T Series intelligent power controller

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 dispaly
- Integrated heatsink and fans with temperature detection
- Over temperature alarm, output protection after alarm on(except SCR-51)
- Maximum and minimum output configurable
- Auto/manual control bumpless transfer(except SCR-51)
- Run/stop functcion
- RS-485 modbus RTU display
- Event input function
- Rated load voltage 380~440Vac 50/60HZ
- Power supply for SCR to work is 220Vac, 380Vac, 12-24VDC optional
- Input, 0-10Vdc, 4-20mA, 0-5Vdc, 1-5Vdc, 2-10Vdc, 0-20mA, 0-10mA
- Rated current options, 40 amps, 60 amps, 75 amps, 100 amps.
- This SCR only compatible with resistive load

Technical Specifications

Ordering Information

T-[1]-[2][3][4][5]-[6][7]

1: Type of SCR power regulators

51	51 series SCR regulator(without alarm and RS-485 function)
6	6 series SCR regulator
7	7 series SCR regulator

2:Load phase

3	3 phase load system

3:Load current

4	40 amps 380~440Vac
6	60 amps 380~440Vac
7	75 amps 380~440Vac
1	100 amps 380~440Vac(only SCR-6 with 100 amps option)

3:Power supply for the unit itself

2	220Vac
4	380Vac
D	12-24Vdc

4:Input signal

1	0-10mA
2	0-20mA
8	4-20mA
5	0-5Vdc(potentiometer)
6	0-10Vdc
7	1-5Vdc
3	2-10Vdc

5:Over temperature alarm(This is only available for SCR-6 and SCR-7)

N	without alarm
M	with 1 alarm, relay output

6:Communication(This is only available for SCR-6 and SCR-7)

N	without communication
M	With RS-485 modbus RTU communication

Remark: T-51 series do not have alarm and RS-485 options, only SCR-6 and SCR-7 have alarm and RS-485 option
only SCR-6 series available with 100 amps

eg: SCR-6-3128-NN(SCR-6 3 phase regulator, 100 amps, 4-20mA input)
SCR-7-3728-MM(SCR-7 3 phase regulator, 70 amps, 4-20mA input, with 1 alarm, with RS-485 communication)

Size and dimensions

Model: T-51-3428 40 amps
overall size:118mm*140mm*118mm
Mounting size:55mm*135mm

Model: T-51-3628 60 amps
overall size:133mm*140mm*118mm
Mounting size:55mm*135mm

Model: T-51-3728 75 amps
overall size:133mm*140mm*118mm
Mounting size:55mm*135mm

Model: T-6-3428 40 amps
overall size:160mm*140mm*145mm
Mounting size:120mm*130mm

Model: T-6-3628 60 amps
overall size:160mm*140mm*145mm
Mounting size:120mm*130mm

Model: T-6-3728 75 amps
overall size:160mm*140mm*145mm
Mounting size:120mm*130mm

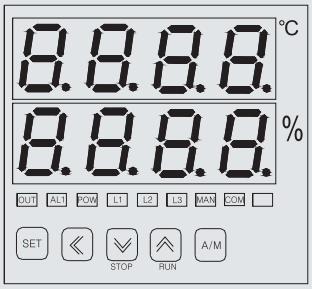
Model: T-6-3128 100 amps
overall size:220mm*140mm*145mm
Mounting size:150mm*130mm

