

Mono-phase SCR power regulator

BRL、BRD、BRA TYPE



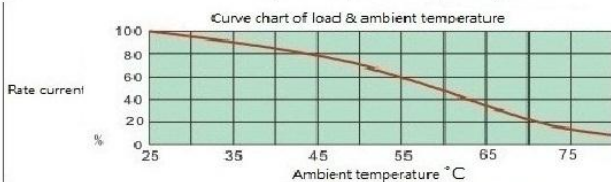
- Output mode: Phase trigger control & Zero cross trigger control
- 6 input signal of option 0~5V, 1~5V, 0~10V, 2~10V, 0~20mA, 4~20mA
- Built-in FUSE protect for saving the space and repair a new easier
- Built-in overheat protect and temperature indicator of heat sink
- Built-in RS-485 communication function
- Can be displayed input commands, output current, output percentage, the temperature of heat sick and error message
- Can set the cushion start time, overload and under load level
- Have the function of error output contact and plan
- Full function model includes thyristor puncture, fuse melting, heater wire-burn and heater overload protect

Specification

Aux. Power	90~240V AC±15% 50/60HZ Power sumpition: 5W
Main Power	Single Phase (110, 220, 380, 440) ±15% 50/60Hz
Rated Current	30A, 60A
Control Mode	Phase Control/ Zero Control (please switch to another mode)
Input Signal	0~5V, 1~5V, 0~10V, 2~10V, 0~20mA, 4~20mA
Output Control Range	0~100.0%
Resolution/Linear	0.1% / 1%
Cooling Way	Nature cooling (if the inside temperature is overheat, please build-in the fans)
Ambient Temperature/ Humidity	-10~+50°C / under 90%RH
Hi-pot Test	AC2000V/1 min. (between the power/signal terminal and heat sinks)
Noise Susceptibility	2KV 5KHZ
Isolation Resistor	over 20MΩ/50V (between the power/signal terminal and heat sinks)
Housing material	ABS (UL94V)

Model Explanation

BRL 4 030					
Model	BRL	SIMPLE TYPE			
	BRD	DISPLAY TYPE (INCLUDED DISPLAY)			
	BRA	FULL (INCLUDED DISPLAY, COMMUNICATION, DETECT ERROR)			
Mains	4	AC 110V ~ 440V BRL: AC 200V ~ 440V			
Rated Current	030	30A	FUSE	FWC-32A10F	
	060	60A		80FE	

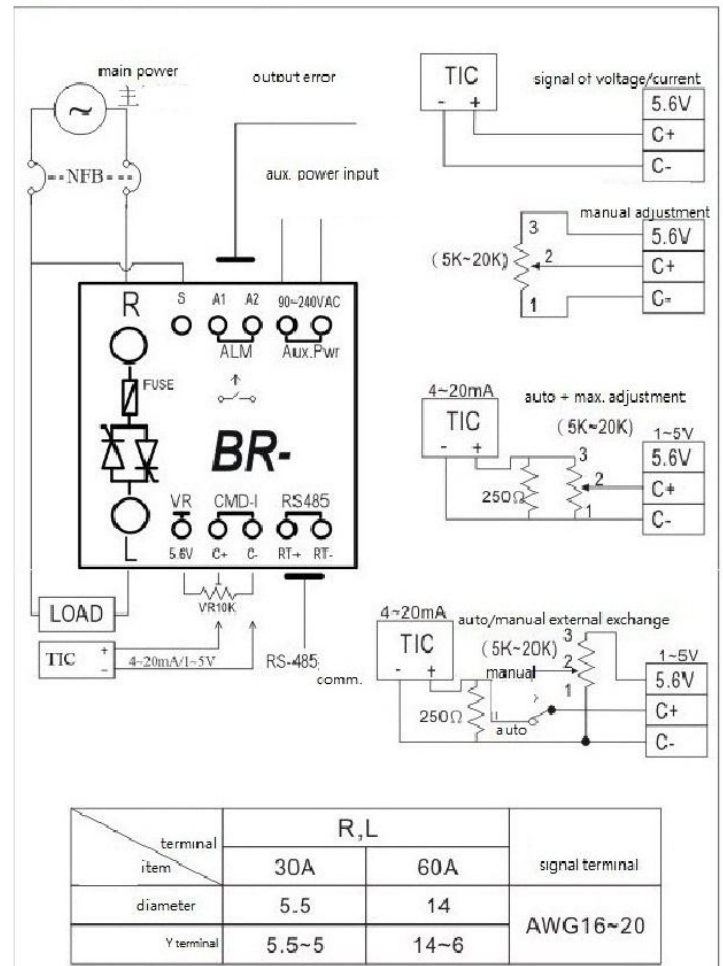


Mode Select

control mode	Input signal	S4	S3	S2	S1	Marked
Phase control	0~5V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1~5V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	0~10V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	2~10V	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	0~20mA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
zero cross control	0~5V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1~5V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0~10V	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2~10V	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0~20mA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4~20mA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

: ON
 : OFF
 → default

Wiring diagram



terminal item	R, L		signal terminal
	30A	60A	
diameter	5.5	14	AWG16~20
Y terminal	5.5~5	14~6	

(BRD&BRA) Operation & Display function

Panel explanation

MODE ESC: (MODE) mode switch (ESC) out of this mode

UP: Aux. mode for option. The value be increased 1

DOWN: Aux. mode for option. The value be decreased 1

SEL ENT: Enter the option of mode, hold this key over 1sec. to enter your demand mode

Indicator of Run

Indicator of comm.

