

# Electronic overload relays

22A

CARLO GAVAZZI

## 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			✓

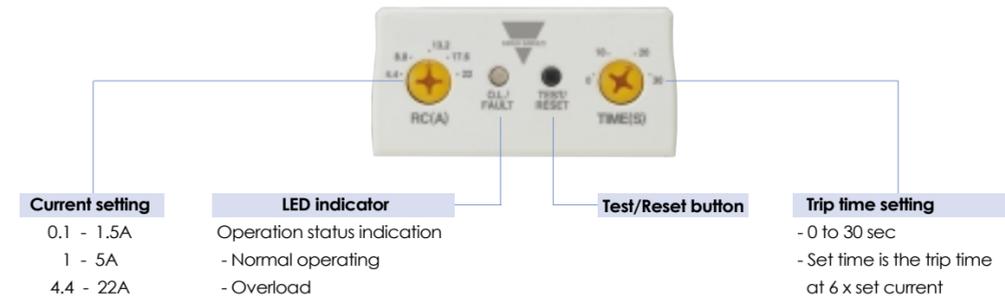
## Selection

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	
	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
	Cable connection with a screw ②	4.4 - 22A	CGE22 - 2S - 22A
		3-sensor (3 CT)	0.3 - 1.5A
Separate mount ①	3-sensor (3 CT)	1 - 5A	CGE22 - 3S - 5A
		4.4 - 22A	CGE22 - 3S - 22A
		3-sensor Reverse phase detection	0.3 - 1.5A
	Connection without a screw ② - cables pass through CT holes	1 - 5A	CGE22 - 3SR - 5A
		4.4 - 22A	CGE22 - 3SR - 22A
		2-sensor (2 CT)	0.3 - 1.5A
Connection without a screw ② - cables pass through CT holes	2-sensor (2 CT)	1 - 5A	CGE22 - 2T - 5A
		4.4 - 22A	CGE22 - 2T - 22A
		3-sensor (3 CT)	0.3 - 1.5A
	3-sensor Reverse phase detection	1 - 5A	CGE22 - 3T - 5A
		4.4 - 22A	CGE22 - 3T - 22A
		0.3 - 1.5A	CGE22 - 3TR - 1.5A
3-sensor Reverse phase detection	1 - 5A	CGE22 - 3TR - 5A	
	4.4 - 22A	CGE22 - 3TR - 22A	
	4.4 - 22A	CGE22 - 3TR - 22A	

**Ordering information**  
Specify catalog number

**Certificate**  
CE, ULcUL

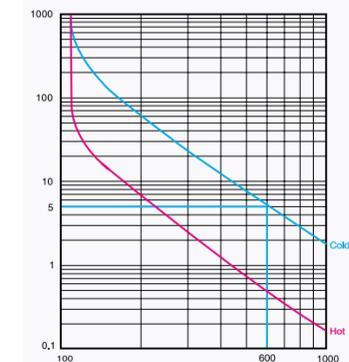
## Front face configuration



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 ± 5% Time ± 5% (or ± 0.5sec)
<b>Insulation resistance</b>	Min 100 MΩ at 500V DC
<b>Impulse withstand voltage</b>	1.2x50μs 5kV (IEC1000-4-5)
<b>Fast transient burst</b>	2kV/5min (IEC1000-4-4)
<b>Ambient temperature</b>	-25 to 70 °C for operation -30 to 80 °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

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	Phase unbalance		✓	✓
	Phase reversed			✓

## Selection

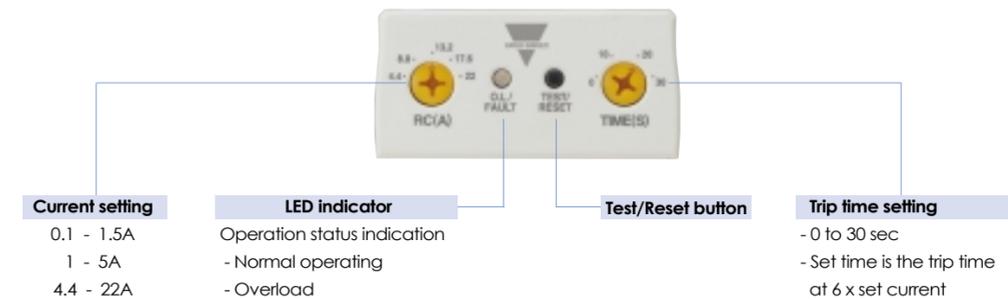
Mount/Connection	Sensor	Setting range	Catalog No.
Directly on a contactor	2-sensor (2 CT)	0.3 - 1.5A	CGE22 - 2P · 1.5
		1 - 5A	CGE22 - 2P · 5
		4.4 - 22A	CGE22 - 2P · 22
	3-sensor (3 CT)	0.3 - 1.5A	CGE22 - 3P · 1.5
		1 - 5A	CGE22 - 3P · 5
		4.4 - 22A	CGE22 - 3P · 22
Separate mount ①	3-sensor Reverse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

