HRP-75 series

75W Single Output with PFC Function

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℃ long life electrolytic capacitors
- 5 years warranty

SPECIFICATION

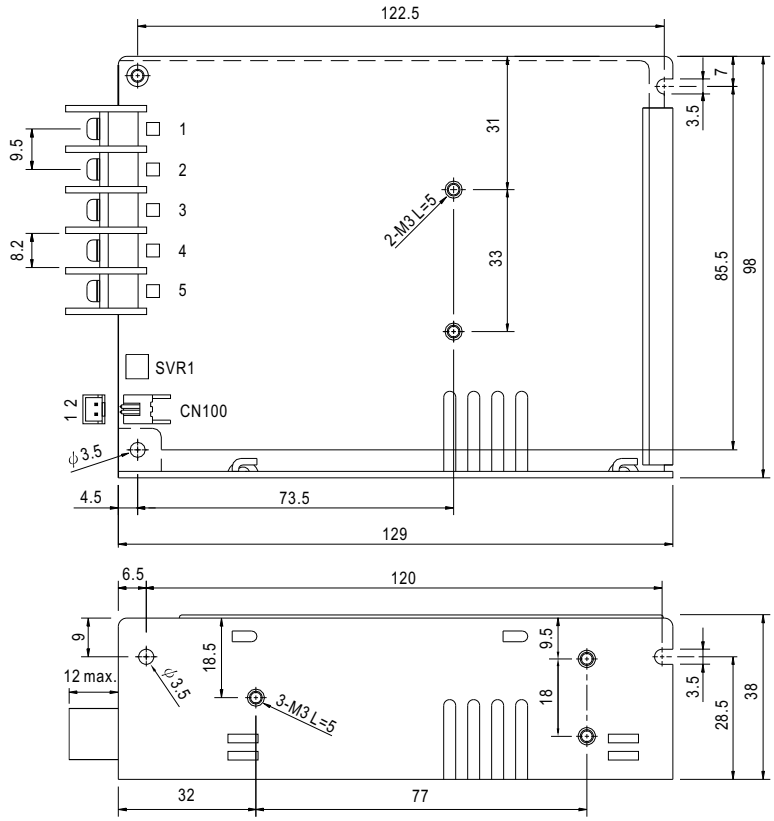
MODEL		HRP-75-3.3	HRP-75-5	HRP-75-7.5	HRP-75-12	HRP-75-15	HRP-75-24	HRP-75-36	HRP-75-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	15A	15A	10A	6.3A	5A	3.2A	2.1A	1.6A
	CURRENT RANGE	0 ~ 15A	0 ~ 15A	0 ~ 10A	0 ~ 6.3A	0 ~ 5A	0 ~ 3.2A	0 ~ 2.1A	0 ~ 1.6A
	RATED POWER	49.5W	75W	75W	75.6W	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
		Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMPERATURE (OPTIONAL)	85℃ ±5℃ for 3.3V~15V; 80℃ ±5℃ 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℃ (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)							
	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℃/ 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℃)							
	DIMENSION	129*98*38mm (L*W*H)							
	PACKING	0.47Kg; 30pcs/ 15Kg/ 0.97CUFT							

NOTE

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 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
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.
5. Derating may be needed under low input voltages. Please check the derating curve for more details.
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.

■ Mechanical Specification

Case No.903D Unit:mm



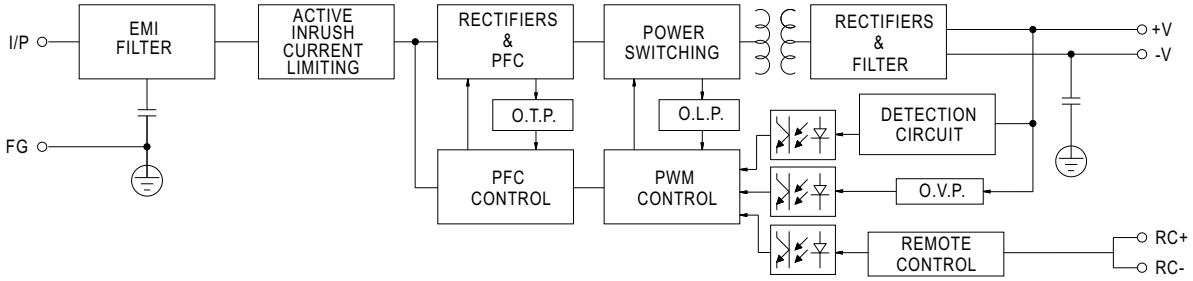
Terminal Pin No. Assignment

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

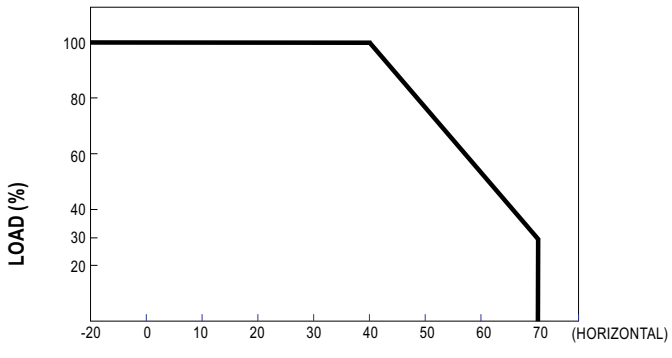
Remote ON/OFF (CN100) : JST B-XH or equivalent

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

■ Block Diagram

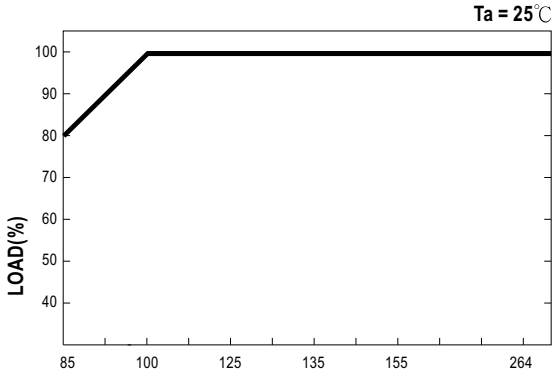


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (V) 60Hz