Model: T-7-3428 40 amps
overall size:160mm*110mm*148mm
Mounting size:105mm*100mm

Model: T-7-3628 60 amps
overall size:160mm*110mm*148mm
Mounting size:105mm*100mm

Model: T-7-3728 75 amps
overall size:160mm*110mm*148mm
Mounting size:105mm*100mm

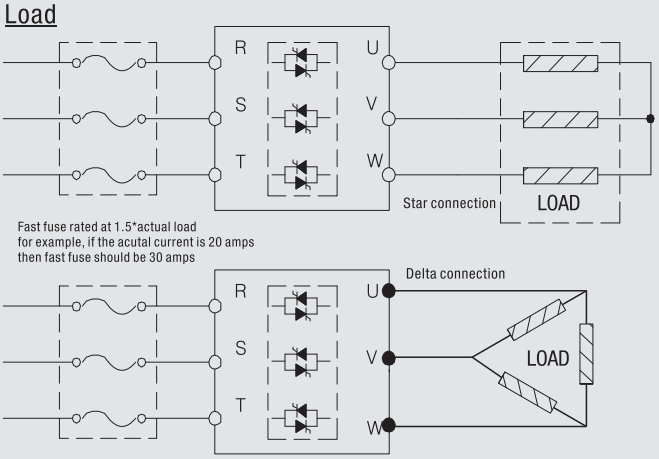
Panel discription



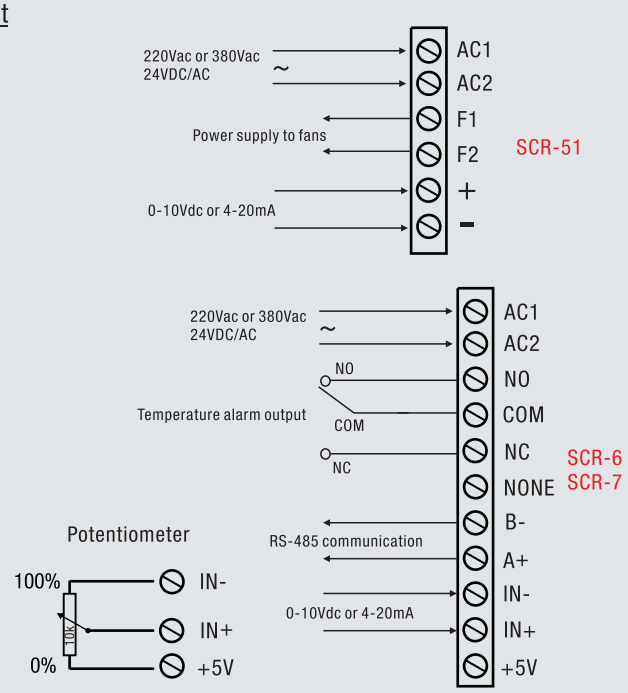
INDICATOR	OUT: The flashing frequency indicate the output ratio AL1: Over temperature alarm indicator POW: Power feed indicator L1: Phase indicator, when L1 absence, lights on L2: Phase indicator, when L2 absence, lights on L3: Phase indicator, when L3 absence, lights on MAN: Manual control indicator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

Connection diagram

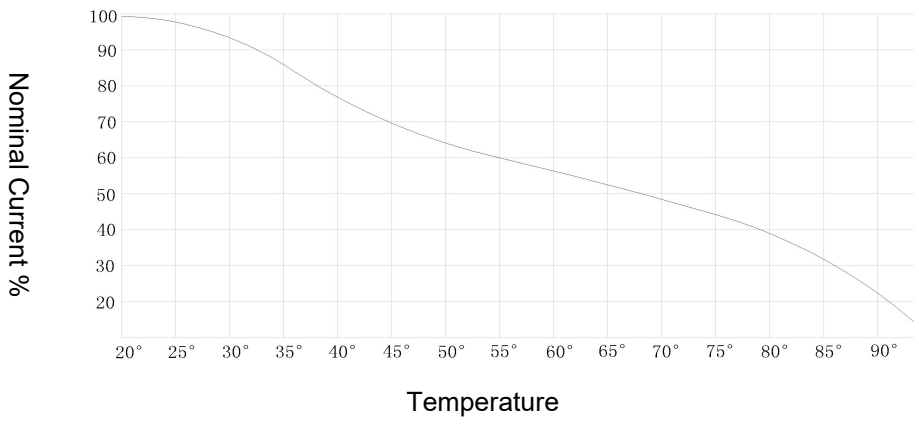
Load



Input



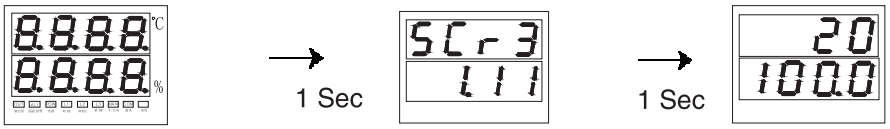
Performance



Is recommended to work up to 60% of the rated power

T series Configuration manual

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

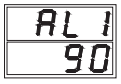
Press SET once to enter Menu Level 1

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

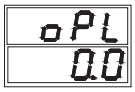
SET a temperature for alarm to be triggered if heatsink temp exceed set value, when AL1 set as "0"，this function disabled

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

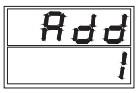
Minimum output parameter, Range：0.0-100.0%
Eg：The maximum output can be restrained at OPH value to protect the system

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

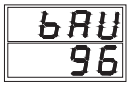


ADD: communication setting parameter

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

evel 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

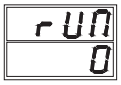
Press SET to enter

AUTO(Auto/manual control configuration)

0 : auto/manual function off

1 : auto/manual function on

Press SET

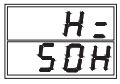


RUN(Run/stop configuration)

0 : Run/stop off

1 : Run/stop on

Press SET



HZ : To choose the power supply frequency

Press SET to exit

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