



**Features**

- . Input 90V to 264VAC, 50~60Hz suitable for worldwide use
- . Output voltage optional from 5V/12V/-5V and 5V/12V/-12VDC
- . Protections: Short Circuit / Overload / Over Voltage Protection
- . 100% full load burn-in test for 2Hrs to make every unit reliable
- . Suitable for BF application with appropriate system consideration
- . Cooling by free air convection, operating temperature -20~40°C
- . Long life and high reliability design with 3 years warranty
- . No minimum load required and extremely low leakage current

**Safety Standards**

- . IEC60601-1 CB report for worldwide use
- . UL ANSI/AAMI ES60601-1/CAN/CSA-C22.2 for USA
- . TUV BS EN/EN 60601-1 for European Union



**Product Description:**

It is a highly reliable triple output 75W medical grade open frame switching power supply solution with wide range 90-264Vac input and designed strictly according to the medical safety standards. The entire series supplies two models with output voltages 5V/12V/-5V and 5V/12V/-12V. The product is suitable for various types of medical devices such as oral irrigator, hemodialysis machine, medical computer monitors, sleep apnea devices and so on. The 75W triple output medical power supply solution is built-in full protections of over load / short circuit and over voltage. The design is in low leakage current <0.15mA and long life >140K hours with 3 years warranty.

**Technical Specification**

Typ. Model	KRPT-75A			KRPT-75B		
<b>Output</b>						
Output Number	CH1	CH2	CH3	CH1	CH2	CH3
Output Voltage	5VDC	12VDC	-5VDC	5VDC	12VDC	-12VDC
Rated Current	6A	3A	0.5A	6A	3A	0.5A
Current Range	0.6 ~ 6A	0.2 ~ 3A	0.1 ~ 0.5A	0.6 ~ 6A	0.2 ~ 3A	0.1 ~ 0.5A
Output Power	68.5W Max.			72W Max.		
Voltage Tolerance	±2%	±6%	±5%	±2%	±6%	±5%
Ripple & Noise	100mVp-p	150mVp-p	100mVp-p	100mVp-p	150mVp-p	100mVp-p
<b>Input</b>						
Input voltage	90 - 264Vac or 120- 370Vdc					
Input Frequency	50-60Hz (When the input is AC)					
Input Current	1.5A Max. @ 100 ~240Vac 50/60Hz input					
Inrush Current	50A Max. @ 100 ~240Vac 50/60Hz input					
Efficiency (Typ.)	76%			77%		
Leakage Current	≤0.15mA @ full input range					
<b>Protections</b>						
Over current	115 ~ 150% rated output power. Hiccup mode, Recovery when the fault is removed					
Short Circuit	No damage. Auto-Recovery when the fault is removed					
Over temperature	Shut down o/p voltage, re-power on to recover					
<b>Environmental</b>						
Operation Temperature	-20°C to +40°C, 20%RH to 90%RH					
Storage Temp, Humidity	-45~ +85°C, 10%RH to 95%RH					
Operation Altitude	≤3000m @ full load and rated operating temperatures					
MTBF	≥50000Hrs @ full load and rated operating temperatures					
<b>Mechanical</b>						
Dimensions (L x W x H)	127.0 x 76.2 x 31.0mm (5.00 x 3.00 x 1.22 inch)					
Unit Weight	250g±10 grams					
Packing Information	63pcs/ Carton, carton dimensions:47*37*20cm, 17.3kgs/ Carton					

**TEST REPORT**
**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	RIPPLE & NOISE	CH1:100/ CH2:150/ CH3:100mVp-p	I/P:230VAC / O/P:FULL LOAD / Ta:25°C	28mVp-p /65mVp-p /36mVp-p	P
2	VOLTAGE TOLERANCE	CH1: ±2% CH2: ±6% CH3: ±5%	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD / Ta:25°C	CH1: -0.76% ~+1.85% CH2: -2.96% ~+4.56% CH3: -1.77% ~+4.12%	P
3	LINE REGULATION	CH1: -0.5% ~ +0.5% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD / Ta:25°C	-0.3% ~ +0.3% of output voltage	P
4	LOAD REGULATION	CH1: -1.5% ~ +1.5% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD / Ta:25°C	-0.65% ~ +0.96% of output voltage	P
5	OVER/UNDERSHOOT	<±5%	I/P: 230VAC O/P:FULL LOAD / Ta:25°C	0.88%	P
6	SET UP TIME	500 mS (Max)	I/P:230VAC O/P:FULL LOAD / Ta:25°C	330 mS	P
7	RISE TIME	30 mS (Max)	I/P: 230VAC O/P:FULL LOAD / Ta:25°C	26 mS	P
8	HOLD UP TIME	20 mS (Min)	I/P: 115VAC O/P:FULL LOAD / Ta:25°C	24 mS	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	VOLTAGE RANGE	90VAC~264VAC	I/P:TESTING O/P:FULL LOAD / Ta:25°C	79V~264V	P
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD / Ta:25°C	TEST: OK	P
3	EFFICIENCY	76% (Typ)	I/P:230VAC O/P:FULL LOAD / Ta:25°C	77.07%	P
4	AVERAGE EFFICIENCY	>74%	I/P:115/230VAC & O/P:25%、50%、75%、 100% LOAD & Ta:25°C	74.85% (115VAC) 75.38% (230VAC)	P
5	AC CURRENT	1.5A (Max)	I/P:100VAC & O/P:FULL LOAD Ta:25°C	1.33A	P
6	INRUSH CURRENT	<50A COLD START	I/P: 230VAC / O/P:FULL LOAD Ta:25°C	31.08A	P
7	LEAKAGE CURRENT	< 0.15mA	I/P:240VAC & O/P:Min LOAD Ta:25°C	L-FG:0.096mA N-FG:0.095mA	P

