

E1212W2E-ES-2155S

high quality 12 V plug power supply with increased safety level

The **E1212W2E-ES** is a high quality 12-watt plug-in power supply with the “extra safety” level. Units from this series meet the requirements of the IEC62368 safety standard with a large margin and are designed for applications where it is essential ensuring the highest safety of use, for devices and applications such as:

- equipment exposed to voltage surges in the mains, e.g. from lightning or ESD
- equipment operated by children and people with sensitive skin
- musical equipment in which the user touches metal elements, i.e. strings
- ICT equipment operating in complex distributed network installations
- devices used in poor environmental conditions (bathroom, laundry) - aquariums, terrariums and similar places where animals are kept.

Due to the low insulation leakage current, the “ES” power supplies do not create any unpleasant feeling when touching the DC plug. They provide a voltage that is safe at the output in all conditions.

ES power supplies are characterized by a low level of ripples and noise voltage output, making them suitable for powering radiocommunication devices, and their high efficiency ensures low heating

TECHNICAL SPECIFICATION

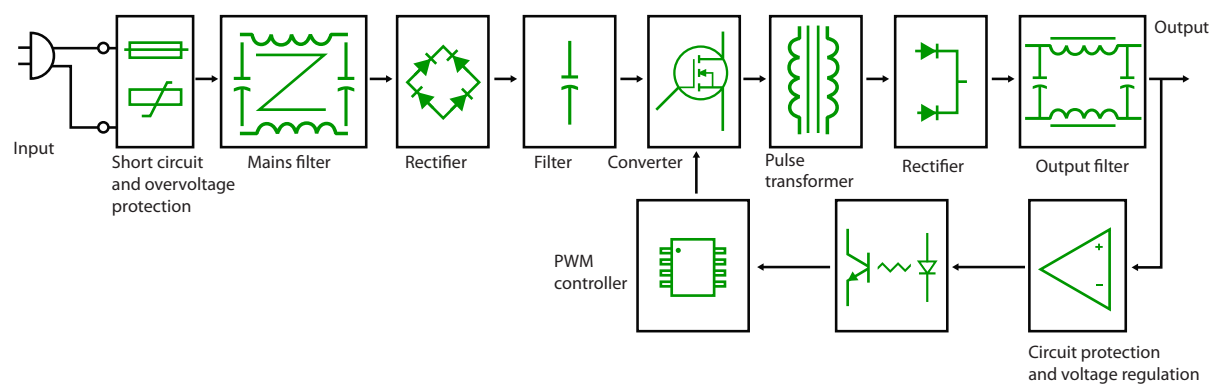


Features:

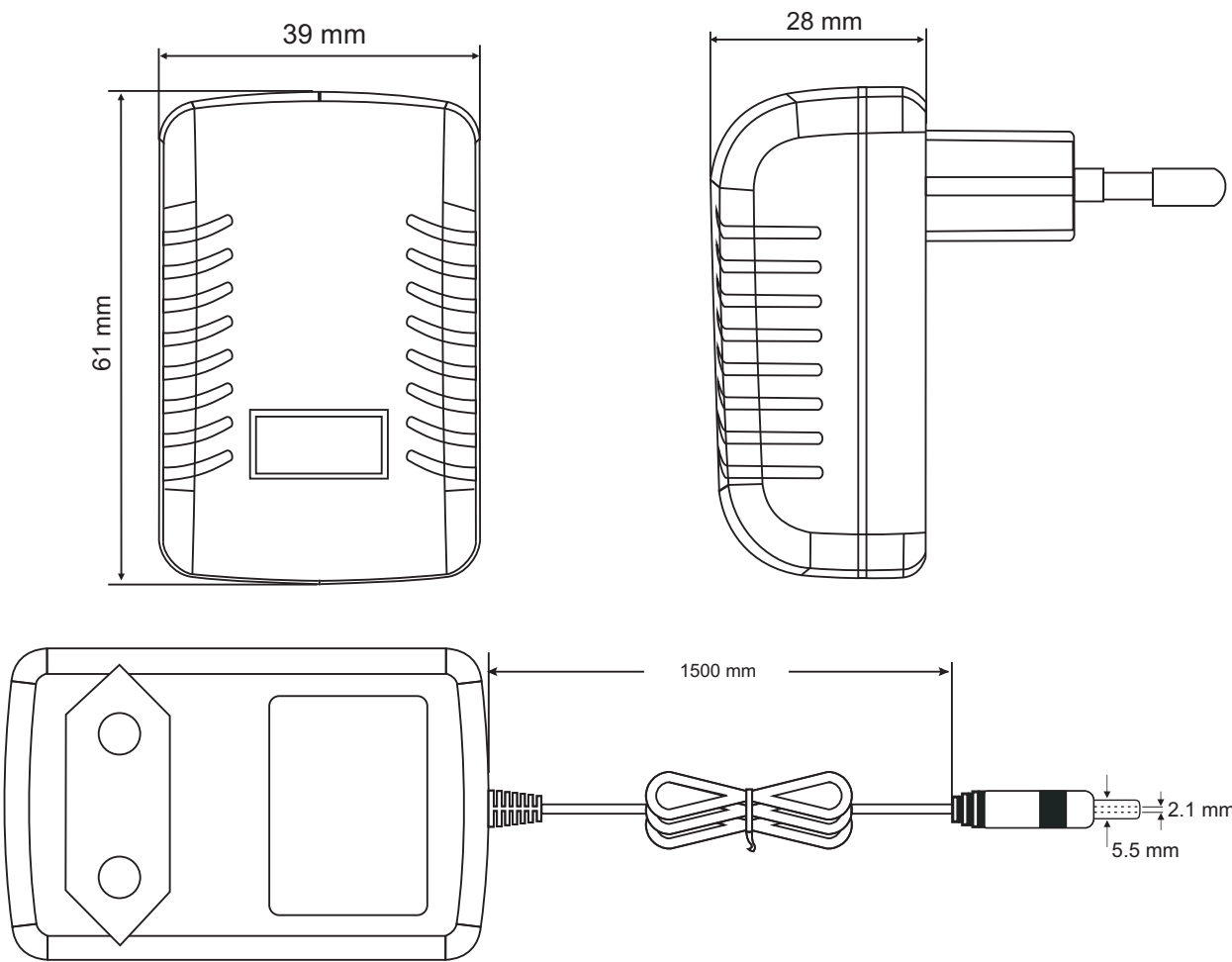
- Compliance with SELV requirements
- Withstand isolation voltage +25%
- Insulation leakage current less than 3 times
- High input-output insulation resistance
- Built-in MOV protection against mains overvoltages
- Low residual potential on the DC plug not causing discomfort when touching

