

SNP-Y11 Series

110 W AC/DC Switch Mode Power Supplies – IT & Medical Applications

CoolPower
Solutions

- Medical ja ITE sovelluksiin
- Korkeus vain 1.36"
- 3.8 W / kuutiotuuma
- Edulliset asennuskulut yksipuoleisen kortin ansiosta
- Hyötysuhde 72%...87%
- Käyttölämpötila-alue 0°C...70°C
- With Medical & ITE safety
- Only 1.36 inch height
- 3.8 W / cubic inch
- Single side PCB for low assembly cost
- Efficiency between 72% to 87%
- Operation from 0°C to 70°C by convection



Tekniset tiedot

Tulojännite:
Tulotaajuus:
Syökyvirta:
Lähtöjännite:
Maks. teho:
Maks. virta:
Kuormaregulointi:
Linjaregulointi:
Lämpötila-alue:

Rippeli:
Hyötysuhde:

Pitoaika:
Maavuotovirta:
Ylikuormitussuojaus:
Oikosulkusuojaus:
Ylijännitesuojaus:
Jäähdytys:
Varastointilämpötila:

Sähköiset turvanormit:

EMC standardit:

- Emissio:
- Immunitaetti:

Harmoniset:
Mitat (PxLxK):

Liitännät:

Paino:

Technical specifications

Input voltage: 90-264 VAC
Input Frequency: 47-63 Hz
Inrush Current: < 60 A at 230 VAC
Output voltage: See table
Max. output power: 110 W, Peak 160 W
Max. load current: See table
Load regulation: See table
Line regulation: $\pm 1,0\%$
Temperature range: 0°C ... +70°C
Derating: 2,5%/°C >50°C
Ripple: 1%
Efficiency: 72% ... 87% see table (rated load and 115VAC)
Hold up time: 20 ms typical
Earth leakage current: < 300 μ A
Overload protection: Auto recovery
Short Circuit Protection: Auto recovery
Over Voltage protection: Latch off
Cooling: Free air convection
Storage temperature: -40°C ... +85°C

Electrical safety standard: EN 60950-1, EN 60601-1, UL 60950-1, UL 60601-1, CSA C22.2 No. 60950-1, 601.1

EMC standards
• Emission: EN61000-4-2,-3,-4,-5,-6,-8,-11
• Immunity: FCC" B", EN 55022" B", EN55011" B"
Harmonics: EN 61000-3-2 class "A"
Dimensions (LxWxH): 152.4 x 88.9 x 34.5 mm (6" x 3.5" x 1.36")
Connections: AC input: Molex 5277-02A
DC output: See table
Weight: 360 g

Jotkin tekniset arvot saattavat vaihdella muiden mallien ja jänniteversioiden osalta.

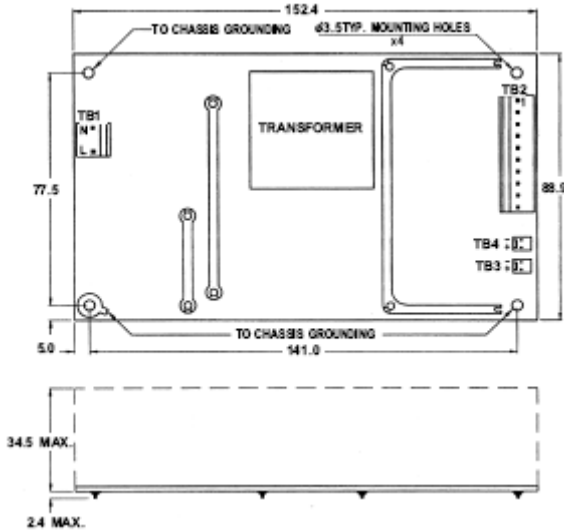
Some technical specifications may differ for other models and voltage versions.

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Mekaaniset tiedot – Mechanical Specifications



- Dimensions shown in mm as left. Tolerance: ± 1 mm.
- Size 88.9 x 152.4 x 34.5 mm. (3.5"x6"x1.36")
- Connectors:
AC input: Molex 5277-02A or equivalent
DC output: Molex 5277-10A or equivalent for single to triple outputs
Molex 5277-12A or equivalent for quad outputs
LED: Molex 5045-02A or equivalent
Fan: Molex 5045-02A or equivalent
- Output Pin assignment:

| Pin no: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|-------|-------|-------|------|-----|-----|------|------|-------|-------|-------|------|
| SNP-Y111 | +5.0V | +5.0V | +5.0V | GND | GND | GND | +12V | +12V | -12V | NC | | |
| SNP-Y117 | +12V | +12V | +12V | +12V | GND | GND | GND | GND | +5.0V | NC | | |
| SNP-Y117-1 | +12V | +12V | +12V | +12V | GND | GND | GND | GND | NC | NC | | |
| SNP-Y118 | +15V | +15V | +15V | +15V | GND | GND | GND | GND | +5.0V | NC | | |
| SNP-Y118-1 | +15V | +15V | +15V | +15V | GND | GND | GND | GND | NC | NC | | |
| SNP-Y119 | +24V | +24V | +24V | +24V | GND | GND | GND | GND | +5.0V | NC | | |
| SNP-Y119-1 | +24V | +24V | +24V | +24V | GND | GND | GND | GND | NC | NC | | |
| SNP-Y11T | +48V | +48V | +48V | +48V | GND | GND | GND | GND | NC | NC | | |
| SNP-Y110 | +5.0V | +5.0V | +5.0V | GND | GND | GND | +12V | +12V | -12V | GND | -5.0V | NC |
| SNP-Y11F | +5.0V | +5.0V | +5.0V | GND | GND | GND | +24V | +24V | +24V | GND | -12V | NC |
| SNP-Y11E | +3.3V | +3.3V | +3.3V | GND | GND | GND | GND | GND | +5.0V | +5.0V | +12V | -12V |

