

› GN Fast-on Series

Fast-on Solid State Relays

Panel Mount – Single channel

- › 25 A in a classic Hockey Puck package
- › Fast-on terminals for easy installation in applications that control resistive loads
- › Zero Cross Turn-On
- › cRUus, CE and UKCA Recognized



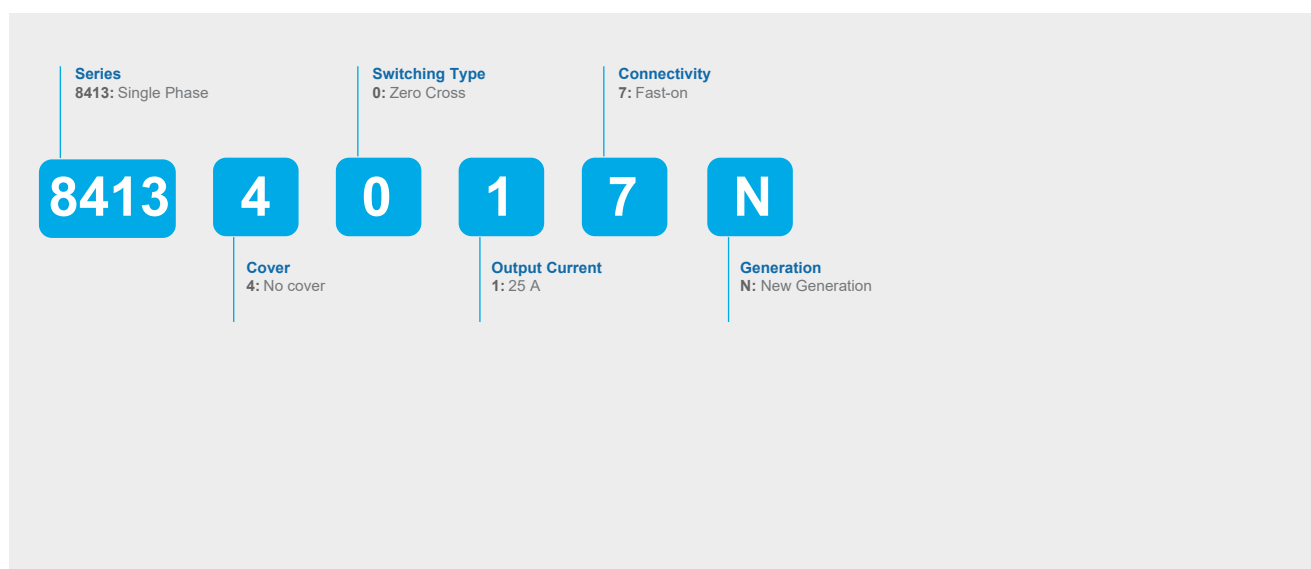
84134017N

Product Selection - Zero Cross (Resistive Loads)

| | |
|--------------------|-----------|
| Rated Load Current | 25 A |
| Output Voltage | 24-280 V~ |
| Control Voltage | |
| 4-30 V= | 84134017N |

Part number system

GN Fast-on



Do you need an adapted or customized solution? Contact us on www.crouzet.com

Description:

Crouzet Solid State Relays are designed to be used in almost any application, offering very long life expectancy and are easy to install, easy to use, robust and multipurpose.

For more information about Crouzet's Solid State relays, please visit www.crouzet.com.

| Accessories | | |
|----------------|--------------------------------------|-------------|
| Type | Description | Part-Number |
| Heatsink | 0.9 °C/W Thermal Resistance | 26532752N |
| Heatsink | 1.1 °C/W Thermal Resistance | 26532753N |
| Heatsink | 1.2 °C/W Thermal Resistance | 26532754N |
| Heatsink | 1.75 °C/W Thermal Resistance | 26532755N |
| Heatsink | 2.2 °C/W Thermal Resistance | 26532756N |
| Adapter | DIN Rail | 26532764N |
| Thermal Pad | Pre-cut Thermal Pad | 26532720N |
| Thermal Pad | Self-Adhesive Thermal Pad | 26532722N |
| Screws | Screw Mounting Kit | 26532001 |
| Thermal Grease | Thermal Grease for Heatsink mounting | 26532003 |

