

- High efficiency and extremely compact size
- Only 40mm width aluminum enclosure
- Active PFC
- Overload 150%
- Constant current or hiccup mode limitation, user settable
- Up to 70°C operating temperature with no derating
- Wide range of output voltage
- Easy parallelable for power increase
- Codes ended with "H": include enhanced transient overvoltage protection (> 6kV)
- All models available as version "PH"



**ULTRA  
COMPACT**

For reference only



## TECHNICAL DATA

|  | NPSM241-12 (P, H)  | NPSM241-24 (P, H) | NPSM241-36 (P, H) | NPSM241-48P (H) | NPSM241-72P (H) |
|--|--|-------------------|-------------------|-----------------|-----------------|
| <b>OUTPUT DATA</b>                     |  |                   |                   |                 |                 |
| Rated voltage                          | 12Vdc  | 24Vdc             | 36Vdc             | 48Vdc           | 72Vdc           |
| Adj. output voltage range              | 12...15Vdc   | 22...29Vdc        | 32...40Vdc        | 45...55Vdc      | 70...85Vdc      |
| Continuous current                     | 15A  | 10A               | 7A                | 5A              | 3.3A            |
| Overload limit in constant current     | 17A  | 11A               | 7.5A              | 7A              | 4A              |
| Overload limit in hiccup (max. 5s)     | 20A  | 15A               | 10A               | 8.5A            | 5.5A            |
| Load regulation                        | ≤ 2%   |                   | ≤ 1%              |                 |                 |
| Ripple and noise                       | ≤ 160mVpp  | ≤ 260mVpp         | ≤ 300mVpp         | ≤ 400mVpp       | ≤ 550mVpp       |
| Hold up time                           | ≥ 25ms   | ≥ 20ms            | ≥ 15ms            | ≥ 20ms          | ≥ 15ms          |
| Protections                            | <ul style="list-style-type: none"> <li>• Overload/short circuit: with constant current or hiccup mode (user settable)</li> <li>• Thermal protection</li> <li>• Input undervoltage lockout</li> <li>• Output overvoltage</li> </ul> |                   |                   |                 |                 |
| 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                    | <ul style="list-style-type: none"> <li>• Possible for power or redundancy (with external ORing module)</li> <li>• <b>P</b> (models) - include internal ORing circuit</li> </ul>  |                   |                   |                 |                 |
| <b>INPUT DATA</b>                      |  |                   |                   |                 |                 |
| Input AC rated voltage                 | Nominal: 120...240Vac (range 90...264Vac)  |                   |                   |                 |                 |
| Frequency                              | 47...63Hz  |                   |                   |                 |                 |
| Input DC rated voltage                 | 110...345Vdc   |                   |                   |                 |                 |
| Input AC rated current                 |  |                   |                   |                 |                 |
| Vin = 120Vac                           | 2.4A   |                   | 3.0A              |                 | 2.4A            |
| Vin = 240Vac                           | 1.2A   |                   | 1.5A              |                 | 1.2A            |
| Input DC rated current                 |  |                   |                   |                 |                 |
| Vin = 110Vdc                           | 2.5A   | 2.6A              | 2.5A              |                 | 2.6A            |
| Vin = 345Vdc                           | 1.2A   | 0.9A              | 1.2A              |                 | 0.9A            |
| Power factor correction                | Active / > 0.9   |                   |                   |                 |                 |
| Inrush peak current / I <sup>2</sup> t | ≤ 34A / 0.66A <sup>2</sup> s   |                   |                   |                 |                 |
| Touch (leakage) current                | ≤ 0.6mA  |                   |                   |                 |                 |
| Internal protection fuse               | Fuse 6.3AT (not user replaceable)  |                   |                   |                 |                 |
| Recommended external protection        | Fuse 10AT or MCB 10A C curve / SPD   |                   |                   |                 |                 |
| <b>GENERAL DATA</b>                    |  |                   |                   |                 |                 |
| Efficiency                             | > 90%  |                   | > 93%             |                 | > 93.5%         |
| Dissipated power                       | < 25W  |                   | < 19W             |                 | < 17W           |
| Operating temperature                  | - 40°C...+ 70°C<br>(UL certified up to 70°C)   |                   |                   |                 |                 |
| Derating                               | No Derating  |                   |                   |                 |                 |
| Lifetime expectancy / MTBF             | 221'288h (25.2 years) at 25°C ambient full load / (MIL-HDBK-217F) 600'000h at 25°C ambient full load   |                   |                   |                 |                 |
| Overvoltage category                   | III  |                   |                   |                 |                 |
| Pollution degree                       | 2 (IEC60664-1)   |                   |                   |                 |                 |
| Input / output isolation               | 4.2kVdc  |                   |                   |                 |                 |
| Input / ground isolation               | 2.2kVdc  |                   |                   |                 |                 |
| Output / ground isolation              | 0.75kVdc   |                   |                   |                 |                 |
| Standards & Approvals                  | UL508 (certified, not applicable for "-36", "H" and "PH" models), EN60950 (reference), CE marking  |                   |                   |                 |                 |
| EMC Standards                          | EN61000-3-2, EN61000-6-2, EN61000-6-3  |                   |                   |                 |                 |