MAXWELL

Intelligent SCR Power Regulator

T-51/T-6/T-7 Series

Temperature Controller/Solid State Relay/Rotary Encoder/Proximity Sensors/Capacitive Sensors

General Features

- Rated load voltage 380VAC~440VAC
- Power supply 220VAC
- Voltage input signal: 0-5VDC,0-10VDC,1-5VDC,2-10VDC
- Current input signal: 4-20mA,0-20mA,0-10mA
- Rated load current 40A, 60A, 75A, 100A.
- For resistive load

Unique Features

- 3 phase input, auto phase detect
- Soft start function to protect load and SCR against surge current
- Integrated display with various LED indicator for status and error dispaly
- Integrated heatsink with auto temperature detection with over temperature alarm, SCR output reduce to preset value after alarm on(except T51).
- Maximum and minimum output configurable
- Maximum and minimum output configurable
- Auto/manual control switch
- RS-485 Mod Bus RTU communication optional(Except T-51)
- Input event function

Cautions !!!

*SCR can not be operated without load or load current less than 0.5
*Please make sure to tighten the screw securely while wiring the SCR, otherwise extra heat will be accumulated on the terminals results a damage on the SCR
*SCR must be mounted vertically on a solid panel without any objects placed above or beneath the SCR to make sure a smooth air flow
*If multiple SCR installed at the same control cabinet, the main principle is to make the air flow efficient among each unit
*The temperature inside of the control cabinet must be lower than 55 celsius, otherwise a cooling fan must be installed
*If two SCR installed paralleled, the distance between the two units must be more than 5CM
*It is user's responsibility to make sure your selection on the SCR is compatible with your application
*For safety consideration, a circuit breaker must be installed between the load and SCR
*Touch the input and output terminals have the same risk even if there is not current at some certain period while SCR is still working
*Never ever try to replace the cooling fans when SCR is working
*Make sure the load voltage compliance with the ratings of SCR
*Always make sure the wiring goes to the correct negative and positive terminals

Ordering Information

T51/T-6/T-7 — □ □ □ □ □ □
1 2 3 4 5 6 7

1:Version Code

- **T51**: T51 series, simplified version with limited function with compare to T6 and T7
- **T6**: T6 series, with more features
- **T7**: T7 is the same function as T6, just different size for different mounting space

2:Load type

- **3**: 3 phase load 380VAC~440VAC

3:Load current

- **40**: 40A
- **60**: 60A
- **75**: 75A
- **100**: 100A(only available for T6)

4:Power Supply

- **220**: 220VAC
- **380**: 380VAC
- **D**: 12-24VDC

5:Control signals

- **1**: 0-10mA
- **2**: 0-20mA
- **3**: 4-20mA
- **4**: 0-5VDC
- **5**: 0-10VDC
- **6**: 1-5VDC
- **7**: 2-10VDC

6:Alarm

- **M**: With alarm and Relay output
- **N**: No alarm

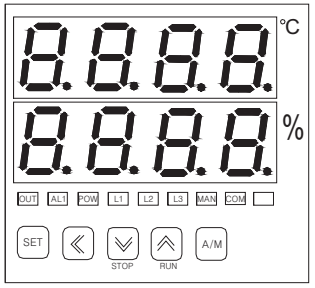
7:Communication

- **M**: With RS-485 Mod bus RTU
- **N**: Without communication feature

If you have a selection [**T7-3-40-220-3-M-N**]

- **>T7 series**
- **>3 phase load**
- **>40 amps**
- **>220VAC for SCR itself**
- **>Input 4-20mA**
- **>With alarm**
- **>Without communication**

