

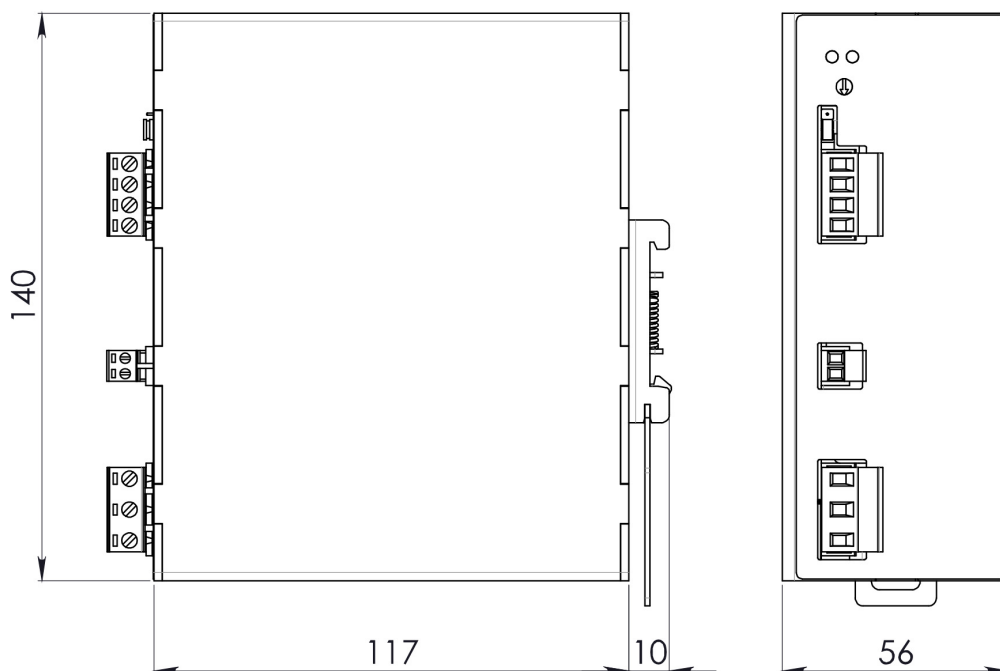
## Main Features

- Smallest 480 watt DIN rail power supply on the market.
- High efficiency and extremely compact size.
- Active power factor corrector compliant to EN61000-3-2.
- Wide output voltage adjustable range.
- User settable limitation mode: Hiccup or constant current limitation.
- Parallel versions available.
- Only 56mm wide aluminium enclosure.
- 24 Vdc output



Input Connection:	Output Connection:
<p>Single phase:</p> <ul style="list-style-type: none"> <li>▪ L = Line</li> <li>▪ N = Neutral</li> <li>▪ I = earth ground</li> </ul>	<ul style="list-style-type: none"> <li>▪ + = Positive DC</li> <li>▪ - = Negative DC</li> <li>▪ Dry contact = NC</li> </ul>
<p>DC:</p> <ul style="list-style-type: none"> <li>▪ L = +</li> <li>▪ N = -</li> <li>▪ I = earth ground</li> </ul>	

