) / 30 V 29.5 \(\times 3 \) / 3.5 V		AC CURRE	C CURRENT (Typ.) 3.5A/115VAC 1.8A/230VAC					
LEAKAGE CURRENT(max.) Notes Enclosed Type: Earth leakage current <200 \(\text{A} \) / 264VAC, Touch current <70 \(\text{A} \) / 264VAC OVER LOAD 105 \(\times \) 135% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed 13.5 \(\times \) 15V 16.2 \(\times \) 185V 26 \(\times \) 30V 29.5 \(\times \) 33.5V 52 \(\times \) 59.5V Protection type: Shut down o/p voltage, re-power on to recover Protection type: (TSW1)Shut down o/p voltage, re-power on to recover Protection type: (TSW2)Shut down o/p voltage, re-power on to recover Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 5V STANDBY 5V SV \(\times \) 5V \(\times \) 6.6 A without fan, 1A with fan 20.5CFM; tolerance \(\pm \) 2%, ripple: 150mVp-p(max.) 12V \(\times \) 0.5A for driving a fan; Tolerance \(-15\% \) \(\times \) +10% at main output 20% rated current (20.5CFM) Power GOOD / POWER FAIL Power on: PS-ON = "Hi" or " > 2 \(\times \) 5V"; Power off: PS-ON = "Low" or " < 0 \(\times \) 0.5V" Power off: PS-ON = "Low" or " < 0 \(\times \) 0.5V" The TTL signal goes low at least 1ms before Volbelow 90% of rated value WORKING TEMP. -30 \(\times \) +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 \(\times \) 95% RH non-condensing STORAGE TEMP., HUMIDITY -40 \(\times \) +85°C \(\times \) 10 \(\times \) 500 \(\times \) 0.03%/*C (0 \(\times \) 50°C) VIBRATION 10 \(\times \) 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		INRUSH CURRENT (Typ.) COLD START 35A/115VAC 70A/230VAC						
PROTECTION OVER VOLTAGE 13.5 ~ 15V 16.2 ~ 18.5V 26 ~ 30V 29.5 ~ 33.5V 52 ~ 59.5V		LEAKAGE CURRENT(max.) Note.5						
PROTECTION OVER VOLTAGE 13.5 ~ 15V 16.2 ~ 18.5V 26 ~ 30V 29.5 ~ 33.5V 52 ~ 59.5V		OVERLOAD		105 ~ 135% rated output power				
PROTECTION OVER TEMPERATURE Protection type: (TSW1)Shut down o/p voltage, re-power on to recover Protection type: (TSW2)Shut down o/p voltage, re-power on to recover Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 5V STANDBY 5V STANDBY FAN SUPPLY 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL Power on: PS-ON = "Hi" or " > 2 ~ 5V"; Power off: PS-ON = "Low" or " < 0 ~ 0.5V" POWER GOOD / POWER FAIL WORKING TEMP. WORKING TEMP. -30 ~ +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing TEMP. COEFFICIENT 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes								
Protection type: Shut down o/p voltage, re-power on to recover Protection type: (TSW1)Shut down o/p voltage, re-power on to recover Protection type: (TSW2)Shut down o/p voltage, re-power on to recover SV STANDBY 5V STANDBY 5V STANDBY 5V STANDBY 5V STANDBY 5V STANDBY FAN SUPPLY 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL POWER GOOD / POWER FAIL POWER FAIL WORKING TEMP. WORKING HUMIDITY ENVIRONMENT ENVIRONMENT ENVIRONMENT TEMP. COEFFICIENT 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		OVED VOI	TACE	13.5 ~ 15V	16.2 ~ 18.5V	26 ~ 30V	29.5 ~ 33.5V	52 ~ 59.5V
Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 5V STANDBY 5V STANDBY 5Vsb: 5V@0.6A without fan, 1A with fan 20.5CFM; tolerance ± 2%, ripple: 150mVp-p(max.) 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL POWER GOOD / POWER FAIL POWER FAIL WORKING TEMP. WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP, HUMIDITY TEMP. COEFFICIENT 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	PROTECTION	OVER VOLIAGE		Protection type : Sh	ut down o/p voltage,	re-power on to recov	er	
Protection type: (TSW2)Shut down o/p voltage, re-power on to recover 5V STANDBY 5Vsb: 5V@0.6A without fan, 1A with fan 20.5CFM; tolerance ± 2%, ripple: 150mVp-p(max.) 12V@0.5A for driving a fan; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM) PS-ON INPUT SIGNAL POWER GOOD / POWER FAIL FUNCTION POWER FAIL FUNCTION POWER FAIL FUNCTION POWER FAIL FUNCTION F		0.455		Protection type : (TSW1)Shut down o/p voltage, recovers automatically after temperature goes down				
FUNCTION PS-ON INPUT SIGNAL Power on: PS-ON = "Hi" or " > 2 ~ 5V"; Power off: PS-ON = "Low" or " < 0 ~ 0.5V" POWER GOOD / POWER FAIL The TTL signal goes high with 10ms to 500ms delay after power set up; The TTL signal goes low at least 1ms before Vo below 90% of rated value WORKING TEMP30 ~ +70 °C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY -40 ~ +85 °C , 10 ~ 95% RH non-condensing TEMP. COEFFICIENT $\pm 0.03\%$ °C (0 ~ 50 °C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		OVER IEN	IPERATURE	Protection type : (TSW2)Shut down o/p voltage, re-power on to recover				
FUNCTION PS-ON INPUT SIGNAL Power on: PS-ON = "Hi" or " > 2 ~ 5V"; Power off: PS-ON = "Low" or " < 0 ~ 0.5V" POWER GOOD / POWER FAIL 500ms>PG>10ms; The TTL signal goes high with 10ms to 500ms delay after power set up; The TTL signal goes low at least 1ms before Vo below 90% of rated value WORKING TEMP30 ~ +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY -40 ~ +85°C , 10 ~ 95% RH non-condensing TEMP. COEFFICIENT $\pm 0.03\%$ /°C (0 ~ 50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		5V STAND	ВҮ	5Vsb: 5V@0.6A without fan, 1A with fan 20.5CFM; tolerance ± 2%, ripple: 150mVp-p(max.)				√p-p(max.)
POWER GOOD / POWER FAIL WORKING TEMP. ENVIRONMENT ENVIRONMENT POWER FAIL 500ms>PG>10ms; The TTL signal goes high with 10ms to 500ms delay after power set up; The TTL signal goes low at least 1ms before Vo below 90% of rated value -30 ~ +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY -40 ~ +85°C , 10 ~ 95% RH non-condensing TEMP. COEFFICIENT ±0.03%/°C (0 ~ 50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes		FAN SUPP	LY	12V@0.5A for driving a fan ; Tolerance -15% ~ +10% at main output 20% rated current (20.5CFM)				
POWER FAIL The TTL signal goes low at least 1ms before Vo below 90% of rated value WORKING TEMP. -30 ~ +70°C (Refer to "Derating Curve") WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY -40 ~ +85°C , 10 ~ 95% RH non-condensing TEMP. COEFFICIENT ±0.03%/°C (0 ~ 50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	FUNCTION	PS-ON INF	PUT SIGNAL Power on: PS-ON = "Hi" or " > 2 ~ 5V"; Power off: PS-ON =		Power off: PS-ON = '	= "Low" or " < 0 ~ 0.5V"		
WORKING HUMIDITY 20 ~ 90% RH non-condensing STORAGE TEMP., HUMIDITY $-40 \sim +85^{\circ}$ C , $10 \sim 95\%$ RH non-condensing TEMP. COEFFICIENT $\pm 0.03\%$ /°C (0 ~ 50°C) VIBRATION 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							ver set up ;	
ENVIRONMENT STORAGE TEMP., HUMIDITY $-40 \sim +85^{\circ}\mathbb{C}$, $10 \sim 95\%$ RH non-condensing TEMP. COEFFICIENT $\pm 0.03\%/^{\circ}\mathbb{C}$ ($0 \sim 50^{\circ}\mathbb{C}$) VIBRATION $10 \sim 500$ Hz, 2G 10 min./1cycle, 60 min. each along X, Y, Z axes		WORKING	TEMP.	-30 ~ +70°C (Refer to "Derating Curve")				
TEMP. COEFFICIENT $\pm 0.03\%$ /°C (0 ~ 50°C) VIBRATION $\pm 0.03\%$ /°C (0 ~ 50°C)		WORKING	HUMIDITY	20 ~ 90% RH non-c	ondensing			
TEMP. COEFFICIENT $\pm 0.03\%$ /°C $(0 \sim 50$ °C)VIBRATION $10 \sim 500$ Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	FNVIRONMENT	STORAGE T	EMP., HUMIDITY	-40 ~ +85°C , 10 ~	95% RH non-conde	nsing		
		TEMP. CO	EFFICIENT	±0.03%/°C (0 ~ 50)°C)			
OPERATING ALTITUDE W. 4 0 0000 modern		VIBRATIO	N	10 ~ 500Hz, 2G 10n	nin./1cycle, 60min. e	ach along X, Y, Z axe	S	
OPERATING ALTITUDE Note.6 2000 meters		OPERATING A	ALTITUDE Note.6					



