

**12 W
AC/DC
ADAPTER**

12 Watt Value Power

HNP12-L6 Steckernetzteil-Serie



HNP-POWER

Besondere Merkmale Features

Steckerschaltnetzteil	Plug in switching adaptor
Doppelte Isolation	Double insulated
Kompakter Aufbau	Small low profile package
Überlast- und kurzschlußfest	Overload, short circuit protection
Minimalster Leerlaufverlust	Lowest standby power consumption
EU CoC V5 tier 2 / EnergyStar DOE VI	EU CoC V5 tier 2/ EnergyStar DOE VI

Anwendung Application

Einplatinencomputer	Single board computers
Drahtlose Kommunikation	Wireless communications
Peripheriegeräte	Peripherals
Netzwerktechnik	Networking
Mobile Ausrüstungen	Portable equipment
Tablets / Smartphones	Tablets / Smartphones
Telekommunikation	Telecom

Technische Daten Specification

(bei 25°C Umgebungstemperatur) at 25 °C ambient temperature

Eingangsdaten Input Specifications

Eingangsspannung	Input voltages	90...264 VAC
Eingangsfrequenz	Input frequency	47...63 Hz
Eingangsstrom	Input current	450mA(rms) @90VAC
Netzausfallüberbrückung	Hold-up time, nom.conditions	20ms @230VAC
Einschaltstromstoß	Inrush current	<60A/230VAC
Leerlaufverlust	No load power consumption	< 0.075 Watt

Ausgangsdaten Output Specifications

Leistung	Power	12 Watt
Wirkungsgrad	Efficiency	DOE VI / CoC V5 tier 2
Ausregelzeit ±2%	Recovery time ±2%	max. 1 ms
Restwelligkeit	Ripple and noise	max. 100mV pp

Allgemeine Daten General Specifications

Betriebstemperatur	Operating temperature	-10°C...+40°C
Lagertemperatur	Storage temperature	-20°C...+70°C
Luftfeuchte	Humidity	10...90% RH
Isolation	Dielectric Withstand (Hipot)	3000VAC 1min 5mA inp.<->outp.
Leckstrom	Leackage current	0.25mA max.@240 VAC
Überstromschutz	Overcurrent protection	continuous, auto restart
Überspannungsschutz	Overvoltage protection	typ. 120%
Zulassungsbestimmungen	Safety requirements	TÜV/GS EN62368-1:2014+A11:2017 ETL UL 62368-1:2014 Ed.2 EN55032:2015; EN55035:2017 EN61000-3-2:2019;EN61000-3-3:2013+A1:2019
EMV	EMC	
RoHS	RoHS	2015/863/EU

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Bestell-Information / Order Information

Modell	Ausgang Output	Last/Load Min.	Max.
HNP12-050L6	5 V	0.0 A	2.4 A
HNP12-090L6	9 V	0.0 A	1.3 A
HNP12-120L6	12 V	0.0 A	1.0 A
HNP12-150L6	15 V	0.0 A	0.8 A
HNP12-240L6	24 V	0.0 A	0.5 A

Vermerk

Andere Versionen (Spannungen / Stecker / Farben) mit Mindestbestellmengen auf Anfrage

Note

Other versions (Voltages / Connectors / Colors) with minimum order quantities on request

