ANV ANV **ANV ELECTRIC**

S1P / S1PH

SINGLE-PHASE POWER CONTROLLERS

MANUAL

⚠ WARNING Indicating a message , If not complied, May cause a misoperation to cause a person to receive Damage or property damage.

This product will generate heat, please improve the cooling effect. If not installed in the prescribed manner, May cause equipment failure, personal injury or unexpected accidents.

- ⚠ Do not contact the terminal when the power ON. terminal cover must be installed after the wiring.
- ⊘ Do not use in places with flammable and explosive gas.
- ❗ When connecting to the terminals, use the specified wire size for each model power controller. Crimp terminal that conform to UL and CSA specifications must be used. Either use insulated crimp terminals or cover the crimp terminals with insulating sleeves.
- ❗ Fail-safe measures must be taken by the customer to ensure safety in the event of incorrect, missing, power interruptions, or other causes.
- ❗ Do not allow chips or filings from installation work, pieces of metal, or wire clippings to enter the power controller

■ NOTICE

1. Must have a qualified person perform the installation work.
2. Loose screws may cause sparks. Please tighten the screws according to the specified torque
3. In order to avoid personal injury or fire accidents caused by this product failure, please consider safety and pay attention to the overall system heat dissipation, anti-heating, anti-misoperation and other safety design.
4. Heat sink is hot and can cause burns.Do not touch anything other than the product setting button during power-on or immediately after power-off.

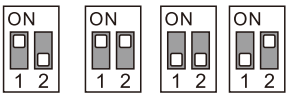
■ SPECIFICATIONS

(*) Indicates not applicable to 26A output

MODEL	S1P-□-□-□□ (General model)	S1PH-□-□-□□ (High-precision model)
LOAD VOLTAGE	AC 220~380V, 380~440V, 380~480V 50/60Hz	AC 220V, 380V, 415V, 440V, 480V 50/60Hz
OPERATING VOLTAGE	AC 220V±10% 50/60Hz (110VAC order by user)	
LOAD CURRENT	26A, 42A, 56A, 72A	
OUTPUT METHOD	Phase control	
OUTPUT VOLTAGE RANGE	0~100%	
INPUT CONTROL SIGNAL	DC 4~20mA (Default) DC 1~5V	DC 4~20mA (Default) DC 0~5V/ 1~5V/ 0~10V/ 2~10V
FREQUENCY	50/60Hz Manual Switching	50/60Hz Auto Switching
FAILURE INDICATOR	◯ (*)	◯ (*)
FAILURE OUTPUT CONTACT	– – –	◯ (*)
HIGH-PRECISION LINEAR OUTPUT	– – –	◯
EXTERNAL VR	◯ (*)	◯ (*)
OVERHEAT PROTECTION	◯ (*)	◯ (*)
FUSE BURNOUT DETECTION	◯	◯
INSULATION RESISTANCE	20MΩ or more between input terminals and case(ground) at DC 500V	
DIELECTRIC STRENGTH	2500VAC at 50/60Hz for 1 min between charged parts and noncharged parts	
AMBIENT TEMPERATURE	-10℃~+50℃	
AMBIENT HUMIDITY	45~90%RH	

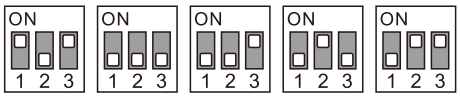
■ INPUT SIGNAL SETTING

General SW1



4~20mA 60Hz (Default) | 4~20mA 50Hz | 1~5V 60Hz | 1~5V 50Hz

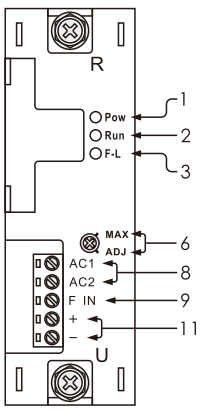
High-precision model SW1



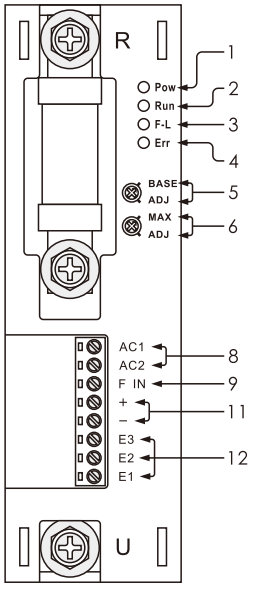
4~20mA (Default) | 0~5V | 1~5V | 0~10V | 2~10V