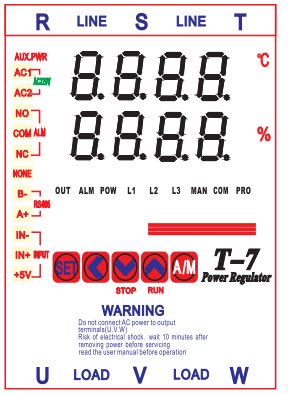
Panel Discription

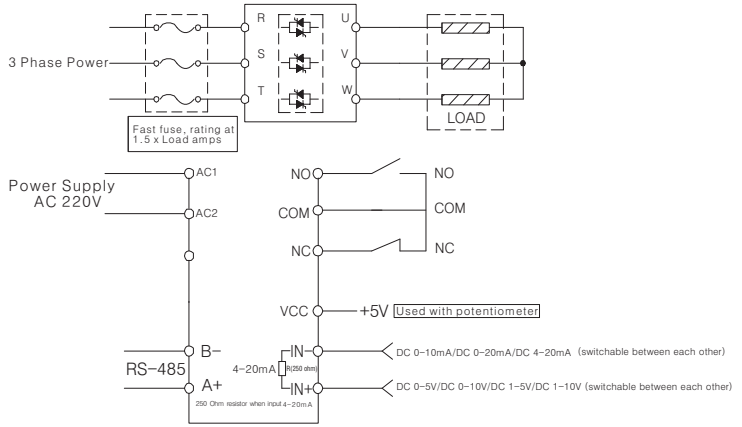


INDICATOR
- OUT: The flashing frequency indicate the output ratio
- AL1: Over temperature alarm indicator
- POW: Power feed indicator
- L1: Phase indicator, when L1 absence, lights on
- L2: Phase indicator, when L2 absence, lights on
- L3: Phase indicator, when L3 absence, lights on
- MAN: Manual control indicator
- COM: Communication indicator

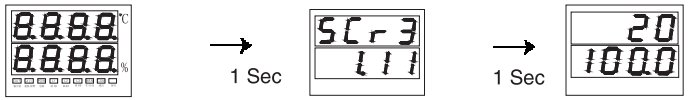
SET KEY
- SET: Parameter setting and configuraion
- A/M: Manual/auto control switch
- POW: Power feed indicator
- <: Left shift key, to shift the display unit
- v: Decrease key or Stop key
- ∧: Increase key or Run key

Connection Diagram





Power Up



Power Up

Upper：SCR3
Lower：1.11

Normal display
Upper display shows heatsink temperature
Lower display shows the input percentage

Configuration flow chart

Menu Level 1

Press SET once to enter Menu Level 1

UAD：To display the communication address
uad=ADD (ADD was preset during the communication setup)
Press SET to password parameter

Passwork "LCK"

SET LCK=101，Press SET to goes to menu level 1
Press SET

Level 1

AL1

SET a temperature for alarm to be triggered if heatsink temp exceed set value, when AL1 set as "0" , this function disabled

Press SET

EOP

Output value goes down to EOP value if over temperature alarm on

eg：When SCR temp reaches to AL1 alarm, the output goes down to EOP value

Press SET

OPL

Minimum output parameter, Range：0.0-100.0%

Eg：When there is no signal feed from outside, the SCR still output at OPL value

Press SET

OPH

Minimum output parameter, Range：0.0-100.0%

Eg：The maximum output can be restrained at OPH value to protect the system

Press SET

BUF

Soft-start parameter，Range:0.0-100.0

The outut change ratio per second

Eg：BUF=10.0，means that it takes 10 seconds for the SCR output changes from 0.0-100.0% BUF=100.0, soft-start function disabled

Press SET

Temperature Controller/Solid State Relay/Rotary Encoder/Proximity Sensors/Capacitive Sensors

ADD: communication setting parameter

Range：0-127

Set Communication address for each SCR

Press SET

BAU

BAU: commnication speed

Range：24:2.4KBPS 48:4.8KBPS 96:9.6KBPS 192:19.2KBPS

Press SET to exit

Level 2

Press SET once to enter
UAD：To display the communication address
uad=ADD (ADD was preset during the communication setup)
Press SET to password parameter

Parameter LCK

Set LCK= 202，Press SET to goes to auto/manual parameter
Press SET to enter

AUTO(Auto/manual control configuration)
0：auto/manual function off
1：auto/manual function on

Press SET

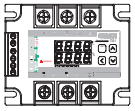
RUN(Run/stop configuration)
0：Run/stop off
1：Run/stop on

Press SET

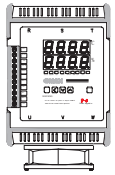
HZ：To choose the power supply frequency

Press SET to exit

Size and Dimensions



Model	Size(mm)L*W*H	Install(mm)L*W
T-51-3-40-220-3-N-N	118*140*118	55*135
T-51-3-60-220-3-N-N	133*140*118	55*135
T-51-3-75-220-3-N-N	133*140*118	55*135



Model	Size(mm)L*W*H	Install(mm)L*W
T-6-3-40-220-3-N-N	160*140*145	120*130
T-6-3-60-220-3-N-N	160*140*145	120*130
T-6-3-75-220-3-N-N	220*140*145	150*130
T-6-3-100-220-3-N-N	220*140*145	150*130

Model	Size(mm)L*W*H	Install(mm)L*W
T-7-3-40-220-3-N-N	160*110*148	105*100
T-7-3-60-220-3-N-N	160*110*148	105*100
T-7-3-75-220-3-N-N	160*110*148	105*100