

Datasheet

RS 75W, 1 Output, Embedded Switch Mode Power Supply (SMPS), 5V dc, 15A

RS Stock number 721-1746

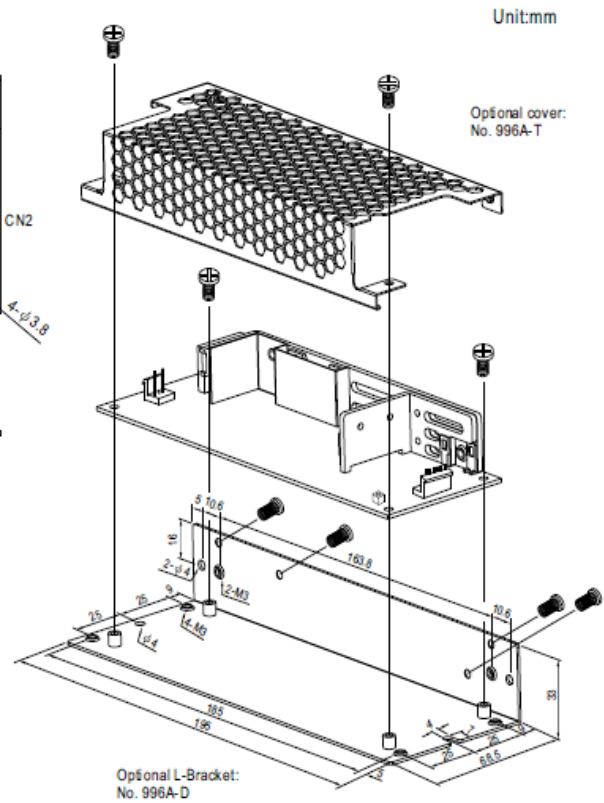
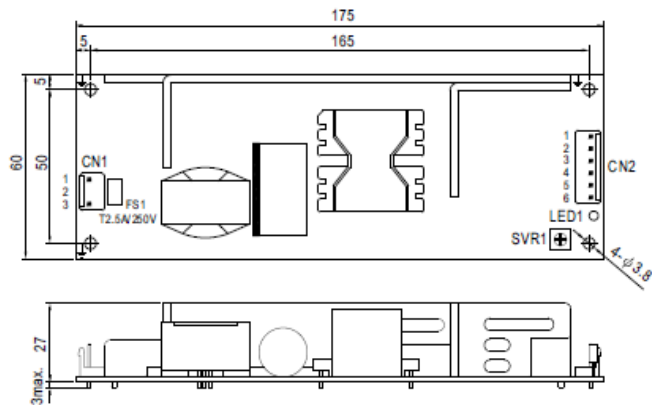


■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 90%
- **Optional L-Bracket and cover (ELP-75-x-C, x=3.3,5,12,15,24,36,48)**
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 1U low profile
- LED indicator for power on
- No load power consumption<0.5W

MODEL		ELP-75-3.3	ELP-75-5	ELP-75-12	ELP-75-15	ELP-75-24	ELP-75-36	ELP-75-48	
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V	36V	48V	
	RATED CURRENT	15A	15A	6.25A	5A	3.15A	2.1A	1.6A	
	CURRENT RANGE	0 ~ 15A	0 ~ 15A	0 ~ 6.25A	0 ~ 5A	0 ~ 3.15A	0 ~ 2.1A	0 ~ 1.6A	
	RATED POWER	49.5W	75W	75W	75W	75.6W	75.6W	76.8W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	120mVp-p	150mVp-p	240mVp-p	280mVp-p	300mVp-p	
	VOLTAGE ADJ. RANGE	3 ~ 3.6V	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V	32.4 ~ 39.6V	43.2 ~ 52.8V	
	VOLTAGE TOLERANCE Note.3	±3.0%	±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%	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	SETUP, RISE TIME	2500ms, 50ms/230VAC 2500ms, 50ms/115VAC at full load							
HOLD UP TIME (Typ.)	20ms/230VAC 20ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.6	90 ~ 264VAC		127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.) Note.5	PF>0.95/230VAC			PF>0.98/115VAC at full load				
	EFFICIENCY (Typ.)	80%	82%	89%	90%	90%	90%	90%	
	AC CURRENT (Typ.)	1.8A/115VAC		1A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 60A/230VAC							
	LEAKAGE CURRENT	<1mA/240VAC							
PROTECTION	OVER LOAD	105 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	3.7 ~ 4.45V	5.6 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	39.7 ~ 46.8V	53.3 ~ 64.8V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +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, 2G 10min./1cycle, period for 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 IP-FG:1.5KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, IP-FG, O/P-FG:100M Ohms / 500VDC / 500VDC / 25°C / 70% RH							
	EMICONDUCION & 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, heavy industry level, criteria A							
OTHERS	MTBF	345.3Khrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	PCB:175*60*27mm (L*W*H) with optional CASE:195*68.5*33mm (L*W*H)							
	PACKING	PCB:0.25Kg; 48pcs/13Kg/0.85CUFT with optional CASE:0.54Kg; 25pcs/14.5Kg/0.59CUFT							

Mechanical Specification



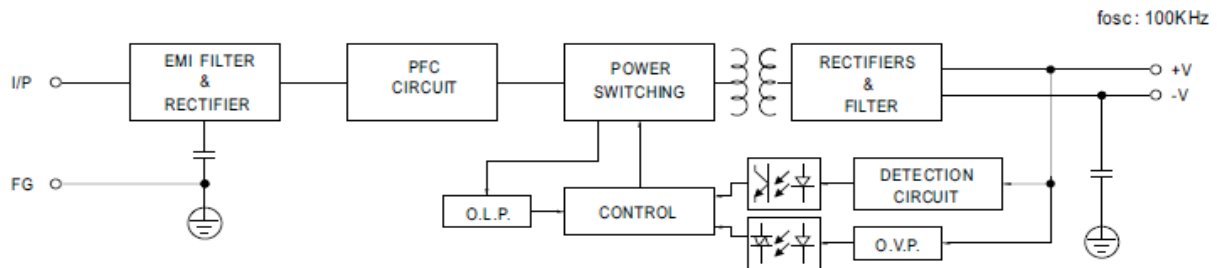
AC Input Connector (CN1) : JST B3P-VH or equivalent

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

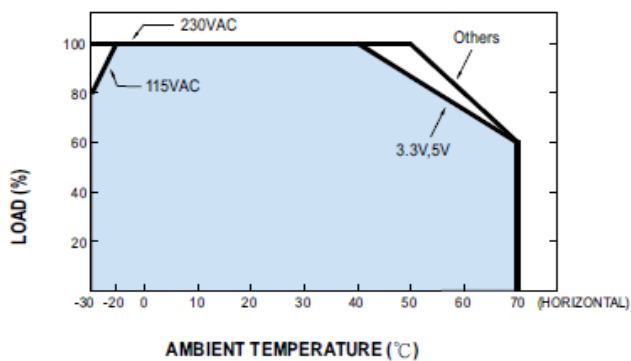
DC Output Connector (CN2) : JST B6P-VH or equivalent

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

Block Diagram



Output Derating



Output Derating VS Input Voltage

