

# 3 Phase SSR

KSC Series

## Part Number Description

<b>KSC</b>	-	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1</b> Load Voltage	2 : 90 ~ 240VAC (Low Voltage)	5 : 90 ~ 480VAC ((High Voltage)				
<b>2</b> Load Current	015 : 15A	030 : 30A	040 : 40A	050 : 50A	060 : 60A	080 : 80A
<b>3</b> Function	Z : Zero Cross (suitable for resisted load)					
<b>4</b> Control Voltage	D : 24 VDC (4 ~ 32VDC)			A : 220 VAC (90 ~ 240VAC 50/60Hz)		
<b>5</b> Heatsink	No mark : Standard (without Heatsink) Type			H : Heatsink Type		HF : Heatsink + Fan Type

## General Specification

	Load Voltage Range	Control Phase	Model	Function	Rated Control Voltage	Heatsink
Low Voltage	15A 90 ~ 240VAC	3	KSC 2015□□□	Z : zero cross	D : 24VDC	No mark : Standard Type H : Heatsink Type HF : Heatsink + Fan Type
	30A 90 ~ 240VAC	3	KSC 2030□□□			
	40A 90 ~ 240VAC	3	KSC 2040□□□			
	50A 90 ~ 240VAC	3	KSC 2050□□□			
High Voltage	15A 90 ~ 480VAC	3	KSC 5015□□□		A : 220VAC	
	30A 90 ~ 480VAC	3	KSC 5030□□□			
	40A 90 ~ 480VAC	3	KSC 5040□□□			
	50A 90 ~ 480VAC	3	KSC 5050□□□			

### ► Input Ratings (ambient temperature 25°C)

Control Voltage	Control Voltage Range	Control Voltage Levels		Input Current
		Pick-up Voltage	Drop-out Voltage	
24VDC	4 ~ 32VDC	Max. 4VDC	Min. 1.4VDC	30±3mA
220VAC	90 ~ 240VAC	Max. 90VAC	Min. 50VAC	30±5mA

### ► Load Ratings

Item	Type							
	Low Voltage				High Voltage			
Rated Load Current	15A	30A	40A	50A	15A	30A	40A	50A
Rated Load Voltage	220VAC (50/60Hz)				440VAC (50/60Hz)			
Load Voltage Range	90 ~ 240VAC (50/60Hz)				90 ~ 480VAC (50/60Hz)			
Load Current	0.5A ~ rated current (ambient temperature 25°C)							
Peak Voltage	600V				1,200V			
Single Cycle Surge Current Resistance	260	420	420	520	250	370	370	500



## General Specification

### ► General Ratings


Item	Type	
	Low Voltage	High Voltage
Pick-up Time	Cycle of Load ½ + Max. 1ms	
Drop-out Time	Cycle of Load ½ + Max. 1ms	
Output On Voltage Drop	Max. 1.6V (RMS)	Max. 1.8V (RMS)
Leakage Current	Max. 10mA (200VAC)	Max. 20mA (480VAC)
Insulation Resistance	Min. 100MΩ (500VDC)	
Dielectric Strength	3,500VAC, 50/60Hz for 1 minute (Traic:5,000VAC)	
Vibration Resistance	10 ~ 55 ~ 10Hz Peak Amplitude 0.35mm (Durable Amplitude 0.7mm)	
Shock Resistance	294m/s <sup>2</sup>	
Storage Temperature	-30 ~ +100°C (with no icing or condensing)	
Ambient Temperature	-30 ~ +80°C (with no icing or condensing)	
Ambient Humidity	45 ~ 85%RH (no condensing)	

※ Rated load current may vary depending on ambient temperature.

※ For details, refer to "Ambient temperature - Load current characteristic table".

