POWER SUPPLIES SERIES E120P

High-quality desktop power supplies

FEATURES:

- small size
- compact design
- reliable and powerful
- compliant with Energy Star Compliance
- Level VI and ErP Ecodesign (Ecoproject)
- high power output
- no load power consumption under 100 mW

APPLICATIONS:

- consumer electronics
- telecommunication devices
- electronic office equipment
- hardware
- home and building automation system
- audio-visual equipment
- cash registers and vending machines

E120P–12012 and **E120P–12024** are compact and efficient 120W plug-in power supplies with universal application. Its design is based on high-quality electronic components that allow for continuous, long-term operation. It is reliable, fully protected and stable. Provides high efficiency and excellent specification. 5 years warranty included.

TECHNICAL SPECIFICATION

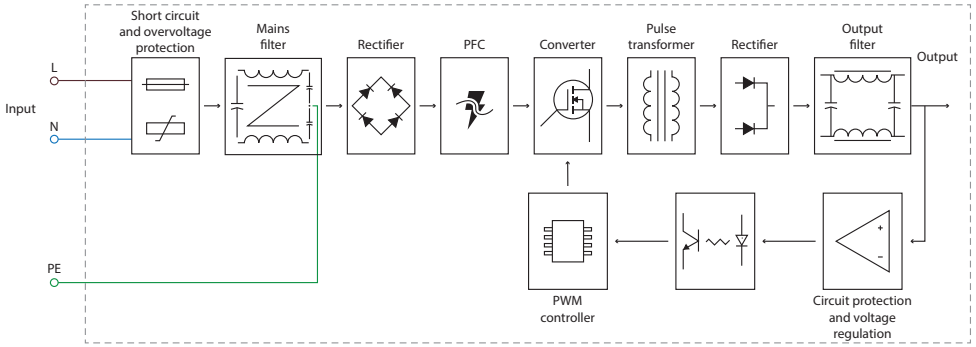
Group	Parameter	E120P–12012	E120P–12024	Conditions
Input	Rated input voltage	100–240 VAC		
	Input voltage range	90–264 VAC		
	Mains frequency range	47–63 Hz		
	AC current (max.)	1.8 A		At 100 VAC and full load
	Inrush current (max.)	80 A		At 265 VAC and full load
	No load power consumption	0.1 W		
	Input leakage current (max.)	0.2 mA		At 264 VAC
	Built-in active power factor correction (PFC)	Yes		
	Power factor	0.95		
Output	Rated output voltage	12 V	24 V	
	Rated output power	120 W		
	Rated output current	10 A	5 A	
	Energy efficiency	89%	90%	At 230 VAC
	Energy conversion efficiency at low load	82%		At 10% load
	Energy efficiency class	DoE Level VI, ErP		
	Line regulation	±2%		
	Load regulation	±7%	±4%	
	Ripples and noise	150 mVp-p		At 100 VAC
	Minimal output current required	No		
	Hold up time	3 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.)	0.5 s		At 100 VAC and full load
Environmental	Working temperature range	–5 to +45°C		
	Working humidity range	5% to 95% RH		40°C
	Storage temperature range	–40°C to +80°C		
	Cooling method	Free air circulation		
Protection	Input protection: over-voltage (OVP), under-voltage (UVP)	OVP, UVP		
	Output protection: overcurrent protection (OCP), short circuit protection (SCP), overvoltage protection (OVP)	OCP (110–160%), SCP, OVP		
	Output overvoltage protection	19 V	36 V	
	Automatic recovery on fault remove	Yes		"hiccup" mode
	Thermal protection	Yes		In the controller
Safety and EMC	Withstand isolation voltage (min.)	3 kVAC (input to output)		5 mA, 1 min
	Isolation resistance (min.)	100 MΩ		500 VDC
	Isolation class	2		
	Safety compliance	EN62368–1		Max height 3000 m a.s.l.
	EMC compliance	EN55032 Class B, EN61000-4-2, -4-4, -4-5		
	Marking	CE, UKCA, RoHS		

Notes:

