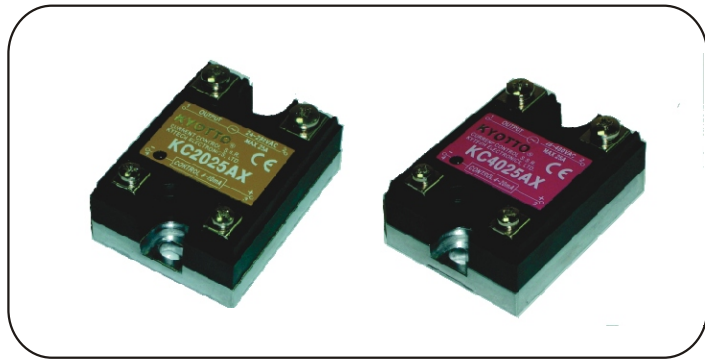


## CURRENT CONTROL S.S.R

<b>KC2010AX</b>	<b>KC4010AX</b>
<b>KC2015AX</b>	<b>KC4015AX</b>
<b>KC2025AX</b>	<b>KC4025AX</b>
<b>KC2040AX</b>	<b>KC4040AX</b>
<b>KC2050AX</b>	<b>KC4050AX</b>
<b>KC2075AX</b>	<b>KC4075AX</b>
<b>KC2090AX</b>	<b>KC4090AX</b>

## KC SERIES



### 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 linear power response). The relay switches off every time the output current crosses zero, and switches ON in accordance with the applied control current

### General Specifications

Switching Mode		Current Control	Max Load Current	Rated Operational Voltage	Non-rep. peak Voltage	Insulation Voltage Input-Output	Insulation Voltage Output-Case
KC2010AX KC2015AX KC2025AX KC2040AX	KC2050AX KC2075AX KC2090AX	4 ~ 20 mA (DC3.8-10V)	10A 50A 15A 75A 25A 90A 40A	24~280VAC	600V <sub>peak</sub>	4000Vrms	2500Vrms
KC4010AX KC4015AX KC4025AX KC4040AX	KC4050AX KC4075AX KC4090AX	4 ~ 20 mA (DC3.8-10V)	10A 50A 15A 75A 25A 90A 40A	48~480VAC	1200V <sub>peak</sub>	4000Vrms	2500Vrms

Switching Mode		Operational Frequency Range	Power Factor	Operating Temperature	Storage Temperature	Junction Temperature	Weight (g)	CE-marking
KC2010AX KC2015AX KC2025AX KC2040AX	KC2050AX KC2075AX KC2090AX	40 to 65 Hz	>0.90	0° to +70°c	-20°c to +100°c	125°c	Approx. 100g	Yes
KC4010AX KC4015AX KC4025AX KC4040AX	KC4050AX KC4075AX KC4090AX	40 to 65 Hz	>0.90	0° to +70°c	-20°c to +100°c	125°c	Approx. 100g	Yes

