

60W Triple Output Medical Type

RPT-60 series



■ Features :

- 4"x2" miniature size
- · Universal AC input / Full range
- Low leakage current<200uA
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- UL60601-1/IEC60601-1/EN60601-1 medical safety approved
- UL60950-1/IEC60950-1/EN60950-1 ITE safety approved
- Fixed switch frequency at 100KHz
- 3 years warranty

SPECIFICATION



MODEL		RPT-60A			RPT-60B			RPT-60C				
OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3			
DC VOLTAGE	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V			
RATED CURRENT	4A	2A	0.5A	4A	2A	0.5A	4A	1.5A	0.5A			
CURRENT RANGE	0.5 ~ 4.4A	0.1 ~ 2.2A	0.1 ~ 0.55A	0.5 ~ 4.4A	0.1 ~ 2.2A	0.1 ~ 0.55A	0.5 ~ 4.4A	0.1 ~ 1.65A	0.1 ~ 0.55			
RATED POWER	46.5W		50W		50W							
PEAK LOAD(10sec.) Note.4	51.15W			55W			55W					
RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p	80mVp-p	100mVp-p	150mVp-p			
VOLTAGE TOLERANCE Note.3	+3,-2%	±6.0%	+9,-8%	+3,-2%	±6.0%	+6,-10%	+3,-2%	±6.0%	±8.0%			
LINE REGULATION	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±2.0%	±0.5%	±2.0%	±2.0%			
LOAD REGULATION	±1.5%	±2.0%	+5,-7%	±1.5%	±2.0%	±5.0%	±1.5%	±3.0%	±4.0%			
SETUP, RISE TIME	200ms, 15ms/230VAC 200ms, 15ms/115VAC at full load											
HOLD UP TIME (Typ.)	70ms/230VAC 15ms/115VAC at full load											
VOLTAGE RANGE	90 ~ 264VA	C 127 ~ 3	70VDC					- 1				
FREQUENCY RANGE	47 ~ 63Hz								177			
EFFICIENCY (Typ.)	77%			78%			79%					
AC CURRENT (Typ.)	1.1A/115VAC 0.7A/230VAC											
INRUSH CURRENT (Typ.)	COLD START 60A/230VAC 30A/115VAC											
LEAKAGE CURRENT	For earth <200uA/264VAC, For patient <100uA/264VAC											
	115 ~ 150% rated output power											
OVERLOAD	Protection type: Hiccup mode, recovers automatically after fault condition is removed											
	CH1: 5.75 ~	6.75V	COM									
OVER VOLTAGE	Protection t	ype : Shut dow	n o/p voltage, re	-power on to	recover							
WORKING TEMP.	-20 ~ +65°C (Refer to output load derating curve)											
WORKING HUMIDITY	20 ~ 90% RH non-condensing											
STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH								GA .			
TEMP. COEFFICIENT	±0.03%/°C (0~45°C)											
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes											
SAFETY STANDARDS	UL60950-1, TUV EN60950-1, UL60601-1, TUV EN60601-1, IEC60601-1 approved											
WITHSTAND VOLTAGE	I/P-O/P:4K\	/AC I/P-FG:	1.5KVAC O/P-	-FG:1.5KVAC		Me	M W W					
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC											
EMI CONDUCTION & RADIATION	Compliance to EN55011(CISPR11),EN55022 (CISPR22) Class B											
HARMONIC CURRENT												
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A											
MTBF												
DIMENSION	101.6*50.8*29mm (L*W*H)											
	0.15Kg; 96pcs/15.4Kg/0.89CUFT											
