Economical Three Phase SSR

KMSR Series

Part Number Description

KMSR - ❶ ❷ ❸ ❹

❶	Control Voltage	D : 4 ~ 32VDC	A : 90 ~ 265VAC			
❷	Output Type	T : Three phase				
❸	Load Current	010 : 10A	020 : 20A	025 : 25A	030 : 30A	040 : 40A
		050 : 50A	060 : 60A	100 : 100A		
❹	Load Voltage	2 : 90 ~ 240VAC	4 : 90 ~ 480VAC			

* Please contact us when using FAN.

General Specification

▶ General Ratings

Insulation Resistance	100MΩ/ 500VDC(between Terminal and Case)
Dielectric Strength	2500VAC(50/60Hz 1 minute)
Vibration Resistance	10 ~ 55Hz, amplitude : 1.5mm,x,y,z each axis 2 hours
Shock Resistance	1000 m/s2,x,y,z each axis 3times
Storage Temperature	-30°C ~ 90°C (with no icing or condensing)
Ambient Temperature	-25°C ~ 80°C (with no icing or condensing)
Ambient Humidity	45 ~ 85% R.H (no condensing)
Weight	Approx. 530g

DC Input
AC Output
(90 ~ 240VAC)

Part Number		DT0102	DT0202	DT0252	DT0302	DT0402	DT0502	DT0602	DT1002
Input Ratings	Rated Control Voltage	4 ~ 32VDC							
	Pick-up Voltgae	Min. 3VDC							
	Drop-out Voltgae	Max. 1.5VDC							
	Input Current	Max. 25mA							
Output Ratings	Rated Load Voltage	90 ~ 240VAC							
	Repetitive Blocking Voltage(Minimum)	600V					800V		
	Rated Load Current	10A	20A	25A	30A	40A	50A	60A	100A
	Frequency	47 ~ 63Hz							
	Single cycle Surge Current Resistance	125A	260A	315A			580A		
	Output Leakage Current (Maximum)	10mA							
	Output On Voltage Drop (Maximum)	1.5V							
	Minimum Switching Current	1A							
	Pick-up / Drop-out time	1/2 cycle Max. 1ms							

* Heatsink Recommendations
- We recommend that solid state relay modules be mounted to a heatsink sufficient to maintain the module's base temperature at less 85°C under worst case ambient temperature and load conditions.
- The module should be mounted to the heatsink using two#10 screws.

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General Specification

	Part Number		DT0104	DT0204	DT0254	DT0304	DT0404	DT0504	DT0604	DT1004
DC Input AC Output (90 ~ 480VAC)	Input Ratings	Rated Control Voltage	4 ~ 32VDC							
		Pick-up Voltgae	Min. 3VDC							
		Drop-out Voltgae	Max. 1.5VDC							
		Input Current	Max. 25mA							
	Output Ratings	Rated Load Voltage	90 ~ 480VAC							
		Repetitive Blocking Voltage(Minimum)	800V	1200V						
		Rated Load Current	10A	20A	25A	30A	40A	50A	60A	100A
		Frequency	47 ~ 63Hz							
		Single cycle Surge Current Resistance	170A	250A		350A		580A		
		Output Leakage Current (Maximum)	10mA							
		Output On Voltage Drop (Maximum)	1.5V							
		Minimum Switching Current	1A							
		Pick-up / Drop-out time	1/2 cycle Max. 1ms							

	Part Number		AT0102	AT0202	AT0252	AT0302	AT0402	AT0502	AT0602	AT1002
AC Input AC Output (90 ~ 240VAC)	Input Ratings	Rated Control Voltage	90 ~ 265VAC							
		Pick-up Voltgae	Min. 72VAC							
		Drop-out Voltgae	Max. 60VAC							
		Input Current	Max. 15mA							
	Output Ratings	Rated Load Voltage	90 ~ 240VAC							
		Repetitive Blocking Voltage(Minimum)	600V					800V		
		Rated Load Current	10A	20A	25A	30A	40A	50A	60A	100A
		Frequency	47 ~ 63Hz							
		Single cycle Surge Current Resistance	125A	260A	315A			580A		
		Output Leakage Current (Maximum)	10mA							
		Output On Voltage Drop (Maximum)	1.5V							
		Minimum Switching Current	1A							
		Pick-up / Drop-out time	1/2 cycle Max. 1ms							

