NPSM80 SERIES

AC/DC PS 80W Din Rail Mount Class II









Main Features

- High efficiency and compact size
- Plastic enclosure, circuit breaker shape
- Simplified wiring (no PE connection)
- Overload 150%
- High operating temperature with no derating

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AC/DC PS 80W Din Rail Mount Class II



TECHNICAL DATA Model type	NPSM8	30-12	NPSM80-24	
DUTPUT DATA				
ated voltage	1215	5Vdc	24Vdc	
dj. output voltage range	1215		2328Vdc	
ontinuous current	6.05		3.3A	
verload limit	7.5A @ 1	12Vdc	4.04	
werload limit	6.5A @ 3	15Vdc	4.0A	
hort circuit peak current	204	Α.	25A	
oad regulation	≤ 0.5	5%	≤ 1%	
ipple & Noise ¹	≤ 100m	nVpp	≤ 50mVpp	
lold up time				
'in = 120Vac			Oms	
/in = 240Vac		-	Oms	
	Overload/short circuit: Hiccup mode Thermal protection			
Protections				
	Output overvoltage			
itatus Signals	DC OK - green LED			
arallel connection		Possible for redundancy (w	ith external ORing module)	
NPUT DATA				
nput AC rated voltage			0Vac (UL certified)	
requency	Range: 90264Vac			
	4763Hz			
nput DC rated voltage		1103	45Vdc	
nput AC rated current				
/in = 120Vac	1.50		1.40A	
/in = 240Vac	0.85	5A	0.85A	
nput DC rated current				
/in = 110Vdc		1.	DA	
/in = 345Vdc		0.4	10A	
nrush peak current		≤ 8	35A	
	≤ 0.25mA			
ouch (leakage) current				
ouch (leakage) current nternal protection fuse		Fuse 2AT (not u	ser replaceable)	
	lt is strongly reco	Fuse 2AT (not u MCB 6A	ser replaceable) .C curve	
nternal protection fuse lecommended external protection	It is strongly reco	Fuse 2AT (not u MCB 6A	ser replaceable)	
nternal protection fuse Recommended external protection	It is strongly reco	Fuse 2AT (not u MCB 6A ommended to provide external su	ser replaceable) .C curve Irge arresters (SPD) according to local regulations.	
nternal protection fuse		Fuse 2AT (not u MCB 6A ommended to provide external su %	ser replaceable) .C curve	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power	> 86	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W	ser replaceable) . C curve Irge arresters (SPD) according to local regulations. > 87%	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³	> 86	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C.	ser replaceable) .C curve Irge arresters (SPD) according to local regulations. > 87% < 12W	
nternal protection fuse Recommended external protection SENERAL DATA Officiency ³ Dissipated power Operating temperature ²	> 86 < 12.1 U	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C -12 and up to 55°C for NPSM80-24	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating	> 86	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 287% 212W + 70°C 2-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating Storage temperature	> 86 < 12.1 U	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C.	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating Storage temperature Humidity	> 86 < 12.1 U	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C >-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing	
nternal protection fuse Recommended external protection ENERAL DATA Efficiency ³ Dissipated power Derating temperature ² Derating Extorage temperature Humidity Ife time expectation	> 86 < 12.1 U - 1.2W/°C d	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C	
Anternal protection fuse Recommended external protection RENERAL DATA Sufficiency ³ Dissipated power Derating temperature ² Derating Recorage temperature Humidity If time expectation Derevoltage category	> 86 < 12.1 U - 1.2W/°C d EN50178	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C >-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing	
Anternal protection fuse Recommended external protection RENERAL DATA Sufficiency ³ Dissipated power Derating temperature ² Derating Suborage temperature Humidity Sufficience Superctation Derevoltage category Sollution degree	> 86 < 12.1 U - 1.2W/°C d EN50178 • IEC60664-1	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C >-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing	
Anternal protection fuse Recommended external protection RENERAL DATA Sufficiency ³ Dissipated power Derating temperature ² Derating Suborage temperature Humidity Sufficience Superctation Derevoltage category Sollution degree	> 86 < 12.1 U - 1.2W/°C d EN50178	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C >-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing	
Atternal protection fuse Atternal protection fuse Atternal protection	> 86 < 12.1 U - 1.2W/°C d EN50178 • EN50178 • IEC60664-1	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II	ser replaceable) . C curve irge arresters (SPD) according to local regulations. > 87% < 12W + 70°C >-12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing	
