

# Solid State Relay

## SA-400 series



### Model

SA - 4 □ □ - Z		
Rated current	20	20A
	40	40A
Control	Z	Zero-cross

Main unit + Heat sink + Mounting brackets for DIN rail provided

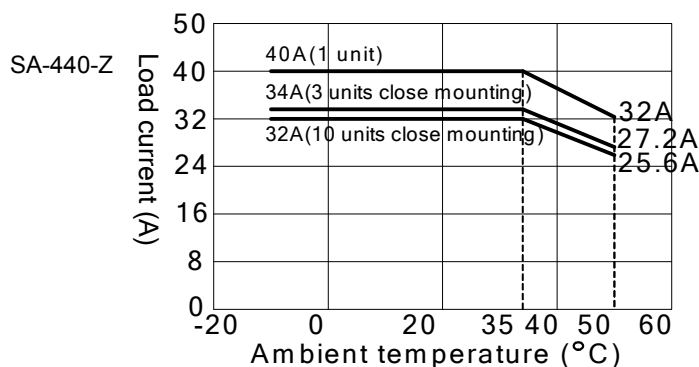
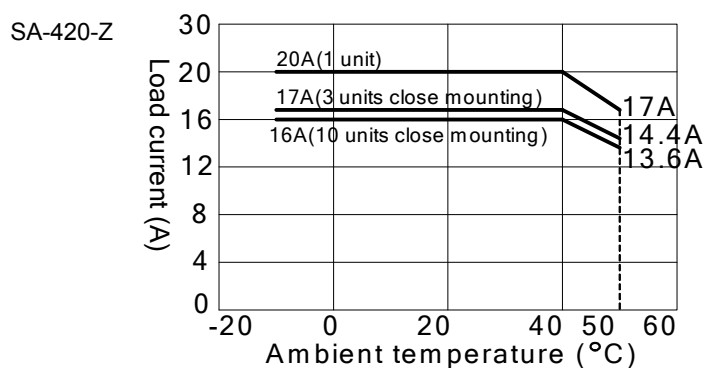
### Standard specifications

Rated input voltage	5 to 24V DC
Input current consumption	7mA or less (at 25°C)
Rated load voltage	100 to 240V AC
Surge ON current tolerance	220A (SA-420-Z) 440A (SA-440-Z)
Applicable load	Resistive load
Operating time	1/2 cycle of the load current + 1ms or less
Restoration time	1/2 cycle of the load current + 1ms or less
Output ON voltage drop	1.6V (RMS) or less (when applying max. load)
Leak current	10mA or less (at 200V AC)
Insulation resistance	100M $\Omega$ or more (at 500V DC): Between Input/Load terminals, Between terminals – Heat sink
Dielectric strength	3000V AC for 1 minute Between Input/Load terminals, Between terminals – Heat sink
Storage temperature	-20 to 60°C (No icing, non-condensing)
Operating temperature	-10 to 50°C (No icing, non-condensing) Please refer to the section "Load current and ambient temperature characteristics".
Operating humidity	45 to 85%RH
Weight	280g (SA-420-Z) 380g (SA-440-Z)

### Features

- Slimline
- Both DIN rail and panel mountable
- Easy viewing of action by LED display
- Wide range of input voltage (5 to 24V DC)
- Terminal cover included

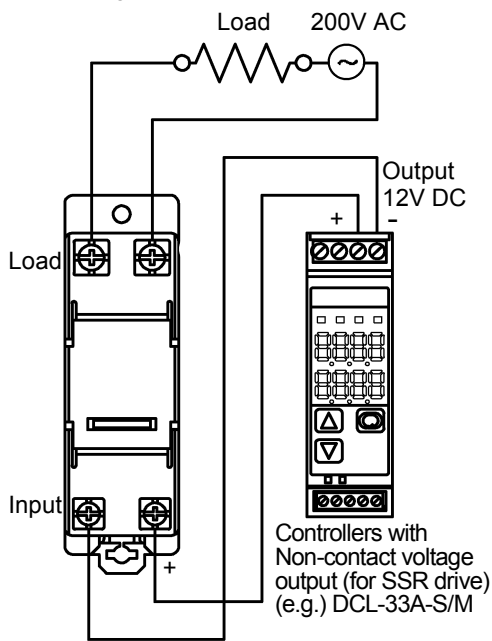
### Load current and ambient temperature characteristics