Group	Parameter	Value	Conditions
Input	Rated input voltage	100-240 VAC	
	Input voltage range	90-264 VAC	
	Mains frequency range	47-63 Hz	
	AC current (max.)	0.4 A	At 100 VAC and full load
	Inrush current (max.)	60 A	
	No load power consumption	0.075 W	
	Input leakage current (max.)	0.1 mA	At 264 VAC
	Power factor	0.5	
Output	Rated output voltage	12 V	
	Rated output power	12 W	
	Rated output current	1 A	
	Average efficiency	83.3%	At 230 VAC
	Efficiency at 10% load	81%	
	Line regulation	±3%	
	Load regulation	±5%	
	Ripple and noise	100 mVp-p	At 100 VAC
	Minimal output current	No	
	Hold up time (max.)	5 ms	At 100 VAC and full load
	DC voltage rise time (max.)	30 ms	At 100 VAC and full load
	Turn on delay time (max.)	1 s	At 100 VAC and full load
Environmental	Working temperature	-10 to +40°C	
	Working humidity	25% to 75% RH	40°C
	Storage temperature	-10°C to +80°C	
	Cooling method	Free air circulation	
Protection	Short circuit	Yes	
	Overcurrent	Yes, 115-135%	
	Output overvoltage	Yes, 18 V	
	Automatic recovery on fault remove	Yes	
Safety and EMC	Withstand isolation voltage	4 kVAC (input to output)	5 mA, 1 min
	Isolation resistance	500 MΩ	500 VDC
	Isolation class	2	
	Safety compliance	EN62368	
	EMC compliance	EN55022 class B, EN61000-4	
	Marking	RoHS, CE	
Mechanical and features	Enclosure	Black ABS plastic	
	Size	61 × 39 × 28 mm	L × W × H
	Weight	76 g	
	Output connector	Straight DC Jack 2.1 × 5.5 × 10 mm	Plus in the middle
	Input connector	EU plug	
	Output cable	1.5 m	0.205 mm ²
	Single package	70 × 50 × 80 mm	
	Packing	472 × 310 × 290 mm	108 items
	Manufacturing	China	
	Warranty	2 years	

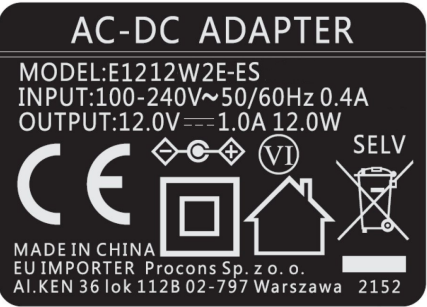
BLOCK DIAGRAM



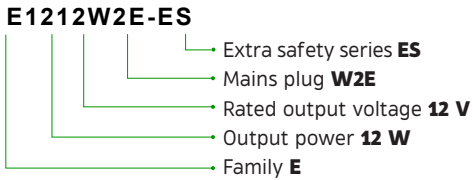
MECHANICAL SPECIFICATION



PRODUCT LABEL



MARKING SYSTEM



Legend to the label icons:

- - II safety class: no grounding is required, no dangerous voltage even in an emergency situation will appear on output
- 🏠 - power supply intended for indoor use only
- VI - high efficiency and low no load power consumption, meeting the requirements of Energy Star Compliance Level 6
- ⊕ - polarization: plus in the middle, minus outside
- ♻️ - the product must not be disposed of in normal waste containers