

# **SCR POWER REGULATOR**

*Accurate. Economic*



**TECORP**  
[www.tecorp-group.com.tw](http://www.tecorp-group.com.tw)

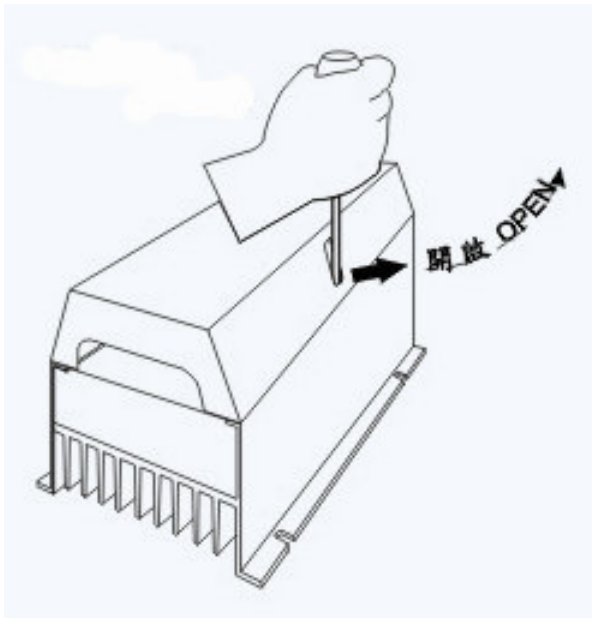
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## TECORP TECHNOLOGY CO., LTD INTRODUCTION

Since several years, the corporation which specializes in industrial automated control component, researching and developing designation, manufacturing products, and maintaining service combines production with marketing. Now we are promoting SCR Power Regulator of ED series. The features to R&D team are strict designations, elaborate quality control, the latest non-disassembly patent model, and complete kind of modules. Whole series products control temperature accurately with stable output and non-interference.

Single-phase (30A ~ 400A), three-phase (30A ~ 400A) and 500A ~ 800A controllers can satisfy with various special requirements, provide high quality product to customers and guarantee the outstanding service. Selecting our products will be a clever choice.

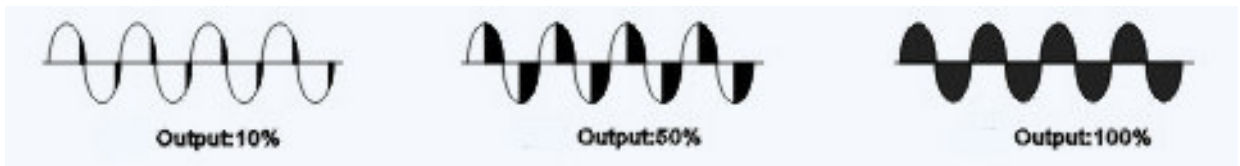


### The Product Suitable Range:

Common stove      Electric wire and cable machinery  
Constant temperature and humidity furnace  
Heating and forging metal      UV Solidification furnace  
Heat-Treating annealing furnace      Ceramics kilns  
Low/high trial furnace      Leather compound machine  
Spray dryer      Low/high oven tunnel line  
Vacuum furnace      Other heating equipment

Food mechanical stove  
Screw extruder  
High temperature furnace  
Infrared Ray stove  
Coating oven  
Vacuum electroplate furnace

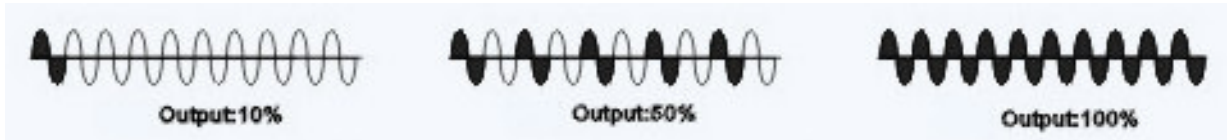
- Phase Angle Trigger Control ( suitable for all load, Large noise interfere )