**PROTECTION FUNCTION TEST**

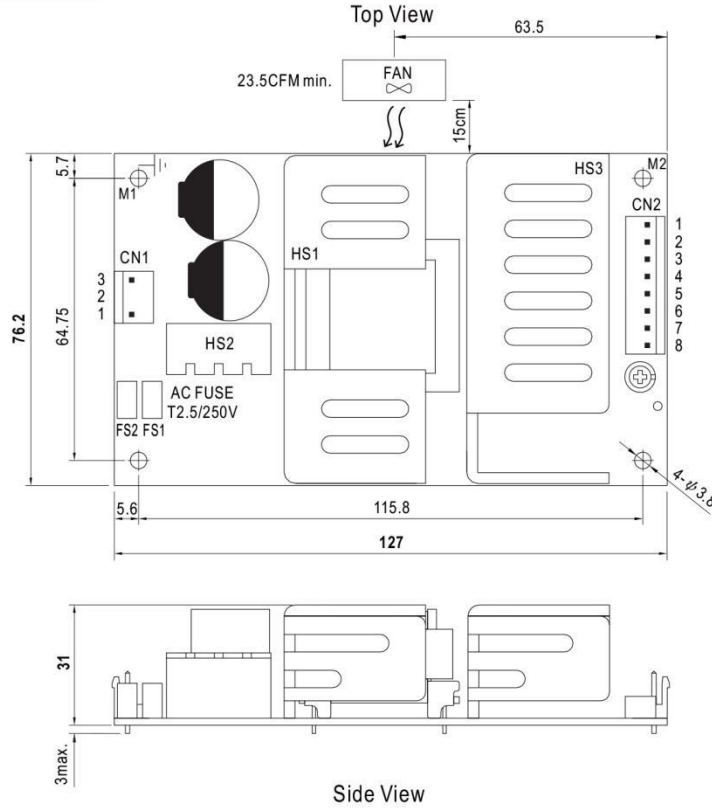
NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	OVER LOAD PROTECTION	115 ~ 150% (Typ)	I/P:230VAC & O/P:TESTING Ta:25°C	140.1% HICCUP MODE	P
2	OVER VOLTAGE PROTECTION	115 ~ 135% (Typ)	I/P:230VAC O/P:MIN LOAD & Ta:25°C	Hiccup mode ,recovers automatically after fault condition is removed	P
3	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD & Ta:25°C	NO DAMAGE HICCUP MODE	P

**SAFETY TEST & E.M.C TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDIDTION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 4KVAC/min I/P- FG: 2KVAC/min O/P-FG:1.5KVAC/min	I/P-O/P: 4 KVAC/min I/P-FG: 2.4KVAC/min O/P-FG: 1.8KVAC/min Ta:25°C	I/P-O/P:6.08mA I/P-FG: 5.88mA O/P-FG: 3.06mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100M Ω I/P-FG: 500VDC>100M Ω O/P-FG:500VDC>100M Ω	I/P-O/P: 500 VDC I/P-FG: 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P-O/P: 9999M Ω I/P-FG: 9999M Ω O/P-FG:9999 M Ω NO DAMAGE	P
3	CONDUCTION	BS EN/EN55032(CISPR32), FCC PART 15 / CISPR22 CAN	I/P: 230 VAC (50HZ) O/P: FULL/50% LOAD Ta: 25°C	PASS Test by certified Lab	P
4	RADIATION	BS EN/EN55032(CISPR32), FCC PART 15 / CISPR22 CAN	I/P: 230 VAC (50HZ) O/P: FULL LOAD Ta: 25°C	PASS Test by certified Lab	P
5	SURGE	BS EN/EN61000-4-5 LIGHT INDUSTRY L-N: 1KV	I/P: 230 VAC/50HZ O/P: FULL LOAD Ta: 25°C	CRITERIA B	P
6	E.S.D	BS EN/EN61000-4-2 LIGHT INDUSTRY AIR: 8KV / Contact: 4KV	I/P: 230 VAC/50HZ O/P: FULL LOAD Ta: 25°C	CRITERIA B	P

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	ZHU LI	WANG LW	ZHANG DL

**Mechanical Specification**



Unit:mm

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

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

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

Pin No.	Assignment	Mating Housing	Terminal
1,2	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4,5	COM		
6,7	V2		
8	V3		

⊥ : 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.