General Specification

	Part Number		AT0104	AT0204	AT0254	AT0304	AT0404	AT0504	AT0604	AT1004
AC Input AC Output (90 - 480VAC)	Input Ratings	Rated Control Voltage	90 ~ 265VAC							
		Pick-up Voltgae	Min. 72VAC							
		Drop-out Voltgae	Max. 60VAC							
		Input Current	Max. 15mA							
	Output Ratings	Rated Load Voltage	90 ~ 480VAC							
		Repetitive Blocking Voltage(Minimum)	800V	1200V						
		Rated Load Current	10A	20A	25A	30A	40A	50A	60A	100A
		Frequency	47 ~ 63Hz							
		Single cycle Surge Current Resistance	170A	250A		350A		580A		
		Output Leakage Current (Maximum)	10mA							
		Output On Voltage Drop (Maximum)	1.5V							
		Minimum Switching Current	1A							
		Pick-up / Drop-out time	1/2 cycle Max. 1ms							

Product Selection

Output Voltage Type	Control Voltage	Load Voltage	Load Current	Part Number	Control Voltage	Load Voltage	Load Current	Part Number
Three phase	4 ~ 32VDC	90 ~ 240VAC	10A	KMSR-DT0102	90 ~ 265 VAC	90 ~ 240VAC	10A	KMSR-AT0102
			20A	KMSR-DT0202			20A	KMSR-AT0202
			25A	KMSR-DT0252			25A	KMSR-AT0252
			30A	KMSR-DT0302			30A	KMSR-AT0302
			40A	KMSR-DT0402			40A	KMSR-AT0402
			50A	KMSR-DT0502			50A	KMSR-AT0502
			60A	KMSR-DT0602			60A	KMSR-AT0602
			100A	KMSR-DT1002			100A	KMSR-AT1002
		90 ~ 480VAC	10A	KMSR-DT0104		90 ~ 480VAC	10A	KMSR-AT0104
			20A	KMSR-DT0204			20A	KMSR-AT0204
			25A	KMSR-DT0254			25A	KMSR-AT0254
			30A	KMSR-DT0304			30A	KMSR-AT0304
			40A	KMSR-DT0404			40A	KMSR-AT0404
			50A	KMSR-DT0504			50A	KMSR-AT0504
			60A	KMSR-DT0604			60A	KMSR-AT0604
			100A	KMSR-DT1004			100A	KMSR-AT1004

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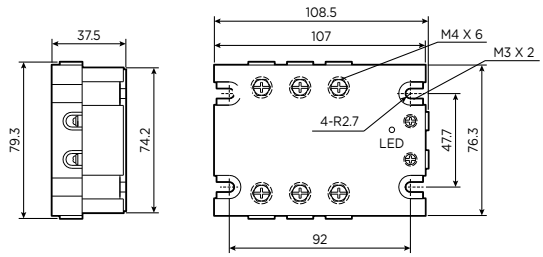
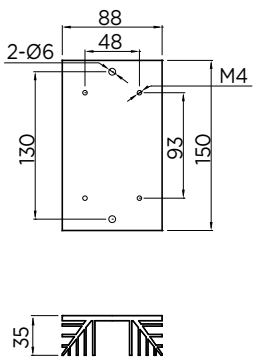
Dimension

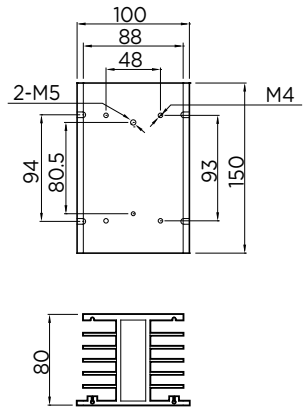
unit : mm



KHS-B025 (10A, 15A, 20A, 25A)



