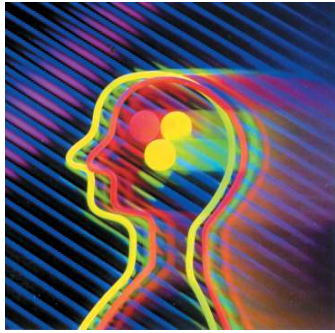




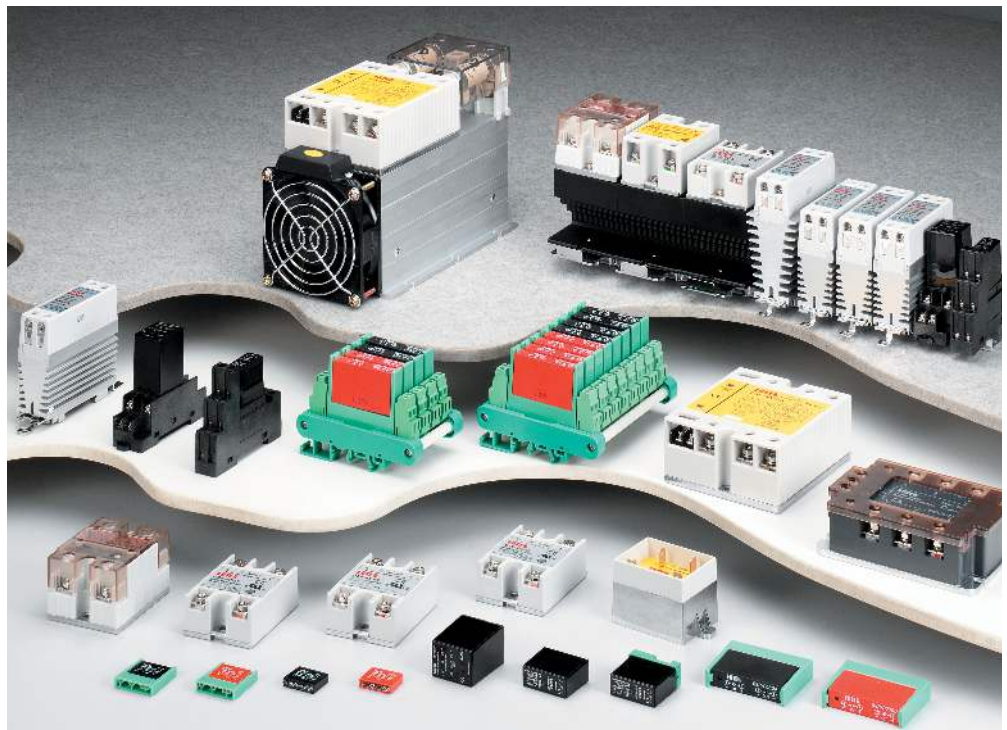
Think Controls

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

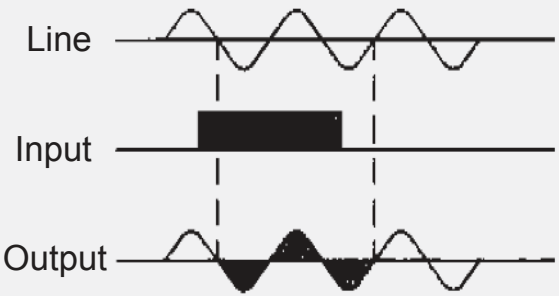
- 「H」= High voltage type
- 「Non」= Standard type

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.

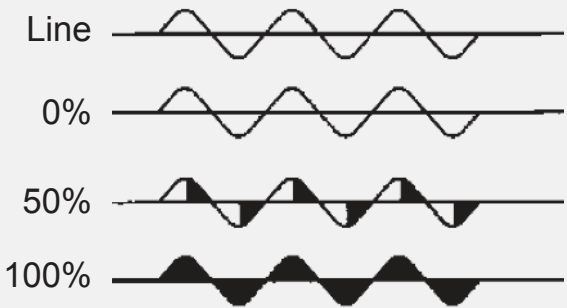
輸出只有在正弦波的零點上有輸入訊號時才會打開或關閉，以避免產生突波或EMI / RFI。特別適用於控制阻抗性或電容性或不飽和感抗性等負載。



