NPSM30 SERIES

AC/DC PS 30W Din Rail Mount









Main Features

-) High efficiency and extremely compact size
- J Ultra-slim Plastic enclosure only 22.5mm
- J Simplified wiring (no PE connection)
- / Overload 130%
-) High operating temperature with no derating

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TECHNICAL DATA Model type	NPSM30S-12	NPSM30S-12D	NPSM30S-24
OUTPUT DATA			
Rated voltage	12Vdc	2x 1215Vdc	24Vdc
dj. output voltage range	1015Vdc	2x 1215Vdc	2228Vdc
Continuous current	1.5A @ 10Vdc 1.0A @ 15Vdc	1.0A	1.2A
Overload limit	2.0A @ 10Vdc 1.3A @ 15Vdc	1.5A @ 12Vdc 1.2A @ 15Vdc	1.5A
hort circuit peak current	7.0A	5.5A	7.5A
oad regulation		≤ 0.5%	
ipple & Noise ¹		≤ 100mVpp	
lold up time			
/in = 120Vac		≥ 5ms	
/in = 240Vac		≥ 25ms	
Protections	 Overload/short circuit: Thermal protection Output overvoltage 	Hiccup mode	
tatus Cignala			
Status Signals	DC OK - green LED		
arallel connection		Possible for redundancy (with external ORing mod	dule)
NPUT DATA			
nput AC rated voltage		Nominal: 120240Vac	
requency		Range: 90264Vac	
		4763Hz	
nput DC rated voltage		110345Vdc	
nput AC rated current			
/in = 120Vac		0.60A	
/in = 240Vac		0.40A	
nput DC rated current			
/in = 110Vdc		0.40A	
/in = 345Vdc		0.15A	
nrush peak current		≤ 55A	
ouch (leakage) current		≤ 0.3mA	
ouch (leakage) current nternal protection fuse		≤ 0.3mA Fuse 2AT (not user replaceable)	
nternal protection fuse		Fuse 2AT (not user replaceable)	
nternal protection fuse Recommended external protection	It is strongly reco		cording to local regulations.
nternal protection fuse Recommended external protection		Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83%	> 87%
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power		Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W	
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Disperating temperature ²	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc > 83% > 83% - 40°C+ 70°C	> 87%
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ³	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc > 83% > 83% < 5.0W - 40°C+ 70°C No Derating	> 87%
nternal protection fuse	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc > 83% > 83% - 40°C+ 70°C	> 87%
nternal protection fuse Recommended external protection ENERAL DATA Ifficiency ³ Dissipated power Operating temperature ² Derating ⁸ Itorage temperature	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc > 83% > 83% < 5.0W - 40°C+ 70°C No Derating	> 87%
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ⁸ Storage temperature Humidity	> 82.5%	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ³ Storage temperature Humidity Life time expectation	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa	> 87% < 4.5W
Anternal protection fuse Recommended external protection ENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating ³ torage temperature Rumidity ife time expectation Overvoltage category	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W	> 87% < 4.5W
Anternal protection fuse Recommended external protection ENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating ³ torage temperature Rumidity ife time expectation Overvoltage category Yollution degree	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ⁸ Storage temperature Humidity Life time expectation Divervoltage category Pollution degree Protection Class	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% > 83% > 83% > 60°C No Derating - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ⁸ Storage temperature Humidity	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% < 5.0W	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Derating temperature ² Derating ³ Storage temperature Humidity Life time expectation Dervoltage category Pollution degree Protection Class nput / output isolation	> 82.5% < 3.1W • EN50178 • IEC60664-1 • CLASS • UL508	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc > 83% > 83% > 83% > 670°C No Derating - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference)	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Operating temperature ² Derating ⁸ Storage temperature Humidity Life time expectation Divervoltage category Pollution degree Protection Class	> 82.5% < 3.1W EN50178 iEC60664-1 CLASS ULS08 EN60950	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc ommended to provide external surge arresters (SPD) acc > 83% > 83% > 63% - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference)	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Derating temperature ² Derating ³ Storage temperature Humidity Life time expectation Dervoltage category Pollution degree Protection Class nput / output isolation	> 82.5% < 3.1W EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc ommended to provide external surge arresters (SPD) acc > 83% > 83% > 63% - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) (reference) (reference)	> 87% < 4.5W
nternal protection fuse Recommended external protection SENERAL DATA Efficiency ³ Dissipated power Derating temperature ² Derating ³ Storage temperature Humidity Life time expectation Dervoltage category Pollution degree Protection Class nput / output isolation	> 82.5% < 3.1W EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN5011 (CISPR11)	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc ommended to provide external surge arresters (SPD) acc > 83% > 83% > 83% > 83% > 83% > 83% > 83% > 83% > 80°C S95% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) (Class B	> 87% < 4.5W
Anternal protection fuse Recommended external protection SENERAL DATA Sefficiency ³ Dissipated power Deparating temperature ² Derating ³ Storage temperature Humidity Sefficiency Seffi	> 82.5% < 3.1W EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22)	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc Ommended to provide external surge arresters (SPD)	> 87% < 4.5W
