

**15 W  
AC/DC  
ADAPTER**

# 15 Watt International Power

**HNP15I-L6 Steckernetzteil-Serie**



**HNP-POWER**

| Besondere Merkmale | Features |
|--------------------|----------|
|--------------------|----------|

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Steckerschaltnetzteil                | Plug in switching adaptor           |
| Mit 4 Eingangsklips (EU,US,UK,AU)    | Incl. 4 input clips (EU,US,UK,AU)   |
| 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               | <30A/230VAC       |
| Leerlaufverlust         | No load power consumption    | < 0.075 Watt      |

| Ausgangsdaten | Output Specifications |
|---------------|-----------------------|
|---------------|-----------------------|

|                  |                   |                        |
|------------------|-------------------|------------------------|
| Leistung         | Power             | 15 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              | Leakage current              | 0.25mA max.@240 VAC   |
| Überstromschutz        | Overcurrent protection       | continuous, auto restart  |
| Überspannungsschutz    | Overvoltage protection       | typ. 120%   |
| Zulassungsbestimmungen | Safety requirements          | TÜV/GS EN60950-1:2006+A11(2009)+A1(2010)+A12(2011)+A2(2013); AfPS GS 2014:01; UL60065 EN55032:2012; EN55024:2010;EN55020:2007+A11 EN61000-3-2:2014;EN61000-3-3:2013;EN55013:2013 EN55014-1:2006+A1+A2;EN55014-2:1997+A1+A2 2011/65/EU |
| EMV                    | EMC                          |   |
| RoHS                   | RoHS                         |   |

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# 15 W AC/DC ADAPTER

### Bestell-Information / Order Information

| Modell       | Ausgang Output | Last/Load |        |
|--------------|----------------|-----------|--------|
|              |                | Min.      | Max.   |
| HNP15I-050L6 | 5 V            | 0.0 A     | 2.8 A  |
| HNP15I-090L6 | 9 V            | 0.0 A     | 1.67 A |
| HNP15I-120L6 | 12 V           | 0.0 A     | 1.25 A |
| HNP15I-150L6 | 15 V           | 0.0 A     | 1.0 A  |

**MEMO:**

#### Vermerk

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

#### Note

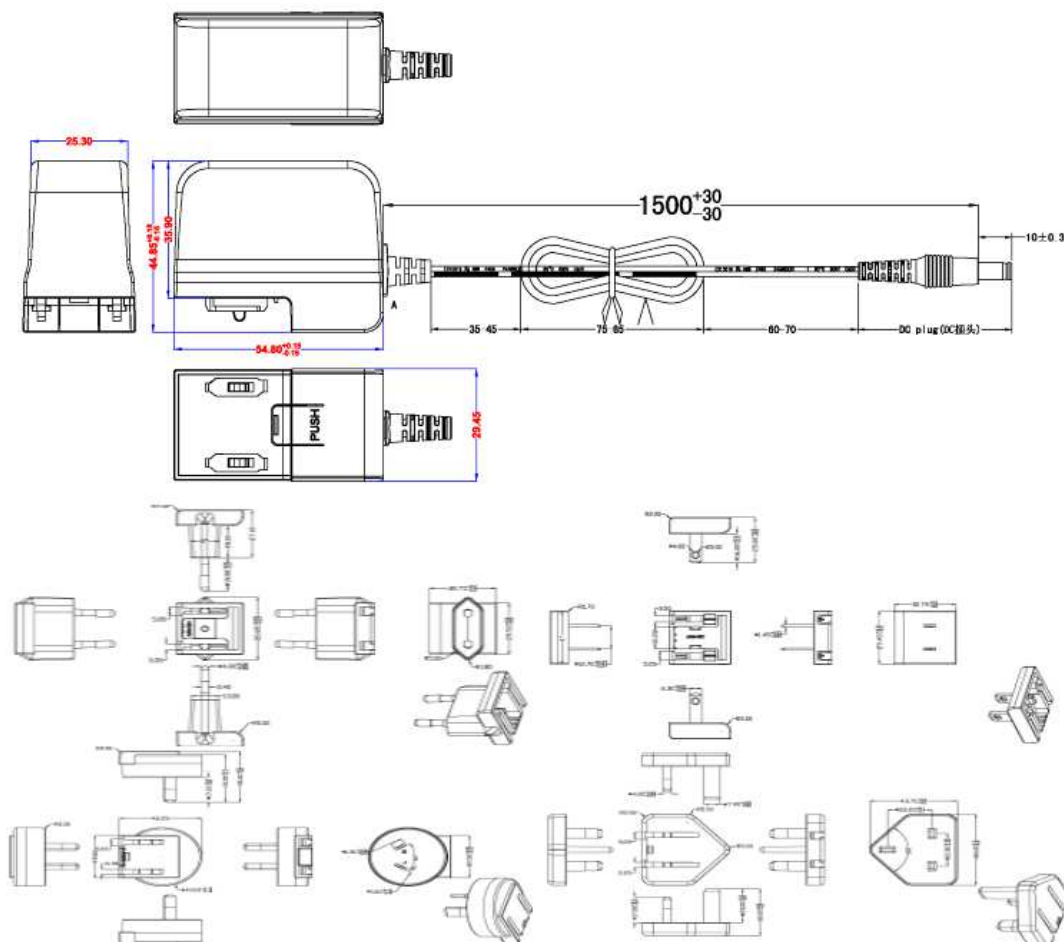
Other versions ( Voltages / Connectors / Colors ) with minimum order quantities on request