## Dimensions



### TECHNICAL DATA

Model type <sup>1</sup>	NPSM481-24 (P,H)	NPSM481-36 (P,H)	NPSM481-48 (P,H)	NPSM481-72 (P,H)
<b>OUTPUT DATA</b>				
Rated voltage	24Vdc	36Vdc	48Vdc	72Vdc
Adj. output voltage range	22...29Vdc	32...40Vdc	45...55Vdc	70...85Vdc
Continuous current	20A	14A	10A	6.7A
Overload limit in constant current mode	21A	16A	12A	7.0A
Overload limit in hiccup mode (max. 5s)	30A	20A	17A	12A
Load regulation	≤ 1.5%	≤ 1.0%	≤ 0.5%	
Ripple & Noise <sup>2</sup>	≤ 150mVpp	≤ 200mVpp		≤ 350mVpp
Hold up time	≥ 25ms	≥ 20ms	≥ 25ms	
Protections	<ul style="list-style-type: none"> <li>▪ Overload, short circuit: Constant current or Hiccup mode (user settable)</li> <li>▪ Thermal protection</li> <li>▪ Input undervoltage lockout</li> <li>▪ Output overvoltage</li> </ul>			
Output overvoltage protection	≥ 33Vdc	≥ 51Vdc	≥ 68Vdc	≥ 100Vdc
Status Signals	<ul style="list-style-type: none"> <li>▪ <b>DC OK</b> - green LED</li> <li>▪ <b>OVERLOAD</b> - red LED</li> <li>▪ <b>DC OK</b> - dry contact (NO, 24Vdc / 1A)</li> </ul>			
Parallel connection <sup>3</sup>	<ul style="list-style-type: none"> <li>▪ Possible for power or redundancy (with external ORing module)</li> <li>▪ P (models) - include internal ORing circuit</li> </ul>			
<b>INPUT DATA</b>				
Input AC rated voltage	Nominal: 120...240Vac (UL certified)			
Frequency	Range: 90...264Vac 47...63Hz			
Input DC rated voltage	110...345Vdc			
Input AC rated current				
Vin = 120Vac	4.8A	5.5A	4.8A	
Vin = 240Vac	2.4A	2.8A	2.4A	
Input DC rated current				
Vin = 110Vdc	4.9A	5.3A	4.9A	
Vin = 345Vdc	1.7A	1.9A	1.7A	
Power factor correction	Active / > 0.9			
Inrush peak current <sup>4</sup> / I <sup>2</sup> t	≤ 23A / 0.56A <sup>2</sup> s			
Touch (leakage) current	≤ 0.9mA			
Internal protection fuse	Fuse 8AT (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.			
<b>GENERAL DATA</b>				
Efficiency	> 93%	> 94%	> 94%	
Dissipated power	< 36.5W	< 32.5W	< 31W	
Operating temperature <sup>5</sup>	- 40°C...+ 70°C UL certified up to 50°C at 120Vac or up to 60°C at 240Vac			
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	167'953h (19.1 years) at 25°C ambient full load			
MTBF	<ul style="list-style-type: none"> <li>▪ MIL-HDBK-217F</li> <li>▪ &gt; 600'000h at 25°C ambient full load</li> </ul>			
Overvoltage category	<ul style="list-style-type: none"> <li>▪ EN50178</li> <li>▪ IEC60664-1</li> <li>▪ CLASS</li> </ul>			
Pollution degree	III			
Protection Class	2			
Input / output isolation	4.2kVdc			
Input / ground isolation	2.2kVdc			
Output / ground isolation	0.75kVdc			
Safety Standards <sup>6</sup>	<ul style="list-style-type: none"> <li>▪ UL508 (certified E356563)</li> <li>▪ EN60950 (reference)</li> <li>▪ EN50178 (reference)</li> </ul>			
EMC Emission	<ul style="list-style-type: none"> <li>▪ EN55011 (CISPR11) Class B</li> <li>▪ EN55022 (CISPR22) Class B</li> <li>▪ EN61000-3-2 Class A</li> </ul>			
EMC Immunity	<ul style="list-style-type: none"> <li>▪ EN61000-4-2 Level 3</li> <li>▪ EN61000-4-3 Level 3</li> <li>▪ EN61000-4-4 Level 4</li> <li>▪ EN61000-4-5 Level 4</li> <li>▪ EN61000-4-11 Level 2</li> </ul>			
Protection degree	<ul style="list-style-type: none"> <li>▪ EN60529 IP20</li> </ul>			
Vibration sinusoidal	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)</li> </ul>			
Shock	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)</li> </ul>			
Connection terminals	2.5mm <sup>2</sup> , screw type pluggable (24...12AWG)			