



■ Main Features

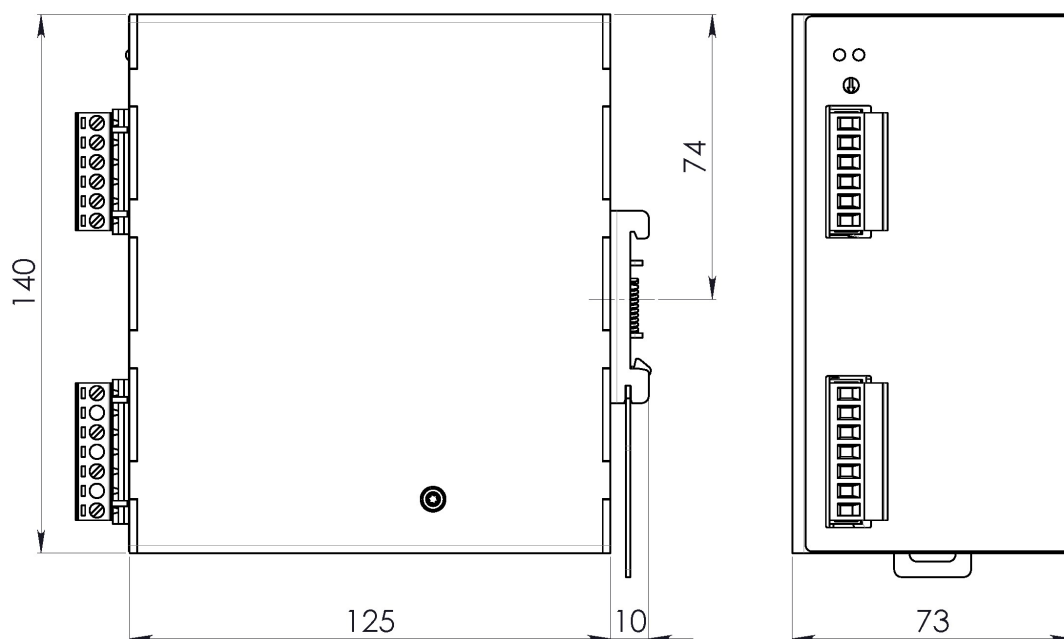
- High efficiency and compact size
- Only 73mm width aluminum enclosure
- 1, 2 or 3 phases input AC 187...550Vac
- Wide DC input range 250...725Vdc
- Active PFC
- Overload 140%
- Excellent field reliability record
- Usable for broad range of industrial, telecom and renewable energy applications

TECHNICAL DATA

Model type	NPSW480-24		NPSW480-48		NPSW480-72	
OUTPUT DATA						
Rated voltage	24Vdc		48Vdc		72Vdc	
Adj. output voltage range	23...28Vdc		45...55Vdc		72...85Vdc	
Continuous current	20A		10A		6.0A	
Overload limit	28A		14A		9.0A	
Short circuit peak current	50A		25A		12A	
Load regulation	≤ 1%					
Ripple & Noise ¹	≤ 50mVpp		≤ 100mVpp			
Hold up time	≥ 50ms					
Protections	<ul style="list-style-type: none">▪ Overload, short circuit: Hiccup mode▪ Thermal protection▪ Output overvoltage					
Output overvoltage protection	≥ 33Vdc		≥ 68Vdc		≥ 100Vdc	
Status Signals	<ul style="list-style-type: none">▪ DC OK - green LED▪ OVERLOAD - red LED▪ DC OK - dry contact (NO, 24Vdc / 1A)					
Parallel connection	Possible for redundancy (with external ORing module)					
INPUT DATA						
Input AC rated voltage	Nominal: 1/2/3 phases, 200...500Vac (UL certified)					
Frequency	Range: 187...550Vac 47...63Hz with 1/2/3 phases; 400Hz with 1/2 phases input only					
Input DC rated voltage	250...725Vdc					
Input AC rated current						
Vin = 200Vac 1/2 Ph	2.9A					
Vin = 500Vac 1/2 Ph	1.3A					
Vin = 200Vac 3Ph	1.8A					
Vin = 500Vac 3Ph	0.8A					
Input DC rated current						
Vin = 250Vdc	2.1A					
Vin = 725Vdc	0.8A					
Power factor correction	Active / > 0.9					
Inrush peak current ² / I ² t	≤ 55A / 2.16A ² s					
Touch (leakage) current	≤ 0.6mA					
Internal protection fuse	None, external fuse must be provided					
Recommended external protection	Fuse 6.3AT or MCB 6A C or MCB 4A D curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.					
GENERAL DATA						
Efficiency	> 92%				> 91%	
Dissipated power	< 42W				< 42.5W	
Operating temperature ³	- 40°C...+ 70°C UL certified up to 45°C					
Derating	- 10W/°C over 45°C					
Storage temperature	- 40°C...+ 80°C					
Humidity	5...95% r.H. non condensing					
Life time expectation	65'496h (7.4 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 I					
Input / output isolation	4.2kVdc					
Input / ground isolation	2.2kVdc					
Output / ground isolation	0.75kVdc					
Safety Standards	<ul style="list-style-type: none">▪ UL508 (certified E356563)▪ IEC/EN61010-1▪ IEC/EN61010-2-201▪ IEC/EN60950					
EMC Emission	<ul style="list-style-type: none">▪ EN55011 (CISPR11)▪ EN61000-3-2 Class A Class A					
EMC Immunity	<ul style="list-style-type: none">▪ EN61000-4-2▪ EN61000-4-3▪ EN61000-4-4▪ EN61000-4-5▪ EN61000-4-11 Level 3 Level 3 Level 4 Level 3 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 pluggable (24...12AWG)					

Case material	Aluminum
Weight	1.0kg
Size (W x H x D)	73.0 x 140.0 x 125.0mm
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 400Vac / 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

- 2 phases:
- L1 = phase 1
 - L2 = phase 2
 - ⊕ = Earth ground

- 3 phases:
- L1 = phase 1
 - L2 = phase 2
 - L3 = phase 3
 - ⊕ = Earth ground

DC:

- L1(L) = + Positive DC
- L2(N) = - Negative DC
- L3 = do not connect
- ⊕ = Earth ground

Output Connection:

- + = Positive DC
- - = Negative DC

Signalling:

- DC OK: dry contact
- NO
 - COM