

# SEROUN

SSC & SSR  
SOLID STATE CONTROLLER  
SOLID STATE RELAY

## Seroun Electronics Co., Ltd

Rm 225, 151B-6L, Namdong Ind. Complex, Gojandong 722, Namdonggu, Incheon Korea

TEL : (032)821-4901~3, FAX. : (032)821-4904

e-mail : [seroun@chollian.net](mailto:seroun@chollian.net), [seroun@seroun.co.kr](mailto:seroun@seroun.co.kr)

http:// [www.seroun.co.kr](http://www.seroun.co.kr)

## CONTENTS

### **1.0 Model Identification**

#### **1.1 Electrical Specification**

#### **1.2 Size Drawing**

### **2.0 SSC (Seroun's Solidstate Controller)**

#### **2.0.1 Characteristics**

#### **2.0.2 Conceptual Drawing**

#### **2.0.3 Connection Drawing**

#### **2.0.4 Circuit Application Drawing**

### **3.0 SSR(Seroun's Solidstate Relay)**

#### **3.0.1 Characteristics**

#### **3.0.2 Conceptual Drawing**

#### **3.0.3 Connection Drawing**

#### **3.0.4 Circuit Application Drawing**

### **4.0 References**

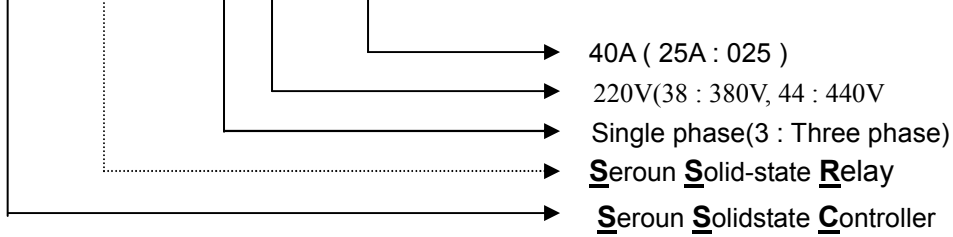
#### **4.0.1 Applicable Heat Sink**

#### **4.0.2 Size of Heat Sink**

#### **4.0.3 Practical Installation**

### 1.0 Model Identification

**SSC (SSR) --- 1.22 --- 040**

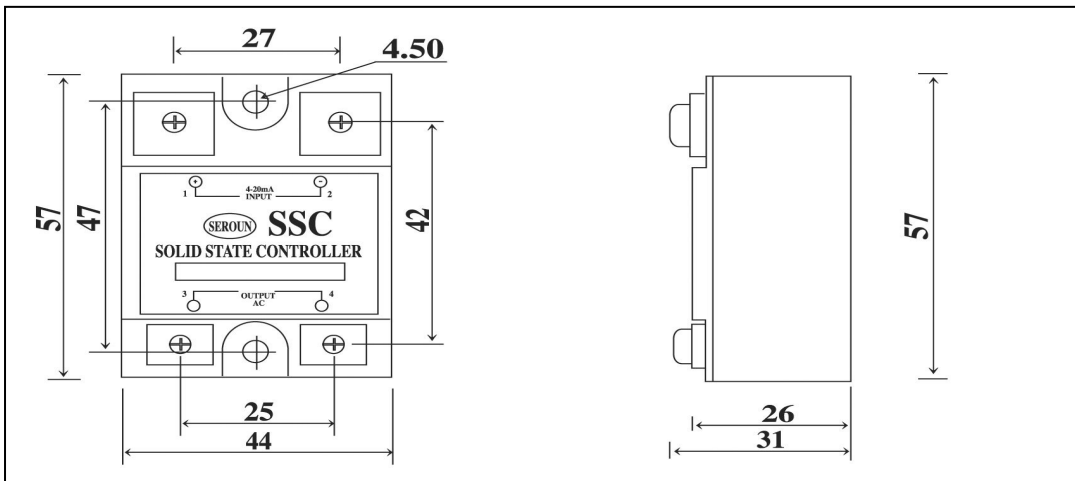


### 1.1 Electrical Specification

	SSC (Seroun's Solidstate Controller)	SSR (Seroun's Solidstate Relay)
Type	Single Phase, and Three Phase (under development)	
Current Rating ( IT )	10A, 20A, 30A and 40A	
Voltage Rating ( VOT )	220V, and 380V(under development)	
Load control range ( VO )	0~Full	
Frequency ( F )	50/60 Hz	
