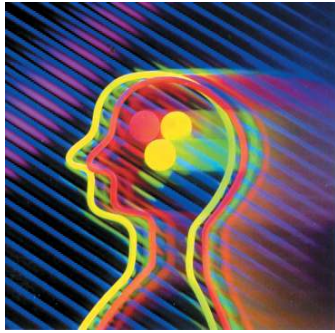




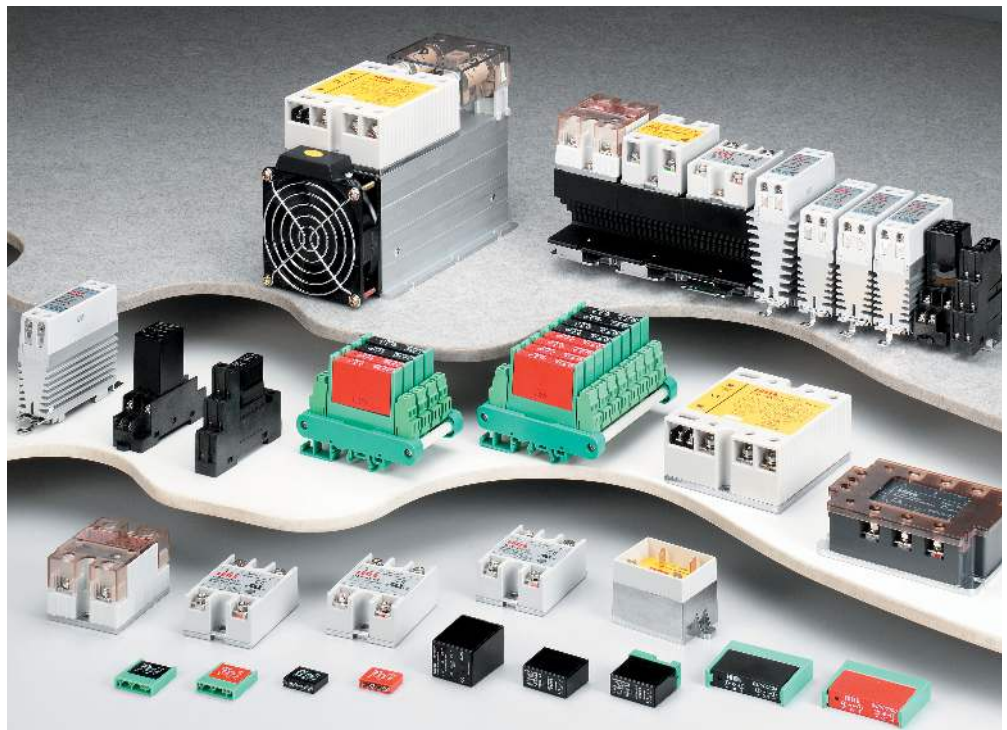
Think Controls

FOTEK

Solid State Module

§ SSR series
§ HPR series
§ ESR series
§ TSR series
§ EZR series
§ ESR+ series

§ SSR-F series
§ SSR-K series
§ SSR-R series
§ SSR-Y series
§ SSR-P series
§ SSR-M series



陽明電機股份有限公司
FOTEK CONTROLS CO., LTD.

- * High Dielectric strength over 4KV
- * High Isolation strength over 100MΩ/500VDC
- * With over heat protection Circuit (120℃)
- * High surge current sustenance
- * High surge voltage sustenance
- * Conformity with EN60947-4-3 and EN60950

- * 高電介強度超過4KV
- * 高絕緣強度超過100MΩ/500VDC
- * 附過熱保護回路可防止過熱破壞
- * 耐瞬間電流超過額定電流10倍以上
- * 附雙重突波吸收回路有效防止突波破壞
- * 符合EN60947-4-3 and EN60950標準