### Output Specifications

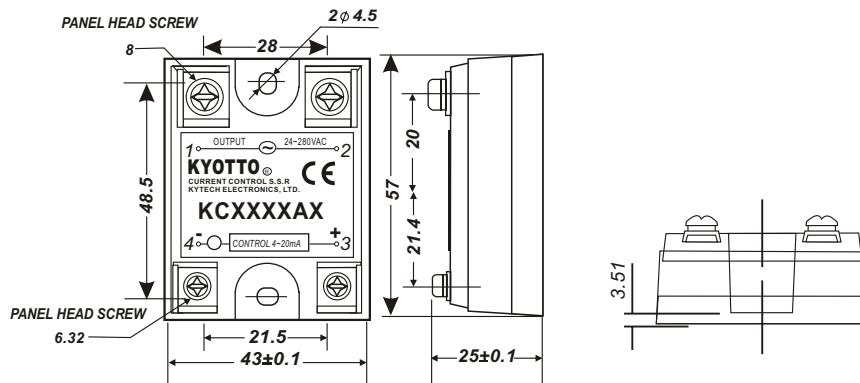
	Mini Operational Current	Rep. overload Current t=1s	Non-rep. Surge Current t=10ms	Off-state leakage Current	I <sup>2</sup> t for fusing t=1-10 ms	Critical dI/dt @50hz	Critical dV/dt off-state min.
10A	150mA	25A <sub>p</sub>	120A <sub>p</sub>	<4mA	60A <sub>2</sub> s	100A/μs	1000V/μs
15A	150mA	30A <sub>p</sub>	168A <sub>p</sub>	<4mA	180A <sub>2</sub> s	100A/μs	1000V/μs
25A	150mA	55A <sub>p</sub>	300A <sub>p</sub>	<4mA	400A <sub>2</sub> s	100A/μs	1000V/μs
40A	150mA	100A <sub>p</sub>	420A <sub>p</sub>	<4mA	1250A <sub>2</sub> s	100A/μs	1000V/μs
50A	150mA	125A <sub>p</sub>	520A <sub>p</sub>	<4mA	1300A <sub>2</sub> s	100A/μs	1000V/μs
75A	150mA	135A <sub>p</sub>	750A <sub>p</sub>	<4mA	1800A <sub>2</sub> s	100A/μs	1000V/μs
90A	150mA	150A <sub>p</sub>	1400A <sub>p</sub>	<4mA	7200A <sub>2</sub> s	100A/μs	1000V/μs

### Input Specifications

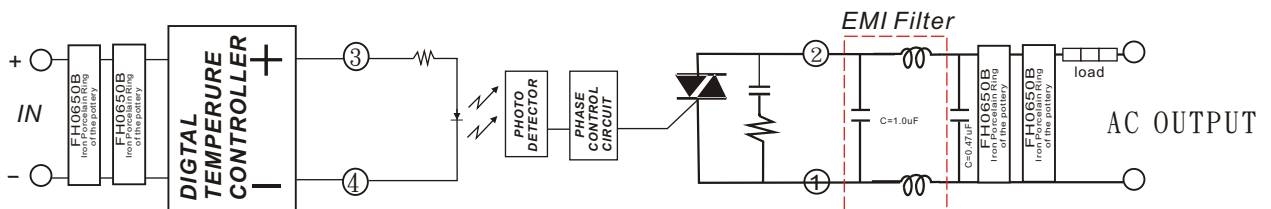
Control current Range	Pick up Current	Drop out Current	Response time (Input - Output)	Off-state leakage Current	Dynamic Impedance	Allowable input Current (max.)	Reverse Polarity Protected
4~20mA	4mA	3.5mA	10ms	>10VDC @20mA	150	50mA	Yes

## OUTLINE DIMENSIONS

(unit:mm)

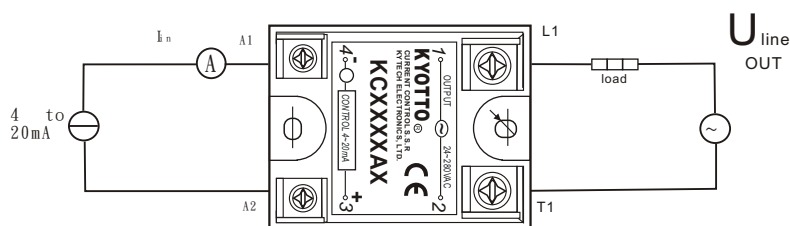


## EQUIVALENT CIRCUIT



## Applications

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.



## Transfer Characteristics

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

I in [mA]	P out [%]
4	4
6	13
8	25
10	38
12	50
14	62
16	75
18	87
20	100

### Attention:

In order to be in compliance with the EMC Directive an additional common mode choke and X2 capacitor at the output is required if the SSR is operated as single component. In case the SSR is incorporated in an appliance the existing EMI Filter may provide the required EMI suppression. The EMI Filter Must be placed as close as possible to the output terminals. See also above.