

# Electronic overload relays

22A

## Description

- Wide and adjustable current range
- Adjustable trip time (trip class 5-10-15-20-30)
- Designed suitable for use with contactors  
Directly mountable on the CGC-9, 12, 18, 22 contactors  
Separate mount versions are also available  
Mounting on 35mm DIN rail is possible by optional base.
- 1NO+1NC trip contacts
- Manual reset as standard (Automatic reset optional)



## Extended protective functions

Number of sensors		2CT	3CT	3CT
Types (CGE22-□)		(-2P, -2T, -2S)	(-3P, -3T, -3S)	(-3PR, -3TR, -3SR)
Functions	Overcurrent	✓	✓	✓
	Phase loss	✓	✓	✓
	Locked rotor	✓	✓	✓
	Phase unbalance		✓	✓
	Phase reversed			✓

## Selection

Mount/Connection	Sensor	Setting range	Catalog No.
Directly on a contactor	2-sensor ( 2 CT )	0.3 - 1.5A	CGE22 - 2P - 1.5AN
		1 - 5A	CGE22 - 2P - 5AN
		4.4 - 22A	CGE22 - 2P - 22AN
	3-sensor ( 3 CT )	0.3 - 1.5A	CGE22 - 3P - 1.5AN
		1 - 5A	CGE22 - 3P - 5AN
		4.4 - 22A	CGE22 - 3P - 22AN
	3-sensor Reverse phase detection	0.3 - 1.5A	CGE22 - 3PR - 1.5AN
		1 - 5A	CGE22 - 3PR - 5AN
		4.4 - 22A	CGE22 - 3PR - 22AN
Separate mount ①	2-sensor ( 2 CT )	0.3 - 1.5A	CGE22 - 2S - 1.5A
		1 - 5A	CGE22 - 2S - 5A
		4.4 - 22A	CGE22 - 2S - 22A
Cable connection with a screw ②	3-sensor ( 3 CT )	0.3 - 1.5A	CGE22 - 3S - 1.5A
		1 - 5A	CGE22 - 3S - 5A
		4.4 - 22A	CGE22 - 3S - 22A
	3-sensor Reverse phase detection	0.3 - 1.5A	CGE22 - 3SR - 1.5A
		1 - 5A	CGE22 - 3SR - 5A
		4.4 - 22A	CGE22 - 3SR - 22A
Separate mount ①	2-sensor ( 2 CT )	0.3 - 1.5A	CGE22 - 2T - 1.5A
		1 - 5A	CGE22 - 2T - 5A
		4.4 - 22A	CGE22 - 2T - 22A
Connection without a screw ② - cables pass through CT holes	3-sensor ( 3 CT )	0.3 - 1.5A	CGE22 - 3T - 1.5A
		1 - 5A	CGE22 - 3T - 5A
		4.4 - 22A	CGE22 - 3T - 22A
	3-sensor Reverse phase detection	0.3 - 1.5A	CGE22 - 3TR - 1.5A
		1 - 5A	CGE22 - 3TR - 5A
		4.4 - 22A	CGE22 - 3TR - 22A



**Certificate**  
CE, ULcUL

## Ordering information

Specify catalog number

### Front face configuration



#### Current setting

- 0.1 - 1.5A
- 1 - 5A
- 4.4 - 22A

#### LED indicator

- Operation status indication
- Normal operating
  - Overload
  - Phase unbalance
- Trip cause indication
- Overcurrent
  - Phase loss
  - Reverse phase

#### Test/Reset button

#### Trip time setting

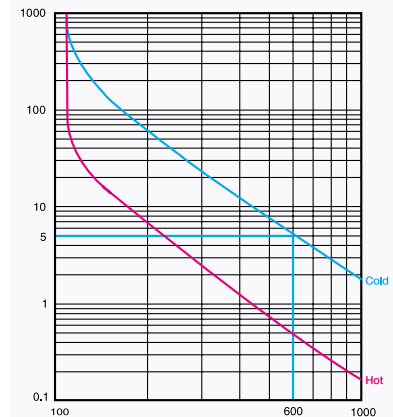
- 0 to 30 sec
- Set time is the trip time at 6 x set current



① To mount on 35mm DIN rail use the optional base



② Cable connection part can be modified between screw connection and passing CT hole