■ PARTS DESCRIPTION

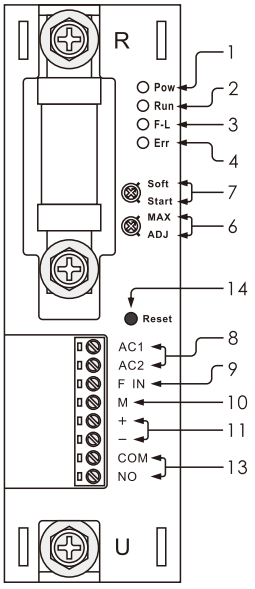
S1P-□-□-26
S1PH-□-□-26



S1P-□-□-42 /56 /72



S1PH-□-□-42 /56 /72



SYMBOL	NAME		FUNCTION
Pow	1	Power indicator	When operating power (AC1, AC2) is powered, Red indicator lights up.
Run	2	Output indicator	When the SCR is output, Green indicator lights up.
F-L	3	Fuse burnout indicator	When fuse burnout, Yellow indicator lights up.
Err	4	Failure indicator	Overheat is cycle flicker 4 time and fuse burnout is cycle flicker 2 time.
BASE ADJ	5	Adjusting of output basic	Adjust control signal reference.
MAX ADJ	6	Output voltage adjustable	Adjust the output voltage according to user demand.
Soft Start	7	Power output raising time adjustable	Soft start 0~8s adjustable. S1PH-□-□-26 model fixed for 8s. General model without this function.
AC1 AC2	8	Operating power terminal	Input voltage AC 220V±10% 50/60Hz.
F IN	9	Phase input terminal	Three-phase power supply for single-phase SCR control.
M	10	Controller output terminal	External VR control. Terminal M output DC 5V/100mA. SW1 must be set to 0~5V. Only for High-precision model: 42A, 56A, 72A
+ –	11	Temperature controller terminal	Connect the TC and the input signal must be set to 4~20mA.
E3 E2 E1	12	External VR terminal	Input signal adjustment range is 0~100%. When the VR on the panel is 0%, the external VR has no effect. Short E3 and E2 when external VR is no use. Only for general model: 42A, 56A, 72A
COM NO	13	Failure output contact	Failure output contact: common terminal and normal open terminal.
Reset	14	Reset botton	When a failure occurs and after troubleshooting you must press the Reset button to reset SCR.

■ FAST-ACTION FUSES

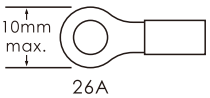
Model	Specifications and dimensions		
26A	32A/600V	FWC-32A10F	38x10(mm)
42A	56A/690V	56ET	77x17.1(mm)
56A	80A/690V	80ET	77x17.1(mm)
72A	100A/660V	660GH100	77x17.1(mm)

■ Wiring the Control Terminal Block

Recommended wire specifications is AWG26~16.
The wire coating peel length was 7 mm.
When using twisted wires, it is recommended that you attach a ferrule with an insulating cover that conforms to DIN 46228-4 and connect the ferrule to the terminal. The above applies to all models.

■ Wiring the Load Terminal Block

Be sure to connect the load terminals when wiring Use the following crimp terminals.

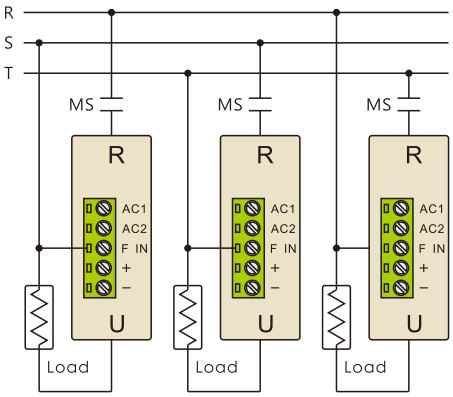


26A

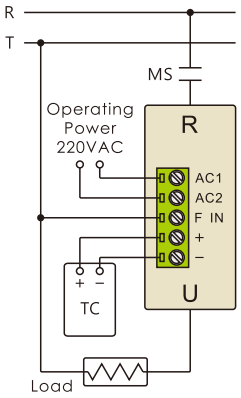
42A, 56A, 72A

CONNECTION DIAGRAMS

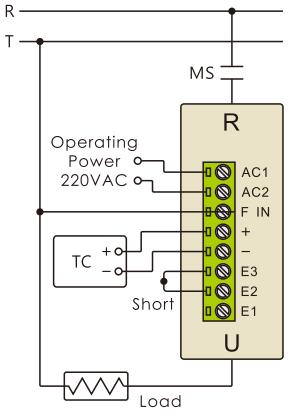
Three-phase power supply for single-phase SCR