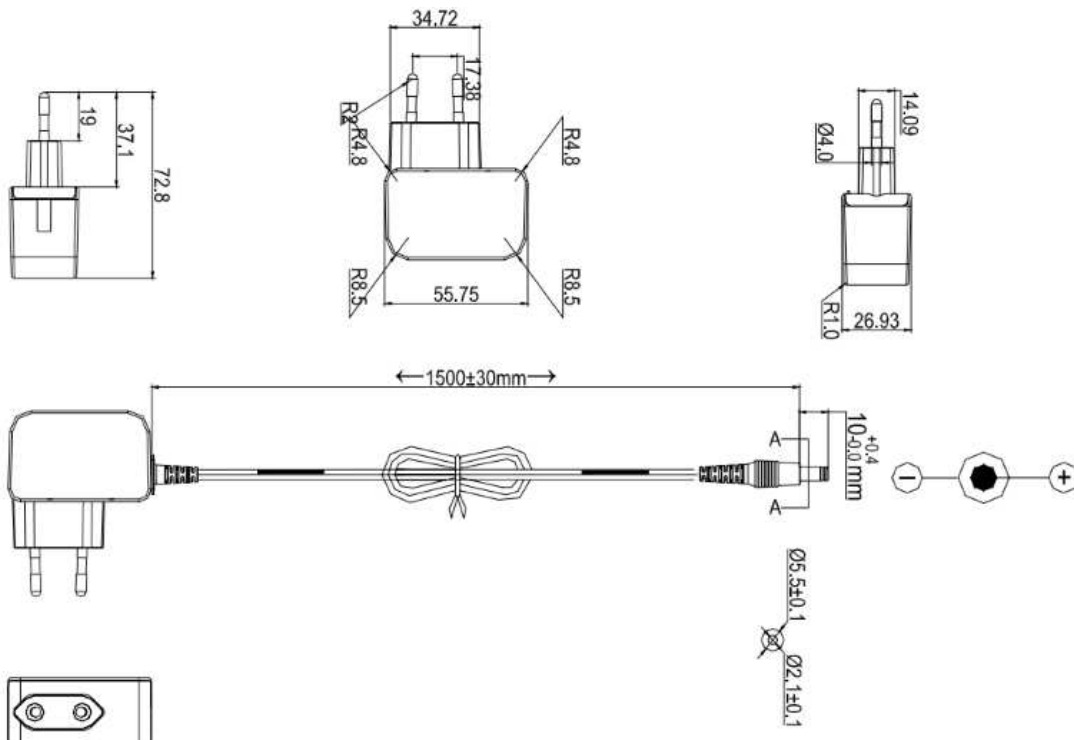
MEMO:

Mechanik

Mechanical

L×B×H	L×W×H	56 × 27 × 73 mm
Gewicht	Weight	72 g
DC-Stecker	DC-connector	2.1 x 5.5 x 10 mm , inside positive, outside negative
DC-Kabel	DC-cable	L=1500mm , UL2468 24AWG