1  $\phi$  Output Power = Voltage  $\times$  Current

3  $\phi$  Output Power = Voltage  $\times$  Current  $\times \sqrt{3}$

- Zero Crossing Trigger Control ( only for Resistance load, no noise interfere )

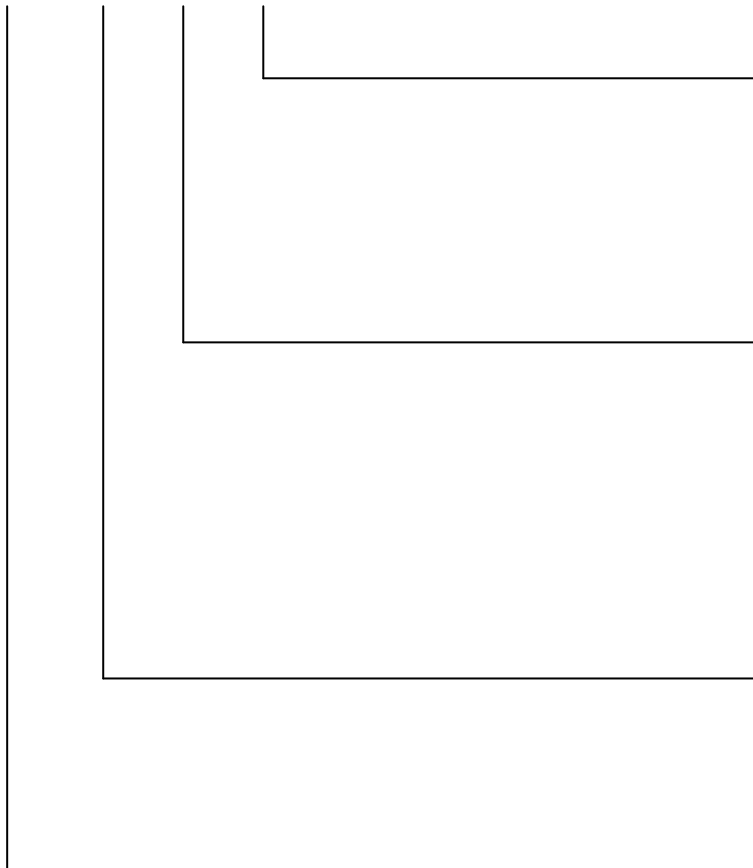


Duty cycle T ( 0.04~4 sec. )

Output Power = ( t $\div$ T )  $\times$  Capacity

- Model Description

ED - SP - 48 125 - CX



Special Order

CX	Inductance Load
CC	Constant Current
CQ	Capacitance Load

Current capacity

30	30A
40	40A
50	50A
150	150A
...	...

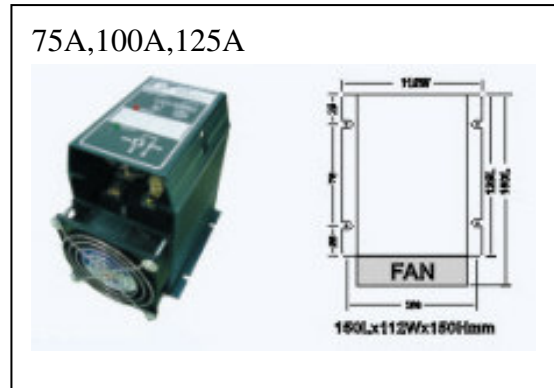
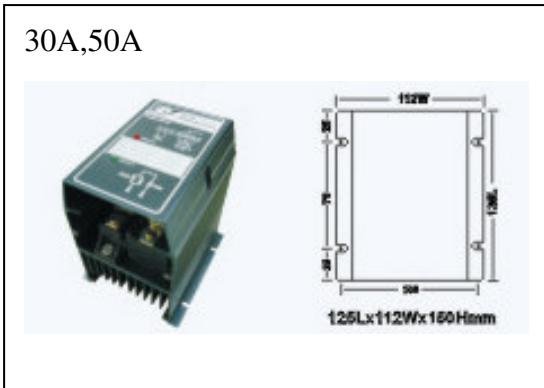
Power Supply

