

1-phase Power AC Relay SSRT

- ◆ Zero-cross output operation
- ◆ Double thyristor output switch
- ◆ Up to 400 VAC operating voltage
- ◆ Up to 200 A switching RMS current
- ◆ 4 input ranges
- ◆ 4000 V input/output insulation



The SSRT solid state relay is a zero-cross operating electronic module designed to switch single-phase AC power loads. Thanks to its higher switching frequency and practically complete absence of electromagnetic interference, the SSR module is a non-contact and convenient substitute of power contact relays. The life and reliability of the SSR module, compared to these of the contact relays, are much higher because there are no moving parts, noise, shocks, and vibration during the operation. The SSRT electronic relays can switch active loads up to 200 Arms and inductive loads up to 95 Arms at power voltage up to 400 VAC. The control input is optically isolated from the output and accepts AC or DC voltage signals. An operating LED indicates ON/OFF device status.

Technical specifications

Input

Control voltage	4...36 VDC	6...26 VAC/DC	115 VAC	230 VAC
Input current	5...12 mA	6...12 mA	6 mA	12 mA
Turn-on/off voltage	3 VDC	4 VAC / 5 VDC	90 VAC	180 VAC
Reverse voltage protection	-32 VDC	-32 VDC	-	-

Output

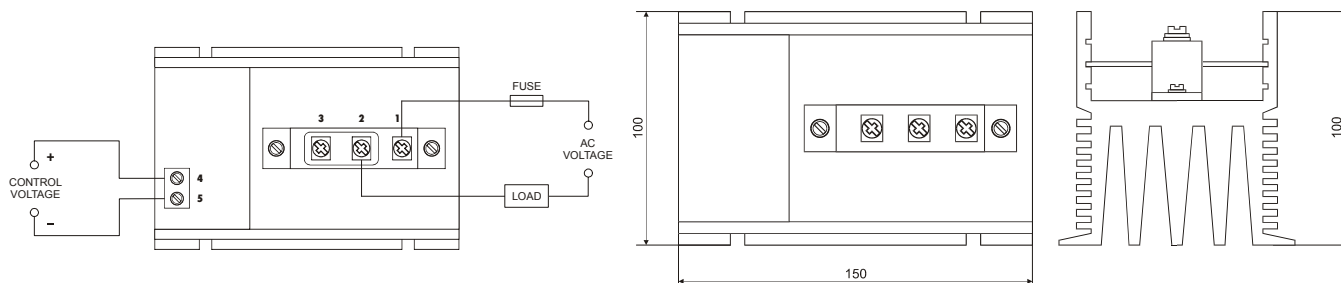
AC switching current at proper heatsink⁽¹⁾	≤ 200 A _{rms}
Minimum holding current	200 mA
Non-rep. surge current at t = 10 ms	1700 A
Maximum leakage current	15 mA
Critical rate of current rise dI/dt	150 A/μs
I²t value for fusing at t = 10 ms	1125 A ² s
On-state voltage at rated current	1.6 V _{rms}
Critical off-state voltage rise dV/dt	500 V/μs
Operational frequency	45...65 Hz
Thermal resistance (junction-case)	0.14 °C/W

General specifications

Operating AC voltage	min. 24...max. 400 VAC _{rms}
Rep. off-state peak voltage	1200 V _p
Non-rep. off-state peak voltage	1300 V _p
Power factor	> 0.5
Operating temperature	-20...65 °C
Storage temperature	-40...85 °C
Standard heatsink	aluminum, 150 mm long
Input/output insulation	4000 VAC _{rms}
Output/case insulation	2500 VAC _{rms}
Protection class	IP00
Input wiring	screw terminals
Output wiring	3 x M5 screws
Mounting	for optimized cooling
Rail mounting	MAC2 rail clamp ⁽²⁾
ON-indicating LED	ø3, red
Weight	max. 350 g (w/ standard heatsink)

⁽¹⁾ We highly recommend using SSR at no more than 80% of maximum on-state current!

⁽²⁾ Ordered separately (see 'Accessories')



Heatsink specifications

Max. RMS current →	Heatsink surface [cm ²] / length [mm] (at 105 °C heatsink temperature)				
Ambient temperature ↓	40 A	60 A	80 A	100 A	120 A
20 °C	430 / 150	1300 / 150	1900 / 180	3800 / 350	5800 / ⁽³⁾
40 °C	720 / 150	2100 / 200	3300 / 310	6500 / ⁽³⁾	10000 / ⁽³⁾
60 °C	1500 / 150	4400 / 410	6900 / ⁽³⁾	13500 / ⁽³⁾	20400 / ⁽³⁾

⁽³⁾ Requires additional forced (fan) cooling!

Ordering code SSRT - G1

Code	Feature or option	Code values
G1	Input	A - 230 VAC, B - 115 VAC, D - 4...36 VDC, E - 6...26 VAC/DC

Applicable accessories

Code	Description
HS__	Heatsink (specify the length [mm] using the table above) w/ or w/o rail-mounting clamp ⁽²⁾