■ Guiding of model / 型號索引

Terminal type / 端子式

Ex: **SSR – 40 D A – H – R**

1 2 3 4 5 6

1> Product / 產品

- 「SSR」= Single phase solid state module
- 「HPR」= High power solid state module
- 「TSR」= Three phases solid state module
- 「ESR」= Three phases High power solid state module
- 「EZR」= Plug type solid state module

2> Output current / 輸出電流

- 「10」= 10A 「25」= 25A 「40」= 40A
- 「50」= 50A 「60」= 60A 「80」= 80A

3> Input method / 輸入方式

- 「D」= 4 ~ 32VDC
- 「A」= 80 ~ 250VAC
- 「L」= 4 ~ 20mA
- 「V」= Variable resistor

4> Output voltage / 輸出電壓

- 「A」= AC voltage
- 「D」= DC voltage

5> Output voltage range / 輸出電壓範圍

- 「H」= High voltage type
- 「Non」= Standard type

6> Control method / 控制方式

- 「R」= Random control
- 「Non」= Zero cross control

PCB or Fuse type / 基板或保險絲型

Ex: **SSR – P 03 D A – H**

1 2 3 4 5 6

1> Product / 產品

- 「SSR」= Single phase solid state module
- 「SCR」= Single phase linear solid state module

2> Mounting method or Others

- 「P」= PCB type
- 「M」= Mini PCB type
- 「Y」= Relay type
- 「R」= Relay type
- 「K」= Heat-sink type
- 「F」= Fuse type

3> Output current / 輸出電流

- 「03」= 3A 「10」= 10A
- 「25」= 25A 「40」= 40A

4> Input method / 輸入方式

- 「D」= 4 ~ 32VDC
- 「A」= 80 ~ 250VAC
- 「L」= 4 ~ 20mA

5> Output voltage / 輸出電壓

- 「A」= AC voltage
- 「D」= DC voltage

6> Output voltage range / 輸出電壓範圍

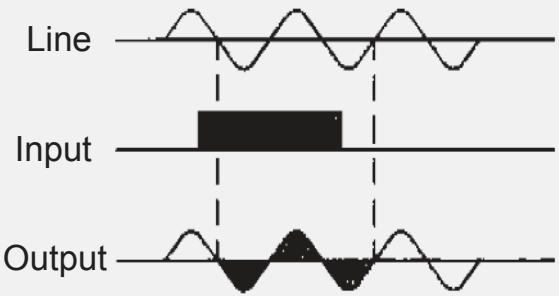
- 「H」= High voltage type
- 「Non」= Standard type

Control method / 控制方式

Zero cross trigger method

Output will be turned ON or Turned OFF only on the Zero point of sine wave, that may avoid to occur the EMI or RFI. Specially suited to control the resistive, capacitive and non-saturated inductive load.

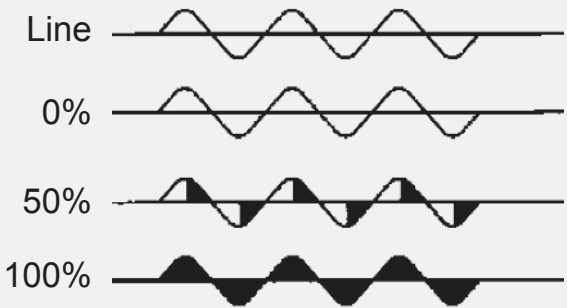
輸出只有在正弦波的零點上有輸入訊號時才會打開或關閉，以避免產生突波或EMI / RFI。特別適用於控制阻抗性或電容性或不飽和感抗性等負載。



Variable resistance control method (Trimmer control)

Power output is controlled by the Trigger angle of the Triac that is controlled with variable resistor.