48	300 ~ 480 VAC
28	100 ~ 240 VAC

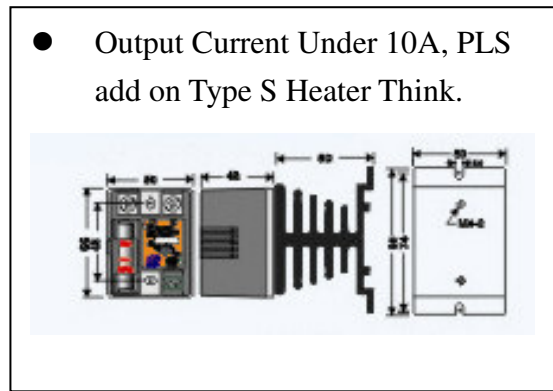
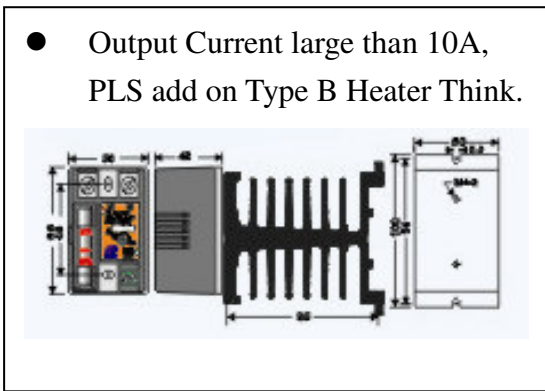
Control

SP	1 $\phi$ Phase Angle
TP	3 $\phi$ Phase Angle
SZ	1 $\phi$ Zero
TZ	3 $\phi$ Zero
ESP	Economic Phase
MSP	Mini Phase