Atternal protection fuse Recommended external protection ENERAL DATA Ifficiency ³ Dissipated power Operating temperature ² Derating ⁴ torage temperature Humidity Ife time expectation Overvoltage category follution degree Protection Class Input / output isolation afety Standards	> 82.5% < 3.1W EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN5011 (CISPR11) EN55022 (CISPR22) EN61000-4-2	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve ommended to provide external surge arresters (SPD) acc 0 > 83% < 5.0W	> 87% < 4.5W
Anternal protection fuse Recommended external protection ENERAL DATA fficiency ³ Dissipated power Departing temperature ² Departing ³ torage temperature Rumidity ife time expectation Overvoltage category follution degree rrotection Class nput / output isolation afety Standards MC Emission	> 82.5% < 3.1W EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc S 83% A 0°C A 0°C+ 70°C No Derating - 40°C+ 70°C S95% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) Class B Class B Level 3 Level 3	> 87% < 4.5W
Anternal protection fuse Recommended external protection ENERAL DATA fficiency ³ Dissipated power Departing temperature ² Departing ³ torage temperature Rumidity ife time expectation Overvoltage category follution degree rrotection Class nput / output isolation afety Standards MC Emission	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 83% > 600 C No Derating - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) Class B Level 3 Level 3 Level 3 Level 4	> 87% < 4.5W
Atternal protection fuse ecommended external protection ENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating ³ torage temperature lumidity ife time expectation Overvoltage category ollution degree rotection Class nput / output isolation afety Standards MC Emission	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 83% > 670% > 60% > 83% > 60% > 60% > 60% > 60% > 83% > 60% > 60% > 60% > 60% > 60% > 60% > 60% > 60% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70% > 70%	> 87% < 4.5W
Atternal protection fuse lacommended external protection SENERAL DATA fficiency ³ Dissipated power Operating temperature ² Derating ³ torage temperature Humidity ife time expectation Overvoltage category tollution degree fortection Class nput / output isolation afety Standards MC Emission MC Immunity	> 82.5% < 3.1W • EN50178 • IEC60664-1 • CLASS • UL508 • EN60950 • EN50178 • EN50178 • EN55011 (CISPR11) • EN55022 (CISPR22) • EN61000-4-2 • EN61000-4-3 • EN61000-4-3 • EN61000-4-5 • EN61000-4-11	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 83% > 600 C - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) Class B Level 3 Level 3 Level 4 Level 4 Level 4 Level 4 Level 4 Level 2	> 87% < 4.5W
Atternal protection fuse	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve commended to provide external surge arresters (SPD) acc > 83% > 83% < 5.0W	d
Atternal protection fuse lacommended external protection SENERAL DATA fficiency ³ Dissipated power operating temperature ² learning ³ torage temperature lumidity ife time expectation Overvoltage category follution degree rotection Class nput / output isolation afety Standards MC Emission MC Immunity rotection degree fibration sinuosoidal	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 63% > 60% > 60% > 83% > 60% > 60% > 60% > 60% > 83% > 60%	A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Atternal protection fuse accommended external protection ENERAL DATA fficiency ³ dissipated power operating temperature ² verating ³ torage temperature lumidity ife time expectation overvoltage category ollution degree rotection Class nput / output isolation afety Standards MC Emission MC Immunity rotection degree (ibration sinuosoidal hock	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 63% > 60% - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) (reference) Class B Level 3 Level 3 Level 3 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X, (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps	A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Atternal protection fuse Atternal protection fuse Atternal protection ENERAL DATA Afficiency ³ Dissipated power Derating ³ Attorage temperature ² Derating ³ Attorage temperature Atternal protection Derovoltage category Follution degree Frotection Class Anput / output isolation Afficy Standards MC Emission MC Immunity Frotection degree Fibration sinuosoidal Hock	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 63% > 60% > 60% > 83% > 60% > 60% > 60% > 60% > 83% > 60%	A 2 87% < 4.5W d y,Z)
Atternal protection fuse Atternal protection fuse Atternal protection fuse Atternal protection Atternal protec	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve colspan="2">Sa3% > 83% > 83% > 63% > 60% - 40°C+ 70°C No Derating - 40°C+ 80°C 595% r.H. non condensing 121'731h (13.9 years) at 25°C ambient full loa III 4.2kVdc (reference) (reference) (reference) Class B Level 3 Level 3 Level 3 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X, (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps	A 2 87% < 4.5W d y,Z)
Anternal protection fuse Recommended external protection SENERAL DATA Sefficiency ³ Dissipated power Deparating temperature ² Derating ³ Storage temperature Humidity Sefficiency Seffi	> 82.5% < 3.1W	Fuse 2AT (not user replaceable) Fuse 6AT or MCB 6A C curve smmended to provide external surge arresters (SPD) acc Advectment for the symmetry of	A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Start-up type tested: - 40°C, possible at nominal voltage with load deration.
 On NPSM30S-12 measures are performed with output set to 12Vdc, and NPSM30-12D measures are performed with output set to 24Vdc

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.

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SNAPTEC.





