› GN2 Series
Classic Solid State Relays
Panel Mount – Dual channel

- 25 and 50 Amps
- 2 independent SSRs in one package
- Fast-on 25 A version available
- Input with Fast-on or 4 pins connector
- Zero-Voltage Turn-On and Instantaneous (Random) Turn-On
- cRUus, CE and UKCA Recognized



Fast-on



Screw Connection (Marking label 26532004 sold separately)

Product Selection - Zero Cross (Resistive Loads)			
Rated Load Current	25 A Fast-on	25 A	50 A
Output Voltage	24-280 V~	24-280 V~	48-660 V~
Control Voltage			
4-32 V⎓	**84140800N**		**84140603N**
10-30 V⎓		**84140013N**	**84140613N**

Product Selection- Instantaneous (Random) (Inductive Loads)	
Rated Load Current	50 A
Output Voltage	24-510 V~
Control Voltage	
10-30 V⎓	**84140631N**

Part number system

Zero Cross Switching Version & Random Switching Version

Phases/Channels
8414: Dual Channel

Control Voltage
0: 4-32 V⎓ | Zero Cross
1: 10-30 V⎓ | Zero Cross
3: 10-30 V⎓ | Instantaneous

Generation
N: New Generation

84140 **0** **1** **0** **N**

Current
0: 25 A
6: 50 A
8: 25 A | Fast-on

Connectivity
0: Fast-on | Zero Cross
1: Screws | Instantaneous
3: Screws | Zero Cross

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**
ID TAG	Marking label 16 x 8 x 1 mm	**26532004**
4-Pin connector	4 pole 90° & 270°	**26532005**
4-Pin connector	4 pole 270°	**26532006**

Output Characteristics (1)				
Description	25 A	50 A		
Operating Voltage (47-440 Hz) [Vrms]	24-280	24-510	48-660	
Switching Type	Zero Cross	Instantaneous	Zero Cross	
Maximum Load Current [Arms] (4)	2 x 25 @ 40 °C	2 x 50 @ 40 °C		
Minimum Load Current [mArms]	5			
Transient Overvoltage [Vpeak]	600 (480)	1200 (950)	1200	
Maximum Surge Current (50/60 Hz (Typ.@ 50 Hz), 1 Cycle) [Apeak]	250/260 (min) 340 (typ)	700/_ (min) 750 (typ)		1100/_ (min) 1200 (typ)
1 second surge current (Apk. Ta=25 °C) 50/60 Hz	95	230		347
Maximum I²t for Fusing (50/60Hz 1/2 cycle) [A² sec]	340 (min) 600 (typ)	2450 (min) 2800 (typ)		6000 (min) 7200 (typ)
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/sec]	500			
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	1			
Maximum On-State Voltage Drop @ Rated Current [Vrms]	1.25	1.38		1.23
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.7	0.3	0.4	0.3
Minimum Heatsink for rated Current @ 40 °C [°C/W] (4)	0.5	37	0.37	0.48
Minimum Power Factor (at Maximum load)	0.8	0.45	0.8	

Input Characteristics (1)		
Description	4-32 V⎓	10-30 V⎓
Control Voltage Range	4-32 V⎓	10-30 V⎓
Minimum Turn-On Voltage	4	10
Must Turn-Off Voltage	1	2
Maximum Reverse Voltage	-32 V⎓	
Minimum Input Current [mA]	10	6
Maximum Input Current [mA]	14	24
Nominal Input Impedance [Ohms]	Current limited	1200
Maximum Turn-On Time	½ Cycle	½ Cycle (2)
Maximum Turn-Off Time	½ Cycle	

General Characteristics

Description	25 A Fast-on	25 A	50 A
Dielectric Strength (Input-Output) (Vrms)	4000		
Dielectric Strength Output Case (Vrms)	2500		4000
Minimum Insulation Resistance (@ 500 V⎓)	$10^9\Omega$		
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		
Terminals	Screw type and connector with screw type Fast-on (0.25" / 6.3 mm for output terminals and 0.19" / 4. 8 mm for control terminals)		
Output Screw Torque (in-lb/Nm)	18-26/2-3		
SSR Mounting Screw Torque (in-lb/Nm)	11-16/1.2-1.8		
Humidity (IEC60068-2-78)	85% non-condensing		85 % non-condensing
Input Status Indicator	LED green		
Weight (g)	80		
MTBF (Mean Time Between Failure) @40 °C (years)	45 (3)		