- Economic Type



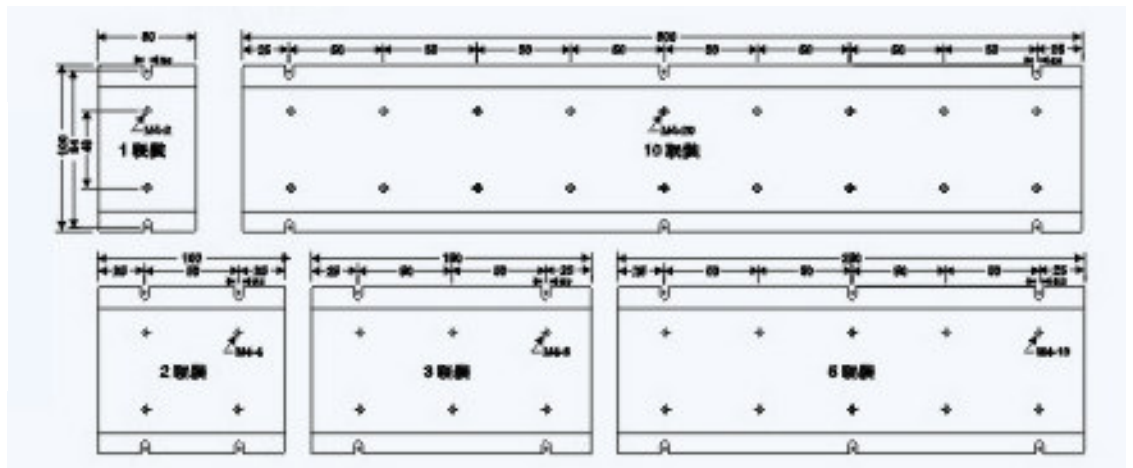
- Mini Type



Type B Heater Think Model

ED-HT-B1

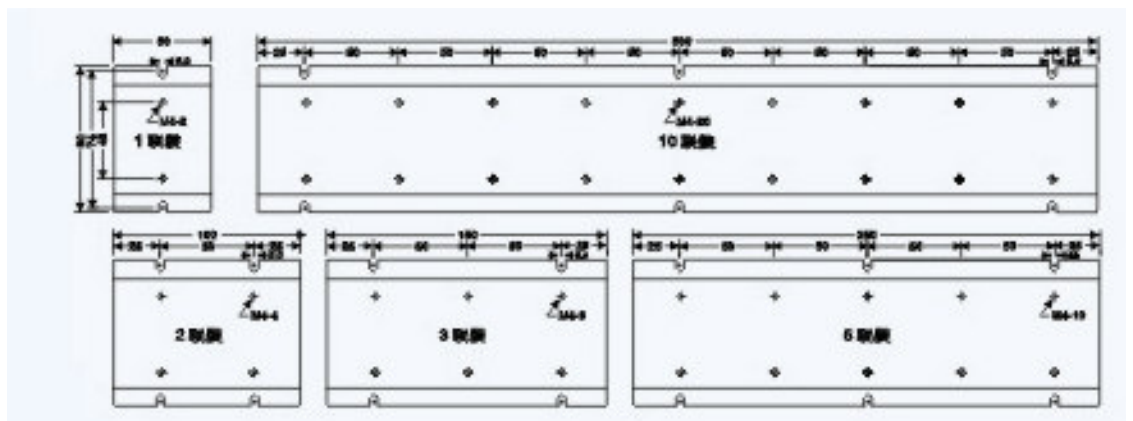
B1	Single
B2	2 Set
B3	3 Set
B5	5 Set
B10	10 Set



