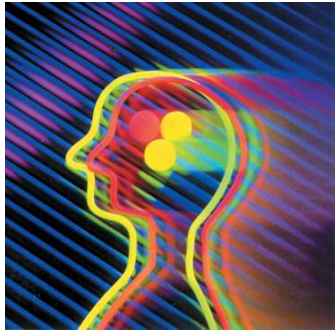




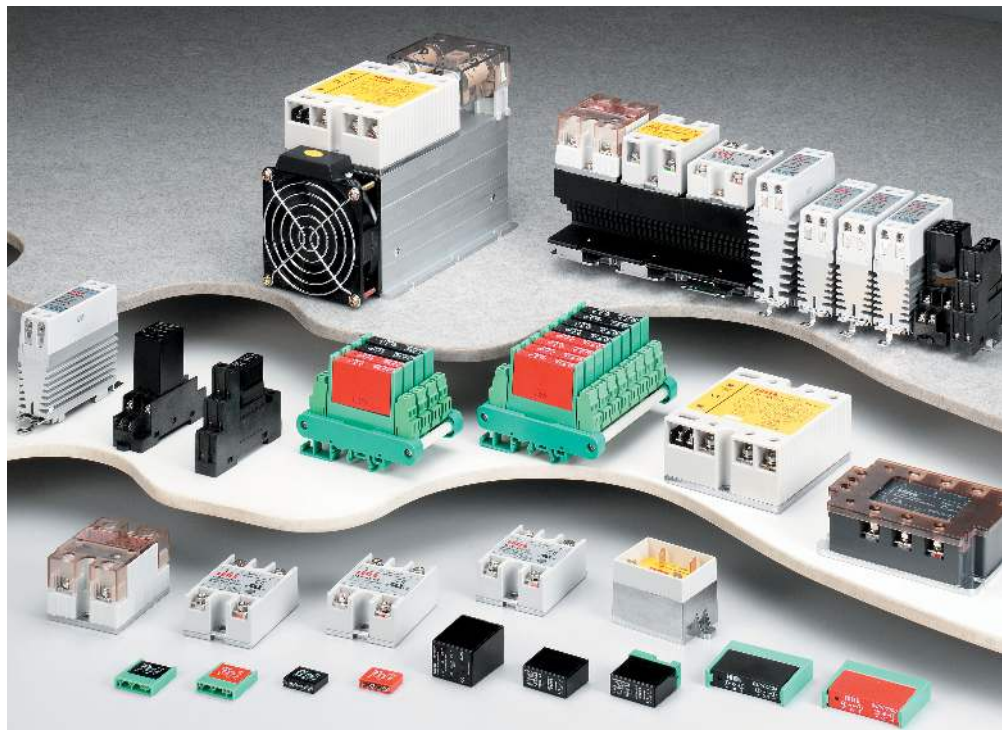
Think Controls

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

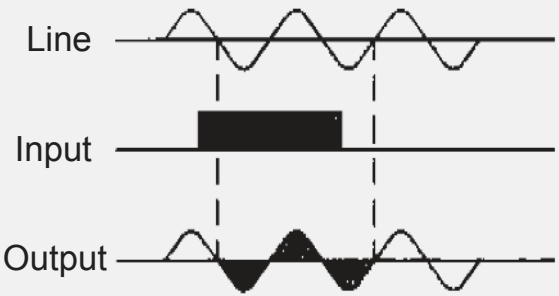
- 「H」= High voltage type
- 「Non」= Standard type

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.

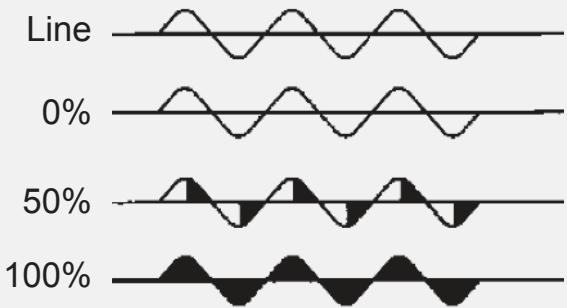
輸出只有在正弦波的零點上有輸入訊號時才會打開或關閉，以避免產生突波或EMI / RFI。特別適用於控制阻抗性或電容性或不飽和感抗性等負載。



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)			

■ Specification [Rated current corresponding to Resistive load]

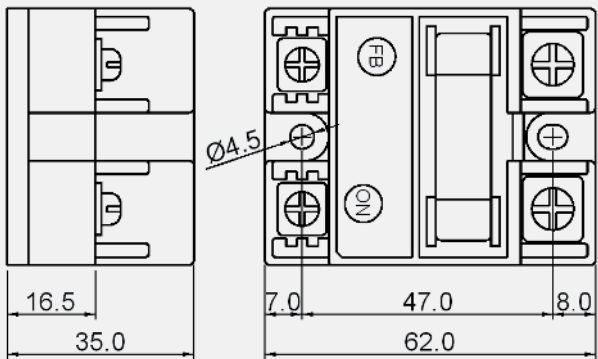
Type	型式	Standard type / 標準型			High voltage type / 高壓型		
Model	型號	SSR-F-10DA	SSR-F-25DA	SSR-F-40DA	SSR-F-10DA-H	SSR-F-25DA-H	SSR-F-40DA-H
Rated current	額定電流	5A	12A	20A	5A	12A	20A
Fuse current	保險絲電流	6A	16A	25A	6A	16A	25A
Surge current	耐突波電流	135A	275A	410A	135A	275A	410A
Output voltage	輸出電壓	24 ~ 380VAC			90 ~ 480VAC		
Peak voltage	耐突波電壓	1200VAC min.					

