

CROUZET - GN+ SERIES SOLID STATE RELAY

Panel Mount - AC Output Single Phase

84138120N
SSR 50A 24-500 VAC Out 4-32 VDC In SZC

- Zero cross switching
- Output current 25 - 125 Amps
- Built-in overvoltage protection
- LED input status indicator



PRODUCT DESCRIPTION

TECHNICAL DATA

OVERVIEW

Output current	50 A
Output voltage	24-500V ac
Control voltage	4-32V dc
Mounting	Panel mount
Type of control	Special zero voltage turn on

OUTPUT SPECIFICATION

Output voltage	24-500V ac
Maximum Load Current	50 A rms
Minimum Load Current	5 mA rms
Transient Voltage	1200 V pk
Maximum off-state leakage current	1 mA rms
1 Second surge current	230 A
Maximum 1 cycle surge current	700/_ (min) 750 (typ)
Maximum on-state voltage drop	1.37V
Thermal resistance junction to case	0.4 °C/W

Maximum 1/2 Cycle I ² t for fusing (A ² sec)	2450/2800
Minimum heat sink for rated current @ 40 °C	0.78 °C/W
Number of poles	1

INPUT SPECIFICATION

Control voltage	4-32V dc
Maximum reverse voltage	-32V dc
Minimum turn-on voltage	3V dc
Must turn-off voltage	2V dc
Input current min	10 mA
Input Current Max	14 mA
Maximum turn-on time (ms)	1/2 cycle
Maximum turn-off time (ms)	1/2 cycle

GENERAL SPECIFICATION

Dielectric strength input to output (50/60Hz)	4000 V rms
Ambient operating temperature	-40 ... +80°C
Ambient storage temperature	-40 ... +100°C
Weight	80 g
Height	59.4 mm
Width	44.5 mm
Depth	29.1 mm
Housing material	UL94 V-0
Material base	Aluminium
LED input status indicator	Green
Approvals	CE, cRUus, VDE

GN+ - 50 A

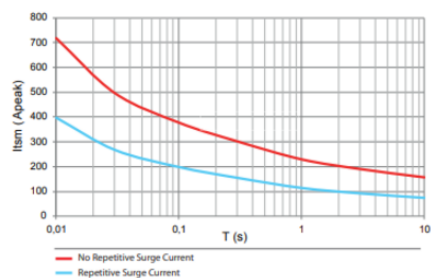
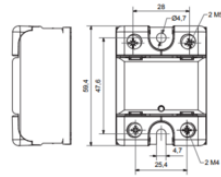


Figure 1 is a line graph showing the relationship between Current (A/mg) on the Y-axis and Ambient Temperature (°C) on the X-axis. The Y-axis ranges from 0 to 55 in increments of 5. The X-axis ranges from 0 to 80 in increments of 10. There are seven data series representing different C*/W ratios: 1.5 (blue), 1 (grey), 0.7 (yellow), 0.9 (light blue), 1.75 (green), and 2.2 (light blue). The current generally decreases as temperature increases for all ratios. The C*/W ratio of 1.5 (blue) shows the highest current, while C*/W of 2.2 (light blue) shows the lowest current. The C*/W ratio of 0.7 (yellow) shows a sharp drop in current after 50°C.

Ambient Temperature (°C)	C*/W = 1.5	C*/W = 1	C*/W = 0.7	C*/W = 0.9	C*/W = 1.75	C*/W = 2.2
0	50	45	40	35	30	25
10	50	45	40	35	30	25
20	50	45	40	35	30	25
30	50	45	40	35	30	25
40	50	45	40	35	30	25
50	50	45	40	35	30	25
60	45	40	35	30	25	20
70	40	35	30	25	20	15
80	35	30	25	20	15	10

Input Voltage (V)	Input Current (mA)
0	0
1	0
2	10
4	10.5
6	11
8	11.2
10	11.5
15	12
20	12.2
25	12.4
30	12.5
32	12.5



The diagram shows a four-terminal device with terminals labeled 1, 2, 3, and 4. Terminals 1 and 2 are at the top, and terminals 3 and 4 are at the bottom. An AC voltage source is connected between terminals 1 and 2. A voltmeter (V) is connected between terminals 3 and 4. The device has a central U-shaped cutout at the top and a central U-shaped protrusion at the bottom.

① *Load*