

LED power supplies with constant voltage output (CV) and desktop housing

FEATURES:

- desktop housing
- reliable and powerful
- high efficiency
- compliant with international lighting standard

APPLICATIONS:

- indoor lighting LED systems
- retail lighting
- home LED lighting
- digital signage systems
- architectural LED lighting
- decorative lighting



The **ELD90P** series of LED power supplies is a group of specialized 90-watt units in a classical desktop housing. These power supplies meet the technical requirements for LED lighting, are characterized by high-quality design, and provide high output power. Their design is based on high-quality electronic components, ensuring continuous, long-lasting operation in all conditions. They are reliable, fully protected, and stable. They are covered by a 5-year warranty.

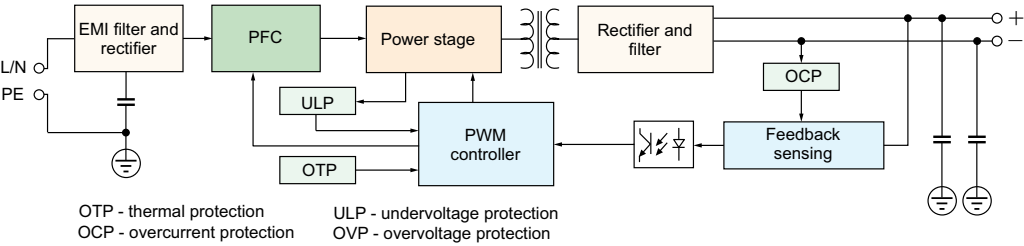
TECHNICAL CHARACTERISTICS

Group	Parameter	ELD90P-9012	ELD90P-9024	Conditions
Input	Rated input voltage	100 – 240 VAC		
	Input voltage range	90 – 264 VAC		
	Mains frequency range	50 – 60 Hz		
	AC current (max.)	1.8 A		At 100 VAC and full load
	Inrush current (max.)	85 A		At 240 VAC and full load
	No-load power consumption (max.)	0.1 W		
	Input leakage current (max.)	0.15 mA		At 240 VAC
	Power factor correction	Yes		
	Power factor (min.)	0.95		
Output	Regulation type	CV – constant voltage		
	Rated output voltage	12 V	24 V	
	No-load output voltage (max.)	12.5 V	25.2 V	
	Rated output power	90 W		
	Rated output current	7.5 A	3.25 A	
	Full load efficiency	89%	89%	At 240 VAC
	Average efficiency	90%	90%	
	10% load efficiency	90%	90%	
	Line regulation	±2%		
	Load regulation	±4%	±3%	
	Ripples and noise	100 mVpp	120 mVpp	
	Turn on delay time (max.)	250 ms		At 240 VAC and full load
Environmental	Working temperature range	-5°C to +40°C		
	Maximum enclosure temperature	85°C		
	Working humidity range	20 – 90% RH		Without condensation
	Storage temperature range	-20°C to +60°C		
	Cooling method	Free air circulation		
Protection	Input: overvoltage (OVP), undervoltage (UVP)	OVP, UVP		
	Output: overcurrent (OCP), short circuit (SCP), overvoltage (OVP)	OCP (130-160%), SCP, OVP (19 V)	OCP (130-160%), SCP, OVP (36 V)	Hiccup mode
	Overvoltage protection	Yes		By MOV
	Automatic recovery on fault remove	Yes		Restart after delay
	Thermal protection	Yes		By controller
Safety and EMC	Withstand isolation voltage (min.)	3 kVAC		5 mA, 1 min
	Isolation resistance (min.)	100 MΩ		500 VDC
	Isolation class	1		
	Safety compliance	EN 61347-2-13:2015+A1:2019		
	EMC compliance (emission)	EN IEC 55015:2019+A11:2020		
	EMC compliance (harmonic current emission)	EN IEC 61000-3-2:2019+A1:2021		
	EMC compliance (immunity)	EN 61547:2009 EN 61000-3-3, EN 61000-4-2, -4, -5		
	Marking	CE, UKCA, RoHS		

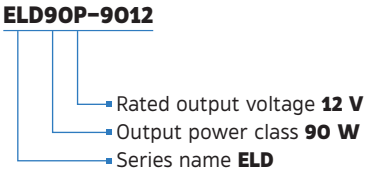
Notes: Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. The power supply is considered as an independent unit, but the final equipment still need to reconfirm that the whole system complies with the EMC directives. If the PSU is installed in the final device as a subassembly, the tests should be repeated to verify that the system has been met compliance. Detailed technical data are available on request.