Jänniteversiot – Voltage versions

| Malli Model | Lähtöjännite (VDC) Output voltage (VDC) | | Kuormitus (A) Load (A) | | | | Rippeli Ripple | Load reg. Regulointi | Hyötysuhde Efficiency Tyypillinen Typical |
|----------------|--------------------------------------------|----------------------|---------------------------|--------|------|--------|-------------------|-------------------------|----------------------------------------------------|
| | Nimellinen Nominal | Tarkkuus Accuracy | Min | Rated | Max | Peak | | | |
| SNP-Y111 | +5.0 V | +4.95V...+5.05V | 0 A | 7.0 A | 13 A | 20 A | 1 % | ± 3 % | 82 % |
| | +12 V | +11.4V...+12.6V | 0 A | 5.0 A | 7 A | 11 A | 1 % | ± 3 % | |
| | -12 V | -11.4V...-12.6V | 0 A | 0.5 A | | | 1 % | ± 5 % | |
| SNP-Y11E | +3.3 V | +3.2V...+3.4V | 0 A | 10.0 A | 12 A | 50mV | ± 3 % | 78 % | |
| | +5.0 V | +4.75V...+5.25V | 0 A | 8.0 A | 10 A | 1 % | ± 3 % | | |
| | +12 V | +11.4V...+12.6V | 0 A | 2.0 A | | 1 % | ± 5 % | | |
| | -12 V | -11.4V...-12.6V | 0 A | 0.2A | | 1 % | ± 5 % | | |
| SNP-Y117 | +12 V | +11.88V...+12.12V | 0 A | 8.5 A | | 13 A | 1 % | ± 1 % | 83 % |
| | +5.0 V | +4.75V...+5.25V | 0 A | 1.0 A | | | 1 % | ± 1 % | |
| SNP-Y117-1 | +12 V | +11.88V...+12.12V | 0 A | 9.0 A | | 13 A | 1 % | ± 1 % | 84 % |
| SNP-Y118 | +15 V | +14.85 V...+15.15 V | 0 A | 3.8 A | | 6.0 A | 1 % | ± 1 % | 83 % |
| | +5.0 V | +4.75 V...+5.25 V | 0 A | 0.5 A | | 1.0 A | 1 % | ± 1 % | |
| SNP-Y118-1 | +15 V | +14.85 V...+15.15 V | 0.1 A | 7.0 A | | 10.5 A | 1 % | ± 1 % | 84 % |
| SNP-Y119 | +24 V | +23.75V...+24.24V | 0 A | 4.5 A | | 6.5 A | 1 % | ± 1 % | 85 % |
| | +5.0 V | +4.75 V...+5.25 V | 0 A | 1.0 A | | 1.0 A | 1 % | ± 1 % | |
| SNP-Y119-1 | +24 V | +23.75V...+24.24V | 0.1 A | 4.5 A | | 6.5 A | 1 % | ± 1 % | 86 % |
| SNP-Y11T | +48 V | +47.6V...48.4V | 0 A | 2.3 A | | 3.5 A | 1 % | ± 1 % | 87 % |
| SNP-Y110 | +5.0 V | +4.95V...+5.05V | 0 A | 6.0 A | 13 A | 20 A | 1 % | ± 3 % | 82 % |
| | +12 V | +11.4V...+12.6V | 0 A | 5.0 A | 7 A | 11 A | 1 % | ± 3 % | |
| | -12 V | -11.4V...-12.6V | 0 A | 0.5 A | | | 1 % | ± 5 % | |
| | -5.0 V | -11.4V...-12.6V | 0 A | 0.5 A | | | 1 % | ± 3 % | |
| | | | 0 A | 0.5 A | | | 1 % | ± 3 % | |
| SNP-Y11F | +5.0 V | +4.9V...+5.1V | 0 A | 6.0 A | 10 A | 15 A | 1 % | ± 3 % | 82 % |
| | +24 V | +22.8V...+25.2V | 0 A | 2.0 A | 3 A | 5.5 A | 1 % | ± 3 % | |
| | +12 V | +11.4V...+12.6V | 0 A | 2.0 A | | | 1 % | ± 5 % | |
| | -12 V | -11.4V...-12.6V | 0 A | 0.3 A | | | 1 % | ± 5 % | |

* Saatavilla myös DIN-kiskokinnikkein
* Available with bracket for DIN-rail montage.

Huomioitavaa – Notes

- At peak load, the output can last for 8 seconds without shut down.
- The maximum combinational load of SNP-Y06D for +3.3V & +5V is 38W.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.
- Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load at another output set to 60% rated load.
- Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time which the main output drop down to regulation limit at rated load and nominal line.
- The efficiency is measured at nominal line and rated load.