	DC VOLTAGE RATED CURRENT CURRENT RANGE RATED POWER PEAK LOAD(10sec.) Note.4 RIPPLE & NOISE (max.) Note.2 VOLTAGE TOLERANCE Note.3 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 OVERLOAD OVER VOLTAGE WORKING TEMP. WORKING HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT EMS IMMUNITY MTBF	OUTPUT NUMBER DC VOLTAGE SV RATED CURRENT CURRENT RANGE RATED POWER PEAK LOAD(10sec.) Note.4 RIPPLE & NOISE (max.) Note.2 RIPPLE & NOISE (max.) Note.2 RIPPLE & NOISE (max.) Note.3 LINE REGULATION LOAD REGULATION LOAD REGULATION ET 1.5% SETUP, RISE TIME HOLD UP TIME (Typ.) VOLTAGE RANGE FREQUENCY RANGE FREQUENCY RANGE FREQUENCY (Typ.) AC CURRENT (Typ.) RINUSH CURRENT (Typ.) COLD STAFLEAKAGE CURRENT OVER VOLTAGE WORKING TEMP. VORKING TEMP. VORKING HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS WITHSTAND VOLTAGE IN-O-IP-O/P. IM- EMI CONDUCTION & RADIATION COMPILIANCE EMI SIMMUNITY COMPILIANCE MTBF 677.8Khrs r	OUTPUT NUMBER CH1 CH2 DC VOLTAGE 5V 12V RATED CURRENT 4A 2A CURRENT RANGE 0.5 ~ 4.4A 0.1 ~ 2.2A RATED POWER 46.5W PEAK LOAD(10sec.) Note.4 51.15W RIPPLE & NOISE (max.) Note.2 80mVp-p 80mVp-p VOLTAGE TOLERANCE Note.3 +3,-2% ±6.0% LINE REGULATION ±0.5% ±1.0% LOAD REGULATION ±1.5% ±2.0% SETUP, RISE TIME 200ms, 15ms/230VAC HOLD UP TIME (Typ.) 70ms/230VAC 15ms/ VOLTAGE RANGE 90 ~ 264VAC 127 ~ 3 FREQUENCY RANGE 47 ~ 63Hz EFFICIENCY (Typ.) 77% AC CURRENT (Typ.) 1.1A/115VAC 0.7A/ INRUSH CURRENT (Typ.) COLD START 60A/230VA LEAKAGE CURRENT For earth <200uA/264VAC	OUTPUT NUMBER CH1 CH2 CH3 DC VOLTAGE 5V 12V -5V RATED CURRENT 4A 2A 0.5A CURRENT RANGE 0.5 ~ 4.4A 0.1 ~ 2.2A 0.1 ~ 0.55A RATED POWER 46.5W PEAK LOAD(10sec.) Note.4 51.15W PEAK LOAD(10sec.) Note.2 80mVp-p 80mVp-p 80mVp-p VOLTAGE TOLERANCE Note.3 +3,-2% ±6.0% +9,-8% LINE REGULATION ±0.5% ±1.0% ±1.0% LINE REGULATION ±1.5% ±2.0% +5,-7% SETUP, RISE TIME 200ms, 15ms/230VAC 200ms, 15ms/15VAC at full for the composition of the composi	OUTPUT NUMBER CH1 CH2 CH3 CH1 DC VOLTAGE 5V 12V -5V 5V RATED CURRENT 4A 2A 0.5A 4A CURRENT RANGE 0.5 ~ 4.4A 0.1 ~ 2.2A 0.1 ~ 0.55A 0.5 ~ 4.4A RATED POWER 46.5W 50W PEAK LOAD (10 sec.) Note.4 51.15W 55W RIPPLE & NOISE (max.) Note.2 80mVp-p 80mVp-p 80mVp-p 80mVp-p VOLTAGE TOLERANCE Note.3 +3,-2% ±6.0% +9,-8% +3,-2% LINE REGULATION ±0.5% ±1.0% ±1.5% ±0.5% LOAD REGULATION ±1.5% ±2.0% +5,-7% ±1.5% SETUP, RISE TIME 200ms, 15ms/230VAC 200ms, 15ms/115VAC at full load VOLTAGE RANGE 90 ~ 264VAC 127 ~ 370VDC FREQUENCY RANGE 47 ~ 63Hz EFFICIENCY (Typ.) 77% 78% AC CURRENT (Typ.) 1.1A/115VAC 0.7A/230VAC 30A/115VAC LEAKAGE CURRENT For earth <200uA/264VAC, For patient <100u	OUTPUT NUMBER CH1 CH2 CH3 CH1 CH2 DC VOLTAGE 5V 12V -5V 5V 12V RATED CURRENT 4A 2A 0.5A 4A 2A CURRENT RANGE 0.5 ~ 4.4A 0.1 ~ 0.55A 0.5 ~ 4.4A 0.1 ~ 2.2A RATED POWER 46.5W 50W 55W 55W PEAK LOAD(10sec.) Note-2.8 80mVp-p 80mVp-p	OUTPUT NUMBER CH1 CH2 CH3 CH1 CH2 CH3 DC VOLTAGE 5V 12V -5V 5V 12V -12V RATED CURRENT 4A 2A 0.5A 4A 2A 0.5A RATED POWER 46.5W 50W 50W 50W 50W PEAK LOAD(10sec.) Note.4 51.15W 55W 55W RIPPLE & NOISE (max.) Note.2 80mVp-p 80mVp-p 80mVp-p 80mVp-p 80mVp-p 100mVp-p VOLTAGE TOLERANCE Note.3 +3,.2% ±6.0% +9,8% +3,.2% ±6.0% +6,-10% LINE REGULATION ±1.5% ±2.0% ±5.7% ±1.5% ±2.0% ±5.0% SETUP, RISE TIME 200ms, 15ms/230VAC 200ms, 15ms/115VAC at full load 20ms, 15ms/230VAC 15ms/115VAC at full load HOLD UP TIME (Typ.) 70ms/230VAC 15ms/115VAC at full load 78% VOLTAGE RANGE 90 ~264VAC 127 ~370VDC 78% FREQUENCY RANGE 47 ~63Hz 75 ~63Hz <td< td=""><td> OUTPUT NUMBER</td><td> OUTPUT NUMBER CH1</td></td<>	OUTPUT NUMBER	OUTPUT NUMBER CH1			

- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.
- 5. 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.
- 6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.

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Features:

- 4"x2" miniature size
- Universal AC input / Full range
- Low leakage current<200uA
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- UL60601-1/IEC60601-1/EN60601-1 medical safety approved
- UL60950-1/IEC60950-1/EN60950-1 ITE safety approved
- Fixed switch frequency at 100KHz
- 3 years warranty

SPECIFICATION

MODEL		RPT-60D			RPT-6003	RPT-6003				
	OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3			
ОИТРИТ	DC VOLTAGE	5V	24V	12V	3.3V	5V	12V			
	RATED CURRENT	3.5A	1A	0.5A	5A	3A	0.7A			
	CURRENT RANGE	0.5 ~ 3.85A	0.1 ~ 1.1A	0.1 ~ 0.55A	0.5 ~ 5.5A	0.3 ~ 3.3A	0.1 ~ 0.77A			
	RATED POWER	47.5W			39.9W	39.9W				
	PEAK LOAD(10sec.) Note.4	52.25W			43.9W					
	RIPPLE & NOISE (max.) Note.2	80mVp-p	150mVp-p	80mVp-p	80mVp-p	80mVp-p	80mVp-p			
	VOLTAGE TOLERANCE Note.3	+3,-2%	±6.0%	±8.0%	+3,-2%	±8.0%	+6,-10%			
	LINE REGULATION	±0.5%	±2.0%	±2.0%	±0.5%	±1.0%	±2.0%			
	LOAD REGULATION	±1.5%	±3.0%	±4.0%	±1.5%	±2.0%	+5.5,-5%			
	SETUP, RISE TIME	200ms, 15ms/230VAC 200ms, 15ms/115VAC at full load								
	HOLD UP TIME (Typ.)	70ms/230VAC 15ms/115VAC at full load								
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	79%			75%					
	AC CURRENT (Typ.)	1.1A/115VAC 0.7A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 60A/230VAC 30A/115VAC								
	LEAKAGE CURRENT	For earth <200uA/264VAC, For patient <100uA/264VAC								
PROTECTION	OVERLOAD	115 ~ 150% rated output power								
		Protection type: Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	CH1: 5.75 ~ 6.75V CH1: 3.8 ~ 4.45V								
		Protection type : Shut down o/p voltage, re-power on to recover								
	WORKING TEMP.	-20 ~ +65°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
NVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0~45°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, UL60601-1, TUV EN60601-1, IEC60601-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:1.5KVAC								
SAFETY &	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC								
MC Note 5)	EMI CONDUCTION & RADIATION	Compliance to EN55011(CISPR11),EN55022 (CISPR22) Class B								
(Note 3)	HARMONIC CURRENT	Compliance to EN61000-3-2,-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A								
OTHERS	MTBF	677.8Khrs min. MIL-HDBK-217F (25°C)								
	DIMENSION	101.6*50.8*29mm (L*W*H)								
	PACKING	0.15Kg; 96pcs/15.4Kg/0.89CUFT								
NOTE	Ripple & noise are measure Tolerance : includes set up A. 33% Duty cycle maximum v	Illy mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. within every 30 seconds. Average output power should not exceed the rated power. lered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still mee								

6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.

