



#### ■ Main Features

- Single or 2 phase input AC 187...550Vac
- Wide DC input range 250...725Vdc
- High efficiency and compact size, only 40mm width
- 150% overload capability
- Usable for broad range of industrial, telecom and renewable energy applications



TECHNICAL DATA

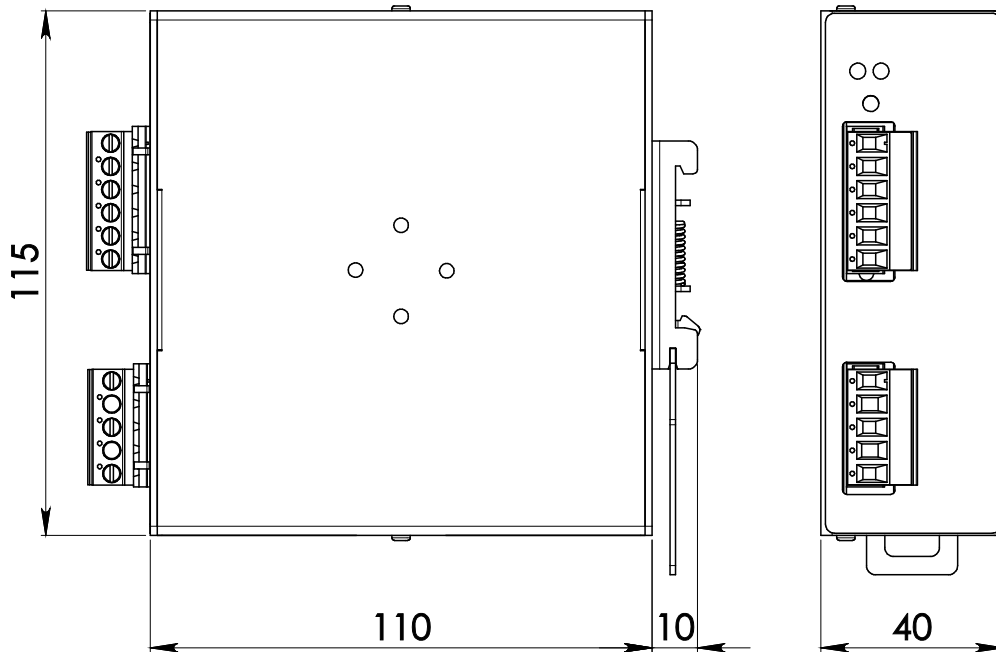
Model type	NPSW120-12	NPSW120-24	NPSW120-48P
<b>OUTPUT DATA</b>			
Output voltage	12...15 Vdc	24 Vdc	48 Vdc
Adj. output voltage range	12...15 Vdc	23...28Vdc	45...55Vdc
Continuous current	8...7A	5A	2.5A
Overload limit	> 10A / 30s	> 7.5A / 30s	> 3.75A / 30s
Short circuit peak current	> 20A / 300ms	> 14A / 300ms	
Load regulation	1%		
Ripple & Noise	110mVpp		
Hold up time	17ms		
Uin = 240 Vac	60ms		
Uin = 400 Vac			
Status Signals	<ul style="list-style-type: none"> <li>▪ DC OK by green LED</li> <li>▪ Overload by red LED</li> <li>▪ Dry contact (1A/30V)</li> </ul>		
Output protections	<ul style="list-style-type: none"> <li>▪ Hiccup at the overload limit with auto reset</li> <li>▪ Over temperature</li> <li>▪ Overvoltage</li> </ul>		
Output overvoltage protection	> 18Vdc	> 33Vdc	> 68Vdc
Parallel connection	(P) models include internal ORing circuit		
<b>INPUT DATA</b>			
Input AC rated voltage	Nominal: 1-2 Phases, 200...500Vac (UL certified)		
Frequency	Range: 187...550Vac 47...63Hz		
Input DC rated voltage	250...725Vdc (300...500Vdc UL certified)		
Input AC current	1.4A		
Uin = 240Vac	0.7A		
Uin = 500Vac			
Input DC current	0.8A		
Uin = 250Vdc	0.3A		
Uin = 725Vdc			
Inrush peak current	< 40A		
Internal protection fuse	None, external fuse must be provided		
External protection on AC line	Fuse MCB 6A C curve or 6A D curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.		
<b>GENERAL DATA</b>			
Efficiency	> 81...84%	> 88%	> 86%
Dissipated power	< 25...20W	< 17W	< 19.5W
Operating temperature	- 40°C...+70°C / overtemperature protection UL certified up to 45°C Start-up type tested: - 40°C <sup>1</sup>		
Derating	- 1.2W/°C over 60°C		
Storage temperature	- 40°C...+ 80°C		
Humidity	5...95% r.H. non condensing		
Life time expectation	84914h (9.6 years) at 25°C ambient full Load		
Overvoltage category	III		
Pollution degree	2 (IEC 664-1)		
Input / output isolation	4.2kVdc		
Input / ground isolation	2.2kVdc		
Output / ground isolation	0.75kVdc		
Safety Standards	<ul style="list-style-type: none"> <li>▪ UL508 (certified)</li> <li>▪ UL60950 (certified for NPSW120-24 model)</li> <li>▪ EN60950 (reference)</li> </ul>		
EMC Emission	<ul style="list-style-type: none"> <li>▪ EN55022:2010 (CISPR22)</li> <li>▪ EN55011:2009 /A1:2010</li> </ul>	Class A Class A	
EMC Immunity	<ul style="list-style-type: none"> <li>▪ EN61000-4-2:2008</li> <li>▪ EN61000-4-3:2006 /A2:2010</li> <li>▪ EN61000-4-4:2012</li> <li>▪ EN61000-4-5:2014</li> <li>▪ EN61000-4-11:2004 /A1:2010</li> </ul>	Level 3 Level 3 Level 3 Level 4 Level 2	
Protection degree	<ul style="list-style-type: none"> <li>▪ EN60529:1989 /A:2013</li> </ul>	IP20	
Vibration sinusoidal	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-6:2007</li> </ul>	(5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2Hours / axis (X,Y,Z)	
Shock	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-27:2008</li> </ul>	(30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)	
Connection terminals	2.5mm <sup>2</sup> , screw type pluggable (24...12AWG)		
Case material	Aluminum		
Approx. weight	0.500kg		
Size (W x H x D)	40.0 x 115.0 x 110.0mm		
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 400Vac / 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



Input Connection:

Single phase:

- L = Line
- N = Neutral
- I = earth ground

2 phases:

- L1 = Phase 1
- L2 = Phase 2
- I = earth ground

DC:

- L1(N) = - Negative DC
- L2(L) = + Positive DC
- I = earth ground

Output Connection:

- + = Positive DC
- - = Negative DC
- Dry contact = NC

(model just for reference)