	SAFETY STANDARDS	ANSI/AAMI ES60601-1:200 IEC 60335-1:2010+A1+A2, Dekra BS EN/ EN 60335-1:2 EAC TP TC 004 approved					
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP					
	WITHSTAND VOLTAGE						
	ISOLATION RESISTANCE		//P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
		Parameter	Standard	Test Level / Note			
		Conducted emission	BS EN/EN55011 (CISPR11)	Class B			
	EMC EMISSION	Radiated emission	BS EN/EN55011 (CISPR11)	Class B			
		Harmonic current	BS EN/EN61000-3-2	Class A			
SAFETY &		Voltage flicker	BS EN/EN61000-3-3				
EMC (Note 7)		BS EN/EN55035, BS EN/EN60601	1-1-2				
		Parameter	Standard	Test Level / Note			
		ESD	BS EN/EN61000-4-2	Level 4, 15KV air ; Level 4, 8KV contact			
		RF field susceptibility	BS EN/EN61000-4-3	Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)			
	EMC IMMUNITY	EFT bursts	BS EN/EN61000-4-4	Level 3, 2KV			
		Surge susceptibility	BS EN/EN61000-4-5	Level 4, 4KV/Line-FG; 2KV/Line-Line			
		Conducted susceptibility	BS EN/EN61000-4-6	Level 3, 10V			
		Magnetic field immunity	BS EN/EN61000-4-8	Level 4, 30A/m			
		Voltage dip, interruption	BS EN/EN61000-4-11	100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods			
	MIDE	PCB type: 2853.1K hrs min. Telcordia SR-332 (Bellcore) ; 160.0K hrs min. MIL-HDBK-217F (25°C)					
	MTBF	Enclosed type: 1487.9K hrs min. Telcordia SR-332 (Bellcore) ; 163.8K hrs min. MIL-HDBK-217F (25°C)					
OTHERS	DIMENSION (L*W*H)	PCB type:127*76.2*35mm or 5"*3"*1.37"inch					
	DIMENSION (E W II)	Enclosed type:130*86*43mm or 5.11"*3.39"*1.69"inch					
	PACKING	PCB type:0.37Kg; 36pcs/14.3Kg	1/0.96CUFT				
		Enclosed type:0.563Kg; 24pcs/1	4.5Kg/0.77CUFT				
NOTE	 All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor. Tolerance: includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltages. Please check the derating curve for more details. Touch current was measured from primary input to DC output. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). The power supply is considered a component which will be installed into a final equipment. All the Class I (with FG) EMC tests are executed by mounting the unit on 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx 			nodels for operating altitude higher ass I (with FG) EMC tests are quipment must be re-confirmed that it esting of component power supplies."			

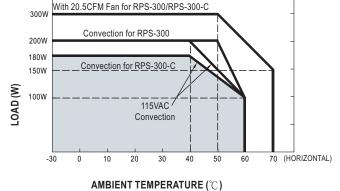


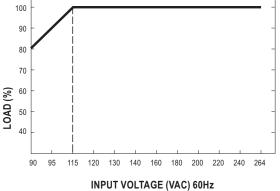
■ Block Diagram PFC fosc: 65KHz PWM fosc: 70KHz



