



■ **Main Features**

- ⌋ High efficiency and extremely compact size
- ⌋ Ultra-slim Plastic enclosure only 22.5mm
- ⌋ Simplified wiring (no PE connection)
- ⌋ Overload 130%
- ⌋ High operating temperature with no derating

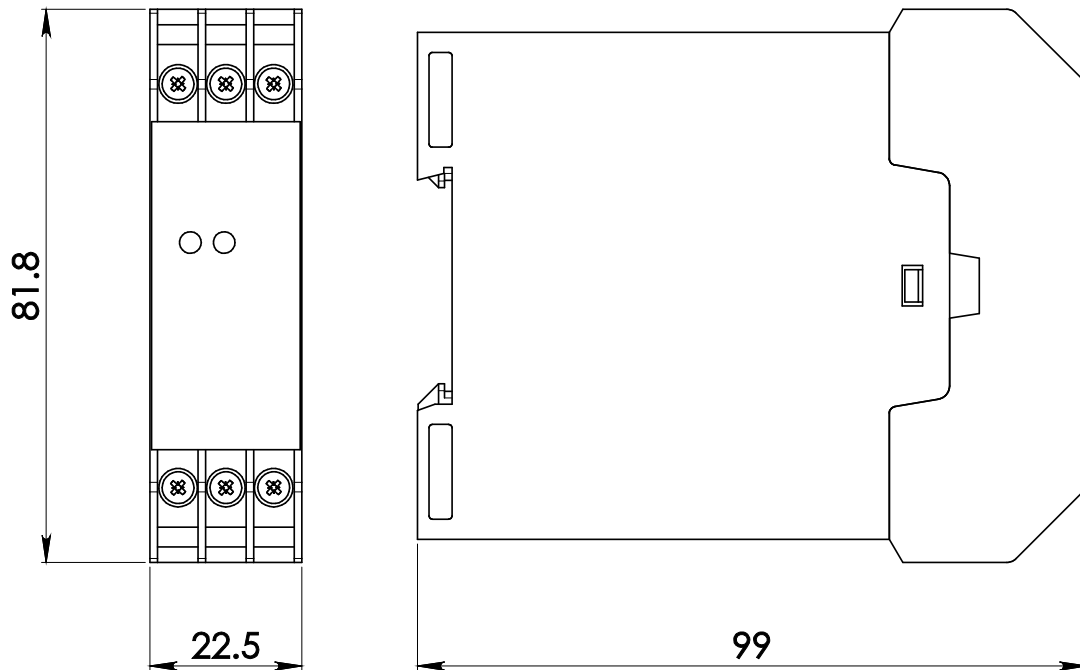
TECHNICAL DATA

Model type	NPSM30S-12	NPSM30S-12D	NPSM30S-24
OUTPUT DATA			
Rated voltage	12Vdc	2x 12...15Vdc	24Vdc
Adj. output voltage range	10...15Vdc	2x 12...15Vdc	22...28Vdc
Continuous current	1.5A @ 10Vdc 1.0A @ 15Vdc	1.0A	1.2A
Overload limit	2.0A @ 10Vdc 1.3A @ 15Vdc	1.5A @ 12Vdc 1.2A @ 15Vdc	1.5A
Short circuit peak current	7.0A	5.5A	7.5A
Load regulation		≤ 0.5%	
Ripple & Noise ¹		≤ 100mVpp	
Hold up time Vin = 120Vac Vin = 240Vac		≥ 5ms ≥ 25ms	
Protections	<ul style="list-style-type: none"> ▪ Overload/short circuit: Hiccup mode ▪ Thermal protection ▪ Output overvoltage 		
Status Signals	<ul style="list-style-type: none"> ▪ DC OK - green LED 		
Parallel connection	Possible for redundancy (with external ORing module)		
INPUT DATA			
Input AC rated voltage Frequency	Nominal: 120...240Vac Range: 90...264Vac 47...63Hz		
Input DC rated voltage	110...345Vdc		
Input AC rated current Vin = 120Vac Vin = 240Vac	0.60A 0.40A		
Input DC rated current Vin = 110Vdc Vin = 345Vdc	0.40A 0.15A		
Inrush peak current	≤ 55A		
Touch (leakage) current	≤ 0.3mA		
Internal protection fuse	Fuse 2AT (not user replaceable)		
Recommended external protection	Fuse 6AT or MCB 6A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.		
GENERAL DATA			
Efficiency ³	> 82.5%	> 83%	> 87%
Dissipated power	< 3.1W	< 5.0W	< 4.5W
Operating temperature ²	- 40°C...+ 70°C		
Derating ³	No Derating		
Storage temperature	- 40°C...+ 80°C		
Humidity	5...95% r.H. non condensing		
Life time expectation	121'731h (13.9 years) at 25°C ambient full load		