Type B Heater Think Model

ED-HT-B1

B1	Single
B2	2 Set
B3	3 Set
B5	5 Set
B10	10 Set



# Single Phase SCR dimension

**30A**



220V ≈ 6.6KW  
380V ≈ 11.4KW



180Lx112Wx125Hmm

**125A**



220V ≈ 27.5KW  
380V ≈ 47.5KW



225Lx112Wx168Hmm

**50A**



220V ≈ 11.0KW  
380V ≈ 19.0KW



200Lx112Wx125Hmm

**150A, 175A**



(150A) 220V ≈ 33.0KW 380V ≈ 57.0KW  
(175A) 220V ≈ 38.5KW 380V ≈ 66.5KW

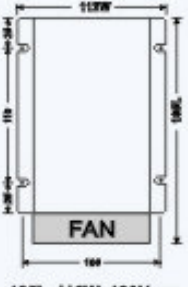


275Lx112Wx168Hmm

**75A**



220V ≈ 16.5KW  
380V ≈ 28.5KW



195Lx112Wx168Hmm

**225A**



220V ≈ 49.5KW  
380V ≈ 85.5KW



295Lx156Wx200Hmm

**100A**



220V ≈ 22.0KW  
380V ≈ 38.0KW



225Lx112Wx168Hmm

**300A, 400A**



(300A) 220V ≈ 66.0KW 380V ≈ 114.0KW  
(400A) 220V ≈ 88.0KW 380V ≈ 152.0KW



345Lx156Wx200Hmm

# Three Phase SCR dimension

**30A**



220V ≈ 11.4KW  
380V ≈ 19.7KW

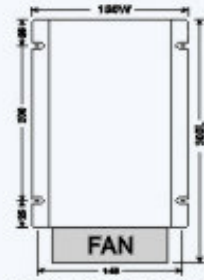


160Lx140Wx160Hmm

**125A**



220V ≈ 47.8KW  
380V ≈ 82.2KW



300Lx155Wx200Hmm

**50A**



220V ≈ 19.0KW  
380V ≈ 32.9KW



200Lx140Wx160Hmm

**150A, 175A**



(150A) 220V ≈ 57.1KW  
380V ≈ 98.7KW  
(175A) 220V ≈ 66.6KW  
380V ≈ 115.1KW

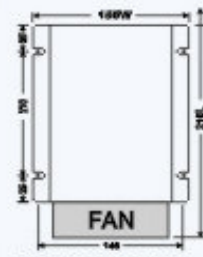


360Lx155Wx200Hmm

**75A**



220V ≈ 28.5KW  
380V ≈ 49.8KW

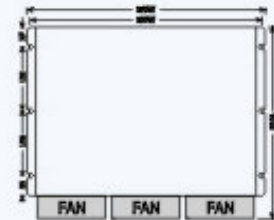


210Lx155Wx200Hmm

**225A**



220V ≈ 65.7KW  
380V ≈ 148.0KW

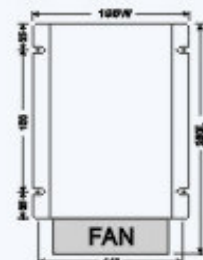


330Lx385Wx185Hmm

**100A**



220V ≈ 38.1KW  
380V ≈ 65.8KW

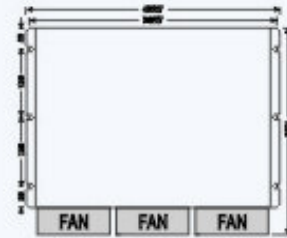


250Lx155Wx200Hmm

**300A, 400A**



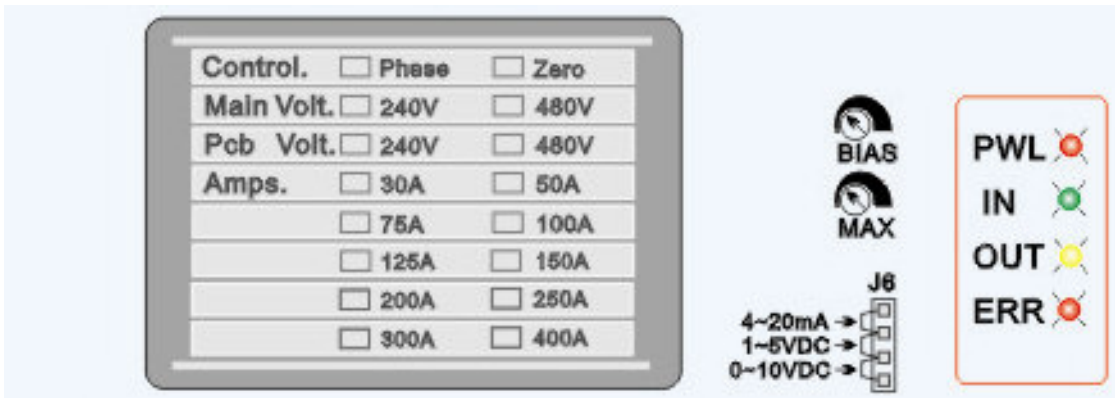
(300A) 220V ≈ 114.3KW  
380V ≈ 197.4KW  
(400A) 220V ≈ 152.4KW  
380V ≈ 263.2KW



350Lx395Wx215Hmm

## Operation Instruction

Single Phase/Three Phase 50/60Hz



### 1. Specification

- Control:
  - i. Phase Angle (Phase Angle control mode, suitable for constant resistance load)
  - ii. Zero Crossing (Zero Crossing control mode, suitable for constant resistance load)
- Special Order:
  - i. Constant Current (suitable for constant current load)
  - ii. For Transformer (suitable for constant transformer load)
- Main Volt. : Main power source. (Available with in range)
- PCB Volt. : Aux power source. (for transformer & constant current, The Aux power source must be the same as main Power Supply.)
- Amps. : Rated current

### 2. Adjustable Function

- BIAS: Output adjustment of basic voltage.
- MAX: Max. Output Voltage adjustment.