Peak Voltage ( VD <sub>RM</sub> )	At input 220V : 600V, at input 380V : 1,200V	
Voltage Drop ( VT )	1.8V	
Signal Current ( I <sub>mA</sub> )	DC4~20mA	AC/DC4~32V/5mA
ON/OFF Max. Voltage ( V <sub>MAX</sub> )	DC10V	32V
ON/OFF Min. Voltage ( V <sub>MIN</sub> )	DC3.2V	4V
Input Impedance ( Zo )	160Ω	-
절연저항 ( R <sub>iso</sub> )	DC500V/100MΩ	
Response ( T <sub>RES</sub> ) & Function	Soft Start, 35msec max.	35msec max.
Allowable Operating Tem.( °C )	-10~55 °C	
Control	Phase Control	ON/OFF control
Application	1. Power control for electric furnace, thermostat, . 2. Electronic displayer, signal & ticketing for traffic and rail transportation. 3. NC and Press/Sequence Controller. For NC machine & tools 4. Office automation . 5. Controls for refrigerator, tools, air conditioner. 6. Controls for automatic door system, resin forming, UPS and elevator.	

### 1.2 Size drawing ( for both of 1Ø SSC & SSR)

unit : mm



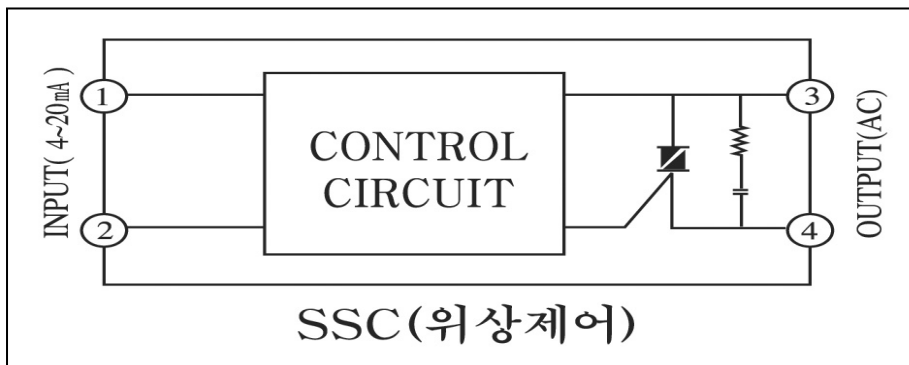
## 2.0 SSC ( Seroun's Solidstate Controller )

**Seroun's Solidstate Controller**, SSC-Unit is not only a compact plastic package type Thyristor Regulator but also it has unique system design utilizing TIC4~20mA signal as the control power without converter, and function of phase control which combines systematically both of the conventional SSR and thyristor regulator. The standard products are 10A, 20A, 30A and 40A for AC 220V for Single Phase, and the products for 380V and Three Phase will be produced in near future. Other than the standard specification will be complied with customer's specification.