※ Altitude: Altitude 2,000m or less

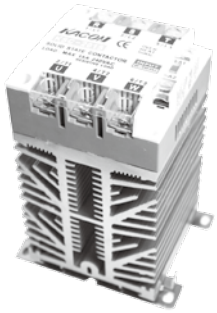
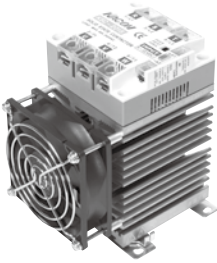
## Product Selection

	Description	Load	Input	Load Current	Output Voltage Type	Part Number	
						90 ~ 240VAC (Low Voltage)	90 ~ 480VAC (High Voltage)
 Standard Type (without Heatsink)	terminal	3.5 - 4.0	2.0 - 3.5	15A	DC	KSC-2015ZD	KSC-5015ZD
	screw	M4.0	M3.5		AC	KSC-2015ZA	KSC-5015ZA
	torque max /N·m	1.2	0.8				
	terminal	3.5 - 4.0	2.0 - 3.5	30A	DC	KSC-2030ZD	KSC-5030ZD
	screw	M4.0	M3.5		AC	KSC-2030ZA	KSC-5030ZA
	torque max /N·m	1.2	0.8				
	terminal	14.0 - 6.0	2.0 - 3.5	40A	DC	KSC-2040ZD	KSC-5040ZD
	screw	M6.0	M3.5		AC	KSC-2040ZA	KSC-5040ZA
	torque max /N·m	2.5	0.8				
terminal	4.0 - 6.0	2.0 - 3.5	50A	DC	KSC-2050ZD	KSC-5050ZD	
screw	M6.0	M3.5		AC	KSC-2050ZA	KSC-5050ZA	
torque max /N·m	2.5	0.8					
terminal	4.0 - 6.0	2.0 - 3.5	60A	DC	KSC-2060ZD	KSC-5060ZD	
screw	M6.0	M3.5		AC	KSC-2060ZA	KSC-5060ZA	
torque max /N·m	2.5	0.8					
terminal	4.0 - 6.0	2.0 - 3.5	80A	DC	KSC-2080ZD	KSC-5080ZD	
screw	M6.0	M3.5		AC	KSC-2080ZA	KSC-5080ZA	
torque max /N·m	2.5	0.8					

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### Product Selection

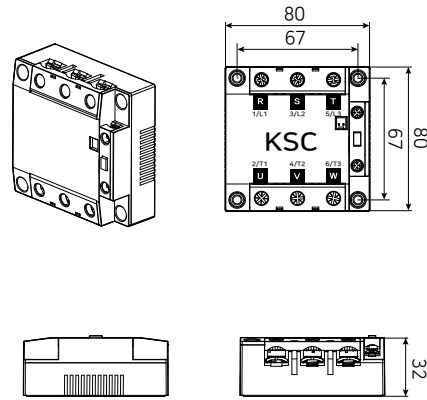
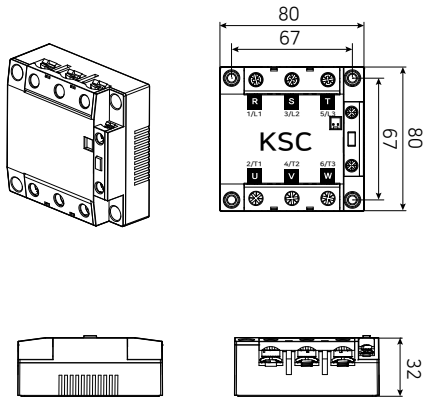
	Description	Load	Input	Load Current	Output Voltage Type	Part Number				
						90 ~ 240VAC (Low Voltage)	90 ~ 480VAC (High Voltage)			
	Heatsink Type	terminal	3.5 - 4.0	2.0 - 3.5	15A	DC	KSC-2015ZDH	KSC-5015ZDH		
		screw	M4.0	M3.5			AC	KSC-2015ZAH	KSC-5015ZAH	
		torque max /N·m	1.2	0.8						
			terminal	3.5 - 4.0	2.0 - 3.5	30A	DC	KSC-2030ZDH	KSC-5030ZDH	
			screw	M4.0	M3.5			AC	KSC-2030ZAH	KSC-5030ZAH
			torque max /N·m	1.2	0.8					
			terminal	14.0 -	2.0 - 3.5	40A	DC	KSC-2040ZDH	KSC-5040ZDH	
			screw	6.0	M3.5			AC	KSC-2040ZAH	KSC-5040ZAH
			torque max /N·m	M6.0	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	50A	DC	KSC-2050ZDH	KSC-5050ZDH	
			screw	M6.0	M3.5			AC	KSC-2050ZAH	KSC-5050ZAH
			torque max /N·m	2.5	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	60A	DC	KSC-2060ZDH	KSC-5060ZDH	
			screw	M6.0	M3.5			AC	KSC-2060ZAH	KSC-5060ZAH
			torque max /N·m	2.5	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	80A	DC	KSC-2080ZDH	KSC-5080ZDH	
			screw	M6.0	M3.5			AC	KSC-2080ZAH	KSC-5080ZAH
			torque max /N·m	2.5	0.8					
	Heatsink + Fan Type	terminal	3.5 - 4.0	2.0 - 3.5	15A	DC	KSC-2015ZDHF	KSC-5015ZDHF		
		screw	M4.0	M3.5			AC	KSC-2015ZAHF	KSC-5015ZAHF	
		torque max /N·m	1.2	0.8						
			terminal	3.5 - 4.0	2.0 - 3.5	30A	DC	KSC-2030ZDHF	KSC-5030ZDHF	
			screw	M4.0	M3.5			AC	KSC-2030ZAHF	KSC-5030ZAHF
			torque max /N·m	1.2	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	40A	DC	KSC-2040ZDHF	KSC-5040ZDHF	
			screw	M6.0	M3.5			AC	KSC-2040ZAHF	KSC-5040ZAHF
			torque max /N·m	2.5	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	50A	DC	KSC-2050ZDHF	KSC-5050ZDHF	
			screw	M6.0	M3.5			AC	KSC-2050ZAHF	KSC-5050ZAHF
			torque max /N·m	2.5	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	60A	DC	KSC-2060ZDHF	KSC-5060ZDHF	
			screw	M6.0	M3.5			AC	KSC-2060ZAHF	KSC-5060ZAHF
			torque max /N·m	2.5	0.8					
			terminal	4.0 - 6.0	2.0 - 3.5	80A	DC	KSC-2080ZDHF	KSC-5080ZDHF	
			screw	M6.0	M3.5			AC	KSC-2080ZAHF	KSC-5080ZAHF
			torque max /N·m	2.5	0.8					