General Notes

(1) All parameters at 25 °C unless otherwise

(2) For Instantaneous (Random) (84140631N) = <0.1

(3) For 84140800N, MTBF= 35

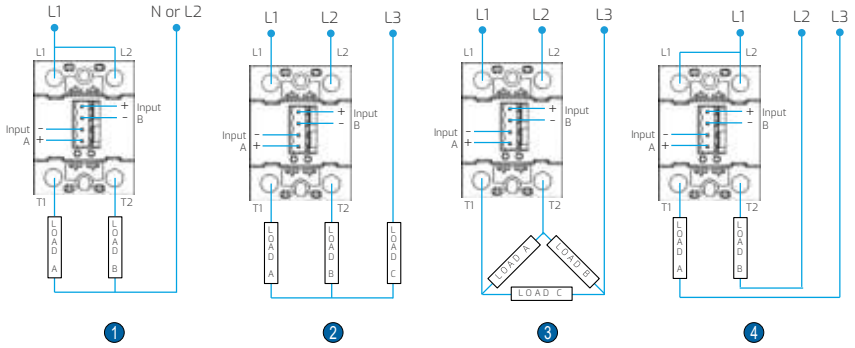
(4) Heatsink required, see derating curves

Diagrams

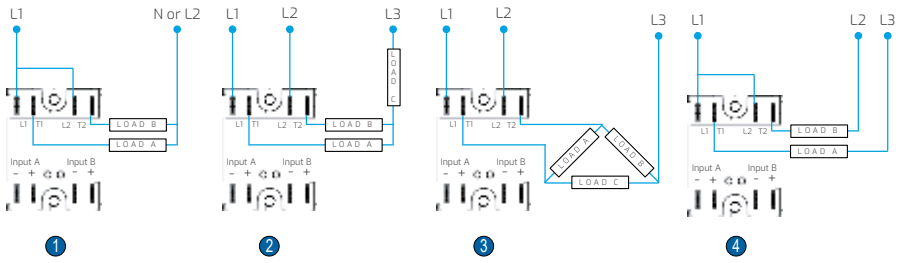
Wiring

GN2 & GN2 Fast-on

GN2



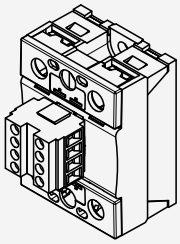
GN2 Fast-on



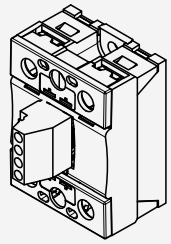
1. *Single-phase wiring*
2. *Star connection (balanced low voltage loads without neutral)*
3. *Delta connection (high voltage loads)*
4. *Open Delta connection (high voltage loads)*

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

Connectors



Part Number 26532005



Part Number 26532006

Flat head screw 0.6 X 3.5mm DIN5264

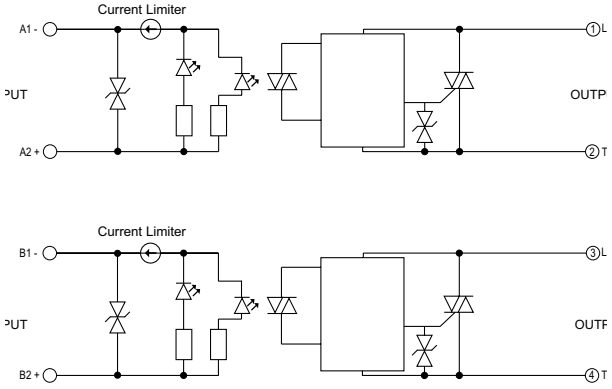
Recommended Wire Size

TERMINALS	WIRE SIZE		Terminal Screw Torque (N.m)
	SOLID	STRANDED	
Input	26..12 AWG (0.2..2.5 mm²)	26..12 AWG (0.2..2.5 mm²)	0.4 - 0.5
Output	8..16 AWG (1.5..10 mm²) 2 x 8..16 AWG (1.5..10 mm²)	10..16 AWG (1.5..6 mm²) 2 x 10..16 AWG (1.5..6 mm²)	2 - 3