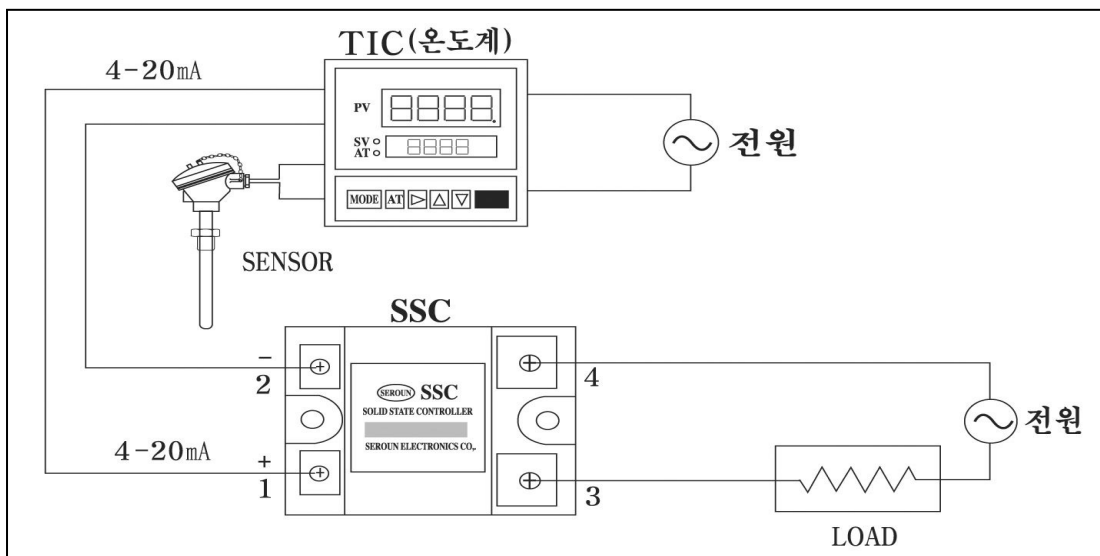
### 2.0.1 Characteristics

- 1) It has the phase control function with 4~20mA signal in the output range of 0~100%.
- 2) Its "Soft Start" function does manage the load of heater safely and stably.
- 3) It is very economical because it has a bigger control capacity even it's very small size, and also it needs less space for installation.
- 4) Because the photo coupler installed between input and output for electrical isolation can protect a noise which may come from the loads, it can obtain a stable operation.
- 5) Because of non-contact it is free from arc, chattering, bounce and noise.
- 6) It adopts a protecting function against a over temperature of the. heat sink.(option)
- 7) It adopts a monitoring function against the disconnection of the triac.(option)
- 8) It is very simple and easy to handle and install because of its small size.
- 9) In case smaller capacity it has a magnificent advantage than the other controllers such as magnetic contact type and thyristor regulator.