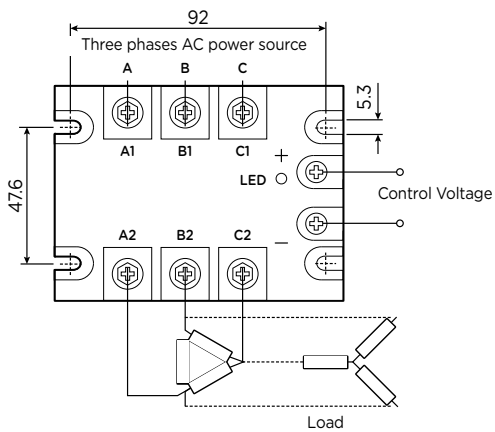
KHS-B040 (30A, 40A)



※ Please contact us when using FAN.

Diagram

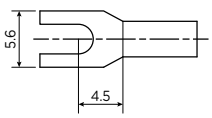
Connecting Diagrams



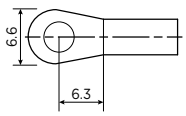
Terminal

unit : mm

Input

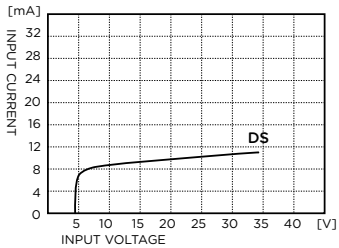


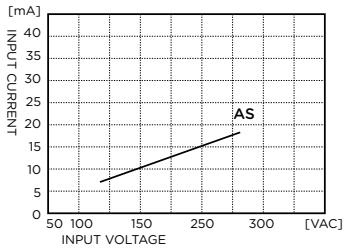
Output



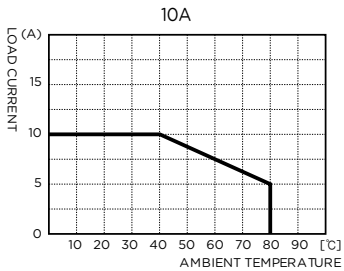
Technical Data

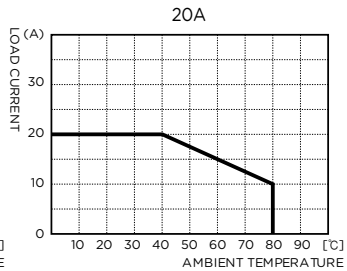
Input Voltage Vs Current

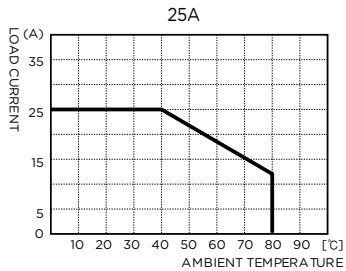


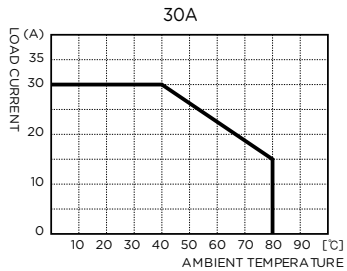


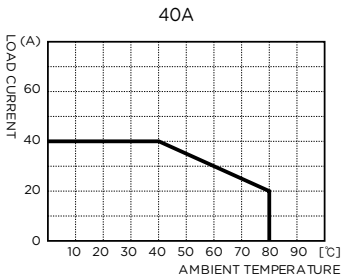
Maximum Allowable Current vs Ambient Temperature

