■ *Main Features*

- High efficiency and compact size
- Only 63mm width aluminum enclosure
- Overload 130%
- Excellent field reliability record
- High operating temperature with no derating

TECHNICAL DATA

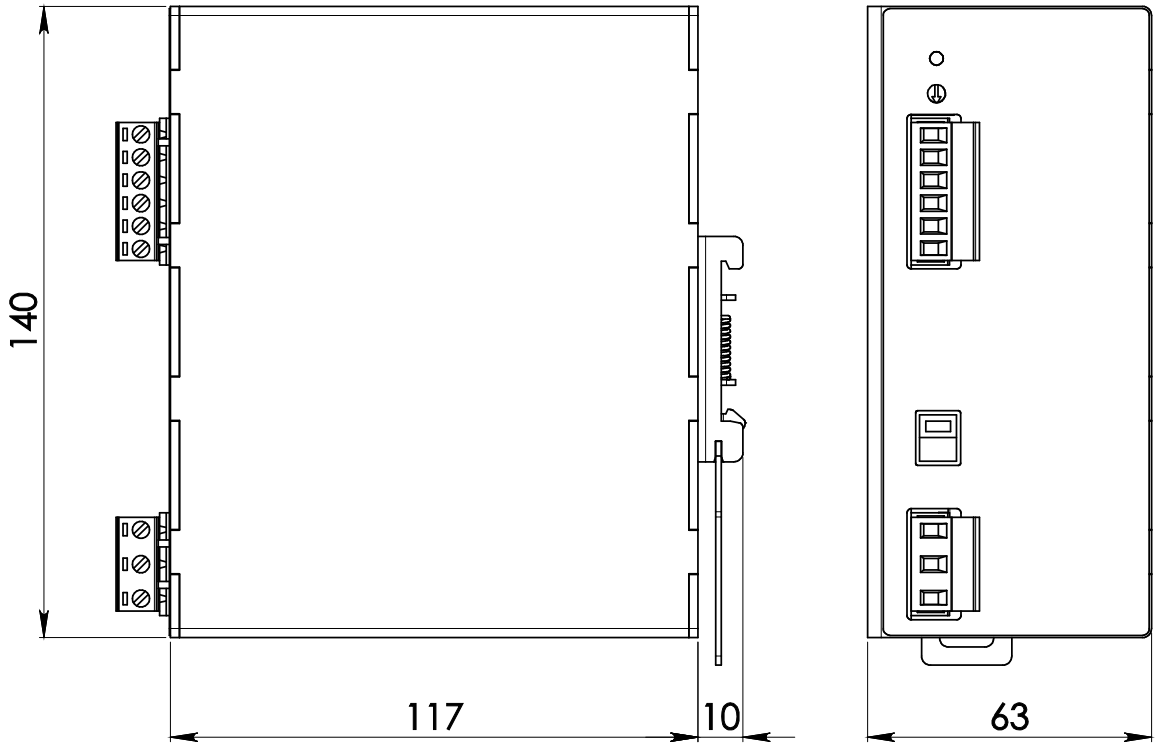
Model type	NPSM240-12	NPSM240-24	NPSM240-24P	NPSM240-48P	NPSM240-72P
OUTPUT DATA					
Rated voltage	12Vdc	24Vdc		48Vdc	72Vdc
Adj. output voltage range	12…15Vdc	23…28Vdc		45…55Vdc	72…85Vdc
Continuous current	16…14A	10A		5.0A	3.5A
Overload limit	19…16A	13.5A		6.8A	4.6A
Short circuit peak current	42A	35A		20A	14A
Load regulation	≤ 1.5%	≤ 1%	≤ 2.5%	≤ 1.5%	
Ripple & Noise[1]	≤ 150mVpp	≤ 100mVpp			
Hold up time Vin = 120Vac Vin = 240Vac	≥ 60ms ≥ 70ms				
Protections	▪ Overload, short circuit: Hiccup mode ▪ Thermal protection ▪ Output overvoltage				
Output overvoltage protection	≥ 18Vdc	≥ 33Vdc		≥ 68Vdc	≥ 100Vdc
Status Signals	▪ **DC OK** - green LED ▪ **DC OK** - dry contact (NO, 24Vdc / 1A)				
Parallel connection	▪ Possible for redundancy (with external ORing module) ▪ **P** (models) - include internal ORing circuit				
INPUT DATA					
Input AC rated voltage Frequency	Nominal: 120 / 240Vac (UL certified) Range: 90…132 / 187…264Vac Settable with voltage input selector 47...63Hz				
Input DC rated voltage	270...345Vdc (only with 240V selected)				
Input AC rated current Vin = 120Vac Vin = 240Vac	 4.0A 2.0A				
Input DC rated current Vin = 270Vdc Vin = 345Vdc	 1.3A 1.0A				
Inrush peak current[2] / I^2t	≤ 32A / 1.18A^2s				
Touch (leakage) current	≤ 0.8mA				
Internal protection fuse	Fuse 6.3AT (not user replaceable)				
Recommended external protection	Fuse 10AT or MCB 10A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.				
GENERAL DATA					
Efficiency	> 84% ... > 86%	> 88%	> 86%	> 88%	
Dissipated power	< 36.5W ... < 34.5W	< 33W	< 39W	< 33W	< 34.5W
Operating temperature[3]	- 40°C...+ 70°C UL certified up to 50°C				
Derating	- 5.0W/°C over 60°C				
Storage temperature	- 40°C...+ 80°C				
Humidity	5…95% r.H. non condensing				
Life time expectation	77'894h (8.8 years) at 25°C ambient full load				
MTBF	▪ MIL-HDBK-217F	> 500'000h at 25°C ambient full load			
Overvoltage category Pollution degree	▪ EN50178 ▪ IEC60664-1	III 2			
Protection Class	▪ CLASS	I			
Input / output isolation	4.2kVdc				
Input / ground isolation	2.2kVdc				
Output / ground isolation	0.75kVdc				
Safety Standards	▪ UL508 ▪ EN60950 ▪ EN50178	(certified E356563) (reference) (reference)			
EMC Emission	▪ EN55011 (CISPR11) ▪ EN55022 (CISPR22)	Class A Class A			
EMC Immunity	▪ EN61000-4-2 ▪ EN61000-4-3 ▪ EN61000-4-4 ▪ EN61000-4-5 ▪ EN61000-4-11	Level 3 Level 3 Level 3 Level 3 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	2.5mm^2, screw type pluggable (24...12AWG)				