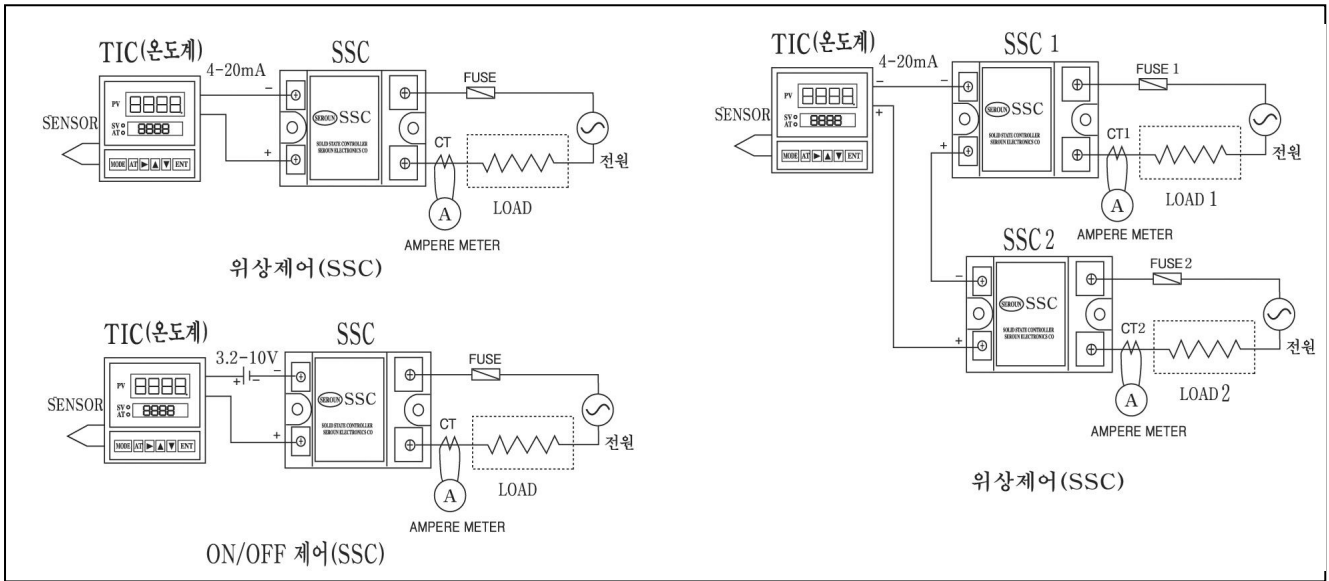
### 2.0.2 Conceptual drawing



### 2.0.3 Connection drawing



### 2.0.4 Circuit application drawing

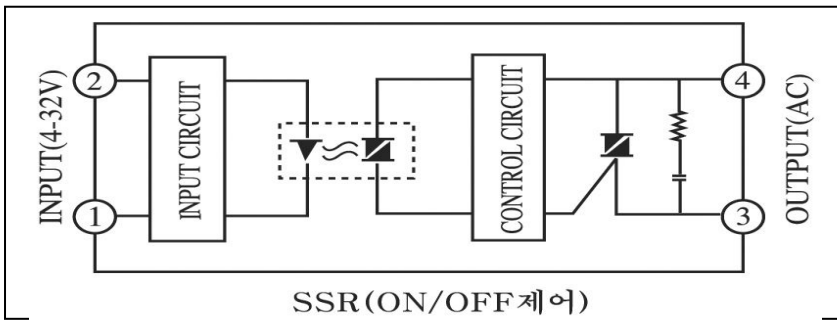


### 3.0 SSR (Seroun's Solidstate Relay)

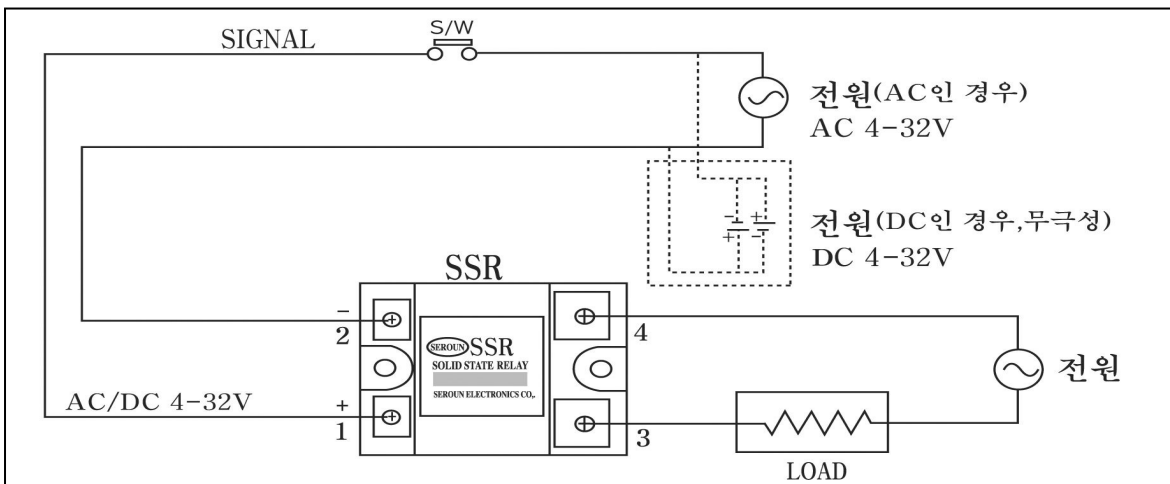
#### 3.0.1. Characteristics

- 1) Because A ON/OFF operation can be operated by both of AC/ DC 4~32V signal, it is used for power control
- 2) It is very economical because it has a bigger control capacity even it's very small size, and also it needs less space for installation.
- 3) Because the photo coupler installed between input and output for electrical isolation can protect a noise which may come from the loads, it can obtain a stable operation.
- 4) Because of non-contact it is free from arc, chattering , bounce and noise.
- 5) It is very simple and easy to handle and install because of its small size.
- 6) In case smaller capacity it has a magnificent advantage than the other controllers such as magnetic contact type and thyristor regulator.

