



## 75W Single Output with PFC Function

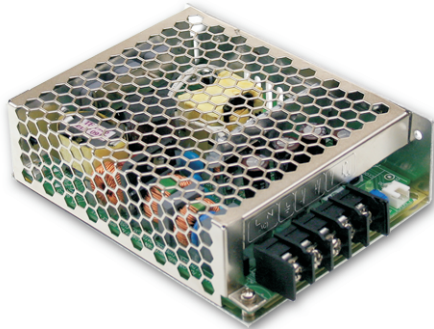
# HRP-75 series

Authorized Distributor: Total Power International, Inc.

Toll Free: 877-646-0900(US)

PH# (978)453-7272

www.total-power.com



### Features :

- Universal AC input / Full range
- Built-in active PFC function
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage
- Protections: Over temperature (optional)
- Cooling by free air convection
- 1U low profile 38mm
- Built-in remote ON-OFF control
- No load power consumption<0.5W
- All using 105°C long life electrolytic capacitors
- 5 years warranty

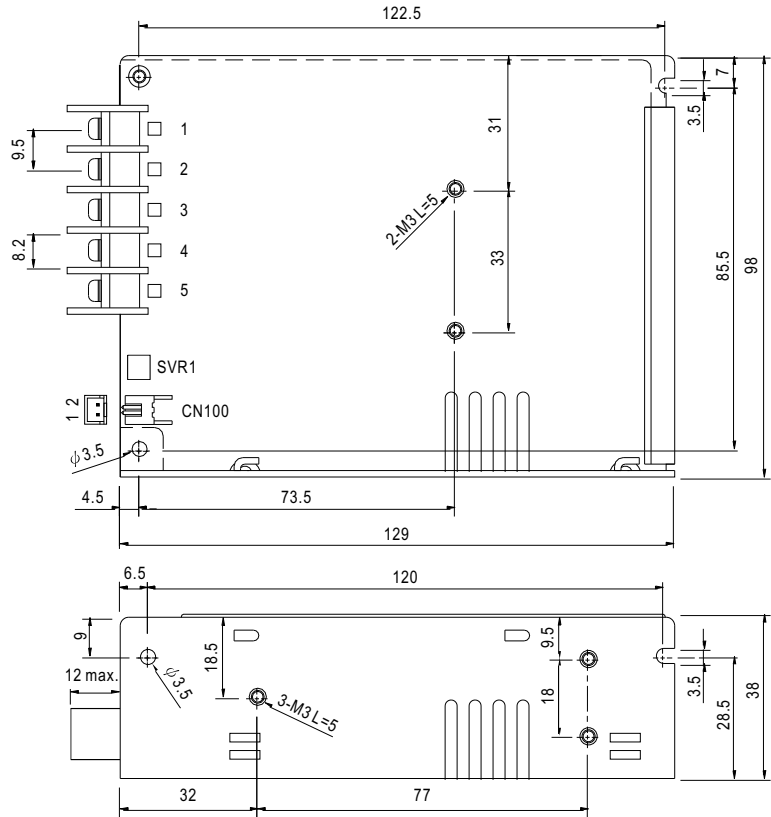


### SPECIFICATION

MODEL	HRP-75-3.3	HRP-75-5	HRP-75-7.5	HRP-75-12	HRP-75-15	HRP-75-24	HRP-75-36	HRP-75-48	
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	15A	15A	10A	6.3A	5A	3.2A	2.1A	1.6A
	CURRENT RANGE	0 ~ 15A	0 ~ 15A	0 ~ 10A	0 ~ 6.3A	0 ~ 5A	0 ~ 3.2A	0 ~ 2.1A	0 ~ 1.6A
	RATED POWER	49.5W	75W	75W	75.6W	75W	76.8W	75.6W	76.8W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	3.1 ~ 3.8V	4.7 ~ 5.8V	7.1 ~ 9V	11 ~ 13.8V	14.2 ~ 18V	21.6 ~ 28.8V	32 ~ 39.6V	45 ~ 55.2V
	VOLTAGE TOLERANCE Note.3	±2.5%	±2.5%	±2.5%	±1.5%	±1.5%	±1.5%	±1.5%	±1.5%
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
	LOAD REGULATION	±2.0%	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1800ms, 25ms/230VAC      1800ms, 25ms/115VAC at full load							
HOLD UP TIME (Typ.)	50ms/230VAC      20ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.5	85 ~ 264VAC      120 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.)	PF>0.9/230VAC		PF>0.95/115VAC at full load					
	EFFICIENCY (Typ.)	77%	82.5%	84%	87%	88%	88.5%	89%	89%
	AC CURRENT (Typ.)	1.2A/115VAC      0.7A/230VAC							