Dimension

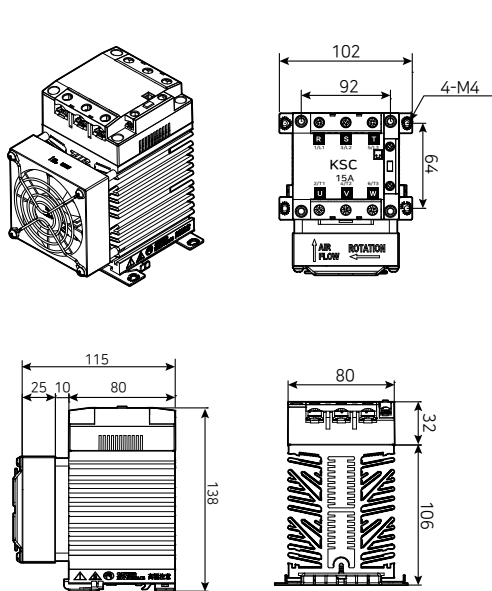
unit : mm

Standard Type (without Heatsink) 15 / 30A

Standard Type (without Heatsink) 40 / 50 / 60 / 80A

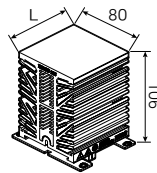


Heatsink + Fan Type 15A

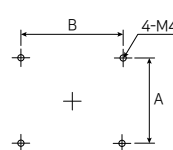


※ Basic Heatsink : KHS-080-080

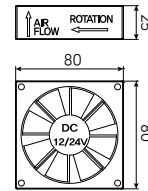
extended heatsink  
KHS 080 - 100 / 120



extended surface  
panel cut-out



FAN - 80



Rated Voltage : DC12V·DC24V (PA6)  
AC110V·AC220V 50/60Hz  
(AL alloy)

	L	A	B
KHS 080 -	100	64	92
	120		

• Install the extended heatsink KHS 080-100/120 and fan-80 depending on installation conditions (convection and ventilation in the panel) and opening/closing frequency or 'ON' duration.