■ Derating Curve

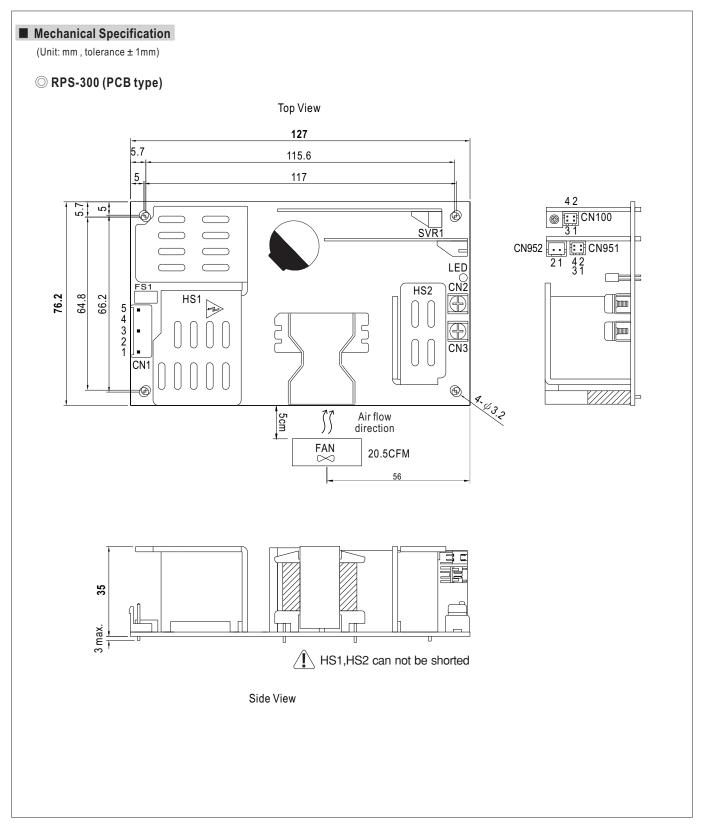
r RPS-300/RPS-300-C 100



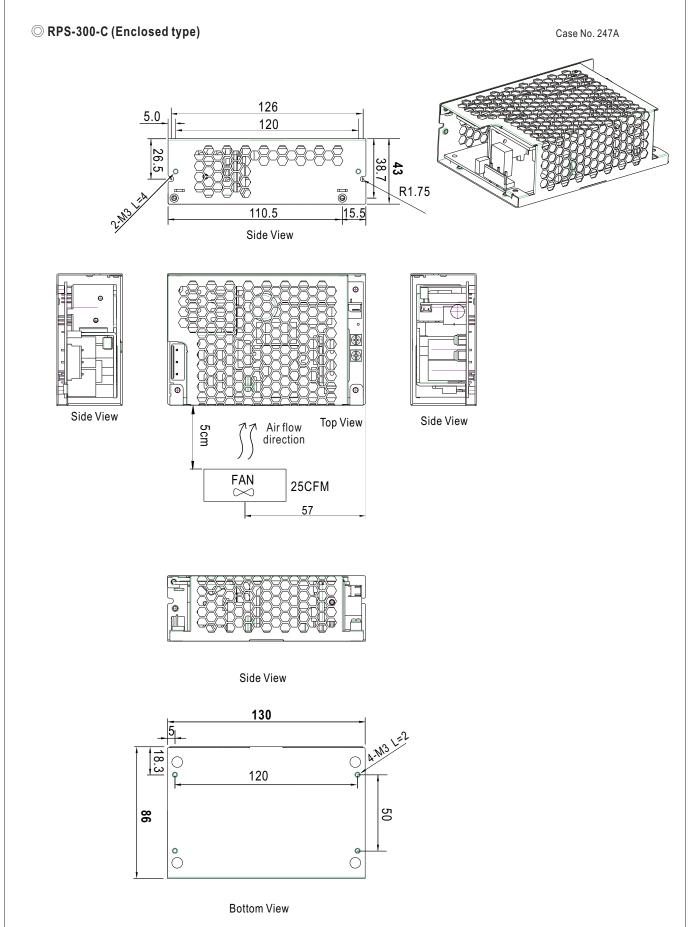


■ Output Derating VS Input Voltage











300W Reliable Green Medical Power Supply

RPS-300 series

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

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

Function Connector(CN100):HRS DF11-4DP-2DS or equivalent

Pin No.	Status	Mating Housing	Terminal
1	-S		
2	+S	HRS DF11-4DS	HRS DF11-**SC
3	DC COM	or equivalent	or equivalent
4	PG		

DC Output Connector (CN2, CN3)

Pin No.	Assignment	Output Terminals
CN2	-V	M3.5 Pan HD screw in 2 positions
CN3	+V	Torque to 8 lbs-in(90cNm)max.

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/		- /

1.HS1,HS2 cannot be shorted.

Function Connector(CN951):HRS DF11-4DP-2DS or equivalent

Pin No.	Status	Mating Housing	Terminal
1	5VSB		
2,4	DC COM	HRS DF11-4DS or equivalent	HRS DF11-**SC or equivalent
3	PS-ON	or equivalent	or equivalent

FAN Connector(CN952): JST S2B-XH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM	JST XHP	JST SXH-001T-P0.6
2	+12V	or equivalent	or equivalent

Note: 1. The FAN supply is designed to serve as the source of the additive external fan for the cooling of the power supply, enabling the full load delivery and assuring the best life span of the product. Please do not use this FAN supply to drive other devices.

- 2. The PCB type (Blank type) model delivers EMI Class B for both conducted emission and radiated emission for power supply , when configured into either Class I (with FG) .
- 3. The enclosed type(-C type) model is not suitable for configuration within a Class $\,$ II (no FG) system but suggested within a Class $\,$ I (with FG) system.

■ Installation Manual

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





























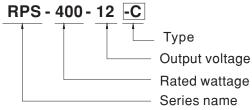


Features

- 5"×3" compact size
- · Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system configuration
- · 250W convection,400W force air
- EMI Class B for Class I & Class A for Class II configuration
- No load power consumption<0.5W by PS-ON control
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- · Protections: Short circuit / Overload / Over voltage / Over temperature
- Operating altitude up to 4000 meters
- 3 years warranty

Description RPS-400 is a 400W highly reliable green PCB type medical power supply with a high power density on the 5" by 3" footprint. It accepts 80~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 94% and the extremely low no load power consumption is down below 0.5W. RPS-400 (blank type only) is able to be used for both Class I (with FG) or Class II (no FG) system design. The extremely low leakage current is less than 160μ A. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment. RPS-400 series also offers the enclosed style models(-C / TF /SF)

Model Encoding



Type	Type Description	
Blank	PCB Type	In stock
С	Enclosed casing Type	In stock
TF	Enclosed Type with fan on the top	In stock
SF	Enclosed Type with fan on the side	In stock

Applications

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

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx



MODEL			RPS-400-12	RPS-400-15	RPS-400-18	RPS-400-24	RPS-400-27	RPS-400-36	RPS-400-48	
	DC VOLTAGE		12V	15V	18V	24V	27V	36V	48V	
		25CFM	33.3A	26.7A	22.3A	16.7A	14.9A	11.2A	8.4A	
	CURRENT	Convection	20.8A	16.7A	13.9A	10.5A	9.3A	7A	5.3A	
	RATED	25CFM	399.6W	400.5W	401.4W	400.8W	402.3W	403.2W	403.2W	
	POWER	Convection	249.6W	250.5W	250.2W	252W	251.1W	252W	254.4W	
	RIPPLE & NOIS	E (max.) Note.2	120mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	
OUTPUT	VOLTAGE ADJ. RA	NGE(main output)	11.4~12.6V	14.3~15.8V	17.1~18.9V	22.8~25.2V	25.6 ~ 28.4V	34.2 ~37.8V	45.6 ~50.4V	
	VOLTAGE TOL	ERANCE Note.3	±3.0%	±3.0%	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	LINE REGUL	ATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGU	LATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE	TIME	1000ms, 30ms/	230VAC 15	00ms, 30ms/115	VAC at full load	•	'	'	
	HOLD UP TIME (Typ.)		16ms/230VAC	16ms/115VAC	at full load					
	VOLTAGE RA	NGE Note.4	80 ~ 264VAC	113 ~ 370VD	C					
	FREQUENCY RANGE		47 ~ 63Hz							
	POWER FACTOR		PF>0.94/230V/	AC PF>0.98/1	15VAC at full loa	d				
INPUT	EFFICIENCY	(Тур.)	91.5%	92%	93%	93%	93.5%	94%	94%	
	AC CURREN	Г (Тур.)	4.2A/115VAC 2.1A/230VAC							
	INRUSH CUR	RUSH CURRENT (Typ.) COLD START 35A/115VAC 70A/230VAC								
	LEAKAGE CURRI	ENT (max.) Note.5	Earth leakage current < 200 \(\mu\)A/264VAC 50Hz , Touch current < 70 \(\mu\)A/264VAC							
	OVEDLOAD		105 ~ 135% rated output power							
	OVERLOAD		Protection type: Hiccup mode, recovers automatically after fault condition is removed							
PROTECTION			13.2 ~ 15.6V	16.5 ~ 19.5V	19.8 ~23.4V	26.4 ~ 31.2V	29.7 ~ 35.1V	39.6 ~ 46.8V	52.8 ~ 62.4V	
	OVER VOLTA	(GE	Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMP	ERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
	5V STANDBY	,	5Vsb:5V@0.6A without fan, 1A with fan 25CFM; Tolerance ±2%, ripple: 120mVp-p(max.)							
			12V@0.5A for driving fan ;							
	FAN SUPPLY		_	•	output 35% rate	ed current (25CF	-M)			
FUNCTION	FAN CONTRO	DL	Fan on by 20%	load min. (For F	PS-400-xxTF/S	F)				
	PS-ON INPUT	T SIGNAL		ON = "Hi" or " > 2	,					
	POWER GOOD	/ POWER FAIL	Power off: PS-ON = "Low" or " < 0 ~ 0.5V" 500ms>PG>10ms; The TTL signal goes high with 10ms to 500ms delay after power set up;							
	WORKING TE	- MD	The TTL signal goes low at least 1ms before Vo below 90% of rated value -30 ~ +70°C (Refer to "Derating Curve")							
	WORKING H		-30 ~ +70 C (Refer to "Derating Curve") 20 ~ 90% RH non-condensing							
ENVIDONMENT		MP., HUMIDITY) ~ 95% RH non-	rondensing					
LAVIN VINITEN I	TEMP. COEF		±0.03%/°C (0		oondensing					
	VIBRATION	IVILITI	,		60min. each ald	na X Y 7 aves				
		LTITUDE Note.6		, rommi, reyele,	Commin. Caun all	my A, 1, 2 axes				
	UT EIGHINU A	NO.C.0	4000 meters							