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)			

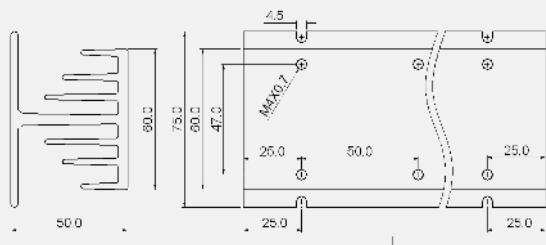
SSR series

CE, RoHS

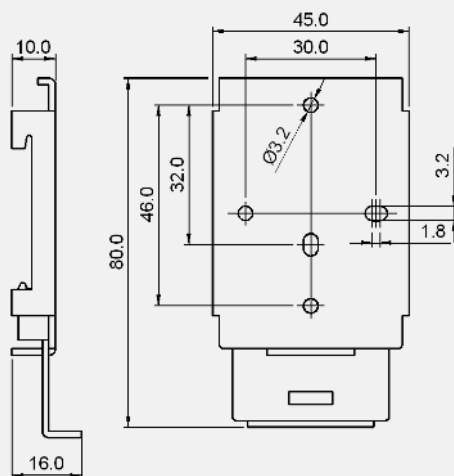
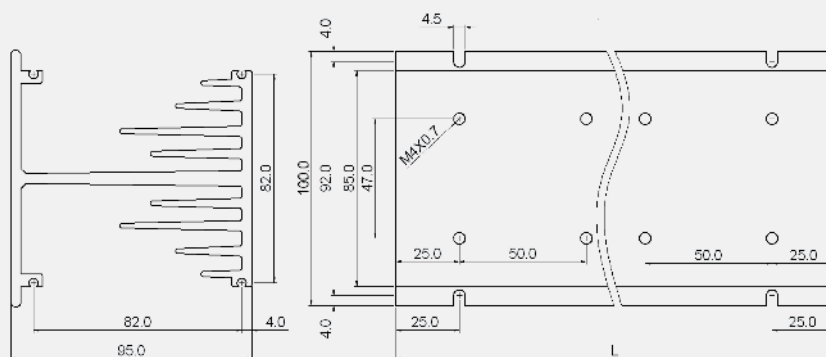
100%

Potentially hazardous situation, if mishandling, may result in death or serious injury.
潛在危險，如果操作失當可能導致死亡或嚴重傷害。

- www.fotek.com.tw

H type


Model	Length(L mm)	Current duration	PCS for SSR
HS-50H	50.0	10A max.	Single
HS-100H	100.0	20A max.	Twice
HS-150H	150.0	30A max.	Three
HS-200H	200.0	---	Four

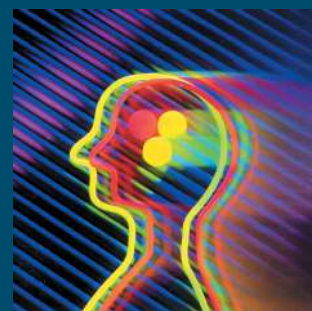
H type Rail bracket (HS-BR-1)

Standard type


Model	Length(L mm)	Current duration	PCS for SSR
HS-50	50.0	15A max.	Single
HS-100	100.0	30A max.	Twice
HS-150	150.0	50A max.	Three
HS-200	200.0	---	Four
HS-250	250.0	---	Five

How to use Heat sink & Cooling Fan for ESR series / 如何使用散熱器及冷卻風扇

Line current (Average current / 平均電流)	Heat sink	Cooling fan	Calculating of Line current 線電流計算
$I_L < 5$ Amps	Non-required	Non-required	$I_L = \frac{W}{\sqrt{3} \times V_L \times \cos\theta}$ $I_L = \frac{W}{\sqrt{3} \times V_L \times \cos\theta}$ V_L : Line voltage; $\cos\theta$: Power factor
$I_L < 10$ Amps	HS-ESR-100	Non-required	
$I_L > 10$ Amps	HS-ESR-100	Required	

* Model of Heat sink: HS-ESR-100 * Outline of cooling fan: 80mm x 80mm



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

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