POWER SUPPLIES SERIES HDN-60

High quality DIN rail industrial power supplies

FEATURES:

- compact design
- high power output
- premium class components
- fully protected
- low inrush
- output voltage trimmer
- perforated enclosure
- power on LED
- double terminal block connectors on output

APPLICATIONS:

- industrial automation
- monitoring and safety systems
- home and building automation
- industrial control systems

HDN-60 is a series of high quality, efficient switched-mode industrial power supplies in a plastic housing for mounting on a DIN TS35 mm rail with a width of 3U. 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. The perforated enclosure provides good ventilation, and the trimmer allows to accurately adjust the voltage to compensate for the voltage drop across the wires. Double output terminals make it easy to connect load. 5 years warranty included.

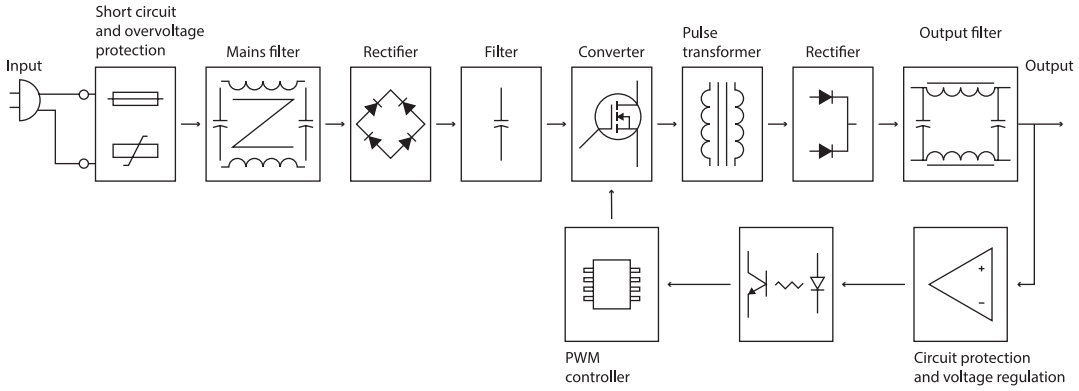
TECHNICAL SPECIFICATION

Group	Parameter	HDN-6012	HDN-6024	HDN-6048	Conditions
Input	Rated input voltage	100–240 VAC			
	Input voltage range	90–264 VAC			
	Mains frequency range	47–53 Hz			
	AC current (max.)	1.4 A	1.5 A	1.5 A	At 100 VAC and full load
	Inrush current (max.)	60 A			At 265 VAC and full load
	No load power consumption	0.25 W	0.4 W	0.35 W	
	Input leakage current (max.)	Max. 0.25 mA			At 240 VAC
	Power factor correction	No			
	Typical power factor	0.6	0.55	0.58	
Output	Rated output voltage	12 V	24 V	48 V	
	Trim range	11.4–12.6 V	22.8–25.2 V	47–49 V	
	Rated output power	54 W	60 W	60 W	
	Rated output current	4.5 A	2.5 A	1.25 A	
	Efficiency at full load (typ.)	86%	88%	90%	At 230 VAC
	Line regulation	±2%			
	Load regulation	±3%	±2.5%	±1.5%	
	Ripple and noise	150 mVp-p			
	Minimal output current	No			
	Hold up time (max.)	5 ms			At 230 VAC and full load
	DC voltage rise time (max.)	40 ms			At 230 VAC and full load
	Turn on delay time (max.)	0.5 s			At 230 VAC and full load
Environmental	Working temperature	0 to +40℃			
	Working humidity	25% to 75% RH			40℃
	Storage temperature	–10℃ to +80℃			
	Cooling method	Free air circulation			
Protection	Short circuit	Yes			
	Overcurrent	120–140%			Hiccup mode. In 48 V model CV→CC mode
	Output overvoltage	16 V	32 V	64 V	
	Input overvoltage protection	Yes			MOV protection
	Thermal protection	Yes			
	Automatic recovery on fault remove	Yes			
Safety and EMC	Withstand isolation voltage	3 kVAC (input to output)			5 mA, 1 min
	Isolation resistance	100 MΩ			500 VDC
	Isolation class	2			
	Safety compliance	EN62368-1			
	EMC compliance	EN55032 Class B, EN61000-4-2, EN61000-4-4, -4-5			
	Marking	CE, UKCA, RoHS			

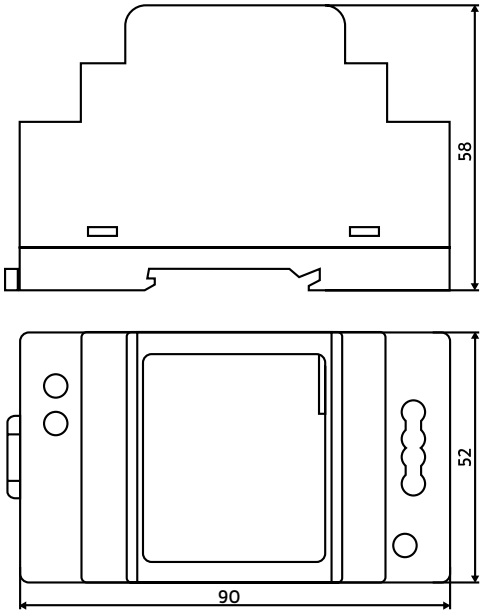
Mechanical and features	Enclosure	Grey ABS plastic			IP20
	LED indicator	Yes			
	Dimension	90 × 58 × 52 mm			L × W × H
	Weight	185 g			
	Output connector	Double pins terminal block			
	Input connector	Terminal block			
	Single package	100 × 60 × 68 mm			
	Packing	325 × 220 × 360 mm			50 items
	Manufacturing	China			
	Warranty	5 years			
	EAN	5904139604663	5904139604717	5904139614068	

Notes:
Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25℃ 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.

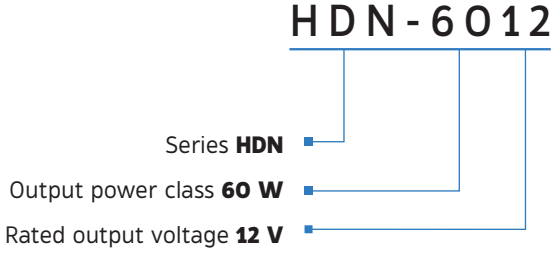
BLOCK DIAGRAM



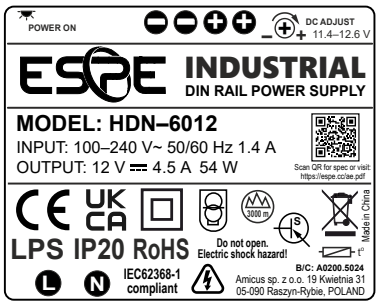
MECHANICAL SPECIFICATION



MARKING SYSTEM



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
- – maximum allowable power supply mounting height
- – means safety isolating control gear with short circuit protection
- – switching power supply
- – the product must not be disposed of in normal waste containers
- – high voltage inside the power supply enclosure warning
- – internal thermal fuse

LPS – a Limited Power Source (LPS) as defined in IEC 62368-1 and IEC 60950, is a secondary circuit with an open circuit output voltage, UOC, not exceeding the SELV circuit limits of 42.4 VPEAK or 60 VDC

IP20 – defined in EN 60529 levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt) and moisture

L – line connection (brown wire)

N – neutral connection (blue wire)

± – output plus (positive) wire, output minus (negative) wire