

Technical Datasheet

TRETEC 2412 N



J. Schneider
Elektrotechnik



Switch mode power supply

NFPG 1529G02001

(TRETEC 2412 N)

1 Short description

The TRETEC 2412 N is a switch mode power supply of the latest generation, which is characterised by its high efficiency and the resulting minimum power losses. The device also works with power boost function (output 15 A \leq 5 seconds at 60°C). The TRETEC N can be operated in a redundant way. It is possible to connect the device in series (max. 2 units) and in parallel up to 3 units without decoupling module. Due to its modern design it can be operated with a peak current in temperatures up to 45° C without load reduction.

2 Technical Data

| | |
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| Input | |
| Input | 3 x 360 V ... 500 VAC 2 x 380 V ... 500 VAC 500 V ... 700 VDC* |
| Voltage range | 3 x 324 V ... 572 VAC 2 x 340 V ... 572 VAC 450 V ... 745 VDC* |
| *Customer needs to use suitable external protection. DC operation is not included to UL approval | |
| Network | TN-S, TN-C, TT, IT grid (use only in star architecture networks!) |
| Nominal frequency | 50 / 60 Hz \pm 6 % |
| Nominal current | 0,75 A @ 3 x 360 V AC 0,55 A @ 3 x 500 V AC |
| Efficiency | 93,7 % |
| No load power losses | 2 W |
| Recommended pre-fusing max. | Max. 3 x 32 A (T) in house installation |
| Recommended circuit breaker | 3 x 3...32 A characteristics C |
| Output | |
| Voltage | 24 VDC \pm 1% |
| Voltage adjustable | 24-28 VDC / Potentiometer in front plate |
| Residual ripple | < 20 mV eff / rms |
| Output current max. 45°C | 12,0 A |
| Derating at 60°C | 10,0 A |
| at 70°C | 7,0 A |
| Ride-through | > 25 ms |
| "Power Boost" current | 15 A > 5 s without voltage drop |
| Short circuit current | after "Power Boost" follows constant current: 12 A |
| Switching in parallel | 3 devices |
| Switching in series | 2 devices |
| Connection input | |
| Terminal strip | 4 x 6 mm ² with Push-In spring-type terminals |

Document

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J. Schneider Elektrotechnik GmbH

Helmholtzstraße 13, 77652 Offenburg · Postfach 2327, 77613 Offenburg · Werner-von-Siemens-Straße 12, 77656 Offenburg
Tel +49 (0) 781 206 0 · Fax +49 (0) 781 253 18 · info@j-schneider.de · www.j-schneider.de · Amtsgericht Freiburg HRB 470458
Geschäftsführer: Dipl.-Betriebswirtin (BA) Bettina Schneider · Dipl.-Wirt.-Ing. (FH) Rolf Anti · UST-Ident-Nr. DE142532740



Reg.-Nr. 2750

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| Connection output | |
| Terminal strip | 4 x 6 mm ² with Push-In spring-type terminals |
| Alarm contact | |
| Potential-free alarm contact for pre-warning at overload, overheating or short-circuit | 30 V AC/DC 50 mA (ohmic) |
| Over voltage protection | yes |
| Terminal strip | 2 x 2,5 mm ² Push-In spring-type terminals |
| Classification of environmental conditions | class 3K3 according to EN 60721 |
| Relative humidity | 95%, no condensation |
| Environmental temperature | -40 ... +70 °C see Derating |
| Storage temperature | -40 ... +85 °C |
| MTBF according to DIN EN 61709:1999-01, SN 29500, DIN EN ISO 13849-1:2008-12 | > 1.000.000 h |
| Housing | |
| Dimensions | 143 x 64 x 143 mm (H x W x D) |
| Weight | 0,77 kg |
| Protection class | I |
| IP protection | IP 20 |
| Degree of pollution | 2 |
| Fixation | Snap-on mounting on DIN rail |
| Installation direction | vertical |
| Material | Aluminium and stainless steel |

3 Norms and regulations

| |
|------------------------------------|
| EN 61204-3 |
| EN 55011 class B, group 1 |
| EN 61000-3-2 |
| EN 61000-3-3 |
| EN 61000-4-2 ESD |
| EN 61000-4-3 HF-field |
| EN 61000-4-4 Burst |
| EN 61000-4-5 Surge |
| EN 61000-4-6 HF-asymm |
| EN 61000-4-11 |
| IEC 60068-2-6 Test Fc: Vibration |
| IEC 60068-2-27 Test Fa: Shock |
| EN 60204-1 |
| EN 61010-1 |
| EN 61010-2-201 |
| EN 60204-1 |
| SEMI F47 – 0706 |
| EN 60664-1 overvoltage category II |

CE-approval according to EMI standard 2014/30/EU and low voltage standard 2014/35/EU and EU standard 2011/65/EU (RoHS - standard) of the European Parliament and of the European Council from 8th of June 2011 for the limitation of the use of certain dangerous material in electrical and electronic devices (amended version).