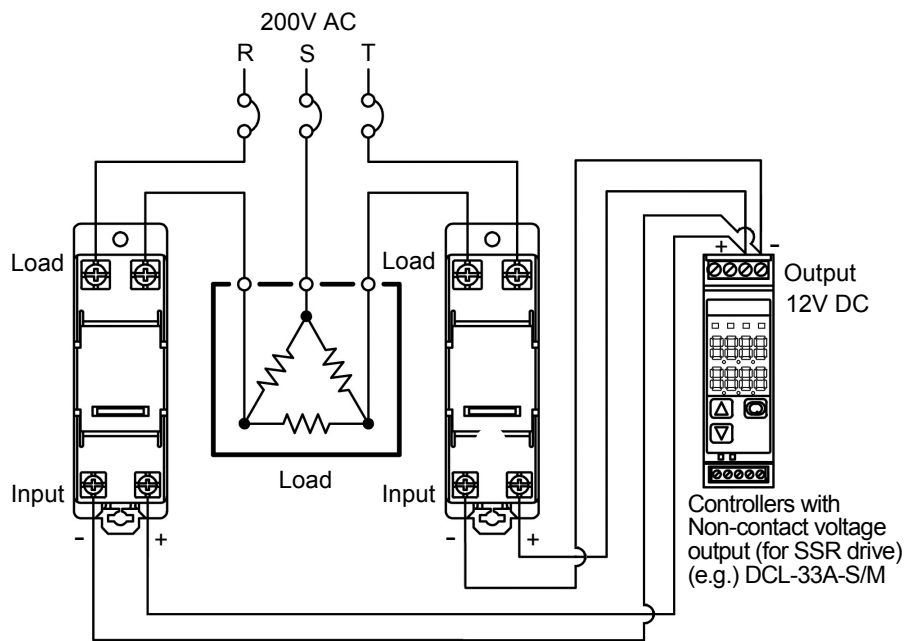
**Shinko**

## ■ Wiring example

### ● Single-phase circuit

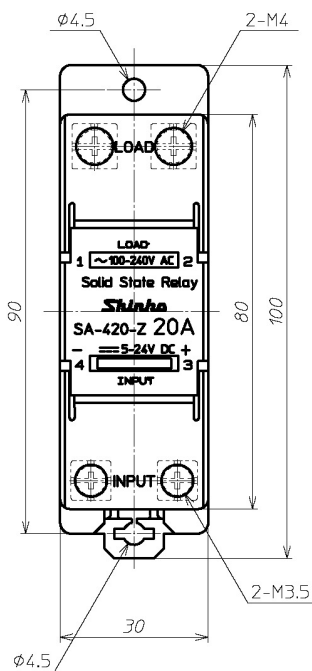


### ● 3-phase circuit

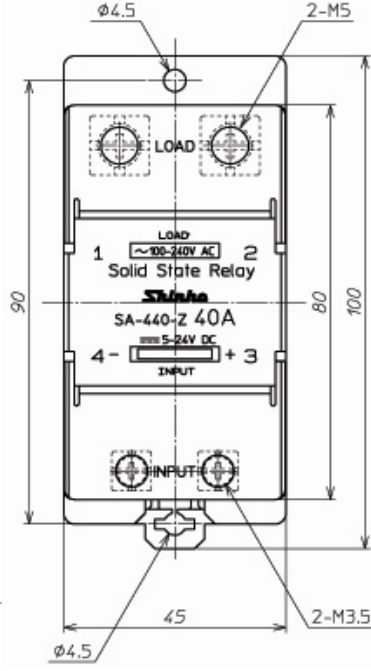


## ■ External dimensions (Scale: mm)

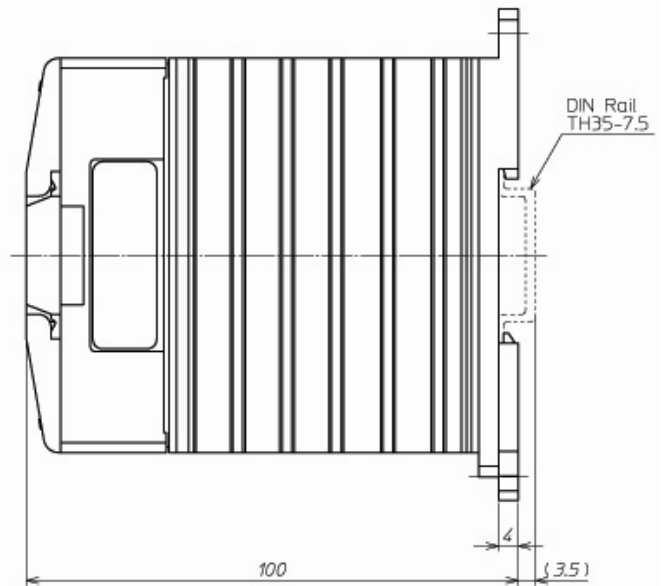
### ● SA-420-Z



### ● SA-440-Z



### ● Common to SA-400 series



**SAFETY  
PRECAUTIONS**

- To ensure safe and correct use, thoroughly read and understand the manual before using this instrument.
- This instrument is intended to be used for industrial machinery, machine tools and measuring equipment. Verify correct usage after consulting purpose of use with our agency or main office. (Never use this instrument for medical purposes with which human lives are involved.)
- External protection devices such as protection equipment against excessive temperature rise, etc. must be installed, as malfunction of this product could result in serious damage to the system or injury to personnel. Also proper periodic maintenance is required.
- This instrument must be used under the conditions and environment described in the manual. Shinko Technos Co., Ltd. does not accept liability for any injury, loss of life or damage occurring due to the instrument being used under conditions not otherwise stated in the manual.

### Caution with respect to Export Trade Control Ordinance

To avoid this instrument from being used as a component in, or as being utilized in the manufacture of weapons of mass destruction (i.e. military applications, military equipment, etc.), please investigate the end users and the final use of this instrument. In the case of resale, ensure that this instrument is not illegally exported.

- This catalog is as of June 2023, and specifications are subject to change without notice.
- If you have any inquiries, please consult us or our agency.

## SHINKO TECHNOS CO., LTD. OVERSEAS DIVISION

Head Office: 2-5-1, Senbahigashi, Minoo, Osaka, 562-0035, Japan  
 Tel: +81-72-727-6100  
 Fax: +81-72-727-7006  
 URL: <https://shinko-technos.co.jp/e/>  
 E-mail: [overseas@shinko-technos.co.jp](mailto:overseas@shinko-technos.co.jp)