



Features:

- Three phase power regulator, auto phase detection
- Soft start function to protect SCR and load against surge current
- Integrated display with various LED indicator for status and error display
- Integrated heatsink and fans with temperature detection
- Over temperature alarm, output protection after alarm on
- Maximum and minimum output configurable
- Auto/manual control bumpless transfer
- Run/stop function
- RS-485 modbus RTU display
- 1 alarm with relay output(NO+NC), standard feature
- Rated load voltage 200~440Vac(+/-15%) 50/60HZ
- Power supply for SCR to work is 85-265Vac, 12-24VDC optional
- Input, 0-10Vdc, 4-20mA, 0-5Vdc, 1-5Vdc, 2-10Vdc, 0-20mA, 0-10mA
- Rated current options, 100 amps, 125 amps, 150 amps, 175 amps, 200 amps.
- This SCR only compatible with resistive load

Technical Specifications

Ordering Information

TC-200S-**1**-**2**-**3**-**4**-**5**

Type of SCR power regulators

TC-200S Maxwell Power Regulator, TC-200S series

1:Power supply for the unit itself

2 85~265Vac 50/60HZ
D 12-24VDC

2:Load Voltage

2 3 phase 200V~240V(+/-15%)
4 3 phase 380V~440V(+/-15%)

3:Load amps

100 100A
125 125A
150 150A
175 175A
200 200A

4:Communication

N without communication
M With RS-485 modbus RTU communication

5:Input configuration

A03 4-20mA
V08 1-5VDC
V09 2-10VDC
A02 0-20mA
V03 0-5VDC
V04 0-10VDC

ITEM NO	Current	Load(3 phase)	
		220V star connection	380V delta connection
TC-200S-2-4-100-N-A03	100A	48KW	90KW
TC-200S-2-4-125-N-A03	125A	57KW	101KW
TC-200S-2-4-150-N-A03	150A	68KW	118KW
TC-200S-2-4-175-N-A03	175A	78KW	136KW
TC-200S-2-4-200-N-A03	200A	90KW	150KW

Remark: TC-200S-2-4-100-M-A03

TC-200S series

2: power source 85~265Vac

4: 3 phase 200~440V +/-15% load

100: 100 amps

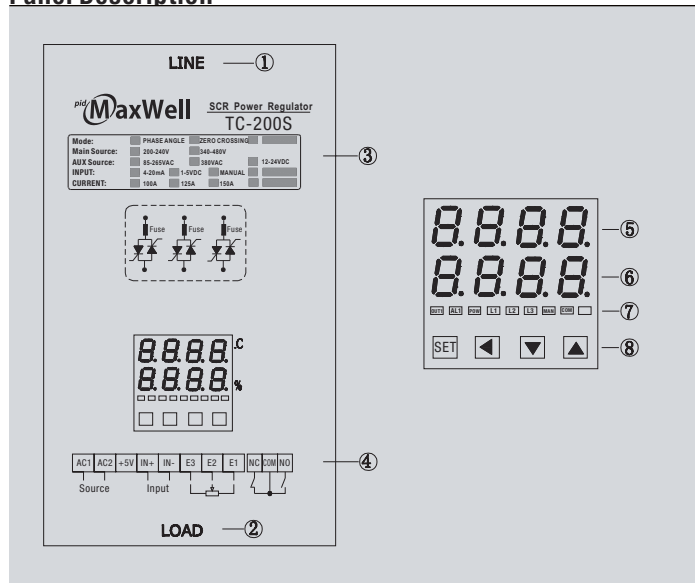
M: with RS-485 communication

A03: input is 4-20mA, 1-5VDC, 2-10Vdc

Cautions and notes

1. Fast fuse must be deployed in the system to protect SCR
2. SCR is not going to work if the load is less than 0.5A or without load
3. A lot of heat will be generated when SCR operates, the ambient temperature must be less than 50°C, the integrated fans will be activated if temperature on the SCR heatsink greater than 60°C, if the ambient more than 60°C, additional fans must be installed in the control cabinet to help the cooling. otherwise the self-protection mechanism will be triggered and output will stop
4. The screw must be fastened securely on the input and output, otherwise excessive heat will be accumulated on the screw and result in damage of the SCR