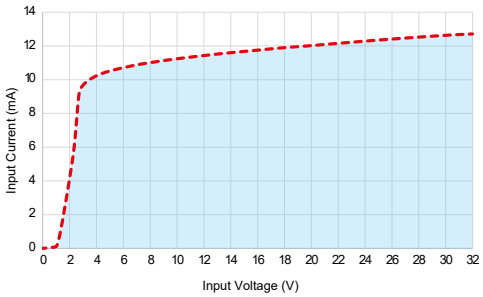
Diagrams

Equivalent Circuit Block

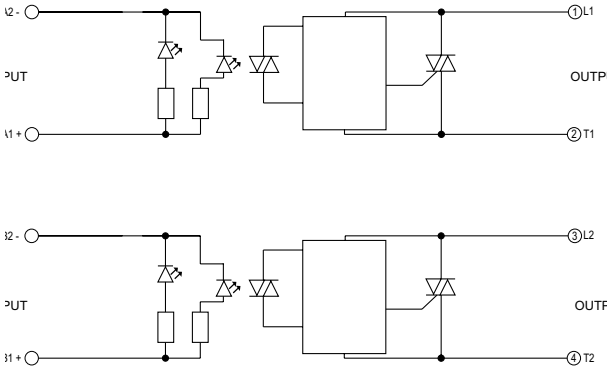
GN2 Series 4-32 V⎓ control Triac - 24-280 V∿ - Zero Cross - 84140800N



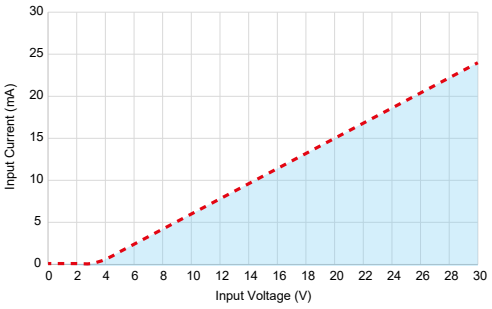
Input current vs Input Voltage
Standard Regulated DC inputs



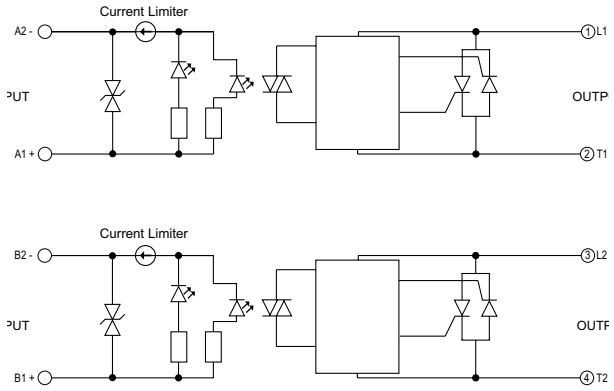
GN2 Series 10-30 V⎓ control Triac - 24-280 V∿ - Zero Cross - 84140013N



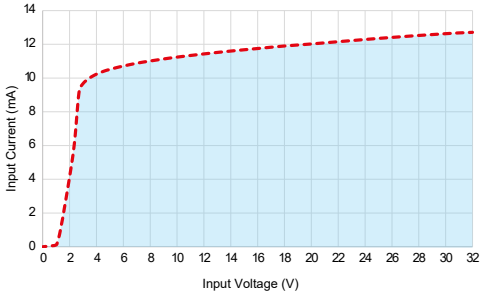
Input current vs Input Voltage
Standard Regulated DC inputs



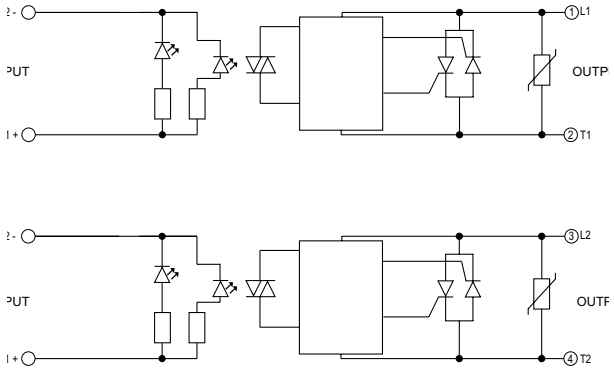
GN2 Series 4-32 V⎓ control Thyristors- 48-660 V∿ -
Zero Cross - 84140603N



