

■ *Main Features*

- High efficiency and extremely compact size
- Active PFC for optimal efficiency with low THD
- High efficiency (>93%)
- Overload 150%
- Up to 60°C operating temperature with no derating
- Constant current or Hiccup mode limitation, user settable
- Wide range of output voltages (model dependent)
- Easy parallelable for power increase
- Includes models with internal ORing

TECHNICAL DATA

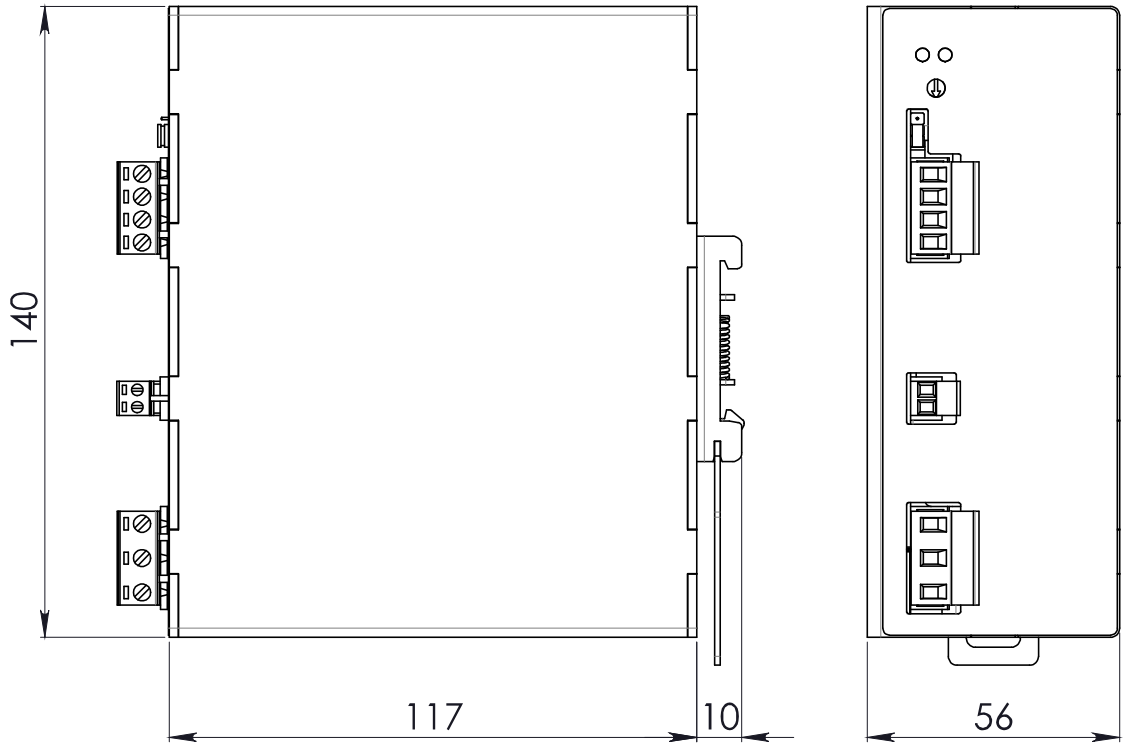
Model type	NPSM481-24 (P)	NPSM481-48 (P)	NPSM481-72 (P)
OUTPUT DATA			
Rated voltage	24Vdc	48Vdc	72Vdc
Adj. output voltage range	22…29Vdc	45…55Vdc	70…85Vdc
Continuous current	20A	10A	6.7A
Overload limit	21.5A	12.5A	7.0A
Short circuit peak current	30A	15A	12A
Load regulation	≤ 1.5%	≤ 0.5%	≤ 0.5%
Ripple & Noise	≤ 150mVpp	≤ 50mVpp	≤ 50mVpp
Hold up time	> 25ms		
User interface	▪ DC OK green LED ▪ Overload red LED ▪ Current limitation mode jumper ▪ Dry contact (1A/30V)		
Protections	▪ Overload, short circuit, with constant current or hiccup mode (user settable) ▪ Thermal protection ▪ Input undervoltage lockout		
Output overvoltage protection	> 33Vdc	> 68Vdc	> 100Vdc
Parallel connection	Up to 4 units for increased power		
Redundancy	(P) model includes internal ORing Circuit		
INPUT DATA			
Input AC rated voltage Frequency	Nominal: 120…240Vac (UL certified) Range: 90…264Vac 47...63Hz		
Input DC rated voltage	110...345Vdc		
Input AC current Uin = 120Vac Uin = 240Vac	 4.8A 2.4A		
Input DC current Uin = 110Vdc Uin = 345Vdc	 4.9A 1.7A		
Inrush peak current	< 35A		
Internal protection fuse	Fuse 8AT/250Vac (not user replaceable)		
External protection on AC line	MCB 10A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.		
GENERAL DATA			
Efficiency	> 93%	> 94%	
Dissipated power	< 36.5W	< 31W	
Operating temperature	- 40°C…+ 70°C / overtemperature protection UL certified up to 50°C at 120Vac or up to 60°C at 240Vac Start-up type tested: - 40°C[1]		
Derating	- 7.6W/°C over 50°C at 120Vac - 7.2W/°C over 60°C at 240Vac		
Storage temperature	- 40°C...+ 80°C		
Humidity	5…95% r.H. non condensing		
Life time expectation	167953h (19.1 years) at 25°C ambient full load		
Overvoltage category Pollution degree	III 2 (IEC 664-1)		
Input / output isolation	4.2kVdc		
Input / ground isolation	2.2kVdc		
Output / ground isolation	0.75kVdc		
Safety Standards	▪ UL508 (certified) ▪ EN60950 (reference)		
EMC Emission	▪ EN55022:2010 (CISPR22) Class B ▪ EN55011:2009 /A1:2010 Class B ▪ EN61000-3-2:2014 Class A		
EMC Immunity	▪ EN61000-4-2:2008 Level 3 ▪ EN61000-4-3:2006 /A2:2010 Level 3 ▪ EN61000-4-4:2012 Level 3 ▪ EN61000-4-5:2014 Level 4 ▪ EN61000-4-11:2004 /A1:2010 Level 2		
Protection degree	▪ EN60529:1989 /A:2013 IP20		
Vibration sinuosoidal	▪ IEC 60068-2-6:2007 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2Hours / axis (X,Y,Z)		
Shock	▪ IEC 60068-2-27:2008 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)		
Connection terminals	2.5mm², screw type pluggable (24...12AWG)		
Case material	Aluminum		
Approx. weight	1.100kg		
Size (W x H x D)	56.0 x 140.0 x 117.0mm		
Mounting Rail	IEC 60715/H15/TH35-7.5(-15)		

1) Possible at nominal voltage with load deration.

Notes:

- Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz.
- 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





(model just for reference)

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
- Dry contact = NC