	SAFETY STANDARDS	ANSI/AAMI ES60	0601-1:2005 No. 60601-1	5+A2 1:2014	S EN/ EN 60601-1: +A2, EAC TP TC (by request)			2,	
	ISOLATION LEVEL	Primary-Secondary:	2xMOPP, Prim	nary-Ea	rth:1xMOPP, Seconda	ary-Eart	th:1xMOPP		
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P	-FG:2KVAC	O/P-FG	:1.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100N	P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C / 70% RH						
		Parameter		Stand	ard		Test Level / N	lote	
		Conducted emission		BS EN	/EN55011 (CISPR11)		Class B(Pleas	se see last page note1)	
	EMC EMISSION	Radiated emission		BS EN	/EN55011 (CISPR11)		Class B(Pleas	se see last page note1)	
SAFETY &		Harmonic current		BS EN	I/EN61000-3-2		Class A		
EMC		Voltage flicker		BS EN	I/EN61000-3-3				
(Note 7)		BS EN/EN55035 , BS EN/EN60601-1-2, BS EN/EN61204-3							
		Parameter		Stand	Standard		Test Level / Note		
		ESD		BS EN	I/EN61000-4-2		Level 4, 15KV a	ir; Level 4, 8KV contact	
		RF field susceptibility		BS EN	BS EN/EN61000-4-3		Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)		
	EMC IMMUNITY	EFT bursts		BS EN	BS EN/EN61000-4-4		Level 3, 2KV		
		Surge susceptibility		BS EN	BS EN/EN61000-4-5		Level 4, 4KV/Lii	ne-FG ; 2KV/Line-Line	
		Conducted susceptibility		BS EN	BS EN/EN61000-4-6		Level 3, 10V		
		Magnetic field immunity		BS EN	BS EN/EN61000-4-8		Level 4, 30A/m		
		Voltage dip, interruption		BS EN/EN61000-4-11			100% dip 1 periods, 30% dip 25 period 100% interruptions 250 periods		
	MTBF	1393.3K hrs min.	Telcordia SI	R-332	(Bellcore); 194.1K h	rs min. MIL-HDE		K-217F (25°C)	
	DIMENSION	Туре	RPS-400		RPS-400-C	RPS-4	400-TF	RPS-400-SF	
	DIMENSION	L*W*H	127*76.2*35m	ım	130*86*43mm	130*86	6*58.5mm	160*86*43mm	
OTHERS		LVVП	5"*3"*1.37"in	ch	5.11"*3.39"*1.69"inch	5.11"*3	3.39"*2.30"inch	6.3"*3.39"*1.69"inch	
		P.W.	0.39Kg		0.51Kg	0.58K	g	0.64Kg	
	PACKING	Q'TY	36pcs		24pcs 24pcs		S	24pcs	
	TACKING	G.W.	15Kg		13.2Kg	14.9K	g	16.4Kg	
		M'MENT	0.96CUFT		0.77CUFT	0.860	UFT	0.91CUFT	

- 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 0.1 \(\mu f \) & 47 \(\mu f \) parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Derating may be needed under low input voltages. Please check the derating curve for more details.
- 5. Touch current was measured from primary input to DC output.

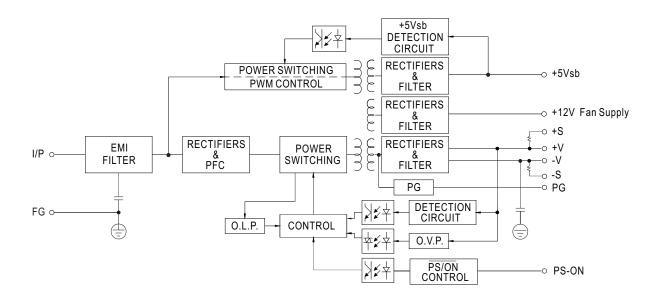
NOTE

- 6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- 7. The power supply is considered a component which will be installed into a final equipment. All the Class I (with FG) EMC tests are executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The Class II (without FG) EMC tests are executed by mounting the unit on a 130mm*86.6mm 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
- % Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