PIN-Belegung und Zeichnung / Pin Assignments & Drawing



Energieeffizienz / Efficiency (EU) 2019/1782

Model	Input Voltage/Frequency	Output Voltage(V)	Output Current(A)	Power for label	Average efficiency	Efficiency at 10% load	No load power consumption (Watt)
HNP06-USBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,46%	78,85%	0,07W
HNP06-050L6	230Vac / 50Hz	5,0	1,50	7,5W	77,46%	78,85%	0,07W
HNP06-051-MiniUSBL6	230Vac / 50Hz	5,1	1,47	7,5W	78,55%	74,27%	0,10W
HNP06-051-MicroUSBL6	230Vac / 50Hz	5,1	1,47	7,5W	78,01%	73,98%	0,10W
HNP06-060L6	230Vac / 50Hz	6,0	1,25	7,5W	78,13%	78,13%	0,05W
HNP06-090L6	230Vac / 50Hz	9,0	0,83	7,5W	81,45%	77,22%	0,06W
HNP06-120L6	230Vac / 50Hz	12,0	0,62	7,5W	80,71%	77,66%	0,09W
HNP06-MICROUSBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,46%	78,85%	0,07W
HNP06-MINIUSBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,46%	78,85%	0,07W
HNP06I-USBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,13%	78,15%	0,08W
HNP06I-050L6	230Vac / 50Hz	5,0	1,50	7,5W	77,13%	78,15%	0,08W
HNP06I-051-MiniUSBL6	230Vac / 50Hz	5,0	1,50	7,5W	78,31%	74,49%	0,10W
HNP06I-051-MicroUSBL6	230Vac / 50Hz	5,1	1,47	7,5W	77,76%	73,76%	0,10W
HNP06I-090L6	230Vac / 50Hz	9,0	0,83	7,5W	80,18%	76,48%	0,07W
HNP06I-120L6	230Vac / 50Hz	12,0	0,62	7,5W	81,70%	76,52%	0,06W
HNP06I-MicroUSBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,13%	78,15%	0,08W
HNP06I-MiniUSBL6	230Vac / 50Hz	5,0	1,50	7,5W	77,13%	78,15%	0,08W
HNP07-050V2	230Vac / 50Hz	5,0	1,50	7,5W	77,21%	72,50%	0,06W
HNP07-090V2	230Vac / 50Hz	9,0	0,84	7,5W	80,58%	74,04%	0,06W
HNP07-120V2	230Vac / 50Hz	12,0	1,00	7,5W	81,05%	70,94%	0,06W
HNP07-USBV2	230Vac / 50Hz	5,0	1,50	7,5W	77,15%	72,51%	0,06W
HNP12-USBL6	230Vac / 50Hz	5,0	2,40	12,0W	80,64%	78,92%	0,06W
HNP12-050L6	230Vac / 50Hz	5,0	2,40	12,0W	80,64%	78,92%	0,06W
HNP12-075L6-DC90-WHI	230Vac / 50Hz	7,5	1,35	10,1W	82,29%	76,13%	0,08W
HNP12-075L6-A	230Vac / 50Hz	7,5	1,35	10,1W	82,29%	76,13%	0,08W
HNP12-090L6	230Vac / 50Hz	9,0	1,30	11,7W	83,19%	80,69%	0,07W
HNP12-120L6	230Vac / 50Hz	12,0	1,00	12,0W	85,56%	82,15%	0,07W
HNP12-150L6	230Vac / 50Hz	15,0	0,80	12,0W	83,12%	71,42%	0,09W
HNP12-240L6	230Vac / 50Hz	24,0	0,50	12,0W	86,71%	77,66%	0,07W
HNP12-MicroUSBL6	230Vac / 50Hz	5,0	2,40	12,0W	80,64%	78,92%	0,06W
HNP12I-USBL6	230Vac / 50Hz	5,0	2,40	12,0W	80,41%	78,96%	0,06W
HNP12I-050L6	230Vac / 50Hz	5,0	2,40	12,0W	80,64%	78,92%	0,06W
HNP12I-090L6	230Vac / 50Hz	9,0	1,30	11,7W	83,44%	81,01%	0,07W
HNP12I-120L6	230Vac / 50Hz	12,0	1,00	12,0W	85,72%	82,15%	0,05W
HNP12I-150L6	230Vac / 50Hz	15,0	0,80	12,0W	83,12%	71,42%	0,09W
HNP12I-240L6	230Vac / 50Hz	24,0	0,50	12,0W	86,71%	77,15%	0,07W
HNP12I-MicroUSBL6	230Vac / 50Hz	5,0	2,40	12,0W	80,40%	79,00%	0,06W
HNP12-050V2	230Vac / 50Hz	5,0	2,40	12,0W	82,12%	75,04%	0,06W
HNP12-090V2	230Vac / 50Hz	9,0	1,33	12,0W	83,58%	74,58%	0,06W
