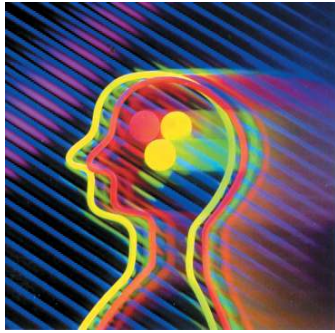




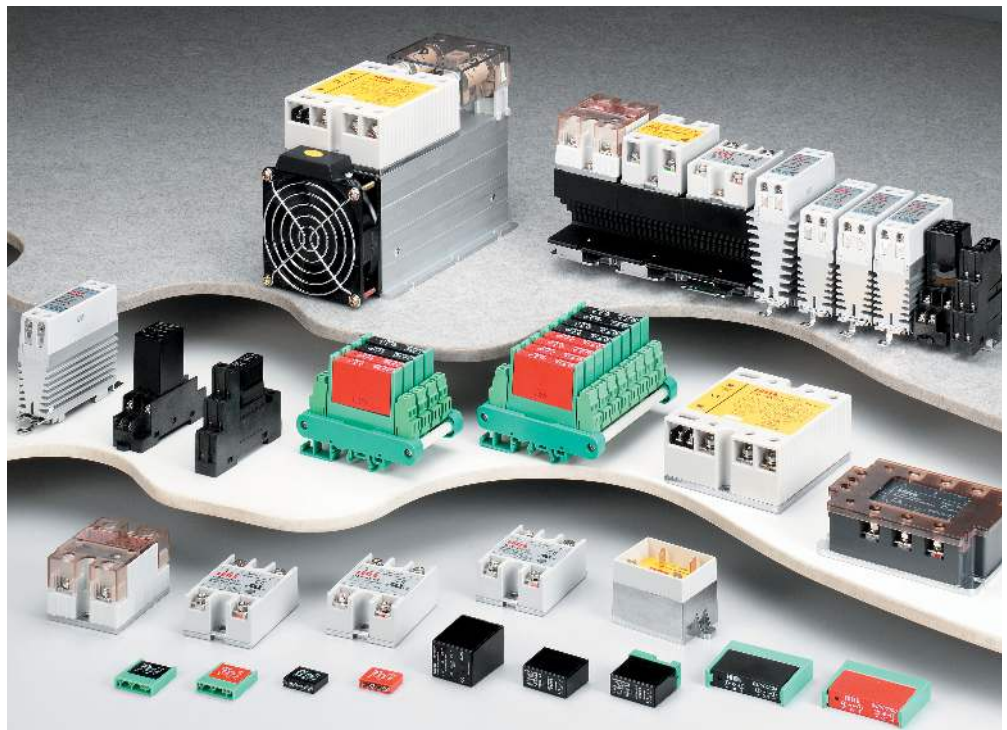
Think Controls

# 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

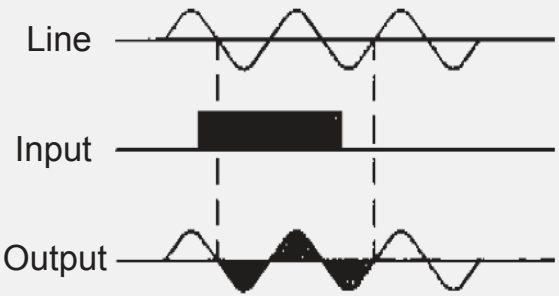
#### 6> Output voltage range / 輸出電壓範圍

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

Control method / 控制方式

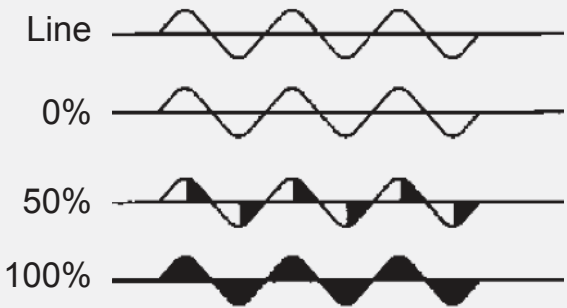
Zero cross trigger method

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 ]

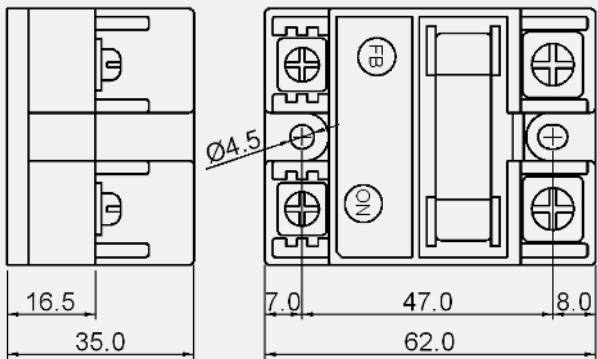
| Type           | 型式    | Standard type / 標準型 |            |             | High voltage type / 高壓型 |              |              |
|----------------|-------|---------------------|------------|-------------|-------------------------|--------------|--------------|
| Model          | 型號    | SSR-F-10DA          | 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.                        | Phase control          |
| Control method      | 控制方式  | Zero cross                         |                        |
| 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           |                        |

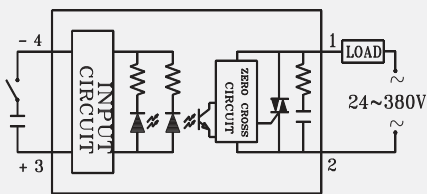
■ Outline dimension / 外形尺寸

SSR - F- xx

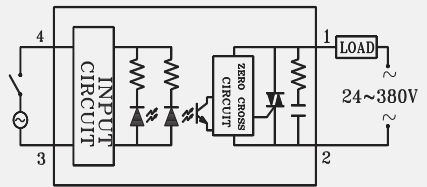


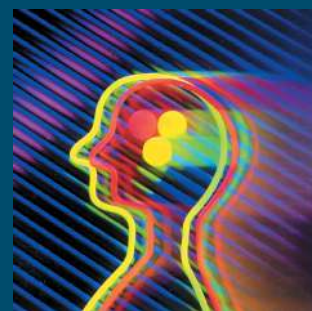
■ Connection / 接線圖

DC TO AC



AC TO AC





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

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**FOTEK CONTROLS CO., LTD.**