Mechanical	Enclosure type	Black ABS plastic desktop type	With power LED
	Dimensions	142 × 60 × 33 mm	L × W × H
	Weight	395 g	
	Single package size	200 × 91 × 40 mm	
	Bulk package size	320 × 472 × 310 mm	49 items
	Input connector	IEC C13 socket	
	Output connector	Straight DC Jack 2.1 × 5.5 × 10 mm	Plus in the center
	DC cable	Flat type, 1.2 m with RFI ferrite	AWG16
	Manufacturing	China	
	Warranty	5 years	
	MTBF	100 000 h	25°C

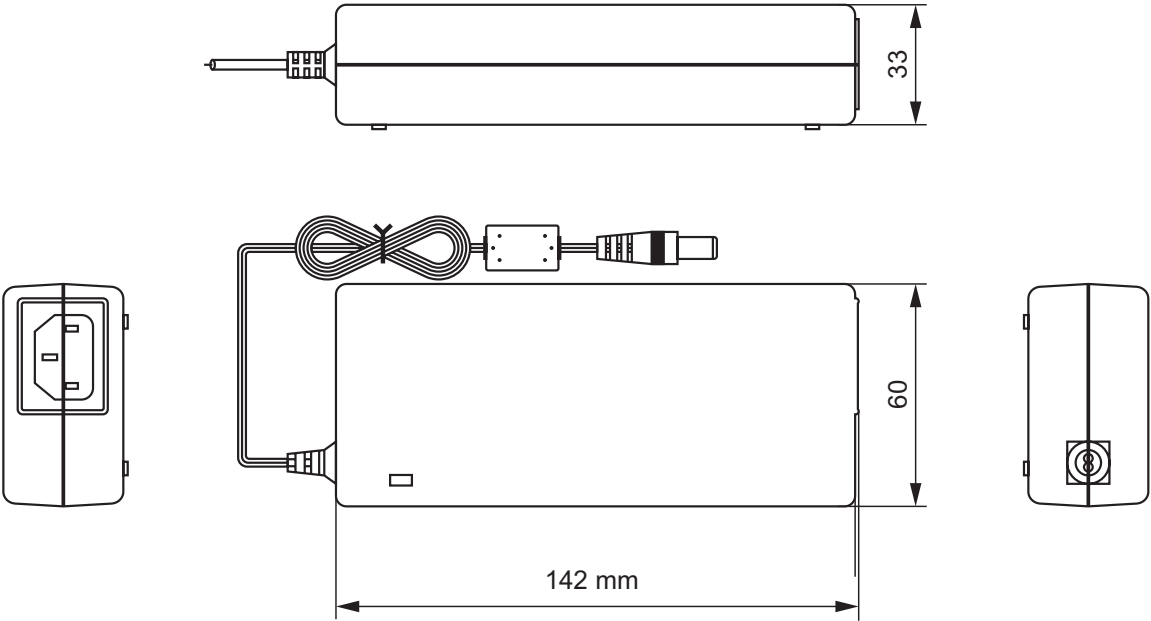
BLOCK DIAGRAM



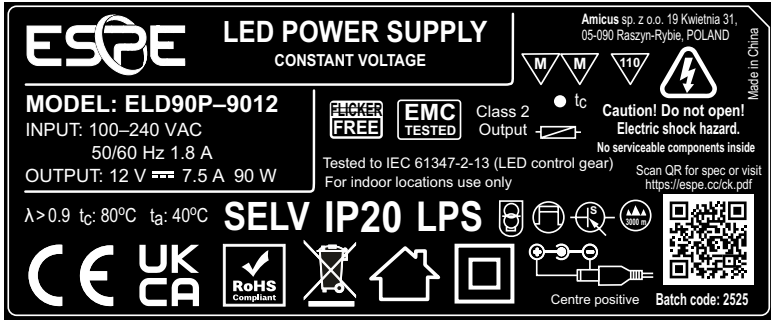
MARKING SYSTEM



MECHANICAL SPECIFICATION



PRODUCT LABEL



Legend to the label icons:

- tc: 85°C – maximum case temperature
- ta: 40°C – maximum ambient temperature
- power supply intended for indoor use only
- it can be installed separately outside a lighting fixture without an additional housing
- means safety isolating control gear with short circuit protection
- tc – the point with the highest temperature of the housing surface
- the product must not be disposed of in normal waste containers
- SELV – Safety Extra Low Voltage output insulated from both the mains and ground circuits
- IP20 – defined in EN 60529 levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt) and moisture