Input Signal 4~20mA
Applicable Model:
S1P-□-□-26, S1PH-□-□-26

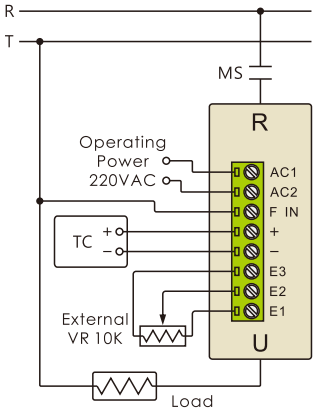


Input Signal 4~20mA, Applicable Model:
S1P-□-□-42, S1P-□-□-56, S1P-□-□-72



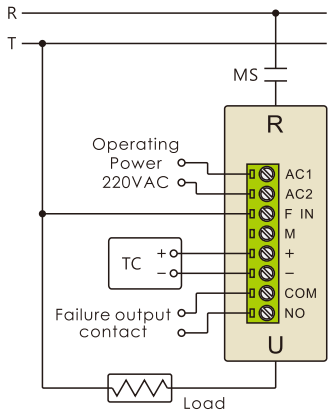
Short E3 and E2 when external VR is no use.

External VR control, Applicable Model:
S1P-□-□-42, S1P-□-□-56, S1P-□-□-72

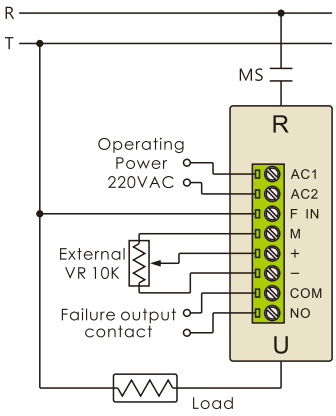


When the VR on the panel is 0%,
the external VR has no effect

Input Signal 4~20mA, Applicable Model:
S1PH-□-□-42, S1PH-□-□-56, S1PH-□-□-72



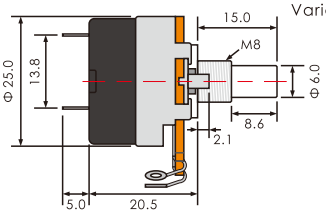
External VR control, Applicable Model:
S1PH-□-□-42, S1PH-□-□-56, S1PH-□-□-72



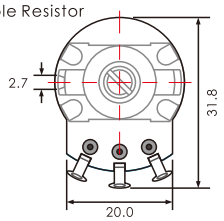
Terminal M output DC 5V/100mA.
SW1 must be set to 0~5V.

ACCESSORIES (Order Separately)