	INRUSH CURRENT (Typ.)	35A/115VAC      65A/230VAC							
	LEAKAGE CURRENT	<1mA / 240VAC							
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, switch to hiccup mode for Vo<50% of rated voltage, recovers automatically after fault condition is removed							
	OVER VOLTAGE	3.96 ~ 4.62V	6 ~ 7V	9.4 ~ 10.9V	14.4 ~ 16.8V	18.8 ~ 21.8V	30 ~ 34.8V	41.4 ~ 48.6V	57.6 ~ 67.2V
	OVER TEMPERATURE (OPTIONAL)	85°C ±5°C for 3.3V~15V; 80°C ±5°C for 24V~48V (TSW1 : detect on heatsink of power transistor) (optional) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
FUNCTION	REMOTE CONTROL	RC+ / RC-: 0 ~ 0.8V = power on ; 4 ~ 10V = power off							
ENVIRONMENT	WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)							
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3							
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61000-6-2, heavy industry level, criteria A							
OTHERS	MTBF	394.8K hrs min.    MIL-HDBK-217F (25°C)							
	DIMENSION	129*98*38mm (L*W*H)							
	PACKING	0.47Kg; 30pcs/ 15Kg/ 0.97CUFT							
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. 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.</li> <li>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</li> <li>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.</li> </ol>								

### Mechanical Specification

Case No.903D Unit:mm



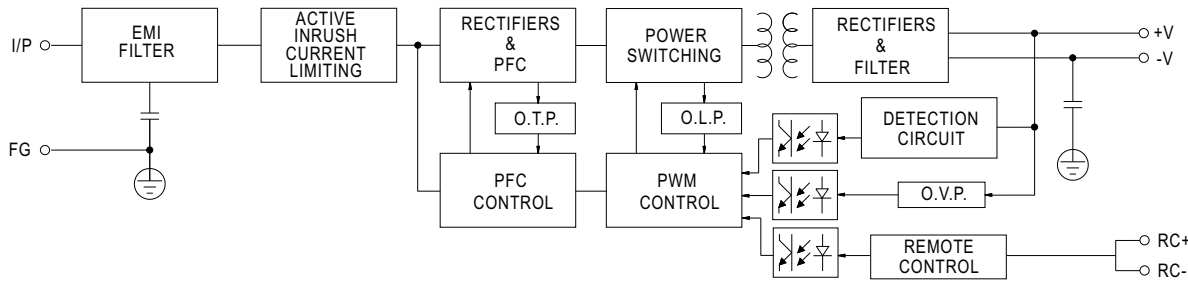
#### Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG		

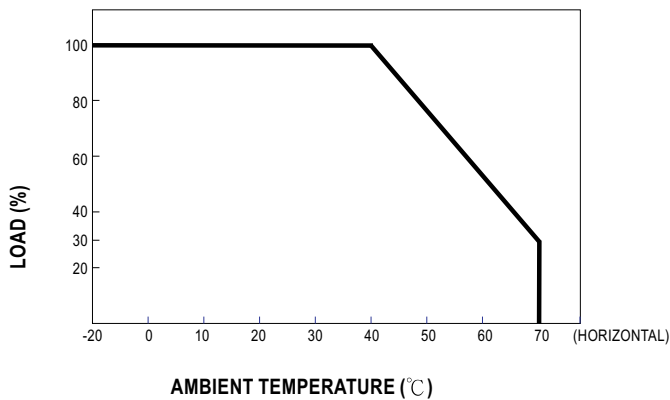
#### Remote ON/OFF (CN100) : JST B-XH or equivalent

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

### Block Diagram



### Derating Curve



### Output Derating VS Input Voltage