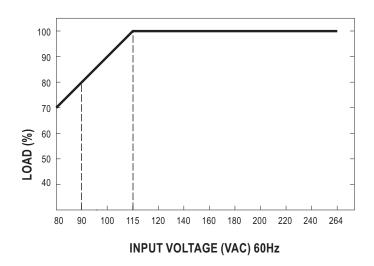


■ Block Diagram

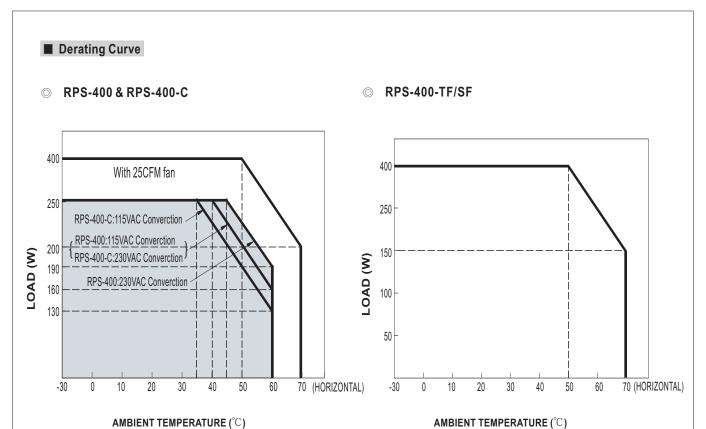
PFC fosc: 90KHz PWM fosc: 100KHz



■ Output Derating vs Input Voltage

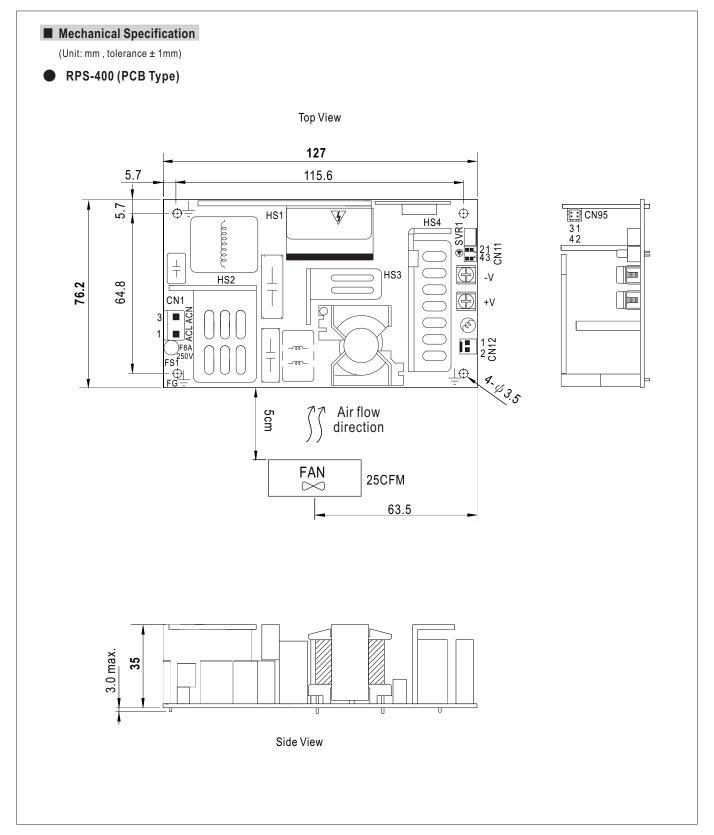




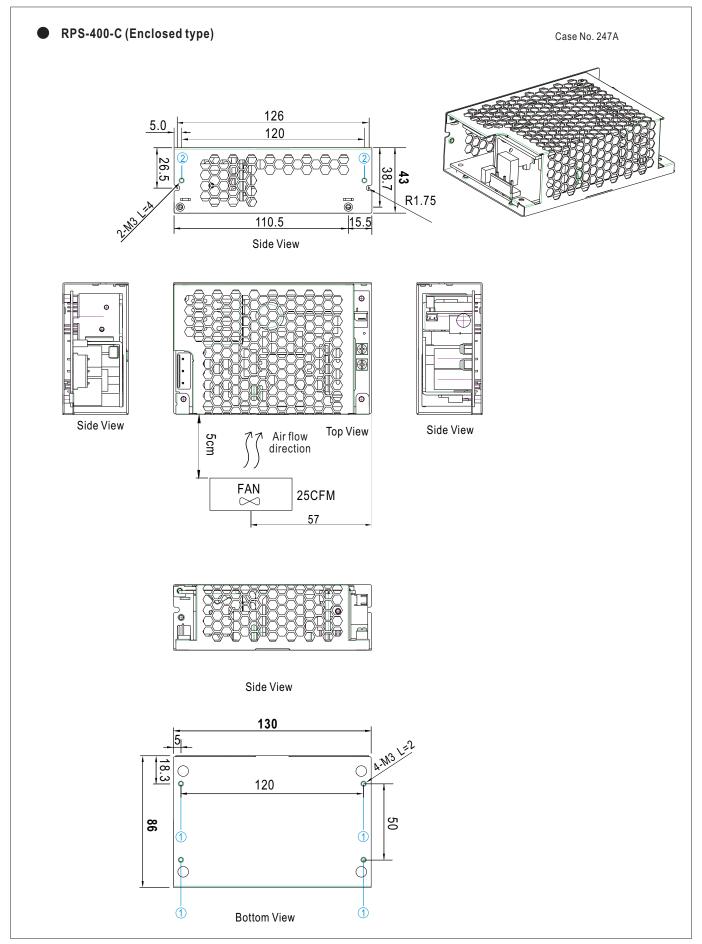


Order No.	RPS-400	RPS-400-C	RPS-400-TF	RPS-400-SF
Products				A CO
Convection	250W	250W		
Force Air	400W	400W	400W	400W

