■ *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
- Excellent field reliability record
- Usable for broad range of industrial, telecom and renewable energy applications

TECHNICAL DATA

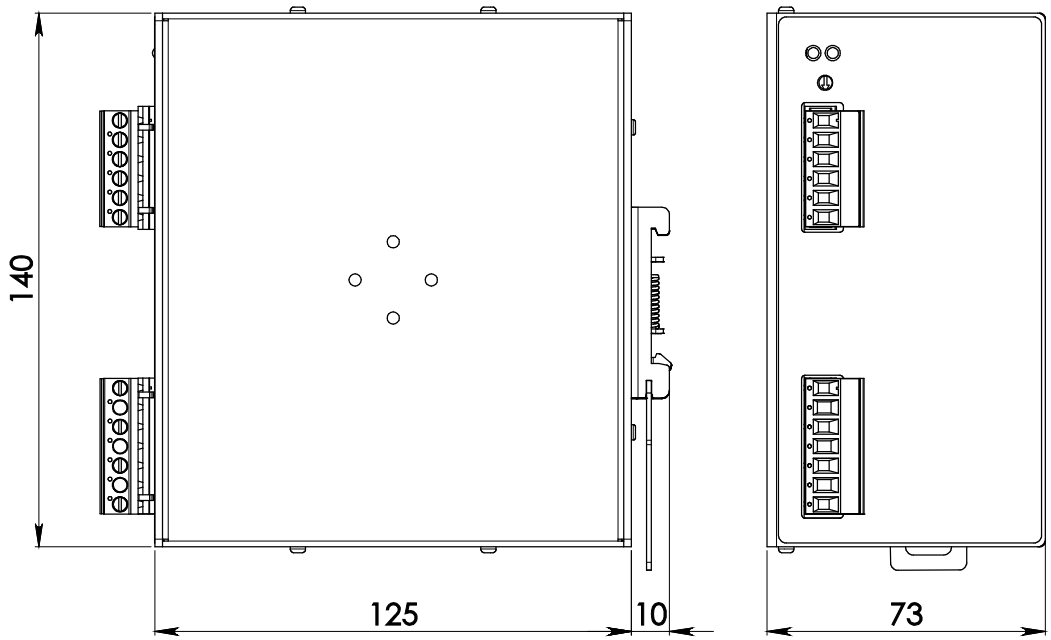
Model type	NPSW480-24	NPSW480-48	NPSW480-72
OUTPUT DATA			
Rated voltage	24Vdc	48Vdc	72Vdc
Adj. output voltage range	23…28Vdc	45…55Vdc	72…85Vdc
Continuous current	20A	10A	6.0A
Overload limit	28A	14A	9.0A
Short circuit peak current	50A	25A	12A
Load regulation	≤ 1%		
Ripple & Noise[1]	≤ 50mVpp	≤ 100mVpp	
Hold up time	≥ 50ms		
Protections	▪ Overload, short circuit: Hiccup mode ▪ Thermal protection ▪ Output overvoltage		
Output overvoltage protection	≥ 33Vdc	≥ 68Vdc	≥ 100Vdc
Status Signals	▪ **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 Frequency	Nominal: 1/2/3 phases, 200…500Vac (UL certified) Range: 187…550Vac 47…63Hz		
Input DC rated voltage	250…725Vdc		
Input AC rated current Vin = 200Vac 1/2 Ph Vin = 500Vac 1/2 Ph Vin = 200Vac 3Ph Vin = 500Vac 3Ph	 2.9A 1.3A 1.8A 0.8A		
Input DC rated current Vin = 250Vdc Vin = 725Vdc	 2.1A 0.8A		
Power factor correction	Active / > 0.9		
Inrush peak current	≤ 60A		
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[2]	- 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		
Overvoltage category Pollution degree	▪ EN50178 III ▪ IEC60664-1 2		
Protection Class	▪ CLASS I		
Input / output isolation	4.2kVdc		
Input / ground isolation	2.2kVdc		
Output / ground isolation	0.75kVdc		
Safety Standards	▪ UL508 (certified E356563) ▪ EN60950 (reference) ▪ EN50178 (reference)		
EMC Emission	▪ EN55011 (CISPR11) Class A ▪ EN55022 (CISPR22) Class A ▪ EN61000-3-2 Class A		
EMC Immunity	▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 3 ▪ EN61000-4-4 Level 3 ▪ EN61000-4-5 Level 3 ▪ EN61000-4-11 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	2.5mm², 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

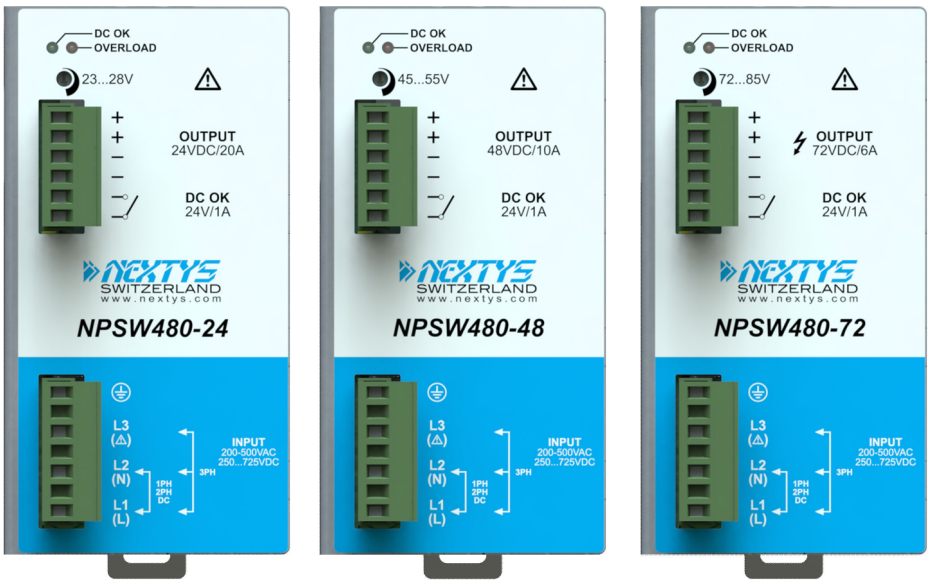
1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
2) Start-up type tested: - 40°C, possible at nominal voltage with load deration.

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