(250KΩ/110VAC, 500KΩ/220VAC, 1MΩ/220VAC)
以可變電阻控制Triac的觸發角來控制輸出功率。
(250KΩ/110VAC, 500KΩ/220VAC, 1MΩ/380VAC)



Application hints / 應用說明

Input	NPN	Output status	NO	Input	PNP	Output status	NO	Input	L.S.	Output status	NO
Input	NPN	Output status	NC	Input	PNP	Output status	NC	Latch circuit (AC to AC)			

Single phase heat sink type DC to AC Solid State Module

SSR-K series

CE, RoHS

■ Specification [Rated current corresponding to Resistive load]

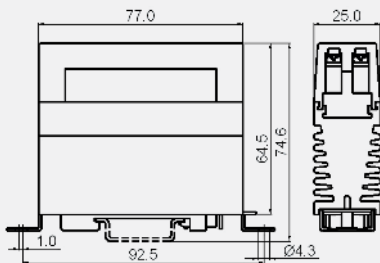
Type	型式	Standard type / 標準型			
Model	型號	SSR-K10DA	SSR-K20DA	SSR-K30DA	SSR-K40DA
Rated current	額定電流	10A max.	20A max.	30A max.	40A max.
I ² t for fuse	熔斷電流	144A²S	259A²S	664A²S	664A²S
Surge current	耐突波電流	135A	275A	410A	410A
Application temperature	使用溫度	Ta < 50℃			
Over heat protection	過熱保護	Turn off output over 120℃ ; Reset below 110℃			
Peak voltage	耐突波電壓	1200VAC min.			
Output voltage	輸出電壓	24 ~ 380VAC			

Type	型式	High voltage type / 高壓型			
Model	型號	SSR-K10DA-H	SSR-K20DA-H	SSR-K30DA-H	SSR-K40DA-H
Rated current	額定電流	10A max.	20A max.	30A max.	40A max.
I ² t for fuse	熔斷電流	144A²S	259A²S	664A²S	664A²S
Surge current	耐突波電流	135A	275A	410A	410A
Application temperature	使用溫度	Ta < 50℃			
Over heat protection	過熱保護	Turn off output over 120℃ ; Reset below 110℃			
Peak voltage	耐突波電壓	1200VAC min.			
Output voltage	輸出電壓	90~550VAC			

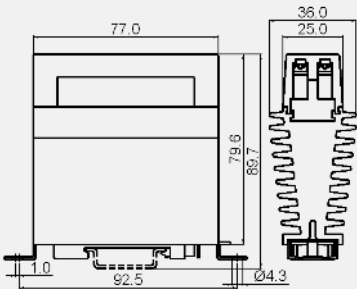
General specification / 共同規格		
Input voltage	輸入電壓	4 ~ 32 VDC
Turn off voltage	關閉電壓	< 3.0 VDC
Trigger current	觸發電流	12mA max.
Control method	控制方式	Zero cross
Leakage current	洩漏電流	5.0 mA max.
Response time	反應時間	8.3 ms (60Hz) max.
Input immunity	輸入耐突波	2 KV (EN61000-4-4)
Isolation strength	電介強度	4 KVrms (EN60950/VDE0805)
Insulation strength	絕緣強度	100MΩ / 500VDC (EN60950/VDE0805)
Circumstance	工作環境	-40℃ ~ +80℃ ; 35 ~ 85%RH