When the AIR BLOW FAN is installed :

- ▶ Improvement of reduced load capacity due to horizontal installation. 50%↓ ⇔ 80 ~ 100% of rating (At the ambient temperature of 40°C or less)
- ▶ Maximized heat radiation efficiency/doubled device life/safety ensured

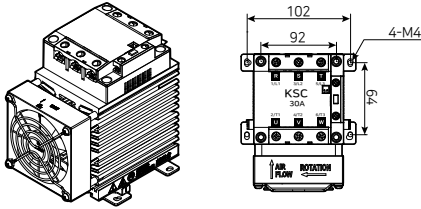
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KSC Series

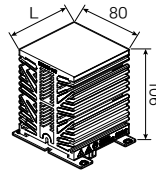
## Dimension

unit : mm

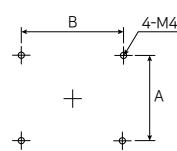
### Heatsink Type 30A



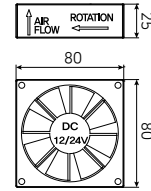
extended heatsink  
KHS 080 - 120



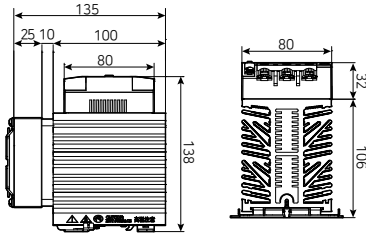
extended surface  
panel cut-out



FAN - 80



Rated Voltage : DC12V·DC24V (PA6)  
AC110V·AC220V 50/60Hz  
(AL alloy)



※ Basic Heatsink : KHS-080-100

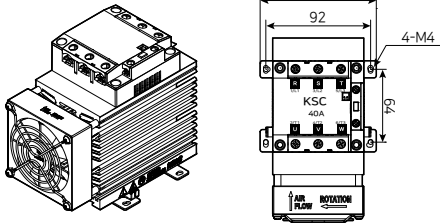
	L	A	B
KHS 080 -	120	64	92

- Install the extended heatsink KHS 080-120 and fan-80 depending on installation conditions (convection and ventilation in the panel) and opening/closing frequency or 'ON' duration.

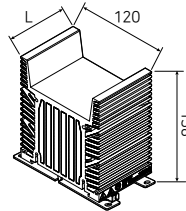
#### When the AIR BLOW FAN is installed :

- ▶ Improvement of reduced load capacity due to horizontal installation. 50%↓ ⇒ 80 ~ 100% of rating (At the ambient temperature of 40°C or less)
- ▶ Maximized heat radiation efficiency/doubled device life/safety ensured

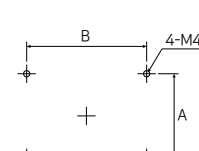
### Heatsink + Fan Type 40A



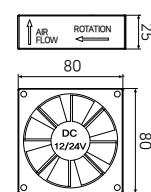
extended heatsink  
KHS 120 - 80 /100 / 120



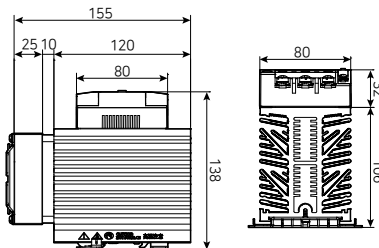
extended surface  
panel cut-out



FAN - 80



Rated Voltage : DC12V·DC24V (PA6)  
AC110V·AC220V 50/60Hz  
(AL alloy)



※ for ZDH : KHS-080-100  
※ for ZDH : KHS-080-120

	L	A	B
KHS 120 -	80 100 120	64	134

- Install the extended heatsink KHS 120-80/100/120 and fan-80 depending on installation conditions (convection and ventilation in the panel) and opening/closing frequency or 'ON'duration.