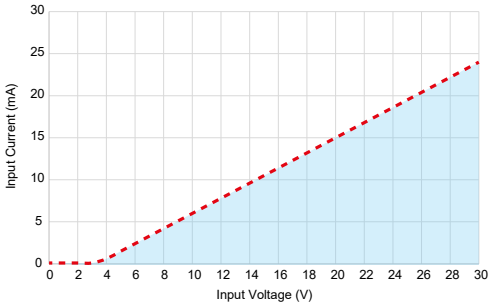
Input current vs Input Voltage
Standard Regulated DC inputs



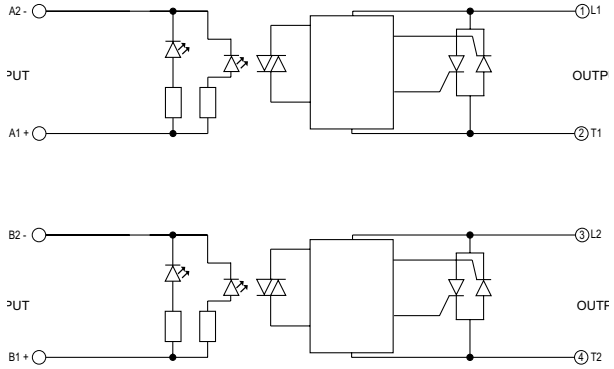
GN2 Series 10-30 V⎓ control Thyristors - 24-510 V∿ -
Instantaneous - 84140631N



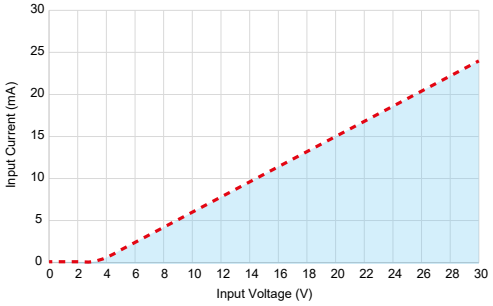
Input current vs Input Voltage
Standard Regulated DC inputs



GN2 Series 10-30 V⎓ control Thyristors - 48-660 V∿ -
Zero Cross - 84140613N



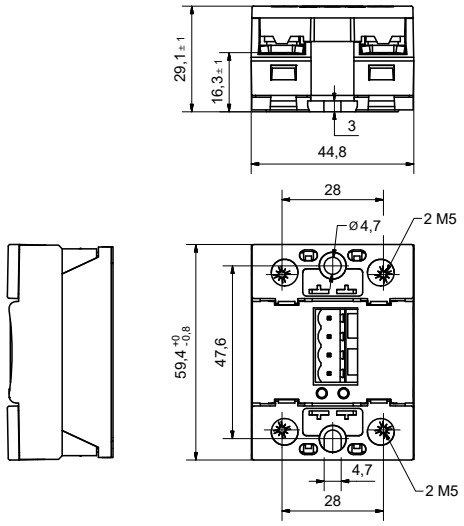
Input current vs Input Voltage
Standard Regulated DC inputs



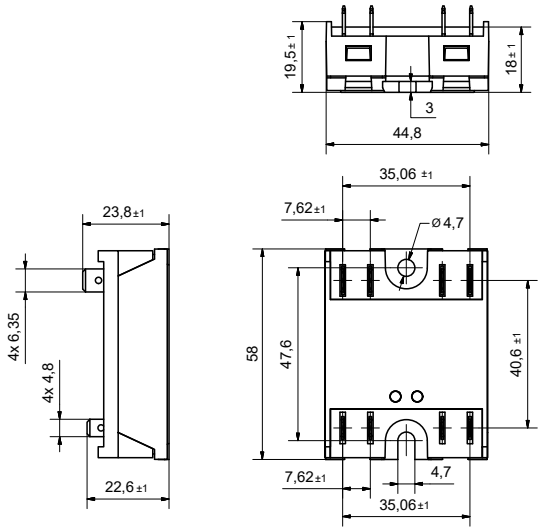
Diagrams

Dimensions (mm)

