

**12 W
AC/DC
ADAPTER**

12 Watt Value Power

HNP12-CL6 Type C 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 (z.B. Raspberry4®)	Single board computers (i.e. Raspberry4®)
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	100-240 VAC
Eingangsfrequenz	Input frequency	50/60 Hz
Eingangsstrom	Input current	0,45A all voltage range & output @full load
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 s
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	Leakage 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
EMV	EMC	EN55032:2015+A11:2020; EN55035:2017+A11:2020 EN61000-3-2:2019;EN61000-3-3:2013+A1:2019

RoHS	RoHS	EN 63000 : 2018
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Bestell-Information / Order Information

Modell	Ausgang Output	Last/Load Min.	Max.
HNP12-CL6	5.0 V	0.0 A	2.4 A

MEMO:

Vermerk

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

Note

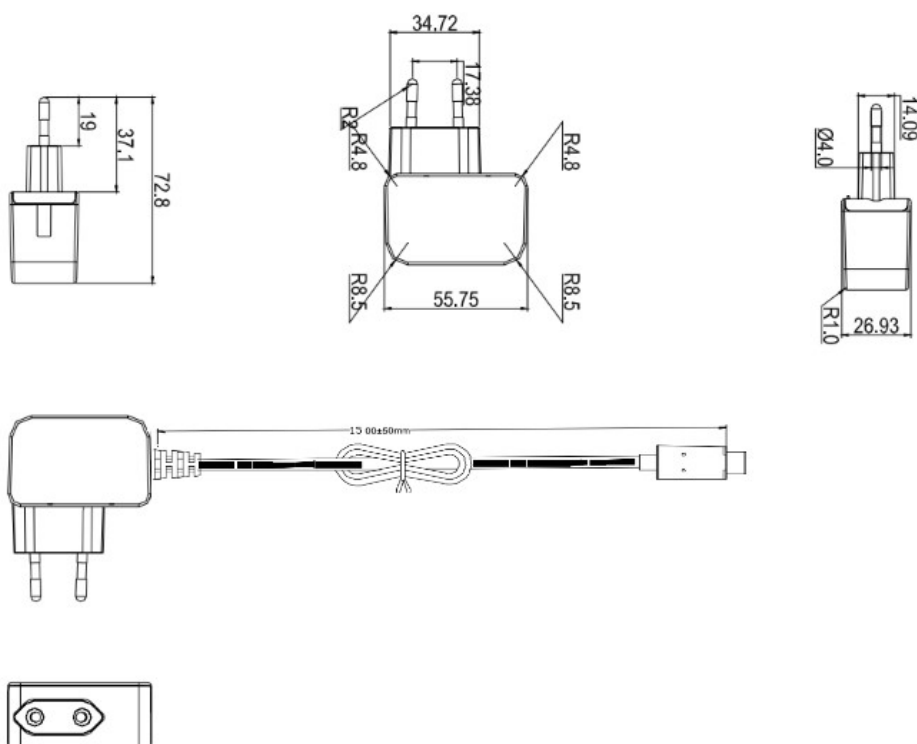
Other versions (Voltages / Connectors / Colors) with minimum order quantities on request

Mechanik

Mechanical

L×B×H	L×W×H	56 × 30 × 73 mm
Gewicht	Weight	72 g
DC-Stecker	DC-connector	USB Type C
DC-Kabel	DC-cable	L=1500mm , UL2725 20AWG

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-CL6	230Vac / 50Hz	5.0	1.50	7.5W	78.02%	78.10%	0.06W
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
HNP06-060L6	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
HNP06-I-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-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
HNP12-090L6	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-CL6	230Vac / 50Hz	5.0	2.40	12.0W	80.83%	77.56%	0.09W
HNP12-075L6-DC90-WH	230Vac / 50Hz	7.5	1.35	12.0W	82.71%	74.05%	0.09W
HNP12-120L6-OE	230Vac / 50Hz	12.0	1.00	12.0W	83.87%	83.57%	0.09W
HNP12-120L6-OETG	230Vac / 50Hz	12.0	1.00	12.0W	85.01%	75.64%	0.08W
HNP12-120L6-RJ22-WH	230Vac / 50Hz	15.0	0.80	12.0W	84.07%	75.48%	0.08W
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-CL6	230Vac / 50Hz	5.0	2.40	12.0W	81.25%	78.06%	0.08W
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-240L6-OE	230Vac / 50Hz	24.0	0.50	12.0W	85.59%	76.49%	0.09W
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	83.21%	79.27%	0.05W
	230Vac / 50Hz	9.0	2.22	19.98W	86.70%	81.30%	0.05W
	230Vac / 50Hz	12.0	1.67	20.04W	87.03%	78.82%	0.05W
HNP20EU-CPDV2	230Vac / 50Hz	5.0	3.00	15.0W	84.80%	79.16%	0.03W
	230Vac / 50Hz	9.0	2.22	19.98W	88.57%	81.70%	0.03W
	230Vac / 50Hz	12.0	1.67	20.04W	88.78%	78.82%	0.03W
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
HNP30EU-CPD	230Vac / 50Hz	5.0	3.00	15.0W	85.16%	80.20%	0.07W
	230Vac / 50Hz	9.0	3.00	27.0W	88.15%	83.58%	0.07W
	230Vac / 50Hz	15.0	2.00	30.0W	89.16%	81.45%	0.07W
	230Vac / 50Hz	20.0	1.50	30.0W	88.68%	77.83%	0.07W
HNP36-4USB	230Vac / 50Hz	5.0	7.20	36.0W	86.70%	85.30%	0.07W
HNP36I-4USB	230Vac / 50Hz	5.0	7.20	36.0W	86.70%	85.30%	0.07W
HNP40F-2CPD	230Vac / 50Hz	5.0	3.00	15.0W	85.66%	80.00%	0.17W
	230Vac / 50Hz	9.0	2.22	19.98W	89.08%	82.04%	0.17W
	230Vac / 50Hz	12.0	1.67	20.04W	89.55%	80.72%	0.17W
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
HNP65EU-CPDGaN	230Vac / 50Hz	5.0	3.00	15.0W	84.30%	69.23%	0.07W
	230Vac / 50Hz	9.0	3.00	27.0W	88.03%	76.96%	0.07W
	230Vac / 50Hz	12.0	3.00	36.0W	88.86%	79.13%	0.07W
	230Vac / 50Hz	15.0	3.00	45.0W	89.57%	82.09%	0.07W
	230Vac / 50Hz	20.0	3.25	65.0W	90.46%	83.75%	0.07W
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
HNP90M-120	230Vac / 50Hz	12.0	7.00	84.0W	88.59%	89.98%	0.10W
HNP90M-190	230Vac / 50Hz	19.0	4.70	89.3W	88.62%	87.51%	0.12W
HNP90M-240	230Vac / 50Hz	24.0	3.75	90.0W	89.58%	86.49%	0.13W
HNP120M-120	230Vac / 50Hz	12.0	8.00	96.0W	88.56%	89.18%	0.14W
HNP120M-240	230Vac / 50Hz	24.0	5.00	120.0W	88.49%	72.54%	0.13W
HNP120M-480	230Vac / 50Hz	48.0	2.70	129.6W	89.64%	87.68%	0.11W
HNP180U-120	230Vac / 50Hz	12.0	8.50	102.0W	88.61%	80.16%	0.07W
HNP180U-240	230Vac / 50Hz	24.0	7.50	180.0W	91.35%	85.82%	0.03W
HNP180U-480	230Vac / 50Hz	48.0	3.70	177.6W	91.02%	82.22%	0.02W