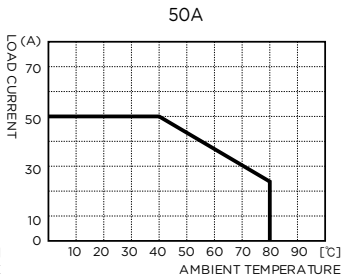


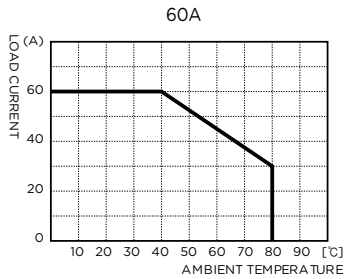


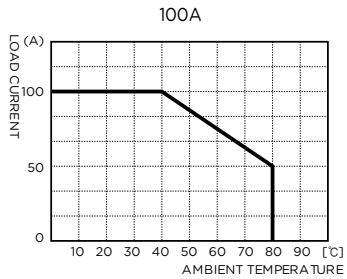






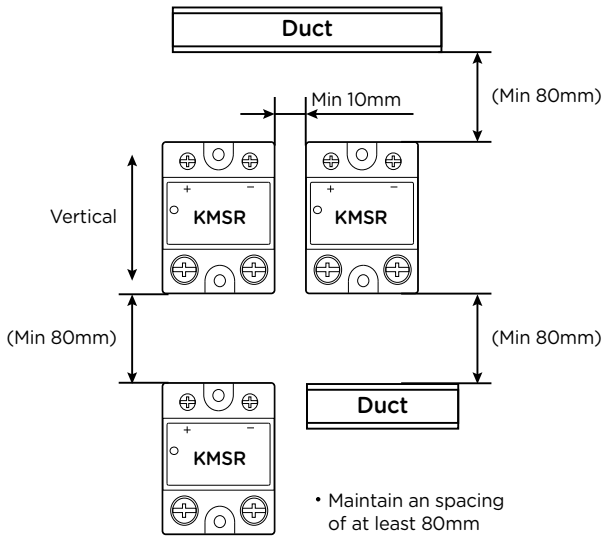




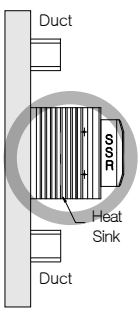


Mounting

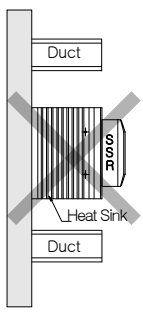
Panel Mounting Method



Panel Mounting according to the height of duct.



Install ducts lower than Heatsink.



If the duct is same or higher than heatsink , SSR needs to have a support metal for AIR ventilation.

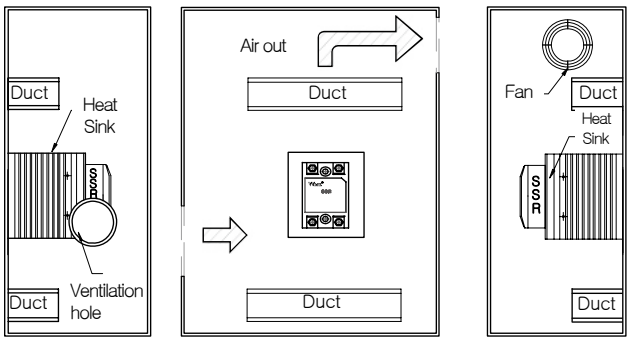
- The heat radiation effect decreases when there is not much room. Limit the load current below the rating.
- Install the device as far as possible from a heating unit, if there is any.
- Allow the longest distance possible between the device and other unit.

Heatsink Installation caution

- If there is no ventilation even when standard heat sink are used, it may cause damage to SSR
- In general, power element of SSR is damaged when the maximum temperature of the 125 °C or higher. Since the power element temperature is close to 125 °C when the temperature of the surface of heat sink is 80 °C or higher, check the temperature of heat sink too during operation
- Remove the foreign material from the mounting surface of the heatsink, and apply silicon grease to the surface.
- The heat radiation effect greatly depends on the mounting condition and silicon grease application.
- Tighten the fixing bolts at the specified torque for fixing the device to the radiator

Caution

< How to control the temperature of KMSR in a panel >



- If filters are installed in a ventilation hole , it needs to have a regular cleaning for proper ventilation.
- The rated current is the value calculated at SSR's ambient temperature of 40°C
- Direct the fan in the lower direction for vertical installation, and in the air inlet direction for horizontal direction.
- If the horizontally mounted device does not have an integrated fan, use it at 50% of the rated current or less.
- Pay attention to the increase in the ambient temperature from the heating of the device. Especially when mounting the device in the panel, be sure to install a fan for sufficient ventilation.
- Remove any obstacles for air flow around the air inlet and outlet.