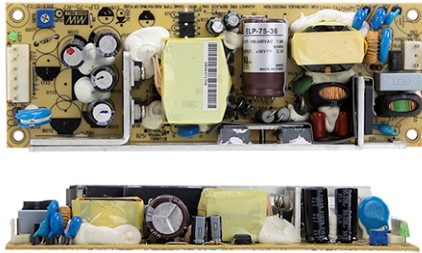




75W Single Output with PFC Function

ELP-75 series



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 90%
- 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
- 3 years warranty

User's Manual



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

SPECIFICATION

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	3.3V: PF>0.91/230VAC 5V~48V: 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 1 A/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
		Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "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, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC/ 500VDC / 25℃ / 70% RH						
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020						
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN55024, heavy industry level, EAC TP TC 020						
OTHERS	MTBF	2229.2K hrs min. Telcordia SR-332 (Bellcore) ; 345.3K hrs min. MIL-HDBK-217F (25℃)						
	DIMENSION	PCB:175*60*27mm (L*W*H) with optional CASE:195*68.5*33mm (L*W*H)						
	PACKING	PCB:0.25Kg; 48pcs/13Kg/0.96CUFT with optional CASE:0.54Kg; 25pcs/14.5Kg/0.7CUFT						
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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 5. 3.3V PF>0.92/230VAC, others PF>0.95/230VAC. 6. Derating may be needed under low input voltage. Please check the derating curve for more details. 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx							

ELP-75 series

The technical drawing shows the PCB layout with the following dimensions and components:

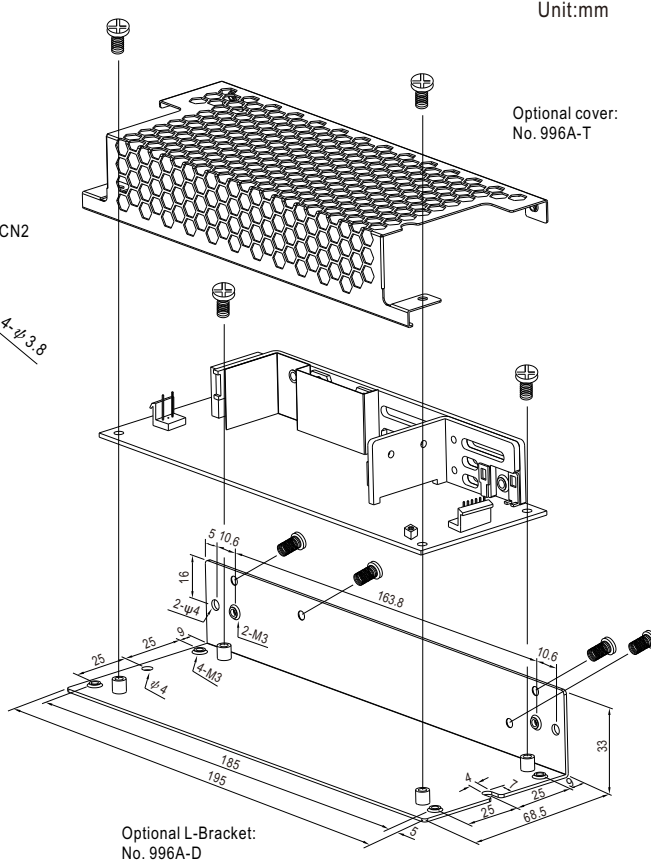
- Top View Dimensions:**
 - Overall width: 175
 - Overall height: 60
 - Distance from left edge to M2: 5
 - Distance from M2 to M1: 50
 - Distance from M1 to M3: 165
 - Distance from M3 to right edge: 5
- Components and Features:**
 - Connectors:** CN1 (3 pins), CN2 (6 pins).
 - Switch:** FS1 (T2.5A/250V).
 - LED:** LED1.
 - Switches:** M1, M2, M3.
 - Other:** SVR1 (4-pin connector).
- Bottom View Dimensions:**
 - Overall height: 27
 - Overall width: 175

Optional cover:
No. 996A-T

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

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

1.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2,M3,and chassis grounding



I/P

EMI FILTER & RECTIFIER

FG

PFC CIRCUIT

POWER SWITCHING

RECTIFIERS & FILTER

+V

-V

DETECTION CIRCUIT

O.V.P.

CONTROL

O.L.P.

fosc: 100KHz

Figure 1 is a graph showing Load (%) on the Y-axis (0 to 100) versus Ambient Temperature (°C) on the X-axis (-30 to 70). The load is 100% for temperatures from -30°C to -20°C (labeled 230VAC). It remains at 100% until 40°C, then decreases linearly to 60% at 70°C (labeled 115VAC). The load is 0% for temperatures above 70°C (labeled Others). A label 3.3V, 5V points to the decreasing load region.

A line graph showing the relationship between Input Voltage (VAC) at 60Hz and Load (%). The x-axis represents Input Voltage (VAC) 60Hz, ranging from 90 to 264 in increments of 5. The y-axis represents Load (%), ranging from 40 to 100 in increments of 10. The graph shows a solid black line that starts at (90, 80), rises linearly to (100, 100), and then remains constant at 100% load for all input voltages from 100V to 264V.

INPUT VOLTAGE (VAC) 60Hz	LOAD (%)
90	80
100	100
110	100
120	100
130	100
140	100
150	100
160	100
170	100
180	100
190	100
200	100
210	100
220	100
230	100
240	100
250	100
264	100