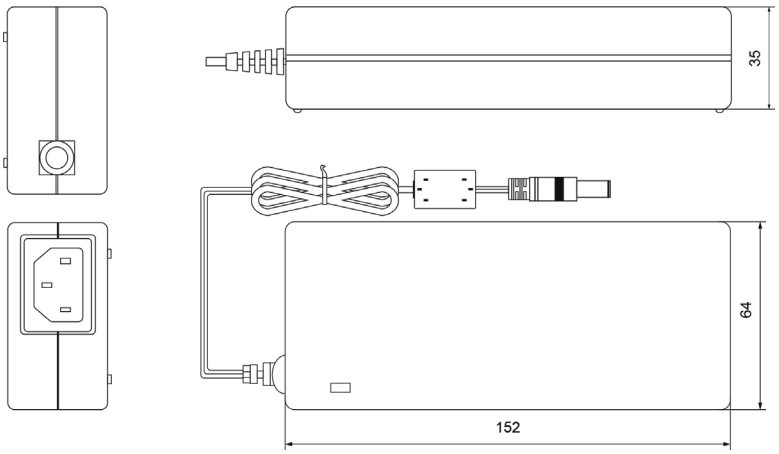
Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. 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 and features	Enclosure	Black ABS plastic		IP20
	Indicator LED	Yes		
	Dimensions	152 × 64 × 35 mm		L × W × H
	Weight	500 g		
	Standard design of the DC output connection - 211	Straight DC Jack 2.1 × 5.5 × 10 mm		Plus in the center
	Output cable	1.2 m AWG 16	1.2 m AWG 18	With RFI ferrite
	Input connector	3–pin IEC C14 socket		
	Single package size	200 × 91 × 36 mm		
	Packing	472 × 310 × 290 mm		49 items
	Manufacturing	China		
	Warranty	5 years		
	EAN	5904139609705	5904139610039	

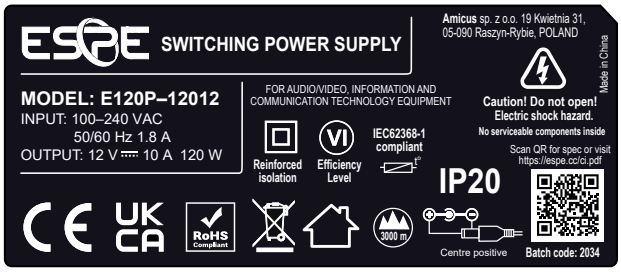
BLOCK DIAGRAM

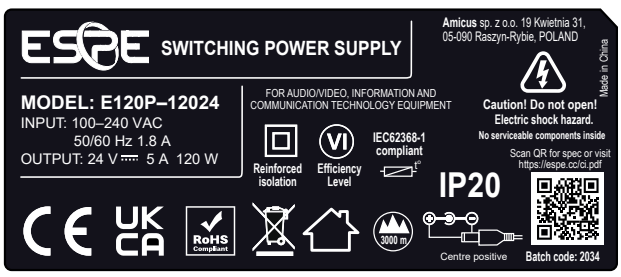


MECHANICAL SPECIFICATION



PRODUCT LABEL



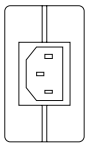


Legend to the label icons:

- – 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
- – high efficiency supply with small power consumption at no load, meeting requirements of 6th level rating Energy Star Compliance and European ErP regulations
- – polarization: plus in the middle, minus outside
- – the product must not be disposed of in normal waste containers
- – maximum allowable power supply mounting height
- – high voltage inside the power supply enclosure warning
- – internal thermal fuse

IP20 – degree of protection offered by electrical enclosures against intrusion from foreign objects (such as tools or dirt) and moisture according to PN-EN 60529:2003

MARKING SYSTEM



E120P–12012–211

Series **E120P**

Enclosure with 3–pin socket **IEC C14**

Output power class **120W**

Rated output voltage **12V**

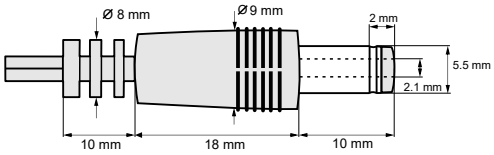
Output connector type

Standard output connector DC Jack 2.1 × 5.5 × 10 mm (plus in the center)

21 – Plug type DC – DC Jack 2.1 × 5.5 × 10 mm

1 – Plug shape DC and polarization – Straight plug, plus in the center 

STANDARD OUTPUT DC 211 CONNECTOR

Index	Type	Size inside [mm]	Size outside [mm]	Clamp type	Technical drawing	Explanatory picture
211	Straight	2.10	5.50	F 		

VARIANTS OF OUTPUT DC CONNECTORS

E120P–12012–

00	None
07	0.7 / 2.35 mm
08	0.8 / 3.0 mm
10	1.1 / 3.0 mm
11	1.1 / 3.5 mm
13	1.3 / 3.45 mm
15	1.5 / 5.5 mm

40	1.7 / 4.0 mm
48	1.7 / 4.8 mm
17	1.7 / 5.5 mm
21	2.1 / 5.5 mm
25	2.5 / 5.5 mm
30	3.0 / 5.5 mm

Type and plug size

0	None
1	Straight
2	Angled
3	Straight (CN – reversed polarization)
4	Angled (CN – reversed polarization
6	Socket
7	Socket (CN – reversed polarization)

Plug shape and polarization