Display model selection

[MODE] Press [MODE] to start

d.00

PEr: Output percentage 0~99

Cmd: Input command 0~20.0mA, 0~10.0V

Hot: Heat Sink temp. 0~100 °C

CUr: Output Current 0.0~99.9A

Test Mode
Press [SEL] 2 secs. to start

T.00: Manual output test 0~100%

Step 2. Parameter setting (PrEsS MODE key for 2 sec. to start and re-press MODE key for the next parameter. When finished setup, please press MODE key for 2 sec. to exist)

P.00	Input command option 0-5, 1-5, 0-10, 2-10, 0-20, 4-20	4~20
P.01	Soft start time 1~60S	10
P.02	Response speed time 1~10S	2
P.03	Max. value setting 0~100%	100
P.04	Min. value setting 0~50%	0
P.05	MNU: Stop working ATO: Only alarm keep working	ATO
P.06	Relay specified output ALM: (abnormal) / FAN: (overheated)	Alm
P.07	Overload setting 0~99A (0=OFF)	OA
P.08	Under load setting 0~99A (0=OFF)	OA
P.09	Communication delay 3~99 secs.	5
P.10	Communication address 1~99	1
P.11	Communication frequency 2.4, 4.8, 9.6, 19.2 KBPS	9.6
P.13	Current anomaly detection function On: open / OFF: function closed	ON
P.14	Rated current ratio 0: Close rated current Start rated function, the system should be the phase controlled)	OA

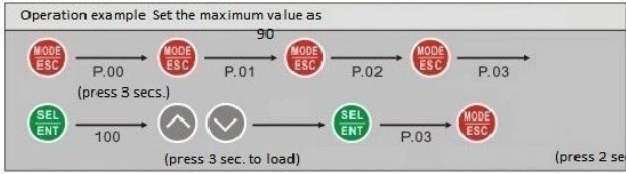
ERROR CODE

E.01	Overload current 1.3X of the rated current Start to judge when exceed 50% output
E.02	Power/Fuse broke
E.03	Overload exceed P05 setting value, start to judge when exceed 50% output
E.04	(Heat Sink) > 80° C
E.05	Load disconnection, start to judge when exceed 35% output
E.06	Thyristor puncture, when there is not output, start to judge
E.07	Under load lower P08 setting value, start to judge when exceed 50% output
E.08	Temperature sensor, fault, when the output exceed 10%, the temperature is still 0' after 10 mins

All function model

Cancelled the error code: Press [V] + [SEL] at the same time to clean the anomaly display, re-detect the status

Parameters setting: To start the parameter setting status and select the changed projects, press [SEL] to load the value, use [UP][DOWN] button to add or delete the value, and then re-press [SEL] for 1 sec. to finish the changing.

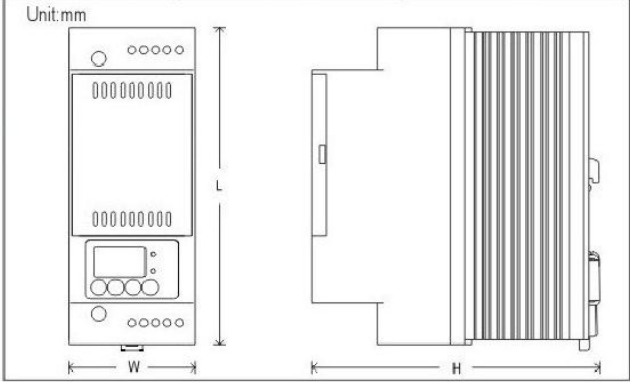


Communication Function

Operation Description	(Add.)	Modbus Add.	資料 Data	讀/寫 Read/Write
Output error status 1: Error	0000	00001	bit	R
Select control mode 1:communication/0:external	0001	00002	bit	R/W
Output status 1: ON / 0: OFF	0002	00003	bit	R
Exceptional status clearing Clear the error alarm	0003	00004	bit	R/W
Soft start time Range: 0~100 secs.	0000	40001	word	R/W
Output responding time Range: 0~10.0 sec.	0001	40002	word	R/W
Max. of output value Range: 0~100%	0002	40003	word	R/W
Min. of output value Range: 0~20%	0003	40004	word	R/W
Overload setting 50~125% (126=OFF)/ Range	0004	40005	word	R/W
Under load setting 0~50% (0=OFF)/ Range	0005	40006	word	R/W
Output percentage setting Range: 0~100%	0006	40007	word	R/W
Reading external command Range: 0~99%	0007	40008	word	R
Heat Sink Temperature 0~100°C (Range: 0~100 °C)	0008	40009	word	R
Output current Range: 0~100A	0009	40010	word	R
Exceptional status 00~08 (0: normal)	0010	40011	word	R

Appearance, Dimension and Installation

Current	30A	60A
Length (L)	145	145
Width (W)	55	55
Height (H)	105	125
Weight (kgs)	0.8	1.0



Fixation: Can select the aluminum rail or double-screw to fixed

NOTE: Adopts vertical installing so as to achieve the best radiation effect
Notice the width of the inter space between two heat sinks to ensure the best radiation ability
Keep the sufficient space for ventilation at the upper and lower side
Control cabinet should have vent holes and mounted with fans so as to make ventilation better
If the internal temperature is too high, please use the current lower than 70% of rated current