| Output Characteristics ⁽¹⁾ | |
|---|----------------------------|
| Description | 25 A |
| Operating Voltage (40-440 Hz) [Vrms] | 24-280 |
| Maximum Load Current [mArms] ⁽²⁾ | 25 @ 40 °C |
| Minimum Load Current [mArms] | 50 |
| Transient Overvoltage [Vpk] | 600 |
| Maximum Surge Current (50/60 Hz (Typ. @ 50Hz), 1 Cycle) [Apk] | 250/260 (min) 340 (typ) |
| Maximum I ² t for Fusing (50/60 Hz 1/2 cycle) [A ² sec] | 340 (min) 600 (typ) |
| Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] | 500 |
| Maximum Off-State Leakage Current @ Rated Voltage [mArms] | 1 |
| Maximum On-State Voltage Drop @ Rated Current [Vrms] | 1.25 |
| Thermal Resistance Junction to Case (Rjc) [°C/W] | 0.9 |
| Minimum Heatsink for Rated Current @ 40 °C [°C/W] ⁽²⁾ | 1.9 |
| Minimum Power Factor (Maximum Load) | 0.45 (protection required) |

| Input Characteristics ⁽¹⁾ | |
|--------------------------------------|----------------------|
| Description | 4-30 V _{DC} |
| Control Voltage Range | 4-30 V _{DC} |
| Minimum Turn-On Voltage | 4 V _{DC} |
| Must Turn-Off Voltage | 1 V _{DC} |
| Maximum Reverse Voltage | -30 V _{DC} |
| Minimum Input Current [mA] | 4.5 |
| Maximum Input Current [mA] | 50 |
| Nominal Input Impedance [Ω] | 600 |
| Maximum Turn-On Time | ½ Cycle |
| Maximum Turn-Off Time | ½ Cycle |

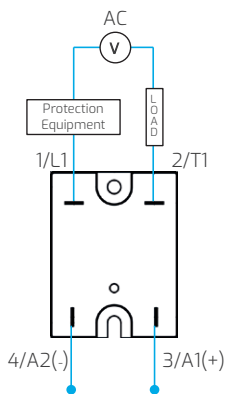
| General Characteristics | |
|---|---|
| Description | 25 A |
| Dielectric Strength (Vrms) | 4000 (Input-Output) 2500 (Output-Case) |
| Minimum Insulation Resistance (@ 500 V $\overline{-}$) | 10 Ω |
| Maximum Capacitance, Input/Output | 0.8 pF |
| Ambient Operating Temperature Range | -40 to 80 °C |
| Ambient Storage Temperature Range | -40 to 100 °C |
| Housing Material | UL94 V-0 |
| Basplate Material | Aluminium |
| Terminals | Fast-on (0.25" / 6.3 mm) |
| Screw Mounting Torque (in-lb/Nm) | 11-16/1.2-1.8 |
| Humidity (IEC60068-2-78) | 85 % non-condensing |
| Input Status Indicator | LED - Green |
| Weight (g) | 90 |
| MTBF (Mean Time Between Failure) @ 40 °C (years) | 83 |

| General Notes |
|---|
| ⁽¹⁾ All parameters at 25 °C unless otherwise |
| ⁽²⁾ Heatsink required, see derating curves |

Diagrams

Wiring

GN Fast-on Serie

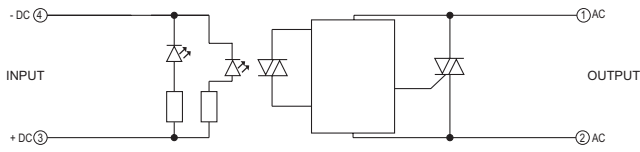


It's recommended to use external overvoltage protection (Varistor / TVS Diode) and short-circuit protection (fuse / circuit breaker), if they are not already integrated

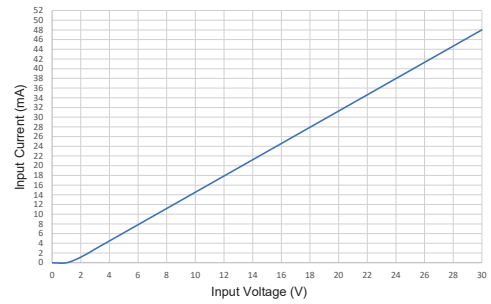
Diagrams

Equivalent Circuit Block

GN Fast-on Series 4-30 V $\overline{\text{---}}$ control Triac - 24-280 V \sim - Zero Cross - 84134017N