HNP12-120V2	230Vac / 50Hz	12,0	1,00	12,0W	84,02%	74,66%	0,06W
HNP12-USBV2	230Vac / 50Hz	5,0	2,40	12,0W	83,54%	76,44%	0,06W
HNP18-USBV2	230Vac / 50Hz	5,0	3,00	18,0W	82,17%	78,62%	0,06W
HNP18-CV2	230Vac / 50Hz	5,0	3,00	18,0W	82,01%	78,58%	0,06W
HNP18-050V2	230Vac / 50Hz	5,0	3,00	18,0W	82,34%	78,75%	0,06W
HNP18-090V2	230Vac / 50Hz	9,0	2,00	18,0W	85,51%	82,24%	0,06W
HNP18-120V2	230Vac / 50Hz	12,0	1,50	18,0W	85,67%	82,62%	0,06W
HNP18-150V2	230Vac / 50Hz	15,0	1,20	18,0W	85,63%	82,74%	0,06W
HNP18-240V2	230Vac / 50Hz	24,0	0,75	18,0W	85,92%	83,07%	0,07W
HNP18I-USBV2	230Vac / 50Hz	5,0	3,00	18,0W	82,26%	78,81%	0,06W
HNP18I-CV2	230Vac / 50Hz	5,0	3,00	18,0W	82,15%	78,69%	0,06W
HNP18I-050V2	230Vac / 50Hz	5,0	3,00	18,0W	82,30%	78,83%	0,06W
HNP18I-090V2	230Vac / 50Hz	9,0	2,00	18,0W	85,43%	82,15%	0,06W
HNP18I-120V2	230Vac / 50Hz	12,0	1,50	18,0W	85,77%	82,59%	0,06W
HNP18I-150V2	230Vac / 50Hz	15,0	1,20	18,0W	85,74%	82,95%	0,06W
HNP18I-240V2	230Vac / 50Hz	24,0	0,75	18,0W	86,08%	83,17%	0,07W
HNP20EU-CPD	230Vac / 50Hz	5,0	3,00	15,0W	81,39%	78,44%	0,10W
	230Vac / 50Hz	9,0	2,22	19,98W	85,47%	82,15%	0,10W
	230Vac / 50Hz	12,0	1,67	20,04W	85,48%	82,16%	0,10W
HNP24-090L6	230Vac / 50Hz	9,0	2,50	22,5W	86,14%	84,15%	0,05W
HNP24-120L6	230Vac / 50Hz	12,0	2,00	24,0W	86,12%	83,58%	0,05W
HNP24-150L6	230Vac / 50Hz	15,0	1,60	24,0W	86,74%	82,89%	0,09W
HNP24-240L6	230Vac / 50Hz	24,0	1,00	24,0W	87,64%	84,06%	0,07W
HNP24I-090L6	230Vac / 50Hz	9,0	2,50	22,5W	86,14%	84,15%	0,05W
HNP24I-120L6	230Vac / 50Hz	12,0	2,00	24,0W	86,12%	83,58%	0,05W
HNP24I-150L6	230Vac / 50Hz	15,0	1,60	24,0W	85,98%	83,11%	0,10W
HNP24I-240L6	230Vac / 50Hz	24,0	1,00	24,0W	87,64%	84,06%	0,07W
HNP36-4USB	230Vac / 50Hz	5,0	7,20	36,0W	86,70%	85,30%	0,07W
HNP40-5USB	230Vac / 50Hz	5,0	8,00	40,0W	84,68%	82,61%	0,07W
HNP42EU-050	230Vac / 50Hz	5,0	5,00	25,0W	84,28%	80,90%	0,10W
HNP42EU-090	230Vac / 50Hz	9,0	3,00	27,0W	85,90%	81,26%	0,10W
HNP42EU-120	230Vac / 50Hz	12,0	3,50	42,0W	88,05%	84,41%	0,10W
HNP42EU-150	230Vac / 50Hz	15,0	2,80	42,0W	88,47%	84,21%	0,10W
HNP42EU-240	230Vac / 50Hz	24,0	1,75	42,0W	89,20%	84,15%	0,10W
HNP42I-050	230Vac / 50Hz	5,0	5,00	25,0W	84,28%	80,90%	0,10W
HNP42I-090	230Vac / 50Hz	9,0	3,00	27,0W	87,02%	84,03%	0,08W
HNP42I-120	230Vac / 50Hz	12,0	3,50	42,0W	87,99%	85,11%	0,07W
HNP42I-150	230Vac / 50Hz	15,0	2,80	42,0W	88,84%	86,01%	0,08W
HNP42I-240	230Vac / 50Hz	24,0	1,75	42,0W	89,65%	86,53%	0,08W
HNP65F-120	230Vac / 50Hz	12,0	5,00	60W	88,15%	86,23%	0,09W
HNP65F-150	230Vac / 50Hz	15,0	4,30	60W	90,10%	85,33%	0,02W
HNP65F-240	230Vac / 50Hz	24,0	2,70	60W	90,78%	87,56%	0,01W
HNP65-120L6	230Vac / 50Hz	12,0	5,00	60,0W	89,00%	83,00%	0,16W
HNP65-150L6	230Vac / 50Hz	15,0	4,30	64,5W	89,50%	83,00%	0,16W
HNP65-240L6	230Vac / 50Hz	24,0	2,72	65,2W	90,00%	83,00%	0,16W
HNP-LED24EU-120L6	230Vac / 50Hz	12,0	2,00	24W	86,72%	83,12%	0,08W
HNP-LED24EU-240L6	230Vac / 50Hz	24,0	1,00	24W	87,28%	85,02%	0,08W