

Triac AC SSR

T-25-31

- AC solid state relay.
- Zero switching.
- Low-cost triac type.
- 10 A load current.
- Up to 650 V_p non-repetitive voltage.
- Up to 280 V_{RMS} line voltage.
- 2 input ranges: 3-32 VDC, 90-280 VAC/DC.
- Isolation: OPTO (Input-output) 4 KV.

SPECIFICATIONS

Input

	RA 24 10 -D 06 T	RA 24 10 HA 06 T
Control voltage range	3-32 VDC	90-280 VAC/DC
Pick up voltage, max.	3 V	90 VAC/DC
Drop out voltage, min.	1 V	10 VAC/DC
Reverse voltage, max.	32 VDC	
Resp. time pick up, max.	1/2 cycle	1 cycle
Resp. time drop out, max.	1/2 cycle	1 cycle
Input Impedance	1.5 K Ω	45 K Ω

Output

Load current, max.	10 A _{RMS}
Load current, min.	20 mA _{RMS}
Overload current t=1 s, max.	30 A _p
Non-rep. surge current t=20 ms, max.	90 A _p
Off-state leakage curr. @ rated voltage, max.	5 mA _{RMS}
i ² t for fusing t=10 ms, max.	40 A ² s
di/dt, max.	10 A/ μ s
On-state voltage @ rated current, max.	1.6 V _{RMS}
dV/dt Off state, max.	250 V/ μ s
dV/dt Comm., max.	10 V/ μ s
Line voltage range	24-280 VAC
Non-rep. voltage, max.	650 V _p
Zero voltage turn-on, max.	± 20 V
Line frequency range	47-63 Hz
Power factor, min.	< 0.5

Thermal data

Operating temp. range	-40 to +100°C
Storage temp. range	-40 to +100°C
Junction temperature, max.	125°C/W
Thermal resistance junction-ambient, max.	12.5°C/W
Thermal resistance junction-case, max.	2.5°C/W

Cross Reference Chart	
Old Type	New Type
RS 104 240 10-0	RA 24 10 -D 06T
RS 104 240 10-2	RA 24 10 HA 06T

Isolation

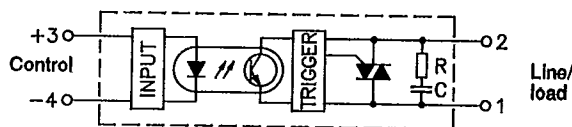
Input-output

Voltage	4000 VAC _{RMS}
Resistance, min.	10 ¹⁰ Ω
Capacitance, max.	8 pF

Output-case

Voltage	2500 VAC _{RMS}
Resistance, min.	10 ¹⁰ Ω
Capacitance, max.	25 pF

WIRING DIAGRAM



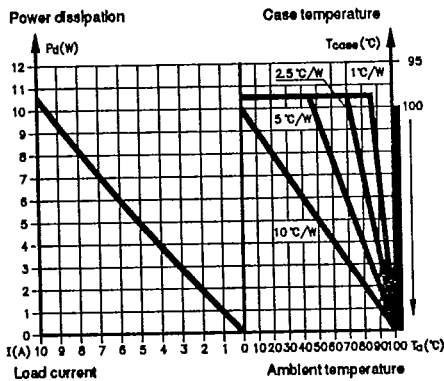
ORDERING KEY

Directly replaces the RS 104 Series.

	Line voltage	Load current	Control voltage	Non-rep. voltage	Output
A: Zero switching	24: 24-280 VAC	10: 10 A	-D: 3-32 VDC HA: 90-280 VAC/DC	06: 650 V _p	T: Triac
R A	24	10	-D HA	06	T

Derating curve

Important: To insure low thermal resistance, thermally conducting paste must be applied between relay and heatsink. A thermal interface of approx. 0.1°C/W between relay and heatsink is included in the graph.

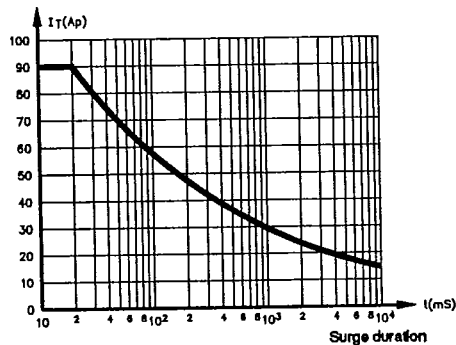


Non-repetitive surge current curve

f=50 Hz

The curve is only applicable in case of faults such as completely or partly short-circuited loads. The curve is not applicable for normal operation.

Peak surge current



MECHANICAL DATA

Housing material/colour	Noryl GFN 1, black
Heatsink	Aluminium
Potting compound	Polyurethane
Mounting screw	M5
Mounting torque, max.	1.5 Nm