### 3. Input Signal Selection (J6)

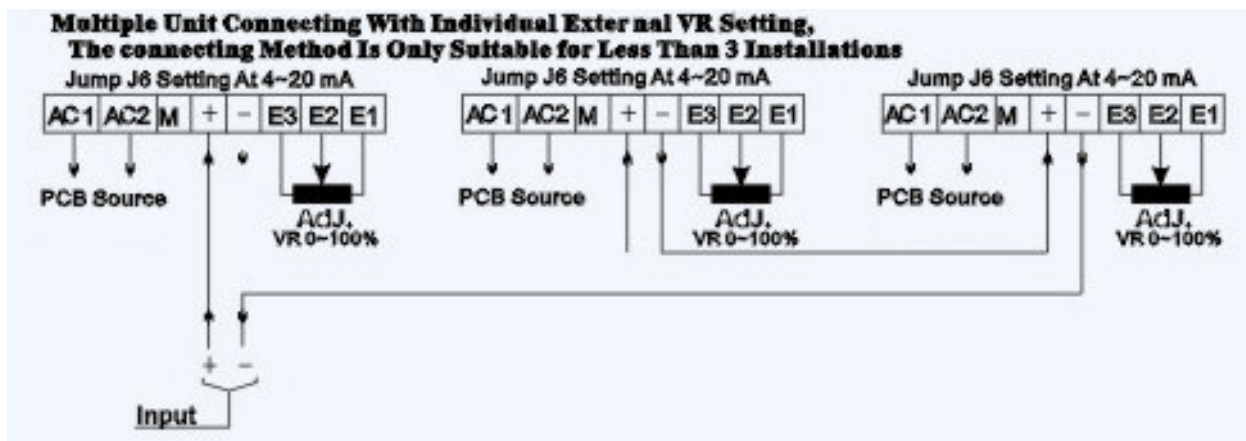
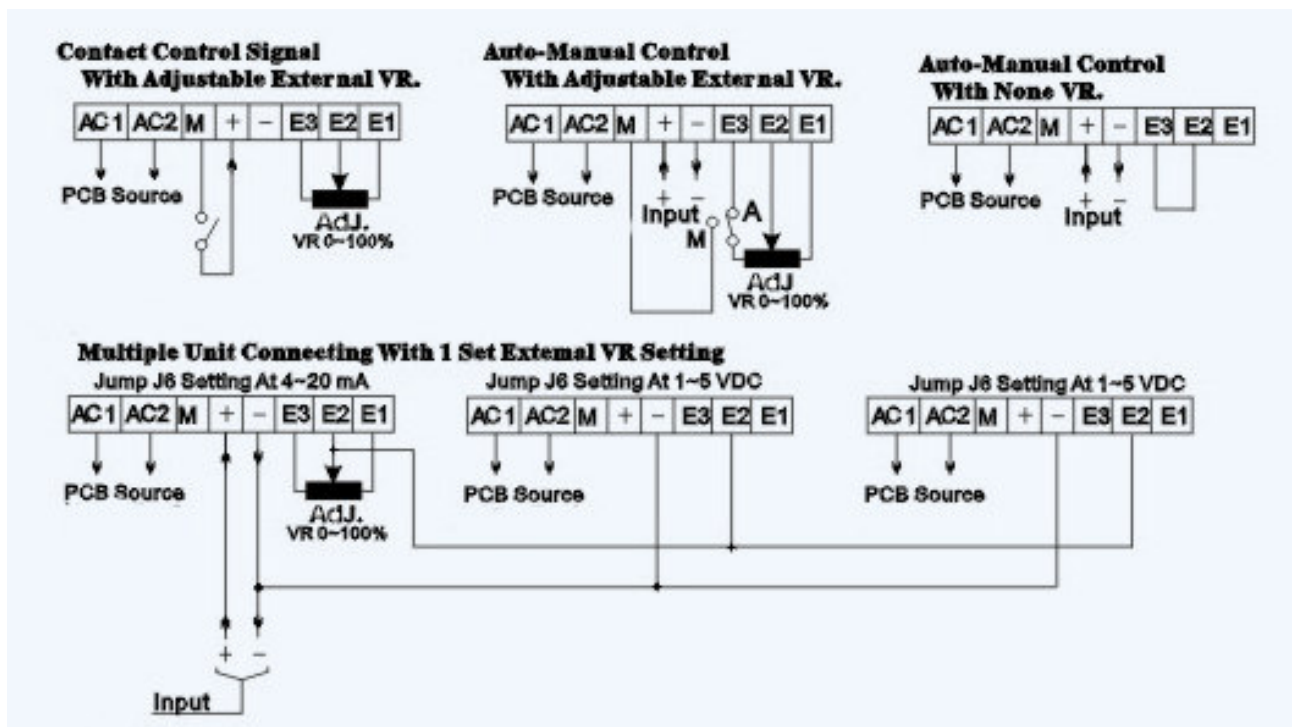
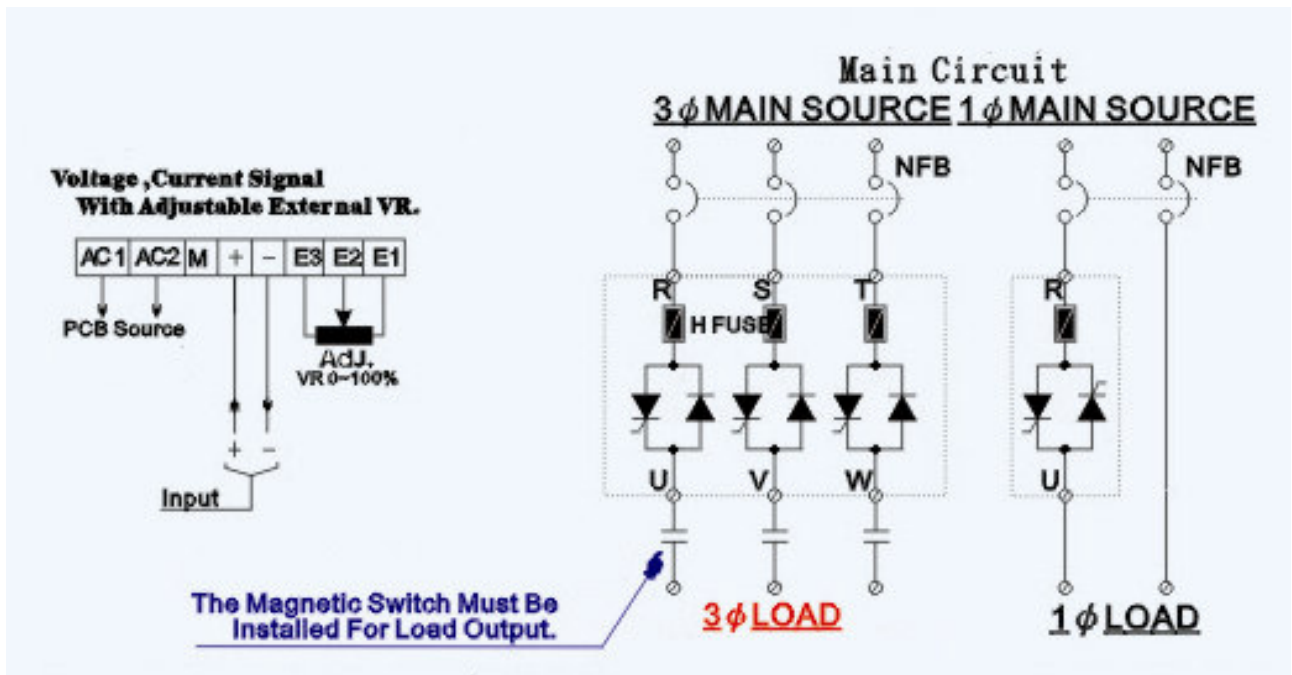
- 4~20mA : Jumper J6 Setting at “4~20mA”
- 1~5V/0~5V : Jumper J6 Setting at “1~5VDC”
- 2~10V/0~10V : Jumper J6 Setting at “0~10VDC”

