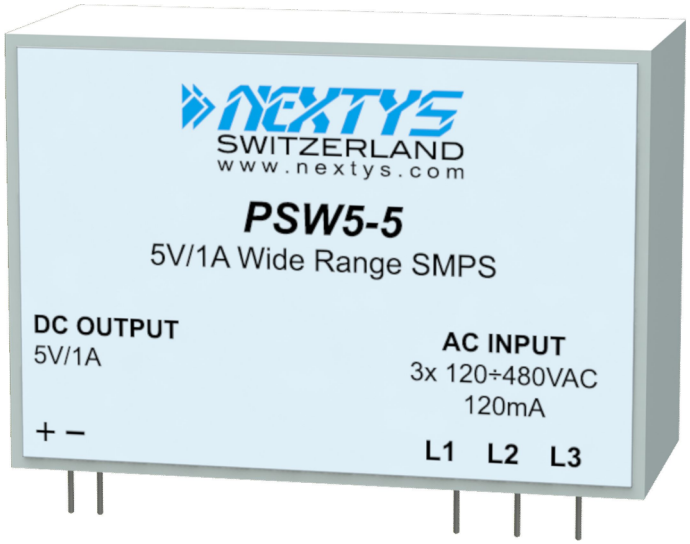


■ *Main Features*

- Miniature SMPS module PCB
- 1, 2 or 3 phases input AC 110…500Vac
- Wide input DC range 150…700Vdc
- Aimed to be used as a miniature module for powering various systems with different primary needs
- Potted
- Low cost
- Up to 65°C operating temperature with no derating