### Technical information

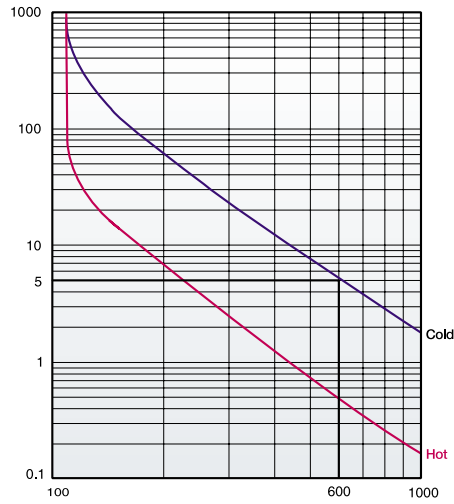
<b>Relay control voltage</b>	100 to 260V AC 50/60Hz
<b>Auxiliary contact</b>	3A/250VAC at resistive load 1NO(97-98) + 1NC(95-96)
<b>Setting tolerance</b>	Current $\pm 5\%$ Time $\pm 5\%$ (or $\pm 0.5\text{sec}$ )
<b>Insulation resistance</b>	Min 100 $M\Omega$ at 500V DC
<b>Impulse withstand voltage</b>	1.2x50 $\mu\text{s}$ 5kV (IEC1000-4-5)
<b>Fast transient burst</b>	2kV/5min ( IEC1000-4-4)
<b>Ambient temperature</b>	-25 to 70 $^{\circ}\text{C}$ for operation -30 to 80 $^{\circ}\text{C}$ for storage
<b>Humidity</b>	30 to 90% RH

### For more information

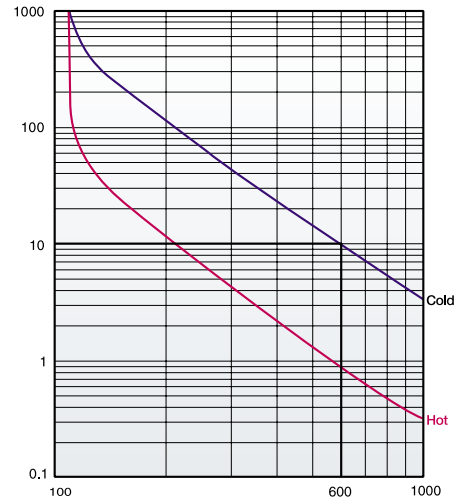
- Drawings → page 169
- Connections → page 170
- Contactors → page 40
- Starters → page 81
- Bimetallic overload relay → page 64
- Operating curves → page 137