MTBF	<ul style="list-style-type: none"> ▪ MIL-HDBK-217F 	> 500'000h at 25°C ambient full load	
Overvoltage category	<ul style="list-style-type: none"> ▪ EN50178 	III	
Pollution degree	<ul style="list-style-type: none"> ▪ IEC60664-1 	2	
Protection Class	<ul style="list-style-type: none"> ▪ CLASS 	II	
Input / output isolation	4.2kVdc		
Safety Standards	<ul style="list-style-type: none"> ▪ UL508 (reference) ▪ EN60950 (reference) ▪ EN50178 (reference) 		
EMC Emission	<ul style="list-style-type: none"> ▪ EN55011 (CISPR11) Class B ▪ EN55022 (CISPR22) Class B 		
EMC Immunity	<ul style="list-style-type: none"> ▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 3 ▪ EN61000-4-4 Level 4 ▪ EN61000-4-5 Level 4 ▪ EN61000-4-11 Level 2 		
Protection degree	<ul style="list-style-type: none"> ▪ EN60529 	IP20	
Vibration sinusoidal	<ul style="list-style-type: none"> ▪ IEC 60068-2-6 	(5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z))	
Shock	<ul style="list-style-type: none"> ▪ IEC 60068-2-27 	(30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)	
Connection terminals	2.5mm ² , screw type header (24...12AWG)		
Case material	Plastic, Flame retardant UL94 V-0		
Weight	0.14kg		
Size (W x H x D)	22.5 x 99.0 x 81.8mm		

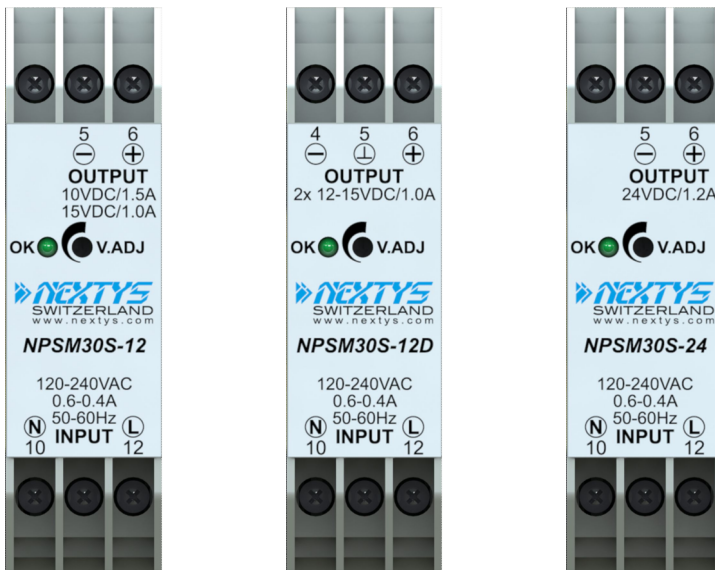
1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
 2) Start-up type tested: - 40°C, possible at nominal voltage with load deration.
 3) On NPSM30S-12 measures are performed with output set to 12Vdc, and NPSM30-12D measures are performed with output set to 24Vdc

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



CONNECTION



Input Connection:

Single phase:

- L = Line (12)
- N = Neutral (10)

DC:

- L = + Positive DC (12)
- N = - Negative DC (10)

Output Connection:

- + = Positive DC (6)
- - = Negative DC (5)

Exception NPSM30S-12D:

- + = Positive DC (6)
- = Common DC (5)
- - = Negative DC (4)