■ Outline dimension / 外形尺寸

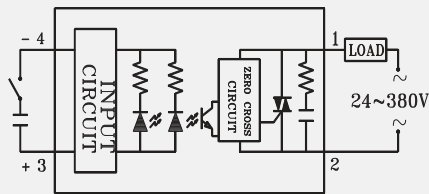
10A/20A/30A



40A



■ Connection / 接線圖



Single phase heat sink type AC to AC Solid State Module

SSR-K series

CE, RoHS

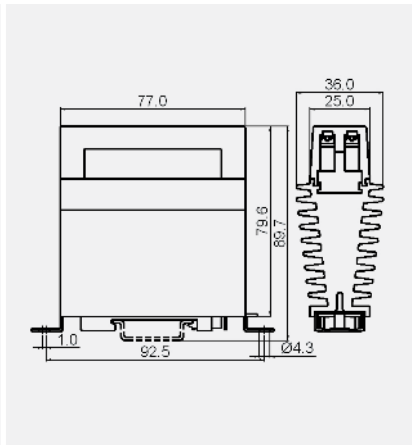
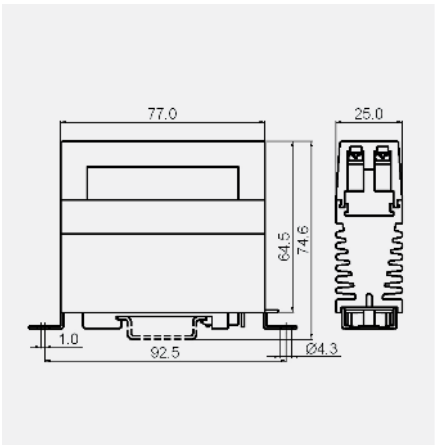
■ Specification [Rated current corresponding to Resistive load]

Type	型式	Standard type / 標準型			
Model	型號	SSR-K10AA	SSR-K20AA	SSR-K30AA	SSR-K40AA
Rated current	額定電流	10A max.	20A max.	30A max.	40A max.
I ² t for fuse	熔斷電流	144A ² S	259A ² S	664A ² S	664A ² S
Surge current	耐突波電流	135A	275A	410A	410A
Application temperature	使用溫度	Ta < 50℃			
Over heat protection	過熱保護	Turn off output over 120℃ ; Reset below 110℃			
Peak voltage	耐突波電壓	1200VAC min.			
Output voltage	輸出電壓	24 ~ 380VAC			

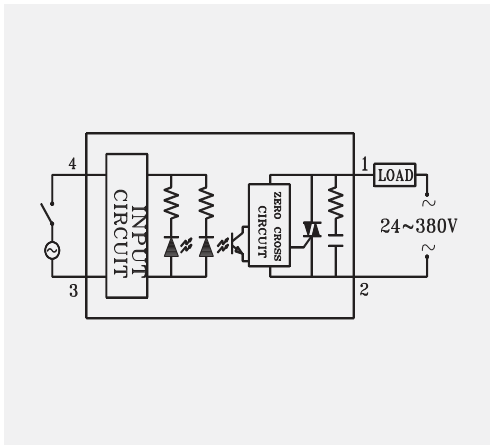
Type	型式	High voltage type / 高壓型			
Model	型號	SSR-K10AA-H	SSR-K20AA-H	SSR-K30AA-H	SSR-K40AA-H
Rated current	額定電流	10A max.	20A max.	30A max.	40A max.
I ² t for fuse	熔斷電流	144A ² S	259A ² S	664A ² S	664A ² S
Surge current	耐突波電流	135A	275A	410A	410A
Application temperature	使用溫度	Ta < 50℃			
Over heat protection	過熱保護	Turn off output over 120℃ ; Reset below 110℃			
Peak voltage	耐突波電壓	1200VAC min.			
Output voltage	輸出電壓	90~550VAC			

General specification / 共同規格		
Input voltage	輸入電壓	20 ~ 265 VAC/DC
Turn off voltage	關閉電壓	< 12 VAC/DC
Trigger current	觸發電流	3VA max.
Control method	控制方式	Zero cross switching
Leakage current	洩漏電流	5 mA max.
Response time	反應時間	8.3 ms (60Hz)
Input immunity	輸入耐突波	2 KV (EN61000-4-4)
Isolation strength	電介強度	4 KVrms (EN60950/VDE0805)
Insulation strength	絕緣強度	100MΩ / 500VDC (EN60950/VDE0805)
Circumstance	工作環境	-40℃ ~ +80℃ ; 35 ~ 85%RH