CGE

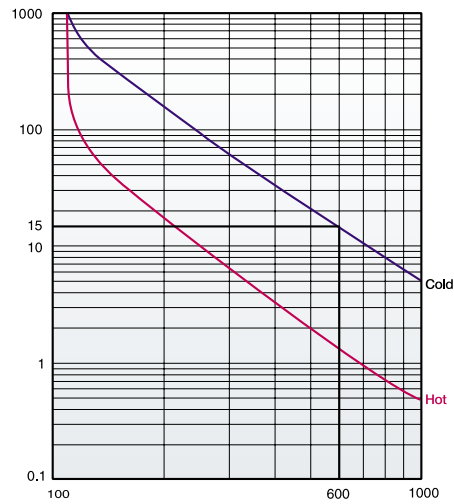
**Trip class 5**



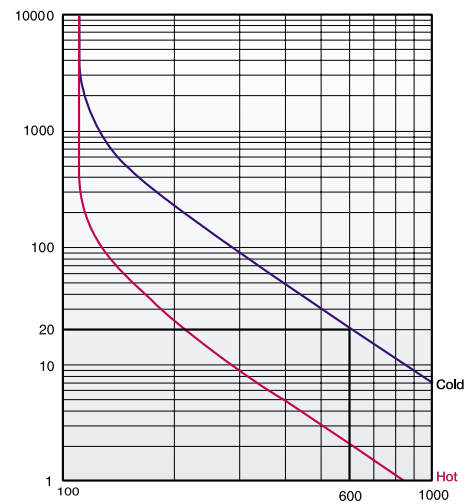
**Trip class 10**



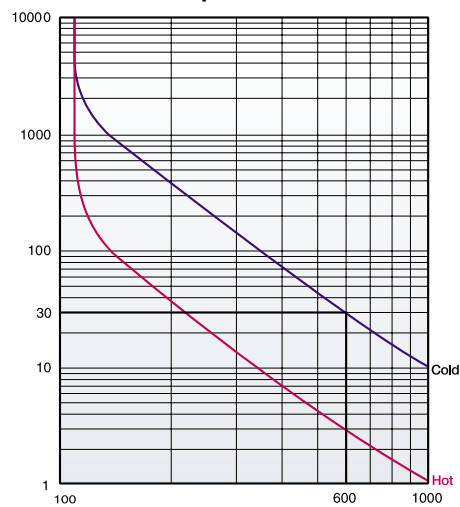
**Trip class 15**



**Trip class 20**



**Trip class 30**



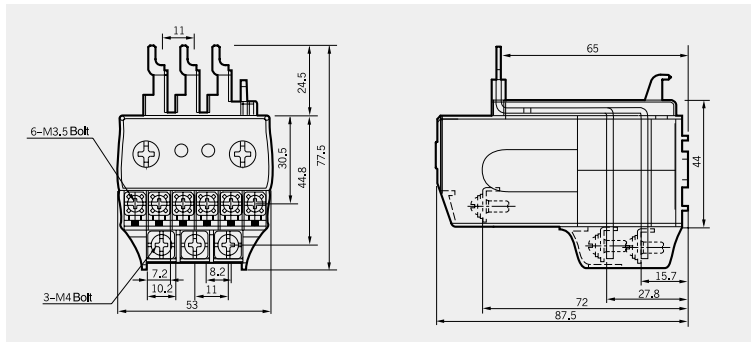
# Dimensions

## Electronic Overload Relays

CGE22-2P

CGE22-3P

CGE22-3PR



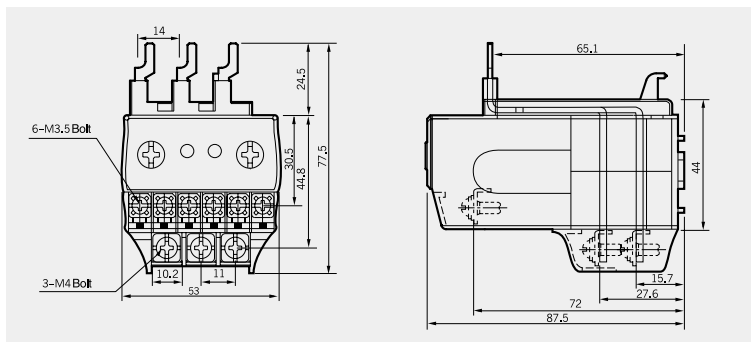
Terminal configuration : See Fig. 1 on the next page