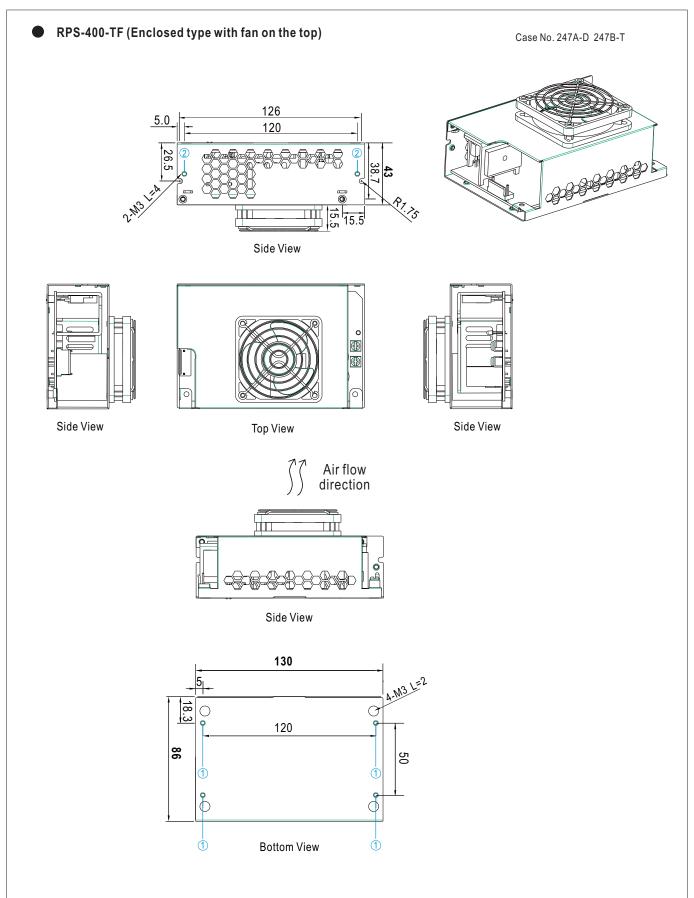




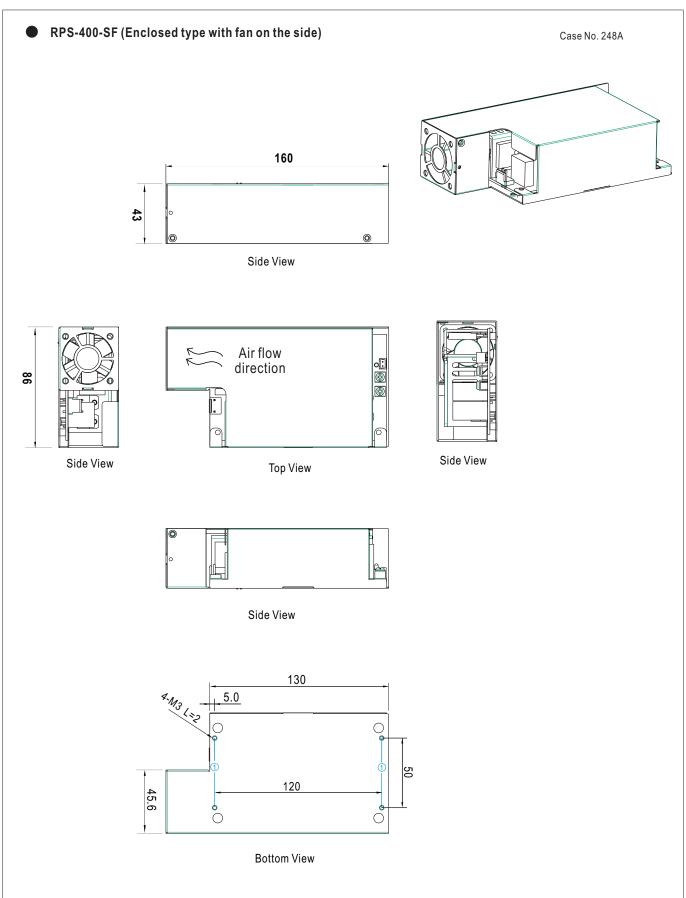














★ Mounting Instruction for -C/-TF/-SF Type

Hole No.	Recommended Screw Size	MAX. Penetration Depth L	Recommended mounting torque		
1	M3	2mm	4~6Kgf-cm		
2	M3	4mm	4~6Kgf-cm		

Mounting Surface Chassis of RPS-400-C/TF/SF

Mounting Screw

X CONNECTION

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

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

DC Output Connector (CN2,CN3)

Pin No.	Assignment	Output Terminals
CN2	-V	M3.5 Pan HD screw in 2 positions
CN3	+V	Torque to 8 lbs-in(90cNm)max.

HS1,HS2,HS3,HS4 can not be shorted

Function Connector(CN11): TKP DH2I-2X2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	-S		
2	+S	TKP DH2	TKP
3	DC COM	or equivalent	or equivalent
4	PG		

Function Connector(CN95): TKP DH2L-2X2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal	
1	5Vsb	TI/D DI IO	TVD	
2,4	DC COM	TKP DH2 or equivalent	TKP or equivalent	
3	PS-ON	3. 342.7410111	3. 3447410111	

FAN Connector(CN12): TKP 8812-2 or equivalent (Except for RPS-400-TF/SF)

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM	TKP 2502	TKP 8811
2	+12V	or equivalent	or equivalent

- Note: 1. When the input voltage is 230VAC, the PCB type (Blank-Type) model delivers EMI Class B for both conducted emission and radiated emission for the power supply; When the input voltage is 110VAC, the PCB type (Blank Type) model delivers EMI Class B for conducted emission and Class A for radiated emission for the power supply. It delivers Class A for conducted emission and radiated emission, when configured into Class II (no FG) system.
 - 2. The enclosed type (-C/TF/SF type) models are not suitable for configuration within a Class II (without FG) system, but suggested within a Class I (with FG) system.
 - 3. Mounting Instruction for enclosed type.

■ Installation Manual

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





























Features

- 5"×3" compact size
- · 320W convection,500W force air
- 550W peak power (3sec.)
- Medical safety approved (2 x MOPP) accreding to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- EMI for both Class I & Class II configuration
- -30~+70°C wide range operating temperature
- No load power consumption<0.5W by PS_ON control
- · High efficiency up to 94%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 5Vdc standby output, 12Vdc fan supply, Power Good, Power Fail and remote sense
- Operating altitude up to 4000 meters (Note.5)
- · LED indicator for power on
- · 3 years warranty

Applications

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

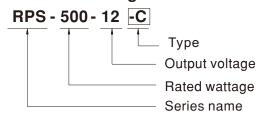
GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RPS-500 is a 500W highly reliable green PCB type medical power supply with a high power density on the 5" by 3" footprint. It accepts 80~264VAC input and offers various output voltages between 12V and 48V. The working efficiency is up to 94% and the extremely low no load power consumption is down below 0.5W.RPS-500 (blank type only) is able to be used for both Class I (with FG) and Class II (no FG) system design. The extremely low leakage current is less than 220 µA. In addition, it conforms to international medical regulations (2*MOPP) and EMC BS EN/EN55011, perfectly fitting all kinds of BF rated "patient contact" medical system equipment. RPS-500 series also offers the enclosed style models (-C / TF /SF)

Model Encoding



Туре	Description	Note
Blank	PCB Type	In stock
-C	Enclosed casing Type	In stock
-TF	Enclosed Type with fan on the top	In stock
-SF	Enclosed Type with fan on the side	In stock



500W 5"×3" Reliable Green Medical Power Supply	K	P	5-	500	series
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MODEL				RPS-500-12	RPS-500-15	RPS-500-18	RPS-500-24	RPS-500-27	RPS-500-36	RPS-500-48
	DC VOLTA	GE		12V	15V	18V	24V	27V	36V	48V
			25CFM	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A
	RATED	Blank	Convection	26.7A	21.3A	17.8A	13.4A	11.9A	8.9A	6.7A
	CURRENT		25CFM	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A
	Note.7	- C	Convection	25.8A	20.7A	17.2A	12.9A	11.5A	8.6A	6.5A
		-TF/SF	Built-in fan	41.6A	33.3A	27.8A	20.8A	18.5A	13.9A	10.4A
			25CFM	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W
	RATED	Blank	Convection	320.4W	319.5W	320.4W	321.6W	321.3W	320.4W	321.6W
	POWER		25CFM	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W
	Note.7	- C	Convection	309.6W	310.5W	309.6W	309.6W	310.5W	309.6W	312W
		-TF/SF	Built-in fan	499.2W	499.5W	500.4W	499.2W	499.5W	500.4W	499.2W
•	PEAK POW	VER(3se	c.)	550W						
	RIPPLE & N			200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
OUTPUT	VOLTAGE AD	J. RANGE	E(main output)	11.4~12.6V	14.3~15.8V	17.1~18.9V	22.8~25.2V	25.6 ~ 28.4V	34.2 ~37.8V	45.6~50.4V
	VOLTAGE T		, ,	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±1.0%	±1.0%
	LINE REGU			±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REG			±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RIS	SE TIME		1000ms 30ms	./230VΔC	1500ms 30ms/1	L 15VAC at full loa	d		
				1000ms, 30ms/230VAC 1500ms, 30ms/115VAC at full load 10ms/230VAC 10ms/115VAC at full load						
HOLD UP TIME (Typ.) VOLTAGE RANGE Note.4			80 ~ 264VAC	113 ~ 370\						
				47 ~ 63Hz						
	POWER FACTOR			/AC DE>0.00	/115VAC at full I					
INDUT	EFFICIENCY (Typ.)		91%	92%			93.5%	94%	94%	
INPUT			5.8A/115VAC		92.5%	93%	93.570	94 /0	94 /0	
	AC CURRENT (Typ.) INRUSH CURRENT (Typ.)		5.8A/115VAC 2.9A/230VAC COLD START 40A/115VAC 80A/230VAC							
								1 - 400 - 1/004		
	LEAKAGE CUI	KKENI (M	ax.) Note.5	Earth leakage current <220 μA/264VAC 50Hz , Touch current < 100 μA/264VAC 105 ~ 135% rated output power						
	OVERLOA	D					-4:IIftf	lt diti i		
				71	· 	, recovers autom	1	I	1	T
PROTECTION	OVER VOL	TAGE		13.2 ~ 15.6V	16.5 ~ 19.5V	19.8 ~23.4V	26.4 ~ 31.2V	29.7 ~ 35.1V	39.6 ~ 46.8V	52.8 ~ 62.4V
				• • • • • • • • • • • • • • • • • • • •	·	, recovers autom				
	OVER TEN	IPERAT	URE	71		o voltage, recove	•	after temperatu	ire goes down	
	5V STANDI	ВҮ		5Vsb: 5V@0.6A without fan, 1A with fan 25CFM; Tolerance ±2%, ripple: 120mVp-p(max.)						
	12V FAN S	UPPLY		12V@0.5A for driving fan ; Tolerance -15% ~+10% at main output 20% rated current (25CFM)						
	FAN CONT	ROL		Fan on by 20% load min. (For RPS-500-xxTF/SF)						
FUNCTION	PS-ON INP		NAL	Power ON: PS-ON = "Hi" or " > 2 ~ 5V"; Power OFF: PS-ON = "Low" or " < 0 ~ 0.5V"						
	POWER GOOD / POWER FAIL			500ms>PG>10ms; The TTL signal goes high with 10ms to 500ms delay after power set up; The TTL signal goes low at least 1ms before Vo below 90% of rated value						
	WORKING	TEMP.		-30 ~ +70°C (Refer to "Derating Curve")						
	WORKING HUMIDITY			20 ~ 90% RH non-condensing						
ENVIRONMENT	STORAGE TEMP.			-40 ~ +85°C						
			NT	±0.03%/°C (()~50°C)					
	TEMP. COEFFICIENT VIBRATION			,		e, 60min. each	along X. Y. Z axe	es		
	OPERATING ALTITUDE Note.6					.,				
				4000 IIIG1613						