■ Outline dimension / 外形尺寸



■ Connection / 接線圖



Single phase heat sink type DC to DC Solid State Module

SSR-K series

CE, RoHS

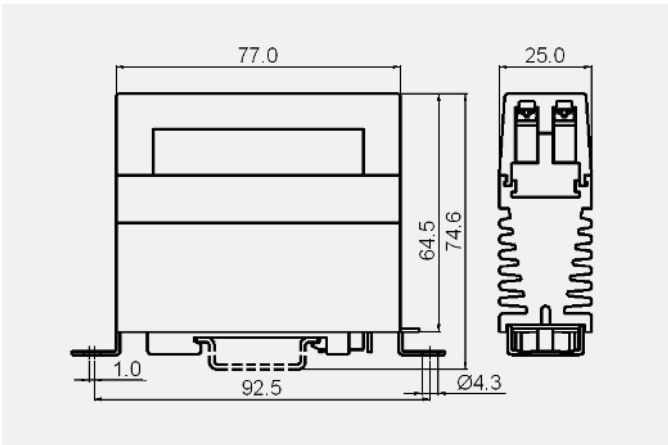
■ Specification [Rated current corresponding to Resistive load]

Type	型式	Standard type / 標準型	High voltage type / 高壓型
Model	型號	SSR-K25DD	SSR-K10DD-H
Rated current	額定電流	25 A max.	10A max.
Application temperature	使用溫度	Ta < 50℃	Ta < 50℃
Surge current	耐突波電流	120A	60A min.
Peak voltage	耐突波電壓	120VDC min.	300VDC min.
Output voltage	輸出電壓	5 ~ 60VDC	5 ~ 150VDC

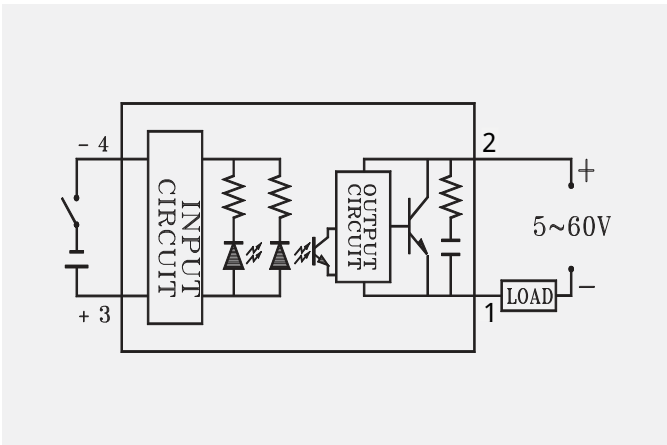
Type	型式	Linear control type / 線性控制型
Model	型號	SSR-K10LD
Rated current	額定電流	10A max.
Application temperature	使用溫度	Ta < 50℃
Surge current	耐突波電流	60A min.
Peak voltage	耐突波電壓	120VDC min.
Output voltage	輸出電壓	5 ~ 60VDC

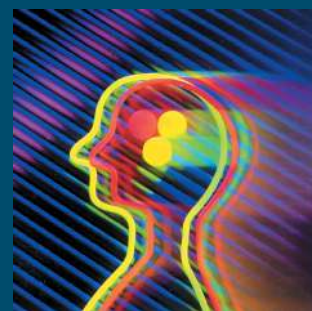
General specification / 共同規格			
Type	型式	DC to DC	Linear control DC to DC
Input method	輸入方式	4 ~ 32 VDC	4 ~ 20mA
Turn off voltage	關閉電壓	<3.0 VDC	non
Input current	輸入電流	12mA max.	non
Control method	控制方式	Random	PWM
Leakage current	洩漏電流	1.0 mA max.	1.0 mA max.
Response time	反應時間	1.0 ms	1.0ms
Application temperature	使用溫度	Ta < 50℃	
Input immunity	輸入耐突波	2 KV (EN61000-4-4)	
Isolation strength	電介強度	4 KVRms (EN60950/VDE0805)	
Insulation strength	絕緣強度	100MΩ / 500VDC (EN60950/VDE0805)	
Circumstance	工作環境	-40℃ ~ +80℃ ; 35 ~ 85%RH	

■ Outline dimension / 外形尺寸



■ Connection / 接線圖





Think Controls



Specification may be modified without notice in advance (2012/10/12)

陽明電機股份有限公司
FOTEK CONTROLS CO., LTD.