GN2



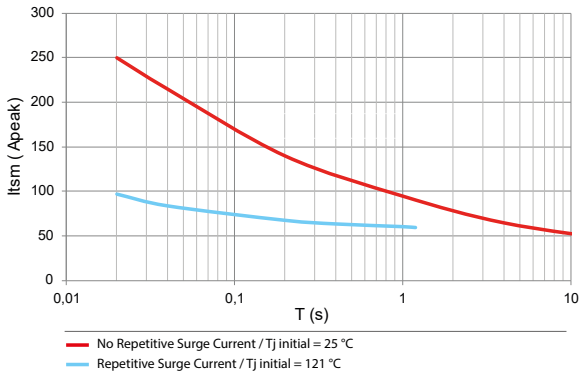
GN2 Fast-on



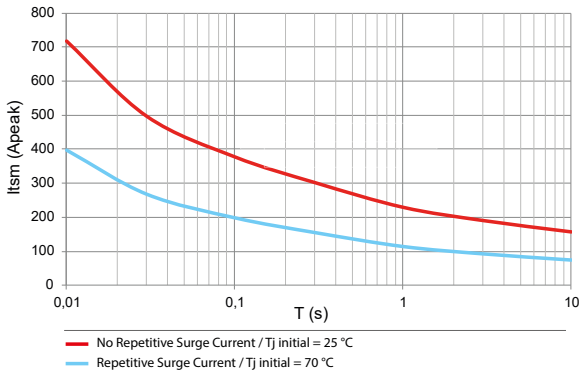
Curves

Surge Current Information

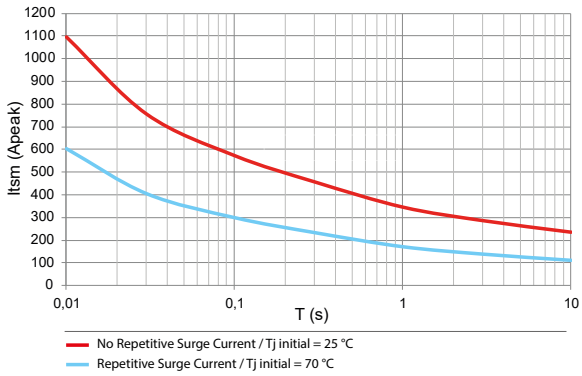
GN2 - 25 A - 84140013N / 84140800N



GN2 - 50 A - 84140603N / 84140631N



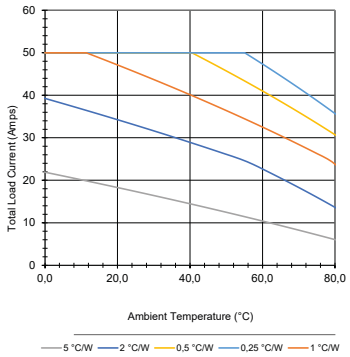
GN2 - 50 A - 84140613N



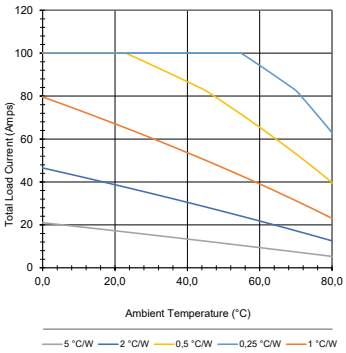
Curves

Thermal Derating Curves

GN2 - 25 A - 84140013N / 84140800N - 25 Amps per channel



GN2 - 50 A - 84140603N / 84140631N / 84140613 - 50 Amps per channel



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



ID TAG - 26532004



Accessories

Others

Screw Mounting Kit - 26532001



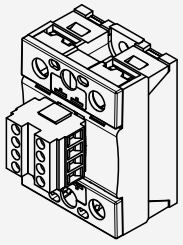
Thermal Grease for Heatsink mounting - 26532003



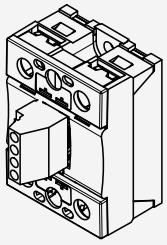
DIN Rail - 26532764N



Connectors



Part Number 26532005



Part Number 26532006

Standards & Electromagnetic Compatibility Specfification
EN60950-1: Meets the requirements of sections 1.5: 1.7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7:
Certified according to EN 62314: 2006
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

c US UL508 CE UK CA

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