### Mechanik

### Mechanical

|            |              |   |
|------------|--------------|---|
| L×B×H      | L×W×H        | 56 × 27 × 73 mm                                       |
| Gewicht    | Weight       | 79 g  |
| DC-Stecker | DC-connector | 2.1 x 5.5 x 10 mm , inside positive, outside negative |
| DC-Kabel   | DC-cable     | L=1500mm , UL2468 20AWG ( 9, 12 & 15 Volt )           |
|            |              | L=1000mm , UL2468 20AWG ( 5 Volt only )               |

### 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                            |
| HNP06-060L6          | 230Vac / 50Hz           | 6,0                 | 1,25              | 7,5W            | 78,13%             | 78,13%                 | 0,05W                            |
| HNP06-090L6          | 230Vac / 50Hz           | 9,0                 | 0,84              | 7,5W            | 81,61%             | 78,15%                 | 0,07W                            |
| HNP06-120L6          | 230Vac / 50Hz           | 12,0                | 0,63              | 7,5W            | 78,81%             | 78,22%                 | 0,07W                            |
| 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                            |
| HNP06J-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-050L6-DC17.4  | 230Vac / 50Hz           | 5,0                 | 1,50              | 7,5W            | 77,13%             | 78,15%                 | 0,07W                            |
| HNP06I-090L6         | 230Vac / 50Hz           | 9,0                 | 0,84              | 7,5W            | 82,00%             | 77,11%                 | 0,07W                            |
| HNP06I-120L6         | 230Vac / 50Hz           | 12,0                | 0,63              | 7,5W            | 81,65%             | 77,12%                 | 0,08W                            |
| 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                            |
| HNP11-USBV2-BLACK    | 230Vac / 50Hz           | 5,0                 | 2,10              | 10,5W           | 80,12%             | 77,12%                 | 0,09W                            |
| HNP11-USBV2-WHITE    | 230Vac / 50Hz           | 5,0                 | 2,10              | 10,5W           | 79,32%             | 77,02%                 | 0,01W                            |
| 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                            |
| HNP12-050L6-DC11     | 230Vac / 50Hz           | 5,0                 | 2,40              | 12,0W           | 80,64%             | 78,92%                 | 0,06W                            |
| HNP12-075L6-DC90-WH  | 230Vac / 50Hz           | 7,5                 | 1,35              | 10,1W           | 82,29%             | 76,13%                 | 0,08W                            |
| HNP12-090L6          | 230Vac / 50Hz           | 9,0                 | 1,33              | 12,0W           | 85,12%             | 83,12%                 | 0,09W                            |
| 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                            |
| HNP12-150L6-RJ22-wh  | 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                            |
| 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                 | 1,33              | 12,0W           | 85,26%             | 83,01%                 | 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-RS | 230Vac / 50Hz           | 5,0                 | 2,40              | 12,0W           | 80,40%             | 79,00%                 | 0,06W                            |
| HNP15-050L6          | 230Vac / 50Hz           | 5,0                 | 2,80              | 14,0W           | 81,91%             | 78,26%                 | 0,06W                            |
| HNP15-051-MicroUSBL6 | 230Vac / 50Hz           | 5,2                 | 2,50              | 13,0W           | 80,62%             | 79,12%                 | 0,06W                            |
| HNP15-090L6          | 230Vac / 50Hz           | 9,0                 | 1,67              | 15,0W           | 84,84%             | 79,26%                 | 0,07W                            |
| HNP15I-090L6-DC25.55 | 230Vac / 50Hz           | 9,0                 | 1,67              | 15,0W           | 84,84%             | 79,26%                 | 0,07W                            |
| HNP15-120L6          | 230Vac / 50Hz           | 12,0                | 1,25              | 15,0W           | 84,62%             | 81,25%                 | 0,07W                            |
| HNP15-MicroUSBL6     | 230Vac / 50Hz           | 5,0                 | 2,50              | 12,5W           | 81,22%             | 79,56%                 | 0,06W                            |
| HNP15I-050L6         | 230Vac / 50Hz           | 5,0                 | 2,80              | 14,0W           | 81,91%             | 78,26%                 | 0,06W                            |
| HNP15I-090L6         | 230Vac / 50Hz           | 9,0                 | 1,67              | 15,0W           | 82,18%             | 78,91%                 | 0,07W                            |
| HNP15I-120L6         | 230Vac / 50Hz           | 12,0                | 1,25              | 15,0W           | 84,62%             | 81,25%                 | 0,07W                            |