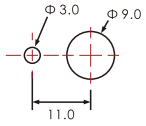
Model: **PC-V10K**



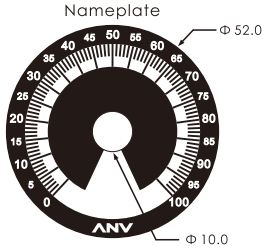
Variable Resistor



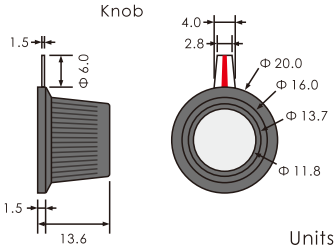
Mounting Holes



Nameplate



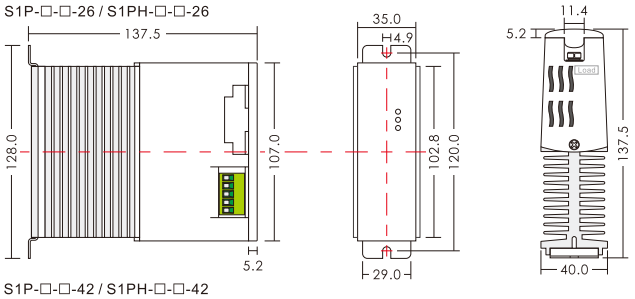
Knob



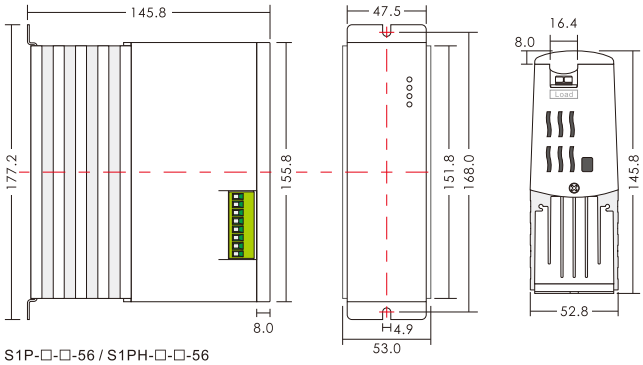
Units: mm

DIMENSIONS (Units: mm)

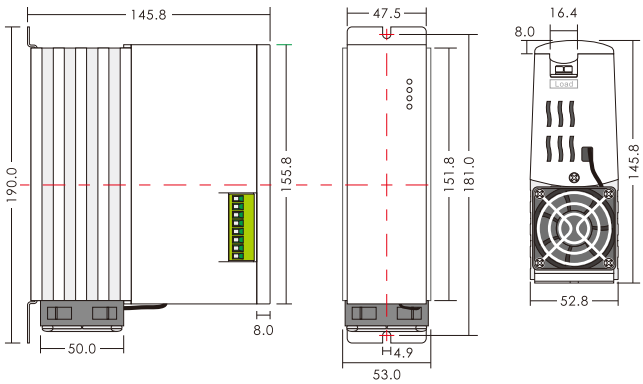
S1P-□-□-26 / S1PH-□-□-26



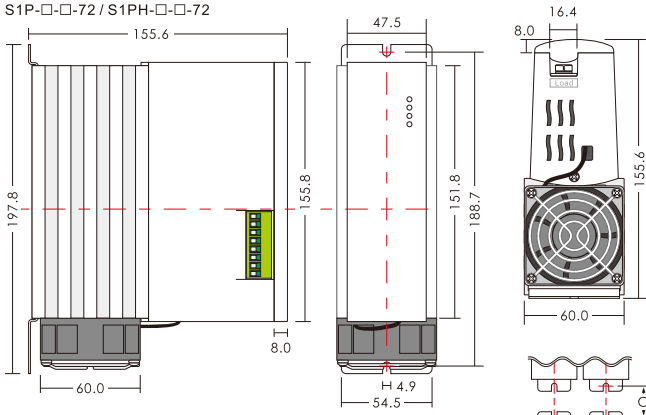
S1P-□-□-42 / S1PH-□-□-42



S1P-□-□-56 / S1PH-□-□-56

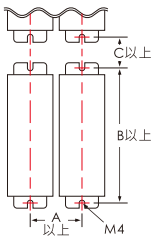


S1P-□-□-72 / S1PH-□-□-72



Mounting Holes

Model	A	B	C
26A	60.0±0.2	120.0±0.2	100.0±0.2
42A	73.0±0.2	168.0±0.2	*
56A	73.0±0.2	181.0±0.2	*
72A	80.0±0.2	190.0±0.2	*



* Not recommended installation method

WEIGHT

S1P-□-□-26 S1PH-□-□-26	S1P-□-□-42 S1PH-□-□-42	S1P-□-□-56 S1PH-□-□-56	S1P-□-□-72 S1PH-□-□-72
Approx. 600g	Approx. 1000g	Approx. 1050g	Approx. 1200g

TROUBLESHOOTING

1. The fan does not work. When the heatsink temperature rises to 55 degrees C, the fan stops when it drops to 45 degrees C.
2. How many degrees of overheat protection. When the temperature rises to 90 degrees C,it will trip protection.
3. How to confirm that the SCR is good. Connect the operating power supply then measure (-) terminal and (M) terminal with the meter. The voltage value is 5VDC, or measure (-) terminal and E3, E2 voltage value is about 4.6~5VDC.
4. Can't fully load output. check input signal is correctly, or Max set adjustment knob does not go to the bottom.

PCAI01