POWER SUPPLIES SERIES HDN-150

High quality DIN rail industrial power supplies

FEATURES:

- compact design
- high power output
- premium class components
- fully protected
- low inrush current
- 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-150 is a series of high quality and efficient switched-mode industrial power supplies in a plastic housing for mounting on a DIN TS35 mm rail with a width of 6U. Its design is based on high-quality electronic components that allow for continuous, long-term operation. It is reliable, fully protected and stable unit. 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 multiple load. 5 years warranty included.

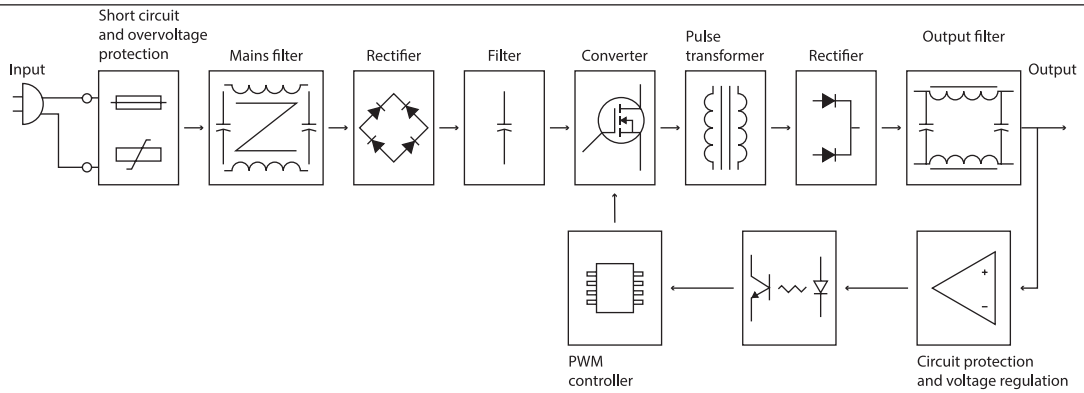
TECHNICAL SPECIFICATION

Group	Parameter	HDN-15012	HDN-15024	Conditions/Remarks
Input	Rated input voltage	100–240 VAC		See derating curve in the figure
	Input voltage range	90–264 VAC, 127–370 VDC		See derating curve in the figure
	Mains frequency range	47–63 Hz		
	AC current (max.)	3 A		At 100 VAC and 85% load
	Inrush current (max.)	70 A		At 265 VAC and full load
	No load power consumption	0.5 W		
	Input leakage current (max.)	0.25 mA		At 240 VAC
	Power factor correction	No		
	Typical power factor	0.65		
Output	Rated output voltage	12 V	24 V	
	Trim range	11–13 V	23–25 V	
	Rated output power	136 W	150 W	
	Rated output current	11.3 A	6.25 A	See derating curve in the figure
	Efficiency (typ.)	89% / 90%		At 230 VAC
	Line regulation	±1%		
	Load regulation	±3%		
	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.)	60 ms		At 230 VAC and full load
	Turn on delay time (max.)	0.5 s		From cold start to rated Vout
Environmental	Working temperature	–20℃ do +70℃		See derating curve in the figure
	Working humidity	5% do 90% RH		At 40℃
	Storage temperature	–20℃ do +85℃		
	Cooling method	Free air circulation		
Protection	Short circuit	Yes		
	Overcurrent	120–140%		Hiccup mode for Vout<50%, CC mode for Vout>50%
	Output overvoltage protection at	16 V	36 V	
	Input overvoltage protection	Yes		MOV protection
	Kategoria przepięciowa	II		Installation height up to 2000 m AMSL
	Thermal protection	Yes		Built into controller
	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 Klasa B, EN61000-3-2,-3, EN61000-4-2, -3,-4,-5,-6,-8,-11		
	Marking	CE, UKCA, RoHS		

Mechanical and features	Enclosure	Grey ABS plastic		IP20
	LED indicator	Yes		
	Dimension	105 × 58 × 90 mm		L × W × H
	Weight	270 g		
	Output connector	Double terminal block		
	Input connector	Terminal block		
	Single package	100 × 80 × 72 mm		
	Packing	525 × 245 × 345 mm		50 items
	Manufacturing	China		
	Warranty	5 years		
	EAN	5904139613528	5904139613535	

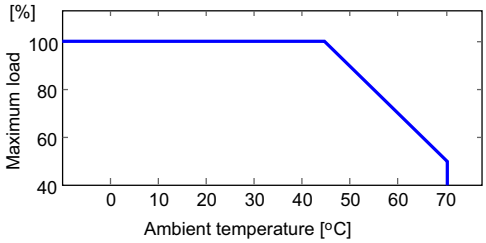
Notes:
Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, 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.

BLOCK DIAGRAM

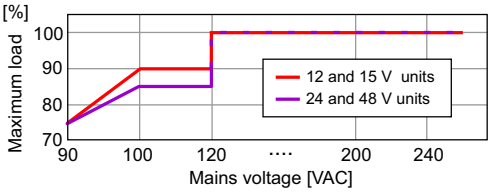


DERATING CURVES

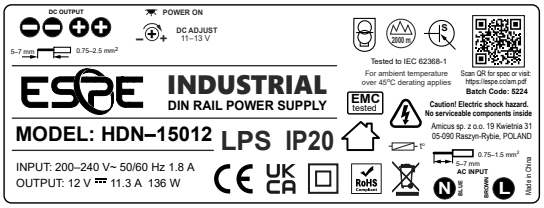
Load derating required for ambient temperatures above 45°C



Load derating required for low mains voltages



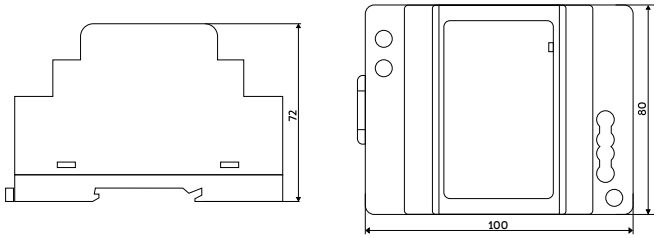
PRODUCT LABEL



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
- – cable installation method
- – 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 enclo-sures 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

MECHANICAL SPECIFICATION



MARKING SYSTEM