Type	型式	Standard type / 標準型			High voltage type / 高壓型		
Model	型號	SCR-F-10LA	SCR-F-25LA	SCR-F-40LA	SCR-F-10LA-H	SCR-F-25LA-H	SCR-F-40LA-H
Rated current	額定電流	5A	12A	20A	5A	12A	20A
Fuse current	保險絲電流	6A	16A	25A	6A	16A	25A
Surge current	耐突波電流	135A	275A	410A	135A	275A	410A
Output voltage	輸出電壓	90 ~380VAC			180 ~ 480VAC		
Peak voltage	耐突波電壓	1200VAC min					

General data / 共同規格		DC to AC	Linear control
Input voltage	輸入電壓	4 ~ 32 VDC	4 ~ 20 mA
Turn off voltage	關閉電壓	<3.5 VDC	Approx. 1.2KΩ
Trigger current	觸發電流	12.0mA max.	
Control method	控制方式	Zero cross	Phase control
Leakage current	洩漏電流	5 mA max.	0.5% of full load max.
Response time	反應時間	8.3 ms (60Hz)	1.0ms 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)	
Housing material	外殼材質	防火ABS (UL: 94V0)	
Circumstance	工作環境	-40℃ ~ +80℃ ; 35 ~ 85%RH	

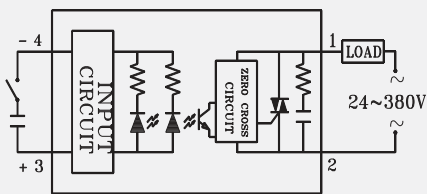
■ Outline dimension / 外形尺寸

SSR - F- xx

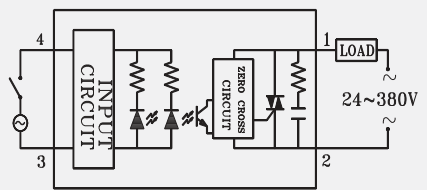


■ Connection / 接線圖

DC TO AC



AC TO AC



Single phase Fuse type AC to AC Solid State Module

SSR-F-AA series

CE, RoHS, UL

■ Specification [Rated current corresponding to Resistive load]

Type	型式	Standard type / 標準型		
Model	型號	SSR - F - 10AA	SSR - F - 25AA	SSR - F - 40AA
Rated current	額定電流	10A max.	25A max.	40A max
Fuse current	保險絲電流	6A	16A	25A
Surge current	耐突波電流	135A	275A	410A
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 - F - 10AA -H	SSR - F - 25AA-H	SSR - F - 40AA-H
Rated current	額定電流	10A max.	25A max.	40A max
Fuse current	保險絲電流	6A	16A	25A
Surge current	耐突波電流	135A	275A	410A
Peak voltage	耐突波電壓	1200VAC min.		
Output voltage	輸出電壓	90 ~ 480VAC		

General specification / 共同規格		
Input voltage	輸入電壓	80 ~ 250 VAC 50/60Hz
Turn off voltage	關閉電壓	< 35 VAC
Trigger current	觸發電流	1.0VA 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) 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	100MQ / 500VDC (EN60950/VDE0805)
Housing material	外殼材質	防火ABS (UL: 94V0)
Circumstance	工作環境	-40°C ~ +80°C ; 35 ~ 85%RH

■ How to renew the fuse / 如何更換保險絲

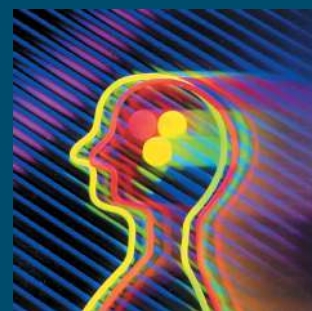
The fuse may be broken when the 「FB」 pilot LED is turn ON, please renew the use.

當「FB」指示 亮著，表示「保險絲」可能已燒毀，請更換「保險絲」。

Step 1	Step 2	Step 3	Step 4	Step 5
Shut down power supply 關閉電源	Take away cover 打開保護蓋	Pick up fuse 取出燒毀保險絲	Renew fuse 更換新保險絲 【請確認保險絲兩端 是否確實安裝】	Put on cover 裝回保護蓋

Note : 「Power supply system」 must to be shut down before renewing the fuse.

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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.