	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2, TUV BS EN/ EN 60601-1:2006+A1+A12+A2, ANSI/AAMI ES60601-1:2005+A2 CAN/CSA C22.2 No. 60601-1:2014+A2, EAC TP TC 004 approved; Design refer to BS EN/EN60335-1(by request)						
	ISOLATION LEVEL	Primary-Secondary:	2xMOPP, Prin	nary-Ea	rth:1xMOPP, Seconda	ary-Ear	th:1xMOPP	
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P	-FG:2KVAC	O/P-FG	:1.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100N	M Ohms / 500V	DC / 25	°C/70% RH			
		Parameter		Stand	ard		Test Level / N	lote
		Conducted emission		BS EN	/EN55011 (CISPR11)		Class I : Class	s B , Class II : Class A
	EMC EMISSION	Radiated emission		BS EN	/EN55011 (CISPR11)		Class A	
SAFETY &		Harmonic current		BS EN	/EN61000-3-2		Class A	
EMC		Voltage flicker		BS EN	/EN61000-3-3			
(Note 8)		BS EN/EN55035 , BS EN/EN60601-1-2, BS EN/EN61204-3						
		Parameter		Standard		Test Level / Note		
		ESD		BS EN/EN61000-4-2		Level 4, 15KV air ; Level 4, 8KV contact		
		RF field susceptibility		BS EN/EN61000-4-3			80MHz~2.7GHz) n(385MHz~5.78GHz)	
	EMC IMMUNITY	EFT bursts		BS EN/EN61000-4-4		Level 3, 2KV		
		Surge susceptibility		BS EN	/EN61000-4-5		Level 4, 4KV/Li	ne-FG ; 2KV/Line-Line
		Conducted susceptibility		BS EN	/EN61000-4-6		Level 3, 10V	
		Magnetic field immunity		BS EN/EN61000-4-8		Level 4, 30A/r	n	
		Voltage dip, interruption		BS EN/EN61000-4-11		100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods		
	MTBF	1132.3K hrs min.	Telcordia SI	R-332 (Bellcore); 144.2K h	rs min.	MIL-HDB	K-217F (25°ℂ)
	DIMENSION	Туре	RPS-500		RPS-500-C	RPS-	500-TF	RPS-500-SF
	DINIENSION	L*W*H	127x76.2x41n	nm	130x86x43mm	130x86	6x58.5mm	160x86x43mm
OTHERS		LWN	5"x3"x1.61"ir	nch 5.11"x3.39"x1.69"inch 5.11"x		3.39"x2.30"inch	6.3"x3.39"x1.69"inch	
		P.W.	0.46Kg		0.54Kg 0.58K		9	0.64Kg
	PACKING	Q'TY	30pcs		24pcs 24pc		S	24pcs
	IAVIIIIO	G.W.	14.8Kg		14Kg	14.9K	g	16.4Kg
		M'MENT	0.96CUFT		0.77CUFT 0.86		UFT	0.91CUFT

- 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 0.1 μ F & 47 μ F parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Derating may be needed under low input voltages. Please check the derating curve for more details.
- 5. Touch current was measured from primary input to DC output.

NOTE

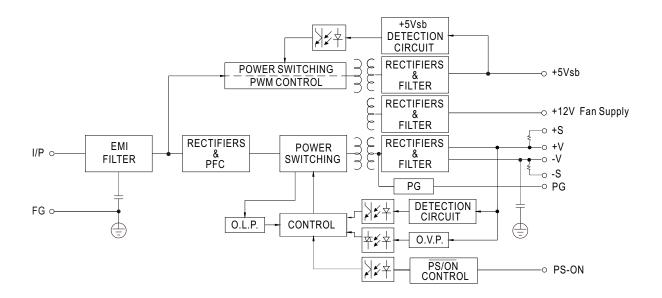
- 6. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- 7. Please refer to "Derating curve".
- 8. The power supply is considered a component which will be installed into a final equipment. All EMC tests are executed by mounting the unit on 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 https://www.meanwell.com//Upload/PDF/EMI statement en.pdf)
- % Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

EMI Performance	Conducted	Radiated
Class I (with FG)	Class B	Class A
Class II (no FG)	Class A	Class A

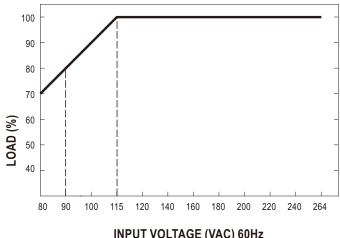
500W 5" \times 3" Reliable Green Medical Power Supply RPS-500 series