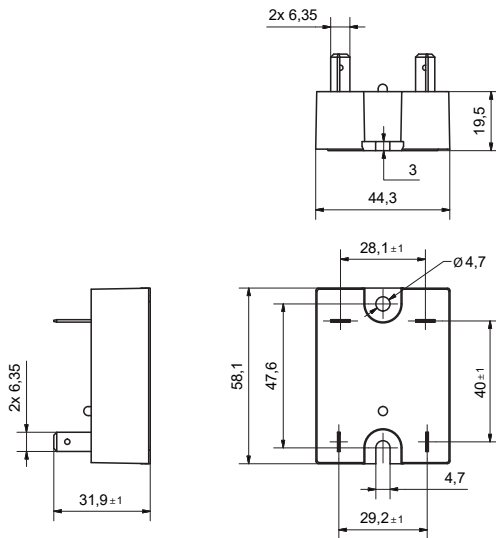
Input current vs Input Voltage
Standard Regulated DC inputs



Diagrams

Dimensions (mm)

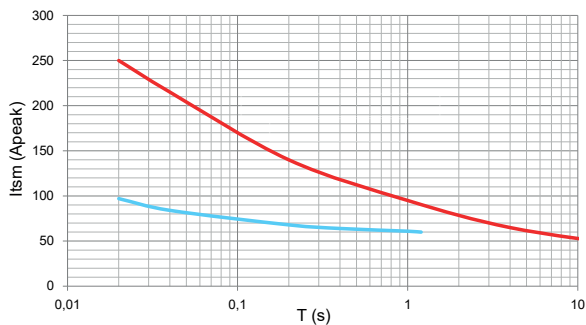
GN Fast-on Serie



Curves

Surge Current Information

GN Fast-on - 25 A

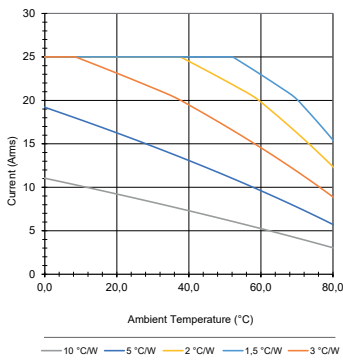


— No Repetitive Surge Current / Tj initial = 25 °C
— Repetitive Surge Current / Tj initial = 121 °C

Curves

Thermal Derating Curves

GN Fast-on - 25 A



Accessories

Heatsink

0.9 °C/W Thermal Resistance - 26532752N



1.1 °C/W Thermal Resistance - 26532753N



1.2 °C/W Thermal Resistance - 26532754N



1.75 °C/W Thermal Resistance - 26532755N



2.2 °C/W Thermal Resistance - 26532756N



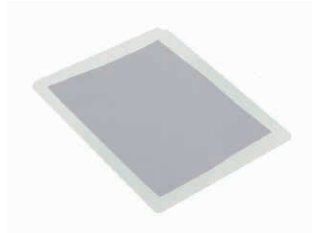
Accessories

Thermal Pad

Pre-cut - 26532720N



Self-Adhesive - 26532722N



Accessories
Others

Screw Mounting Kit - 26532001



Thermal Grease for Heatsink mounting - 26532003



DIN Rail - 26532764N



Standards & Electromagnetic Compatibility Specification

| |
|---|
| Designed in accordance with the requirements of IEC 62314 |
| IEC 60068-2-27: Shock Resistance 15 g /11 ms |
| IEC 60068-2-6: Vibration 0.33 mm / Amplitude over 10-55 Hz |
| IEC 61000-4-2: Electrostatic Discharge immunity test 8kV air discharge Criterion A Level 3 |
| IEC 61000-4-4: Electrical fast transient/burst immunity test 1kV Line to Line Criterion B Level 3 |
| IEC 61000-4-5: Surge immunity test 1kV Line to Line Criterion B Level 3 |

Standards



Warning:

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