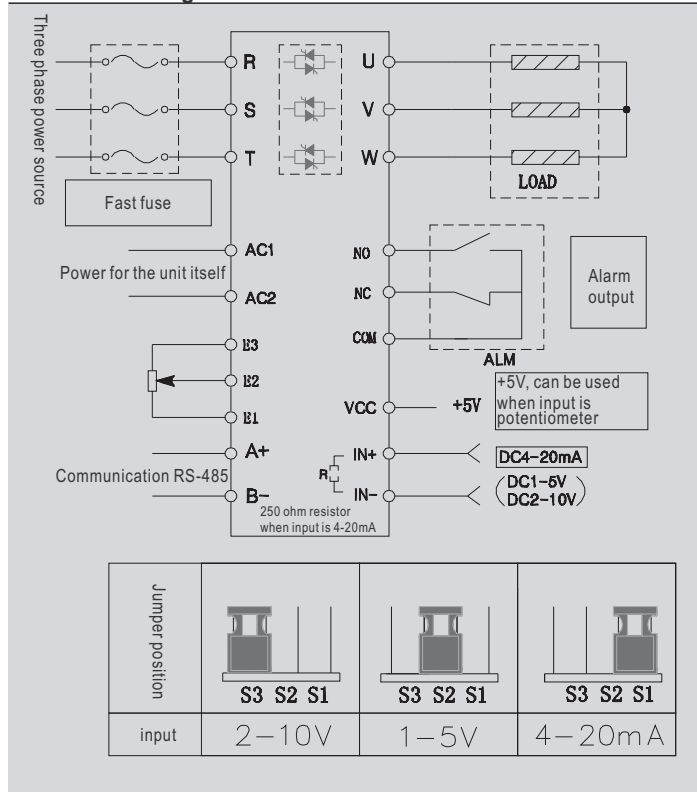
Panel Description



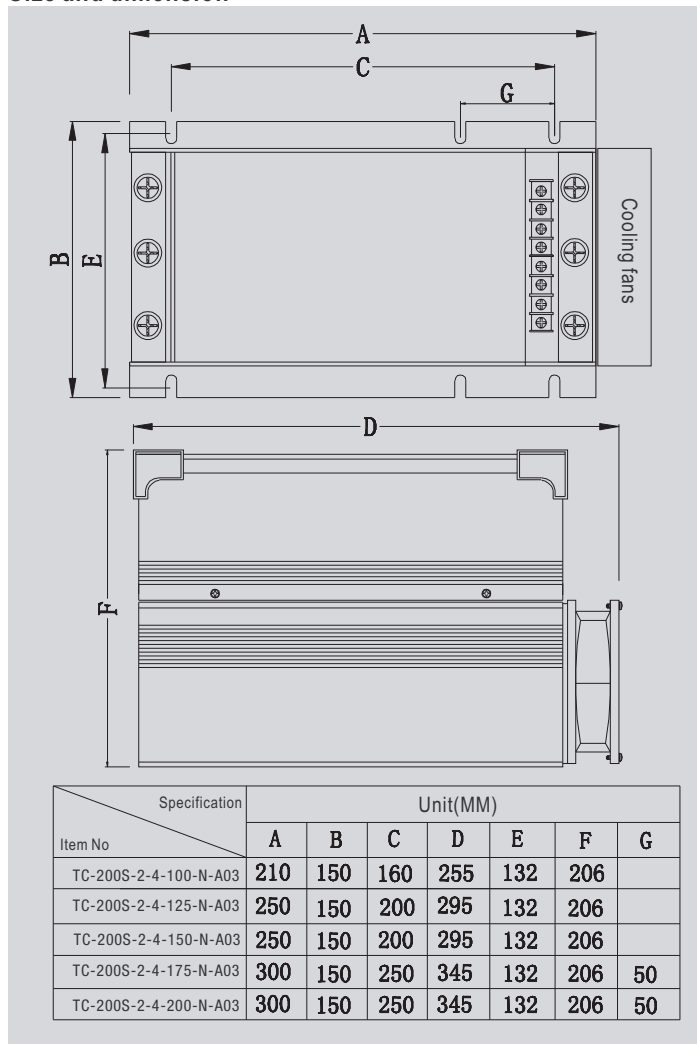
- 1: Load input
- 2: Load output
- 3: Specification
- 4: Terminals for connection
- 5: Temperature/parameter notation
- 6: SV, parameter value, input%

- 7: Various indicators
Out: output status
AL1: alarm for over temperature of lack of phase
L1: L1 line drop or fast fuse burn out
L2: L2 line drop or fast fuse burn out
L3: L3 line drop or fast fuse burn out
COM: communication indication
- 8: Set button
SET, function key, set key
◀: shift key
▼: decrement key
▲: increment key

Connection diagram



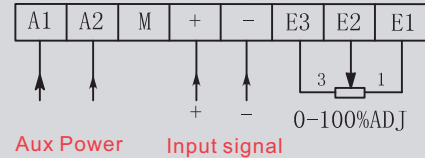
Size and dimension



Wiring instructions for different functions

There are different ways to wire the SCR for different application, please check carefully on this part before using

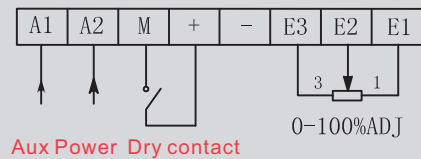
- (1) Analog input(mA, mV), and output ratio external adjustable, for example, can manually adjust the output from 0%~100%



>Output ratio external adjustable(0%-100%)

>The output ratio will always be 100%
When short circuit E3 and E2

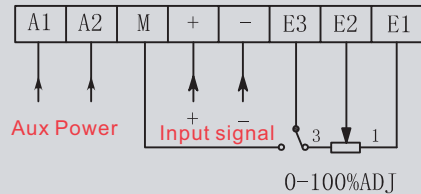
- (2) Dry contact input, and output ratio external adjustable, for example, can manually adjust the output from 0%~100%



