

SIA SERIES SOLID STATE RELAY

SIA-400U010S-1P
SIA-400U015S-1P
SIA-400U025S-1P
SIA-400U040S-1P
SIA-400U050S-1P
SIA-400U075S-1P
SIA-400U090S-1P

Current Control AC Loading S.S.R



Specifications

MODEL SERIES NO.	CONTROL CURRENT	LOADING CURRENT	LOADING VOLTAGE	MIN BLOCKING VOLTAGE	POWER FACTOR	MAX OFF-STATE LEAKAGE CURRENT	OPERATING TEMPERATURE	STORAGE TEMPERATURE
SIA-400U010S-1P	4 - 20 mA or 0-10VDC	10A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U015S-1P	4 - 20 mA or 0-10VDC	15A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U025S-1P	4 - 20 mA or 0-10VDC	25A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U040S-1P	4 - 20 mA or 0-10VDC	40A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U050S-1P	4 - 20 mA or 0-10VDC	50A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U075S-1P	4 - 20 mA or 0-10VDC	75A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C
SIA-400U090S-1P	4 - 20 mA or 0-10VDC	90A	48 ~ 480VAC	1200VAC	> 0.9	> 20mA	0°C ~+70°C	-20°C ~+100°C

MODEL SERIES NO.	PICK-UP CURRENT	DROP-OUT CURRENT	MAX ALLOWABLE CURRENT	DIELECTRIC STRENGTH INPUT-OUTPUT	DIELECTRIC STRENGTH INPUT-OUTPUT-CASE	TURN ON TIME	FREQUENCY RANGE	WEIGHT (g)
SIA-400U010S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U015S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U025S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U040S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U050S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U075S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g
SIA-400U090S-1P	4mA	3.5mA	50mA	4000 VACrms	4000 VACrms	10 msec	47-70HZ	100 g

Output Specifications

MODEL SERIES NO.	OPERATIONAL CURRENT	REP.OVERLOAD CURRENT t=1s	Non-REP. SURGE CURRENT t=10ms	MAX OFF-STATE LEAKAGE CURRENT	t for FUSING t=1-10 ms	CRITICAL di/dt	CRITICAL dV/dt OFF-STATE Min.
SIA-400U010S-1P	150 mA	25AP	120AP	<4mA	60A2S	100A/μs	1000V/μs
SIA-400U015S-1P	150 mA	30AP	168AP	<4mA	180A2S	100A/μs	1000V/μs
SIA-400U025S-1P	150 mA	55AP	300AP	<4mA	400A2S	100A/μs	1000V/μs
SIA-400U040S-1P	150 mA	100AP	420AP	<4mA	1250A2S	100A/μs	1000V/μs
SIA-400U050S-1P	150 mA	125AP	520AP	<4mA	1300A2S	100A/μs	1000V/μs
SIA-400U075S-1P	150 mA	135AP	750AP	<4mA	1800A2S	100A/μs	1000V/μs
SIA-400U090S-1P	150 mA	150AP	1400AP	<4mA	7200A2S	100A/μs	1000V/μs

PARTS NO.

S IA-400 U 010 S-1 P

Switching Type : P = Phase Control

Packing : 1 = Screw Type

Phase : S = Single Phase

Loading Current : 010 = 10A,015 = 15A,025 = 25A,040 = 40A,050 = 50A,075 = 75A,090 = 90A

Control Current : U = 4-20mA or 0-10VDC

Loading Voltage : 400 = 48~480VAC

Control Type : IA = Current Control AC

S = S.S.R

Transfer Characteristics

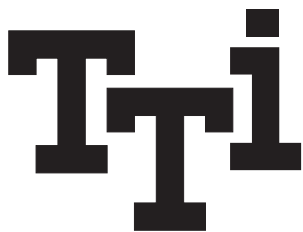
Output power as a function of control input (4 to 20mA)

Input Current(mA)	Power out (%)
4	4
6	13
8	25
10	38
12	50
14	62
16	75
18	87
20	100

Product Description

The analog switching relay works in accordance with the phase angle control principle, i.e. the output switching point in the AC sine wave depends on the control current. 4mA corresponds to no switching and 20mA corresponds to full sine wave (near line-ar power response).

