

**12 W  
AC/DC  
ADAPTER**

# 12 Watt Slimline Power

**HNP12-V2 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	350mA(rms) @90VAC
Netzausfallüberbrückung	Hold-up time, nom.conditions	20ms @230VAC
Einschaltstromstoß	Inrush current	<30A/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. 200 mV 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	Leakage current	0.25mA max.@240 VAC
Überstromschutz	Overcurrent protection	continuous, auto restart
Überspannungsschutz	Overvoltage protection	typ. 150%
Zulassungsbestimmungen	Safety requirements	CE LVD EN62368-1:2014+A11:2017

EMV EMC EN55032:2015; EN55035:2017  
EN61000-3-2:2019;EN61000-3-3:2013+A1:2019

RoHS RoHS 2015/863/EU

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## HNP12-V2 Steckernetzteil-Serie

# 12 W AC/DC ADAPTER

### Bestell-Information / Order Information

Modell	Ausgang Output	Last/Load Min.	Max.
HNP12-050V2	5 V	0.0 A	2.4 A
HNP12-090V2	9 V	0.0 A	1.33 A
HNP12-120V2	12 V	0.0 A	1.0 A

#### Vermerk

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

#### Note

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

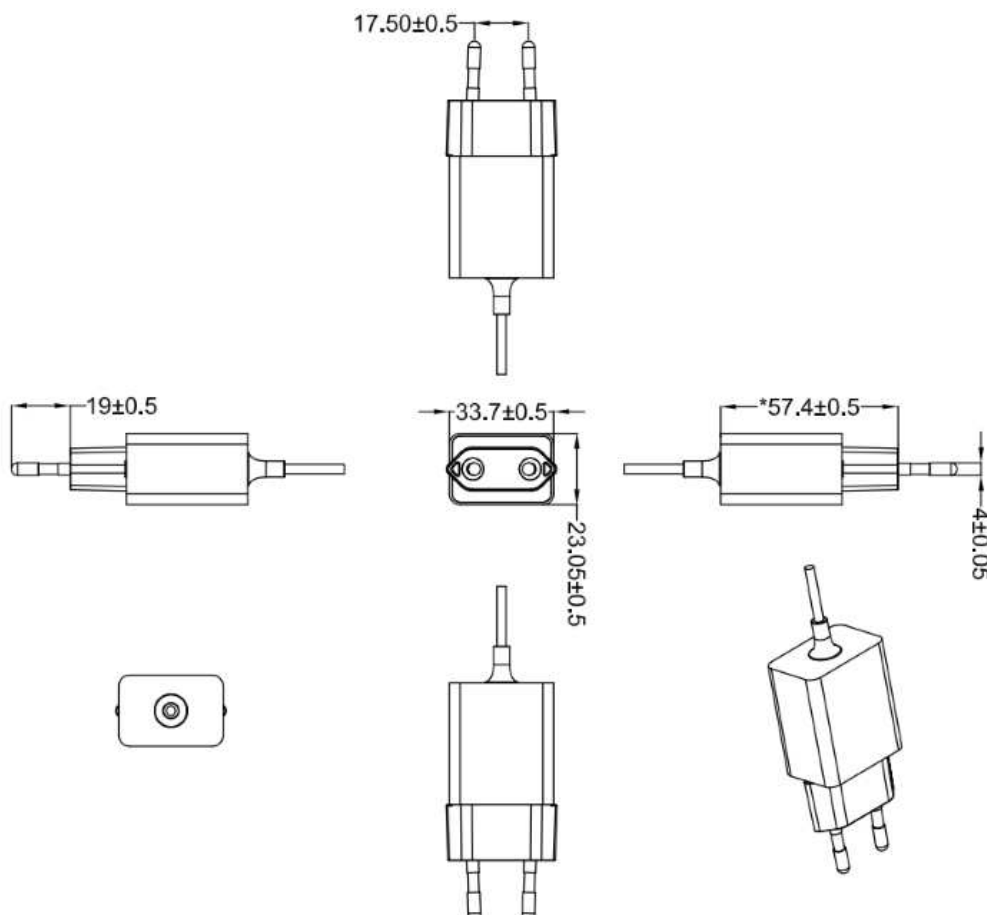
MEMO:

### Mechanik

### Mechanical

L×B×H	L×W×H	76.4 × 33.7 × 23 mm
Gewicht	Weight	60 g
DC-Stecker	DC-connector	2.1 x 5.5 x 10 mm , inside positive, outside negative
DC-Kabel	DC-cable	L=1500mm , UL2725 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
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