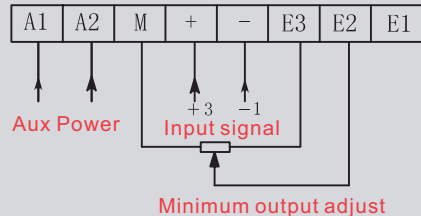
>Output ratio external adjustable(0%-100%)

>The output ratio will always be 100%
When short circuit E3 and E2

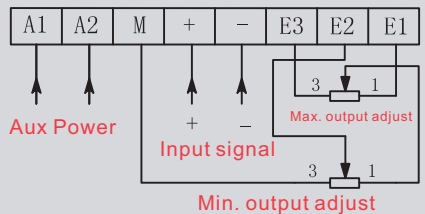
- (3) Analog input(mA, mV), manual/auto control switchable, output ratio external adjustable, this wiring pretty much the same as type (1) the difference is the manual/auto control is switchable in this mode



- (4) Analog input(mA, mV), Minimum output ratio can be pre-determined regardless of the input signal, even if input signal is "0"the SCR output will be restrained at its preset value.

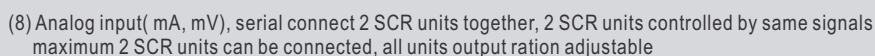
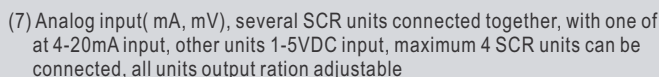


- (5) Analog input(mA, mV), Minimum and maximum output ratio can be restrained within a range. The SCR output will not response to input signals if input signals drives the output out of the preset ranges The SCR will work within a range for example 30%~80%

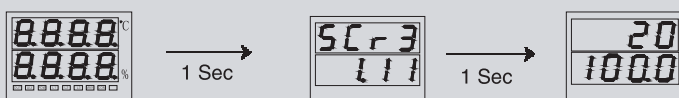


When maximum and minimum output set as the same value. SCR output be fixed, and will not respond to the input signal

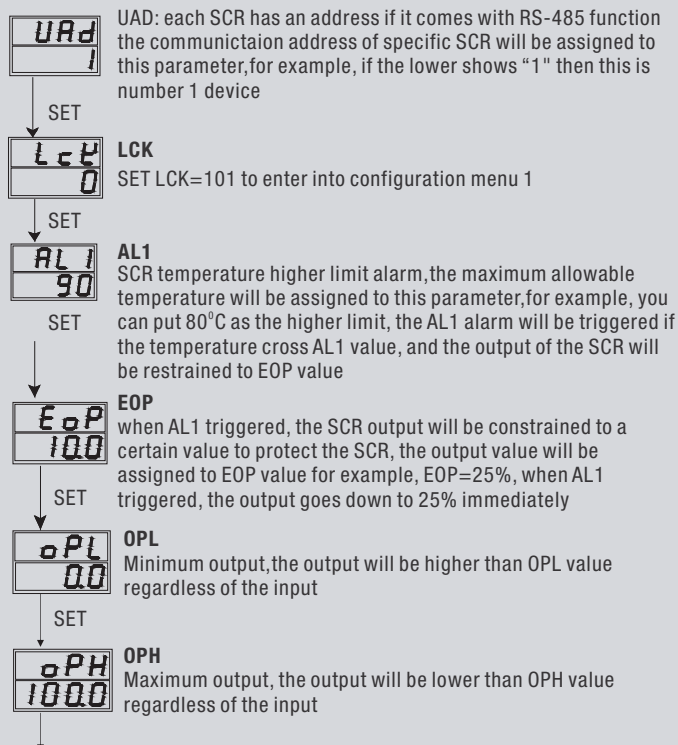
(6) Analog input(mA, mV), several SCR units connected together, with one of the units output ratio adjustable(0%-100%)



Power on



Press SET once to enter into configuration menu



SET

BUF

Soft-start, range: 0.0~100.0

if BUF=0, means it takes 10 seconds for the SCR output changes from OPL-OPH, if BUF=100, soft-start function disabled

SET

ADD

This parameter is used to set the SCR address if it comes with the RS-485 function, range: 0-127

SET

BAU

This parameter used to configure the communication speed if the SCR comes with RS-485 function, options are 24:2.4 KBPS 48:4.8KBPS, 96:9.6KBPS 192:19.2KBPS

SET

Sett

Setting of the parameters in menu 1 all finished
press SET to UAd and LCK to enter into menu 2

SET

LCK

Set LCK=202 to menu 2

SET

Auto

Auto control manual control configuration
0: auto/manual control function disabled
1: auto/manual control function enabled

SET

run

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Run/stop function configuration
0: run/stop function disabled
1: run/stop function enabled
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SET

Hz

Choose the frequency based on your power supply:

- 50H: for 50HZ
- 60H: for 60HZ