The relay switches off every time the output current crosses zero, and switches ON in accordance with the applied control current



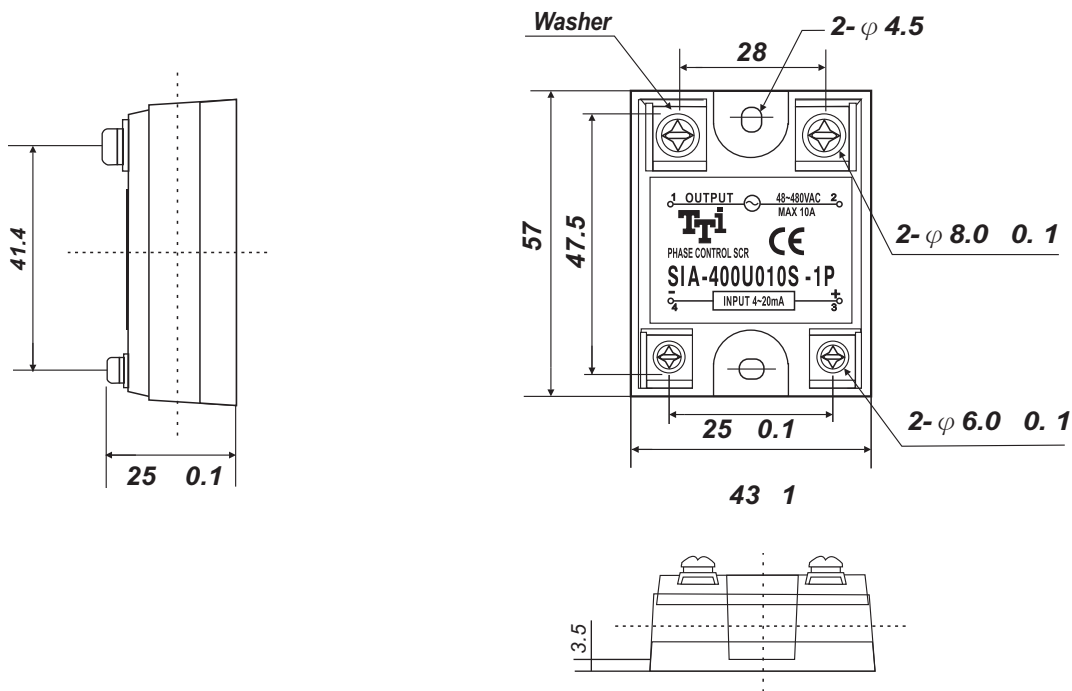
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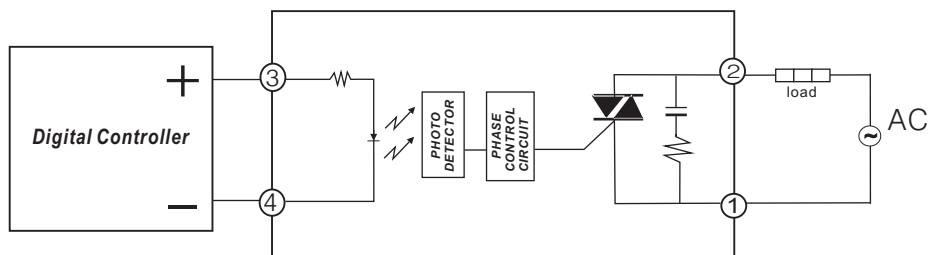
Current Control AC Loading S.S.R



Outline Dimensions(Unit : mm)



Equivalent Circuit



Application

This relay is suitable for control of heaters , lighting and slightly inductive loads such as small fans. The relay can also be used for soft turn-on of high-power incandescent lamps.