Atternal protection fuse Atternal protection fuse Atternal protection	> 86 < 12.1 U - 1.2W/°C d EN50178 • EN50178 • IEC60664-1	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse Atternal protection fuse Atternal protection	> 86 <12.1 U -1.2W/°C c - EN50178 ELC60664-1 CLASS	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II 4.2k	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse Atternal protection fuse Atternal protection	 > 86 < 12.1 U - 1.2W/°C d - 1.2W/°C d EN50178 IEC60664-1 CLASS UL508 	Fuse 2AT (not u MCB 6A pmmended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 51'136h (5.8 years) at III 2 II 4.24 (certified E356563)	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse Atternal protection fuse Atternal protection	 > 86 < 12.1 U - 1.2W/°C d - 1.2W/°C d EN50178 IEC60664-1 CLASS UL508 EN60950 	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 II 4.24 (certified E356563) (reference)	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse Atternal protection fuse Atternal protection	> 86 <12.: U - 1.2W/°C d - 1.2	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 III 4.2µ (certified E356563) (reference) (reference)	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating Storage temperature	> 86 < 12.1 U - 1.2W/°C d EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 ULS08 EN50178 EN5011 (CISPR11)	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 III 4.24 (certified E356563) (reference) (reference) Class A	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse lecommended external protection IENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating torage temperature lumidity life time expectation Overvoltage category ollution degree rotection Class nput / output isolation afety Standards	> 86 < 12.1 U - 1.2W/°C d EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN5012 (CISPR11) EN55022 (CISPR22)	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 II 4.2k (certified E356563) (reference) (reference) Class A Class A	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse ecommended external protection ENERAL DATA fficiency ³ issipated power Operating temperature ² torage temperature fittime expectation evervoltage category ollution degree rotection Class input / output isolation afety Standards MC Emission	 > 86 < 12.1 U - 1.2W/°C d - 1.2	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 III 2 (certified E356563) (reference) (reference) (class A Class A Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse ecommended external protection ENERAL DATA fficiency ³ issipated power Operating temperature ² torage temperature fittime expectation evervoltage category ollution degree rotection Class input / output isolation afety Standards MC Emission	> 86 < 12.1 U - 1.2W/°C c EN50178 EN50178 EN60064-1 UL508 EN60950 EN50178 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 II 4.2k (certified E356563) (reference) (reference) (lass A Class A Class A Level 3 Level 3 Level 3 Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse lecommended external protection IENERAL DATA fficiency ³ Dissipated power Deparating temperature ² Deparating torage temperature lumidity life time expectation Evervoltage category ollution degree rotection Class Input / output isolation afety Standards MC Emission	> 86 < 12.1 U - 1.2W/°C c EN50178 EN50178 UL508 EN60950 EN50178 EN50178 EN50178 EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II 4.2k (certified E356563) (reference) (reference) (class A Class A Level 3 Level 3 Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse ecommended external protection ENERAL DATA fficiency ³ dissipated power Operating temperature ² derating torage temperature lumidity ife time expectation Overvoltage category ollution degree rotection Class nput / output isolation afety Standards MC Emission MC Immunity	> 86 < 12.1 U - 1.2W/°C d IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51′136h (5.8 years) at III 2 II 4.2k (certified E356563) (reference) (reference) (lass A Class A Class A Level 3 Level 3 Level 3 Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load	
Atternal protection fuse Atternal protection fuse Atternal protection ENERAL DATA Atternal protection ENERAL DATA Atternal protection Atternal pr	> 86 <12.1 U -1.2W/°C c = = = = = = = = = = = = = = = = = = =	Fuse 2AT (not u MCB 6A ommended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II 4.24 (certified E356563) (reference) (reference) Class A Class A Class A Level 3 Level 3 Level 3 Level 3 Level 2	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% <pre></pre>	