0.18kg

CGE40-2P

CGE40-3P

CGE40-3PR



Terminal configuration : See Fig. 1 on the next page

0.20kg/0.22kg

CGE22-2S

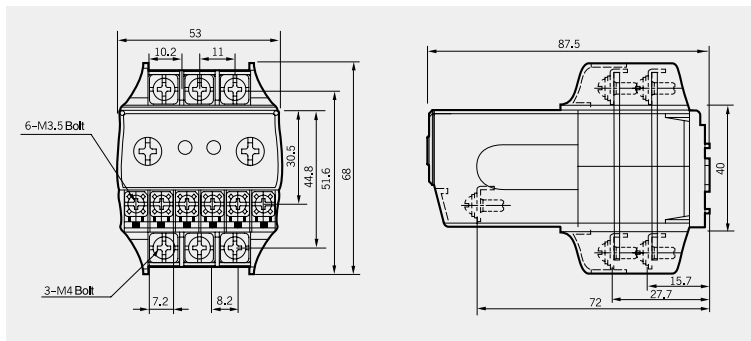
CGE22-3S

CGE22-3SR

CGE40-2S

CGE40-3S

CGE40-3SR



Terminal configuration : See Fig. 2 on the next page

0.19kg/0.21kg

CGE22-2T

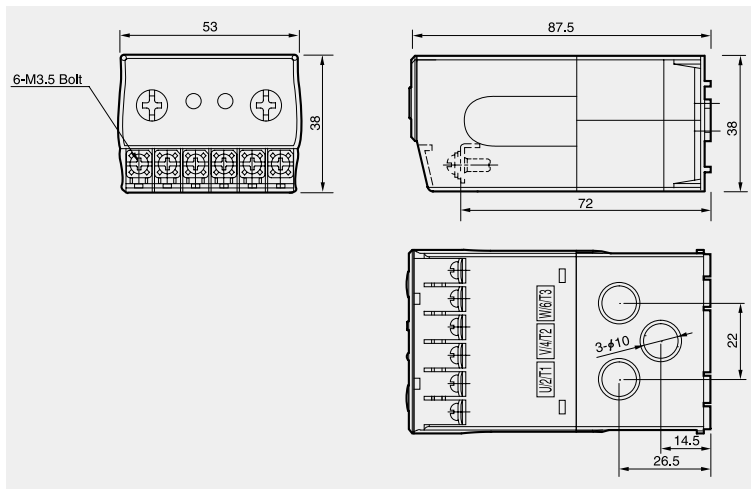
CGE22-3T

CGE22-3TR

CGE40-2T

CGE40-3T

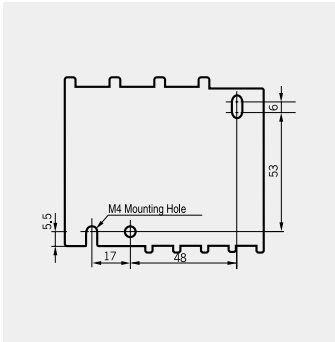
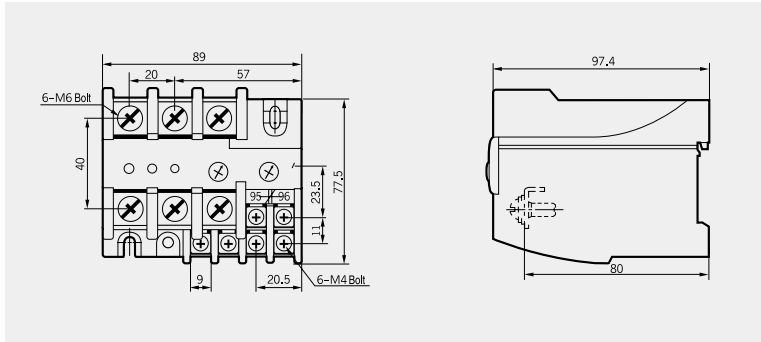
CGE40-3TR



Terminal configuration : See Fig. 3 on the next page

0.14kg/0.16kg

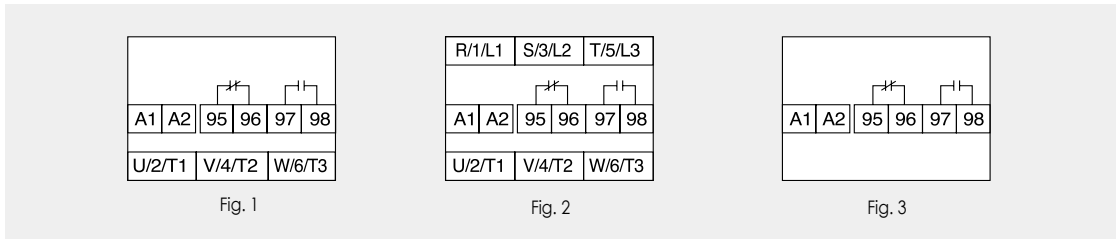
- CGE80-2S
- CGE80-3S
- CGE80-3SR



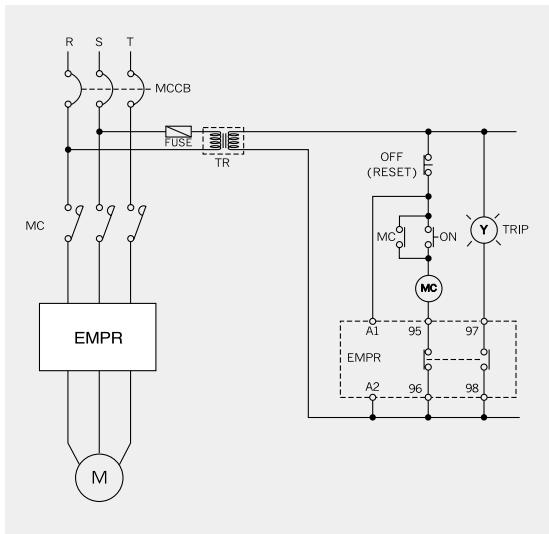
Terminal configuration : See Fig. 2

0.42kg/0.46kg

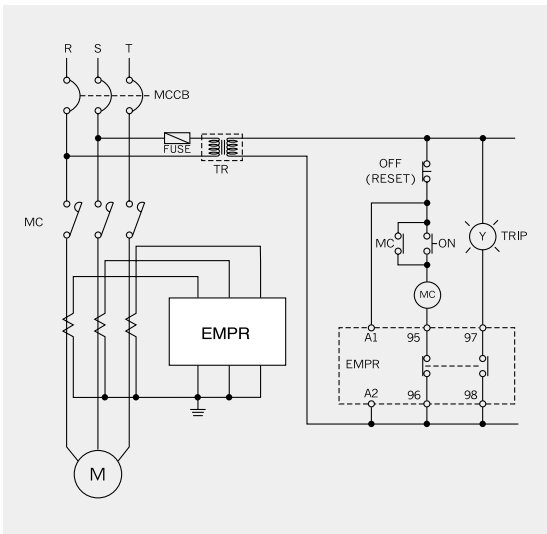
### Terminal configuration



### Circuit diagram



Without additional CTs



In case of using additional CTs