

# 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:

Jotkin tekniset arvot saattavat vaihdella muiden mallien ja jänniteversioiden osalta.

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

## 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  $\mu$ 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:
- Immunity:

Harmonics:  
Dimensions (LxWxH):

Connections:

Weight:

EN61000-4-2,-3,-4,-5,-6,-8,-11  
FCC"B", EN 55022"B", EN55011"B"

EN 61000-3-2 class "A"  
152.4 x 88.9 x 34.5 mm  
(6" x 3.5" x 1.36")

AC input: Molex 5277-02A

DC output: See table

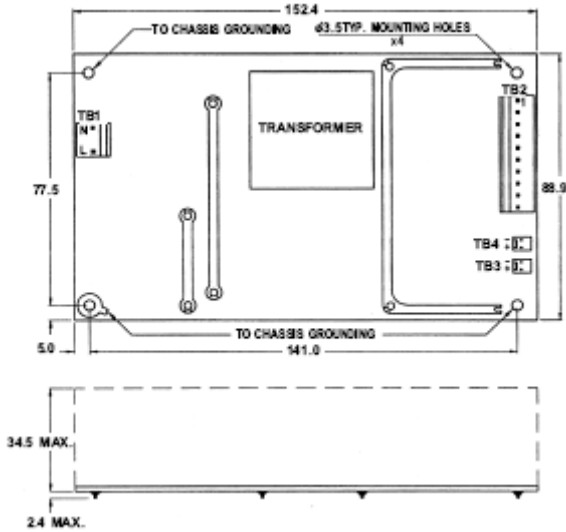
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## Mekaaniset tiedot – Mechanical Specifications



- Dimensions shown in mm as left. Tolerance:  $\pm 1$  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 %	$\pm 3$ %	82 %
	+12 V	+11.4V...+12.6V	0 A	5.0 A	7 A	11 A	1 %	$\pm 3$ %	
	-12 V	-11.4V...-12.6V	0 A	0.5 A			1 %	$\pm 5$ %	
SNP-Y11E	+3.3 V	+3.2V...+3.4V	0 A	10.0 A	12 A	50mV	$\pm 3$ %	78 %	
	+5.0 V	+4.75V...+5.25V	0 A	8.0 A	10 A	1 %	$\pm 3$ %		
	+12 V	+11.4V...+12.6V	0 A	2.0 A		1 %	$\pm 5$ %		
	-12 V	-11.4V...-12.6V	0 A	0.2A		1 %	$\pm 5$ %		
SNP-Y117	+12 V	+11.88V...+12.12V	0 A	8.5 A		13 A	1 %	$\pm 1$ %	83 %
	+5.0 V	+4.75V...+5.25V	0 A	1.0 A			1 %	$\pm 1$ %	
SNP-Y117-1	+12 V	+11.88V...+12.12V	0 A	9.0 A		13 A	1 %	$\pm 1$ %	84 %
SNP-Y118	+15 V	+14.85 V...+15.15 V	0 A	3.8 A		6.0 A	1 %	$\pm 1$ %	83 %
	+5.0 V	+4.75 V...+5.25 V	0 A	0.5 A		1.0 A	1 %	$\pm 1$ %	
SNP-Y118-1	+15 V	+14.85 V...+15.15 V	0.1 A	7.0 A		10.5 A	1 %	$\pm 1$ %	84 %
SNP-Y119	+24 V	+23.75V...+24.24V	0 A	4.5 A		6.5 A	1 %	$\pm 1$ %	85 %
	+5.0 V	+4.75 V...+5.25 V	0 A	1.0 A		1.0 A	1 %	$\pm 1$ %	
SNP-Y119-1	+24 V	+23.75V...+24.24V	0.1 A	4.5 A		6.5 A	1 %	$\pm 1$ %	86 %
SNP-Y11T	+48 V	+47.6V...48.4V	0 A	2.3 A		3.5 A	1 %	$\pm 1$ %	87 %
SNP-Y110	+5.0 V	+4.95V...+5.05V	0 A	6.0 A	13 A	20 A	1 %	$\pm 3$ %	82 %
	+12 V	+11.4V...+12.6V	0 A	5.0 A	7 A	11 A	1 %	$\pm 3$ %	
	-12 V	-11.4V...-12.6V	0 A	0.5 A			1 %	$\pm 5$ %	
	-5.0 V	-11.4V...-12.6V	0 A	0.5 A			1 %	$\pm 3$ %	
SNP-Y11F	+5.0 V	+4.9V...+5.1V	0 A	6.0 A	10 A	15 A	1 %	$\pm 3$ %	82 %
	+24 V	+22.8V...+25.2V	0 A	2.0 A	3 A	5.5 A	1 %	$\pm 3$ %	
	+12 V	+11.4V...+12.6V	0 A	2.0 A			1 %	$\pm 5$ %	
	-12 V	-11.4V...-12.6V	0 A	0.3 A			1 %	$\pm 5$ %	

\* 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.