■ Block Diagram

PFC fosc: 90KHz PWM fosc: 100KHz



■ Output Derating vs Input Voltage

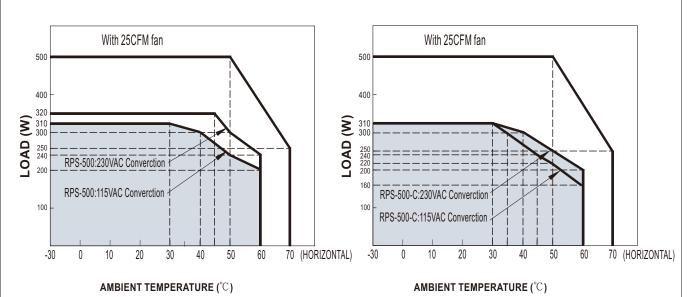


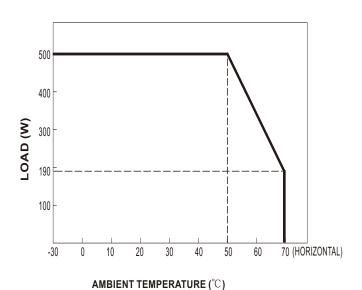
INPUT VOLTAGE (VAC) 60Hz

500W 5"×3" Reliable Green Medical Power Supply **RPS-500** series

■ Derating Curve

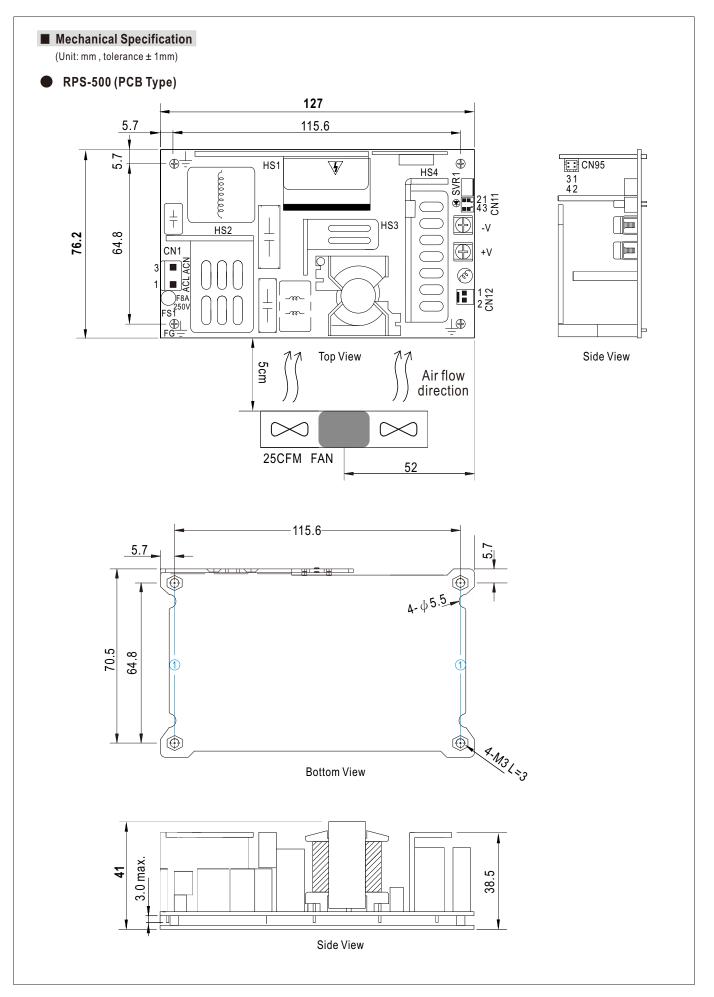
RPS-500-C





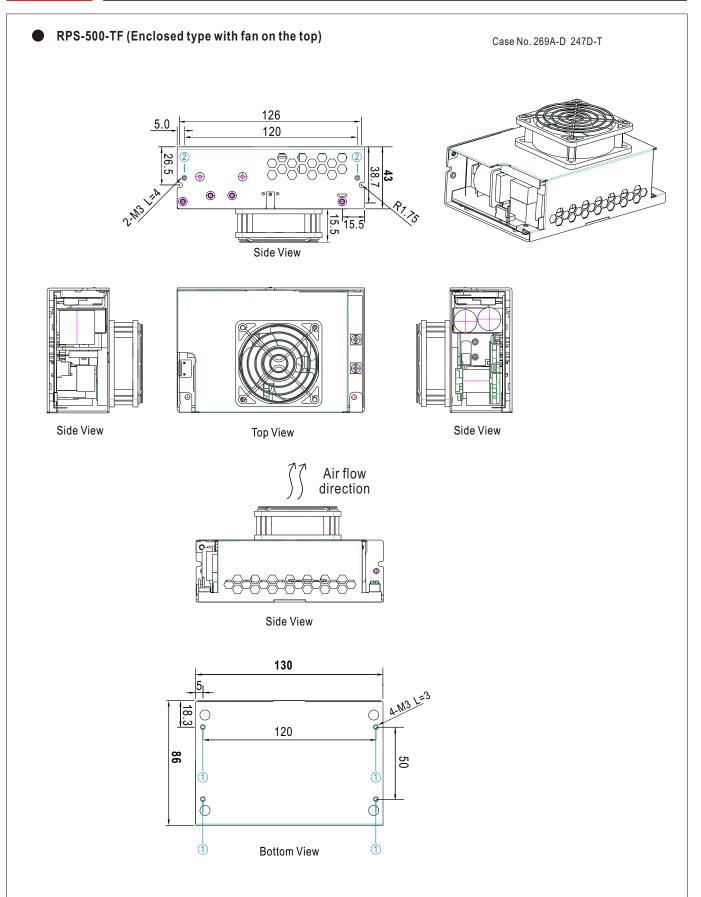
Order No.	RPS-500	RPS-500-C	RPS-500-TF	RPS-500-SF
Products			William Control	
Convection	320W	310W		
Force Air	500W	500W	500W	500W





RPS-500-C (Enclosed type) Case No. 247C-T 269A-D 126 120 15.5 110.5 R1.75 Side View **(1)** Side View Top View Side View Air flow direction 25CFM FAN 53.5 Side View 130 Q 4-M3 L=3 18.3 120 86 6 1 1 **Bottom View**

500W 5"×3" Reliable Green Medical Power Supply RPS-500 series



500W 5"×3" Reliable Green Medical Power Supply RPS-500 series

RPS-500-SF (Enclosed type with fan on the side) Case No. 248B 160 43 **((** <u></u> Side View Air flow direction **(** Side View Side View Top View Side View 130 4-M3 L=3 5.0 50 120 45.6 **Bottom View**



500W 5" \times 3" Reliable Green Medical Power Supply RPS-500 series

※ Mounting Instruction for -C/-TF/-SF Type

Hole No.	Recommended Screw Size	MAX. Penetration Depth L	Recommended mounting torque
1	M3	3mm	4~6Kgf-cm
2	M3	4mm	4~6Kgf-cm

Mounting Surface Chassis of RPS-500-C/TF/SF

Mounting Screw

X CONNECTION

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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	1071//10	107.01/11.017.01.1
2	No Pin	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3	AC/N	oi equivalent	or equivalent

DC Output Connector (CN2,CN3)

Pin No.	Assignment	Output Terminals
CN2	-V	M3.5 Pan HD screw in 2 positions
CN3	+V	Torque to 8 lbs-in(90cNm)max.

HS1,HS2,HS3,HS4 can not be shorted

Function Connector(CN11): TKP DH2I-2X2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	-S		
2	+S	TKP DH2	TKP
3	DC COM	or equivalent	or equivalent
4	PG		

Function Connector(CN95): TKP DH2L-2X2 or equivalent

	Pin No.	Assignment	Mating Housing	Terminal
	1	5Vsb	TIAD DITO	TKP
Ī	2,4	DC COM	TKP DH2 or equivalent	or equivalent
	3	PS-ON	0. 0qu	o. oqu.ru.o

FAN Connector(CN12): TKP 8812-2 or equivalent (Except for RPS-500-TF/SF)

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM	TKP 2502	TKP 8811
2	+12V	or equivalent	or equivalent

- - 2. Mounting Instruction for enclosed type.

■ Installation Manual

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