Case material	Aluminum
Weight	0.75kg
Size (W x H x D)	63.0 x 140.0 x 117.0mm

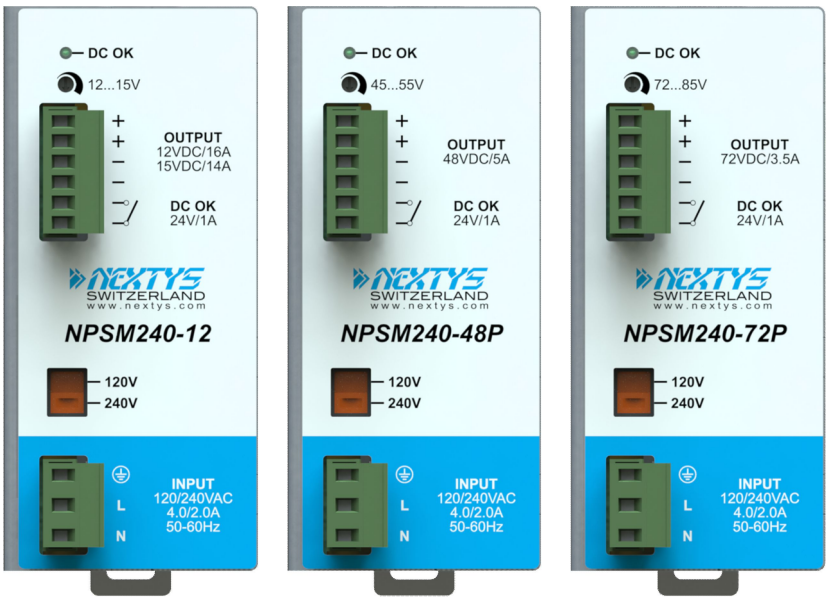
1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
2) Peak current measured after 0.2ms from main connection; 240Vac/50Hz; Ambient temperature at 25°C; Cold Start.
3) Start-up type tested: - 40°C, possible at nominal voltage with load deration.

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



CONNECTION



Input Connection:

Single phase:
- L = Line
- N = Neutral
- ⏚ = Earth ground

DC:
- L = + Positive DC
- N = - Negative DC
- ⏚ = Earth ground

Output Connection:

- + = Positive DC
- - = Negative DC

Signalling:
DC OK: dry contact
- NO
- COM