### 4. Descriptions of input signal

- PWL: Indication of power supply. (Lighting when aux. power switched on.)
- IN: Indication of transfer signal from TIC.
- OUT: Output signal transferring.
- ERR: Malfunction Indication.



Connection Examples



## BEST CHOICE FOR MICRO PROCESS TEMPERATURE CONTROL

For temperature, humidity, flow rate, pressure and PH value control.

Micro Process Temperature Control of ED series which supplies various signals of input/output to select has the purchasable superior peripheral on function.

High quality, great reliance and expandable designations are your best choice in the specialized field.

ED series has built in PID + Fuzzy operational rule, which satisfies with your requirements at accurate control.

The unique designation of strip LED indicator light enables you to gain easily how much output percentage is.

ED series not only supplies basic function at output control, but also do special function. Such as three-wire ratio motor valve control and phases or zero of immediate trigger SCR/TRIAC can slash unnecessary cost in peripheral.

ED series also supplies Programmable RAMP/SOAK, 8 lengths for each 2 patterns and total amount is 16 lengths. Optional setting can set up higher or lower temperature curve.

Added MODBUS communication protocol can connect controllers with human machine interface and the other peripherals.

Added Heater Broken Alarm (HBA) and collocating competitive price enable you to raise security on a whole system easily.

There are six option, type number and size as follows:

ED404: 48x48mm(DIN1/16)

ED409/904: 48x96mm(DIN1/8)

ED707: 72x72mm(DIN3/16)

ED909: 96x96mm(DIN1/4)



- CE Mark  
This controller is with CE and UL international quality standard confirmation.  
The capacity of connecting point is AC85 ~265V suitable in the world.  
DC24V supply is acceptable.  
\*Optional Accessory. \*UL specialization needs noticing.
- High accuracy  
Adjustable 14-bit transforming resolution and 0.2% FS displaying precision, built-in Autozero-Autospan function can automatically adjust zero point and slope, Cause orientation accuracy not to worsen for a long time.

- Parameter locking function

All of the parameter as function type put up to 3 levels. Every level parameter can individually be hidden or locked up in order to prevent misusing parameter from users.

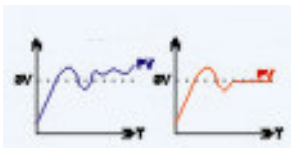
- Heater Broken Alarm (HBA)



ED series can keep up monitoring to electric current and show up on the meter.

When electric current sum is smaller than the setting, broken alarm will do AL1 motion. \*Optional Accessory.

- Auto tuning



Built-in automatic tuning can automatically figure out the best PID sum to widely raise accuracy and stability in control.

- Clearly state indicator light



Make you know the status by catching hold of output (OUT1/OUT2), alarm (AL1/AL2/AL3), automatic tuning (AT), manual output and executing program (PRO).

- IP65 waterproof and dustproof structure



Provide IP65 structure to high security occasion.

\*Optional Accessory.

- MODBUS communication protocol



ED series supplies MODBUS RTU and MODBUS ASC II can connect controllers with human machine interface and the other peripherals.

\*Optional Accessory.

- Manual/automatic output mode



Only pressing A/M button can switch manual mode (direct adjust) or automatic mode (PID control) \*Except for ED400.

- Strip indicator light



The output percentage sum displays on strip indicator light. 10 pieces of LED correspond to 0% ~ 100% output. \*Except for ED400.

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Agent :