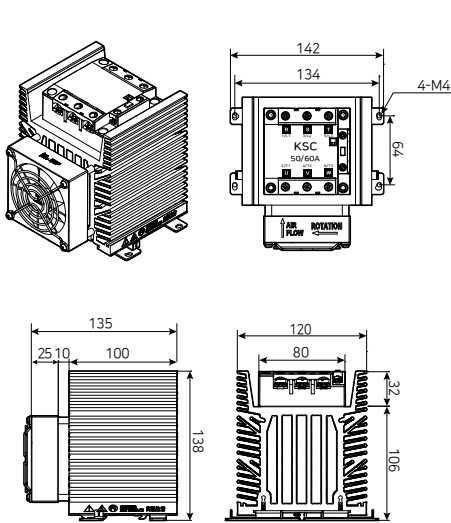
#### When the AIR BLOW FAN is installed :

- ▶ Improvement of reduced load capacity due to horizontal installation. 50%↓ ⇒ 80 ~ 100% of rating (At the ambient temperature of 40°C or less)
- ▶ Maximized heat radiation efficiency/doubled device life/safety ensured

Dimension

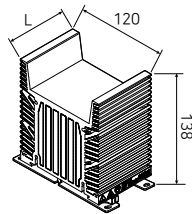
unit : mm

Heatsink + Fan Type 50 / 60A

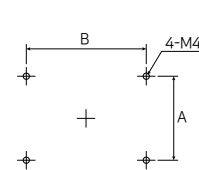


※ Basic Heatsink : KHS-120-100

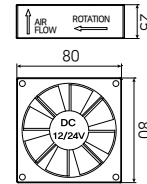
extended heatsink  
KHS 120 - 120



extended surface  
panel cut-out



FAN - 80



Rated Voltage : DC12V·DC24V (PA6)  
AC110V·AC220V 50/60Hz  
(AL alloy)

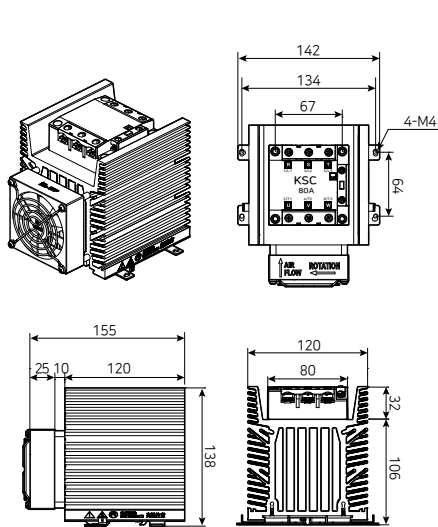
	L	A	B
KHS 120 -	120	64	134

- Install the extended heatsink KHS 120-120 and fan-80 depending on installation conditions (convection and ventilation in the panel) and opening/closing frequency or 'ON' duration.

When the AIR BLOW FAN is installed :

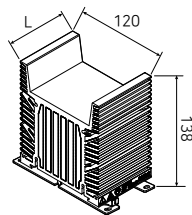
- ▶ Improvement of reduced load capacity due to horizontal installation. 50%↓ ⇨ 80 ~ 100% of rating (At the ambient temperature of 40°C or less)
- ▶ Maximized heat radiation efficiency/doubled device life/safety ensured

Heatsink + Fan Type 80A

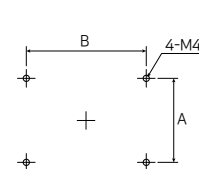


※ Basic Heatsink : KHS-120-120

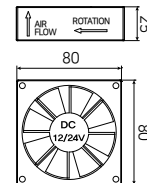
extended heatsink  
KHS 120 - 130



extended surface  
panel cut-out



FAN - 80



Rated Voltage : DC12V·DC24V (PA6)  
AC110V·AC220V 50/60Hz  
(AL alloy)

	L	A	B
KHS 120 -	130	64	134

- Install the extended heatsink KHS 120-120 and fan-80 depending on installation conditions (convection and ventilation in the panel) and opening/closing frequency or 'ON' duration.

When the AIR BLOW FAN is installed :

- ▶ Improvement of reduced load capacity due to horizontal installation. 50%↓ ⇨ 80 ~ 100% of rating (At the ambient temperature of 40°C or less)
- ▶ Maximized heat radiation efficiency/doubled device life/safety ensured