Iternal protection fuse ecommended external protection IENERAL DATA fficiency ³ Departing temperature ² Departing temperature ² Departing torage temperature lumidity Ife time expectation Overvoltage category ollution degree rotection Class mput / output isolation afety Standards MC Emission MC Immunity rotection degree Ibration sinuosoidal	> 86 <12.: U -1.2W/°C c IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	Fuse 2AT (not u MCB 6A promended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 595% r.H. n 51'136h (5.8 years) at III 2 II 4.24 (certified E356563) (reference) (reference) (class A Class A Class A Level 3 Level	ser replaceable) .C curve irge arresters (SPD) according to local regulations. 87% 12W + 70°C -12 and up to 55°C for NPSM80-24 + 80°C on condensing 25°C ambient full load + KUC + K	
Atternal protection fuse Atternal protection fuse Atternal protection ENERAL DATA Atternal protection ENERAL DATA Atternal protection Atternal pr	> 86 <12.1 U -1.2W/°C c IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55012 (CISPR22) EN61000-4-2 EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-11 EN61000-4-11 EN60529 IEC 60068-2-6	Fuse 2AT (not u MCB 6A pmmended to provide external summer % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 51'136h (5.8 years) at III 2 ICertified E356563) (reference) Class A Class A Level 3 Level 3 <td>ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load CVdc Hz: 2g 2hours / axis (X,Y,Z) s / direction, 18 bumps total)</td>	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load CVdc Hz: 2g 2hours / axis (X,Y,Z) s / direction, 18 bumps total)	
Atternal protection fuse Atternal protection fuse Atternal protection ENERAL DATA Afficiency ³ Dissipated power Derating temperature ² Derating Atternal protection Derovoltage category Protection Class Atternal content of the second of the	> 86 <12.: U -1.2W/°C c IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	Fuse 2AT (not u MCB 6A pmmended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM8 over 50°C - 40°C. 51'136h (5.8 years) at III 2 ICertified E356563) (reference) Class A Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load CVdc + 20°C + 20°C	
Atternal protection fuse Recommended external protection EXERAL DATA Efficiency ³ Dissipated power Derating temperature ² Derating Extorage temperature Humidity Efficiency Dervoltage category Prollution degree Protection Class Input / output isolation EAC Emission EMC Immunity Protection degree ///Dration sinuosoidal //ock Connection terminals Case material	> 86 <12.: U -1.2W/°C c IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	Fuse 2AT (not u MCB 6A pmmended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 51'136h (5.8 years) at III 2 II 4.2i (certified E356563) (reference) Class A Level 3	ser replaceable) .c curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load 25°C ambient full load 4Vdc 4Vdc Hz: 2g 2hours / axis (X,Y,Z) s / direction, 18 bumps total) header (2412AWG) ardant UL94 V-0	
Iternal protection fuse lecommended external protection IENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating torage temperature lumidity life time expectation Overvoltage category ollution degree rotection Class nput / output isolation afety Standards MC Emission MC Immunity rotection degree libration sinuosoidal hock ionnection terminals	> 86 <12.: U -1.2W/°C c IEN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-3 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	Fuse 2AT (not u MCB 6A pmmended to provide external su % 5W - 40°C. L certified up to 50°C for NPSM80 over 50°C - 40°C. 51'136h (5.8 years) at III 2 II 4.2i (certified E356563) (reference) Class A Level 3	ser replaceable) . C curve irge arresters (SPD) according to local regulations. 87% 212W+ 70°C -12 and up to 55°C for NPSM80-24 - 0.9W/°C over 55°C + 80°C on condensing 25°C ambient full load CVdc + 20°C + 20°C	

Start-up type tested: - 40°C, possible at nominal voltage with load deration.
 For NPSM80-12 measures are performed with output set to 15Vdc.

Notes:

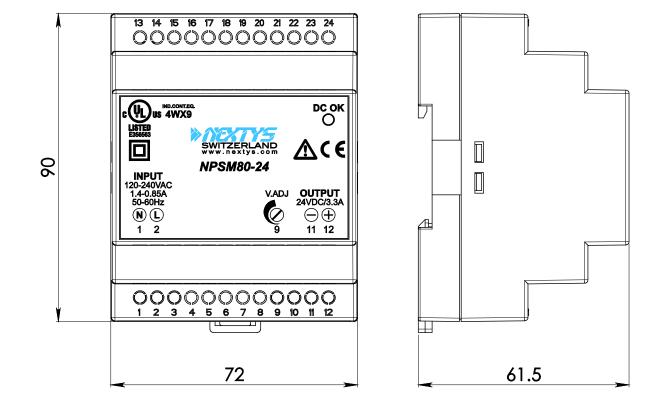
- Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz, at nominal values, after minimum 5 minutes of operation. - Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details. - Data may change without prior notice in order to improve the product.

NPSM80 SERIES

AC/DC PS 80W Din Rail Mount Class II







CONNECTION