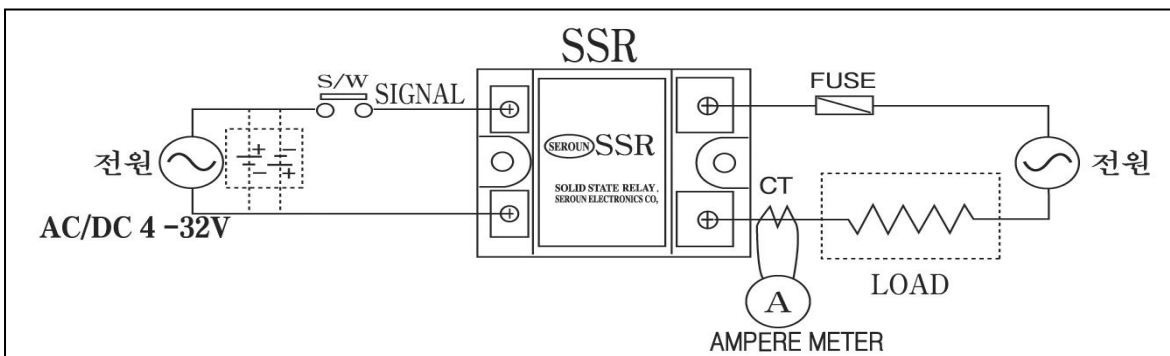
#### 3.0.2 Conceptual drawing



#### 3.0.3 Connection drawing

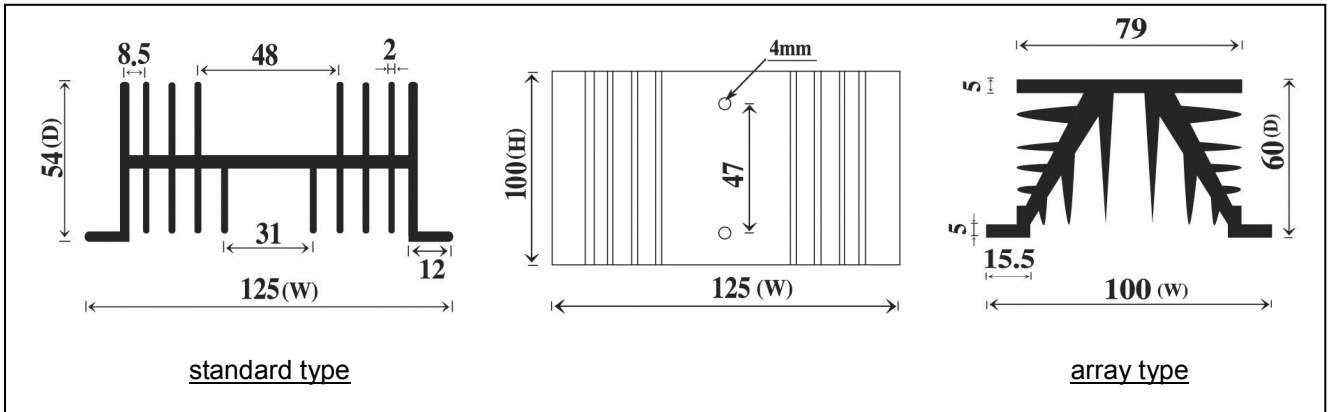


#### 3.0.4 Circuit application drawing



## 4.0 References

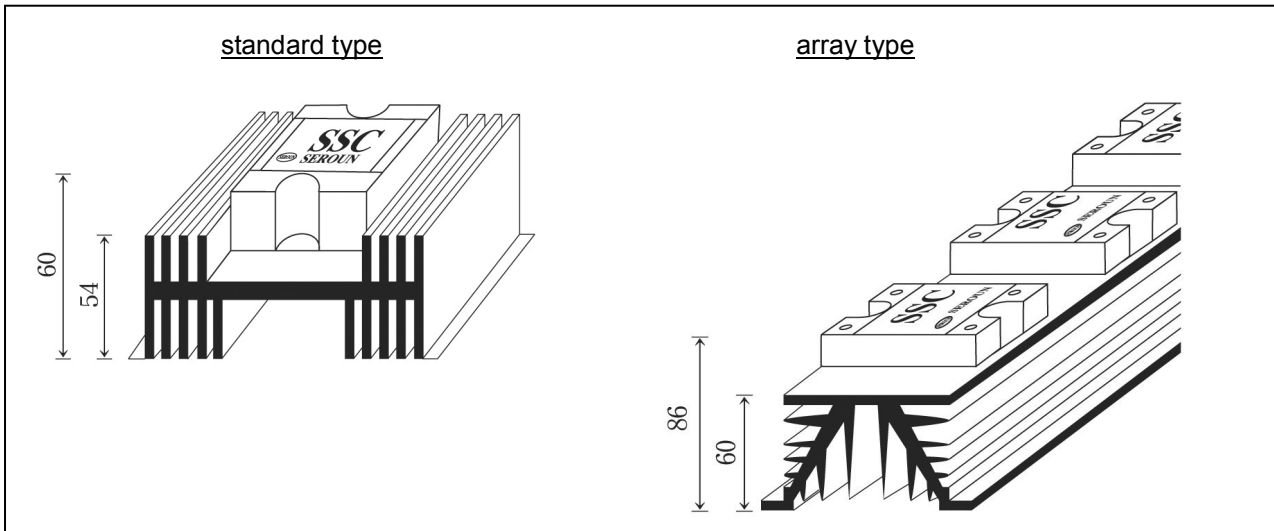
### 4.0.1 Applicable heat sink



### 4.0.2 Size of heat sink

size(mm) rating amp.	width(W)	height(H)	depth(D)	recommend
10A	125	100	54	Standard type
~20A	125	100	60	Standard type
~30A	125	100	60	Standard type
~40A	125	100	60	Standard type

@In case higher than 15A, do not use The array type heat sink (Note:cooling fan installation is recommendable)



### 4.0.3 Practical installation