| HNP15I-150L6         | 230Vac / 50Hz           | 9,0                 | 1,67              | 15,0W           | 82,18%             | 78,91%                 | 0,07W                            |
| HNP15I-MicroUSBL6    | 230Vac / 50Hz           | 5,0                 | 2,50              | 15,0W           | 81,22%             | 79,56%                 | 0,06W                            |
| HNP18-050L6          | 230Vac / 50Hz           | 5,0                 | 3,00              | 15,0W           | 80,79%             | 78,12%                 | 0,07W                            |
| HNP18-090L6          | 230Vac / 50Hz           | 9,0                 | 2,00              | 18,0W           | 85,12%             | 83,23%                 | 0,09W                            |
| HNP18-090L6-T        | 230Vac / 50Hz           | 9,0                 | 2,00              | 18,0W           | 85,06%             | 83,56%                 | 0,11W                            |
| HNP18-120L6          | 230Vac / 50Hz           | 12,0                | 1,50              | 18,0W           | 86,99%             | 83,56%                 | 0,06W                            |
| HNP18-150L6          | 230Vac / 50Hz           | 15,0                | 1,20              | 18,0W           | 86,97%             | 83,75%                 | 0,06W                            |
| HNP18-240L6          | 230Vac / 50Hz           | 24,0                | 0,75              | 18,0W           | 86,50%             | 83,12%                 | 0,05W                            |
| HNP18I-050L6         | 230Vac / 50Hz           | 5,1                 | 3,00              | 15,3W           | 80,79%             | 78,12%                 | 0,07W                            |
| HNP18I-050-CL6       | 230Vac / 50Hz           | 5,1                 | 3,00              | 15,3W           | 80,79%             | 78,12%                 | 0,07W                            |
| HNP18I-051L6-C       | 230Vac / 50Hz           | 5,1                 | 3,00              | 15,3W           | 80,79%             | 78,12%                 | 0,07W                            |
| HNP18I-090L6         | 230Vac / 50Hz           | 9,0                 | 2,00              | 18,0W           | 85,12%             | 83,23%                 | 0,09W                            |
| HNP18I-120L6         | 230Vac / 50Hz           | 12,0                | 1,50              | 18,0W           | 86,99%             | 83,56%                 | 0,06W                            |
| HNP18I-150L6         | 230Vac / 50Hz           | 15,0                | 1,20              | 18,0W           | 86,97%             | 83,75%                 | 0,06W                            |
| HNP18I-150L6-EU90    | 230Vac / 50Hz           | 15,0                | 1,20              | 18,0W           | 86,97%             | 83,75%                 | 0,06W                            |
| HNP18I-240L6         | 230Vac / 50Hz           | 24,0                | 0,75              | 18,0W           | 85,75%             | 83,12%                 | 0,08W                            |
| 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%                 | 0,11W                            |
| HNP24I-240L6         | 230Vac / 50Hz           | 24,0                | 1,00              | 24,0W           | 87,64%             | 84,06%                 | 0,07W                            |
| HNP27-4USB           | 230Vac / 50Hz           | 5,0                 | 5,40              | 27,0W           | 85,61%             | 83,98%                 | 0,07W                            |
| HNP27I-C2USB         | 230Vac / 50Hz           | 5,0                 | 5,40              | 27,0W           | 83,25%             | 79,02%                 | 0,08W                            |
| HNP40-5USB           | 230Vac / 50Hz           | 5,0                 | 8,00              | 40,0W           | 84,68%             | 82,61%                 | 0,07W                            |
| HNP40-C4USB          | 230Vac / 50Hz           | 5,0                 | 8,00              | 40,0W           | 86,08%             | 80,12%                 | 0,07W                            |
| HNP42EU-090          | 230Vac / 50Hz           | 9,0                 | 3,00              | 27,0W           | 85,90%             | 81,26%                 | 0,11W                            |
| HNP42EU-120          | 230Vac / 50Hz           | 12,0                | 3,50              | 42,0W           | 88,05%             | 84,41%                 | 0,11W                            |
| HNP42EU-150          | 230Vac / 50Hz           | 15,0                | 2,80              | 42,0W           | 88,47%             | 84,21%                 | 0,11W                            |
| HNP42EU-240          | 230Vac / 50Hz           | 24,0                | 1,75              | 42,0W           | 89,20%             | 84,15%                 | 0,11W                            |
| 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                            |
| HNP45I-CPD           | 230Vac / 50Hz           | 5,0/9,0/15,0/20,0 V | 3,0/2,25 A        | 15,0/27,0/45,0W | >83,9%             | >79,8%                 | 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                            |
| 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                            |