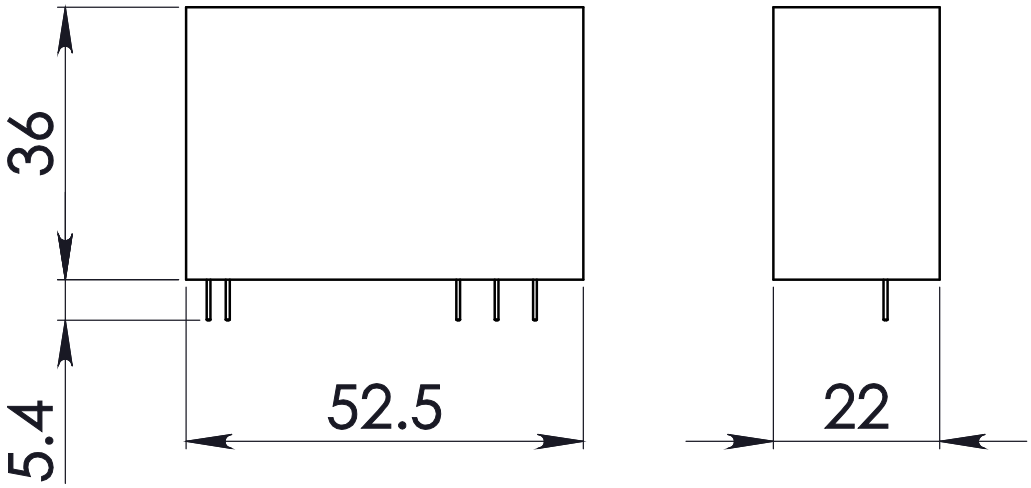
TECHNICAL DATA

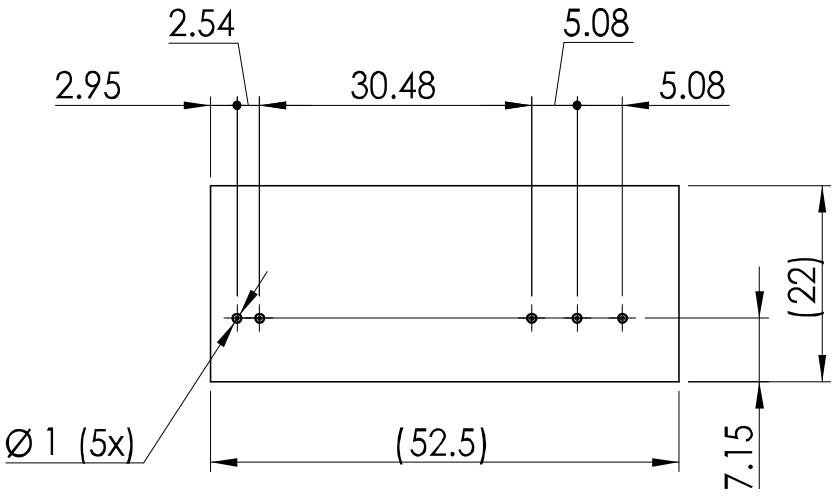
Model type	PSW5-5
OUTPUT DATA	
Rated voltage	5Vdc
Adj. output voltage range	5Vdc Fixed
Continuous current	1A
Overload limit	1.25A
Short circuit peak current	3A
Load regulation	≤ 1%
Ripple & Noise[1]	≤ 100mVpp
Hold up time	≥ 20ms
Protections	▪ Overload/short circuit: Hiccup mode ▪ Thermal protection
INPUT DATA	
Input AC rated voltage Frequency	Nominal: 1/2/3 phases, 120…480Vac Range: 110…500Vac 47...63Hz
Input DC rated voltage	150...700Vdc
Input AC rated current	≤ 120mA
Input DC rated current Vin = 150Vdc Vin = 700Vdc	 ≤ 60mA ≤ 20mA
Power Factor Correction	Active > 0.9
Inrush peak current[2] / I^2t	≤ 5A / 0.04A^2s
Touch (leakage) current	≤ 250µA
Internal protection fuse	Fuse Resistor on each line (not user replaceable)
Recommended external protection	3x 0.315AT / 500V or other suitable rated devices It is strongly recommended to provide external surge arresters (SPD) according to local regulations.
GENERAL DATA	
Efficiency	> 70%
Dissipated power	< 300mW
Operating temperature[3]	- 40°C...+ 70°C
Derating	- 0.03W/°C over 65°C
Storage temperature	- 40°C...+ 80°C
Humidity	5…95% r.H. non condensing
Overvoltage category Pollution degree	▪ EN50178 III ▪ IEC60664-1 2
Input / output isolation	4.2kVdc
Safety Standards	▪ UL508 (reference) ▪ EN60950 (reference) ▪ EN50178 (reference)
EMC Emission	▪ EN55011 (CISPR11) Class A ▪ EN55022 (CISPR22) Class A
EMC Immunity	▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 2 ▪ EN61000-4-4 Level 4 ▪ EN61000-4-5 Level 4 ▪ EN61000-4-11 Level 2
Protection degree	▪ EN60529 IP20
Vibration sinuosoidal	▪ IEC 60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)
Shock	▪ IEC 60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)
Connection terminals Input	In line pins 3 x raster 5.08mm
Connection terminals Output	In line pins 2 x raster 2.54mm
Case material	Plastic, Potted
Weight	60g
Size (W x H x D)	52.5 x 36.0 x 22.0mm

1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
2) Peak current measured after 0.2ms from main connection; 400Vac/50Hz; Ambient temperature at 25°C; Cold Start.
3) Start-up type tested: - 40°C, possible at nominal voltage with load deration.

Notes:
- Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz, at nominal values, after minimum 5 minutes of operation.
- Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.
- Data may change without prior notice in order to improve the product.

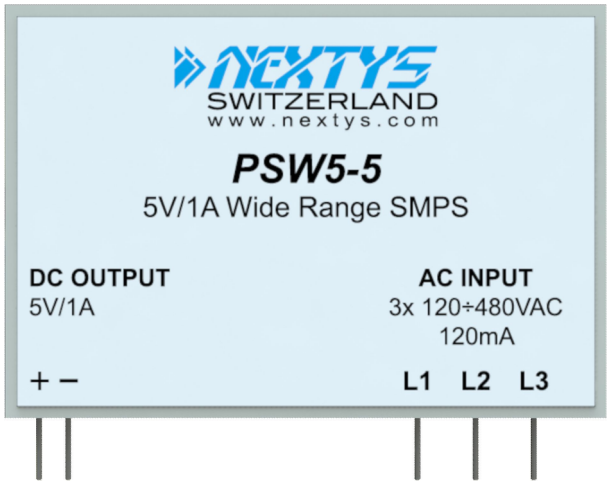
DIMENSIONS





Top view

CONNECTION



Input Connection:

Single phase:
- L1 = Line
- L2 = Neutral

2 phases:
- L1 = phase 1
- L2 = phase 2

3 phases:
- L1 = phase 1
- L2 = phase 2
- L2 = phase 3

DC:
- L1 = Positive DC
- L2 = Negative DC

Output Connection:

- + = Positive DC
- - = Negative DC