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CE, ULcUL

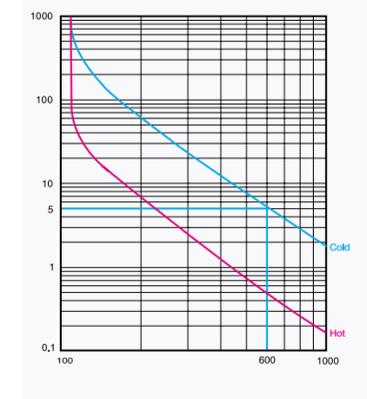
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# Technical informations

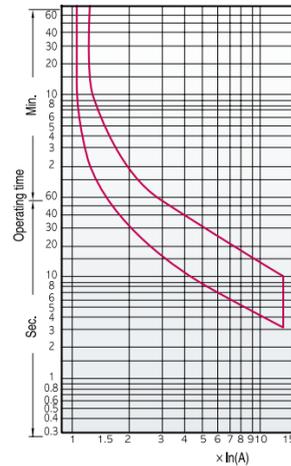
## Trip curves for thermal overload relays, Class 20

## Trip curves for electronic overload relays



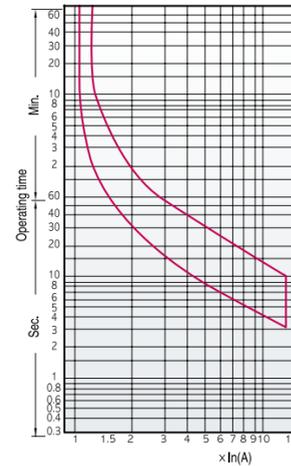
CGT-22/L

Tripping characteristics



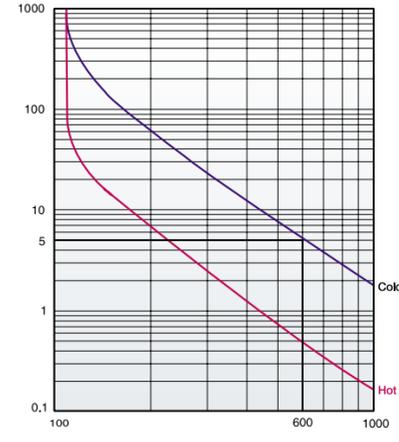
CGT-40/L

Tripping characteristics

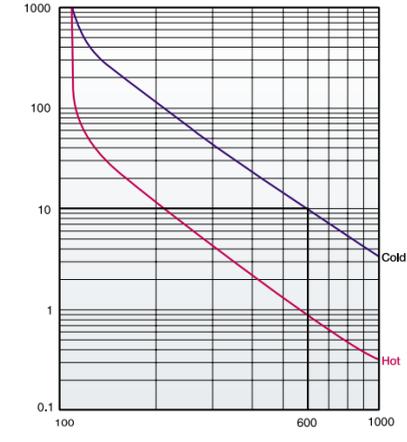


CGE

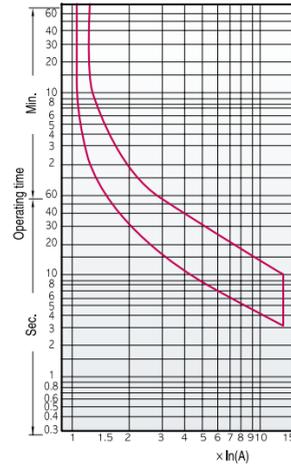
Trip class 5



Trip class 10

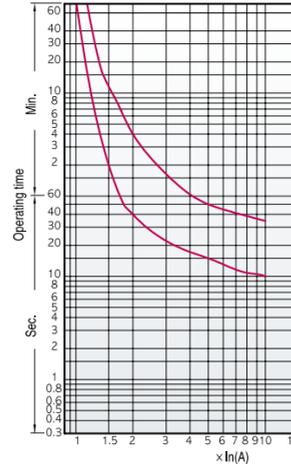


CGT-85/L

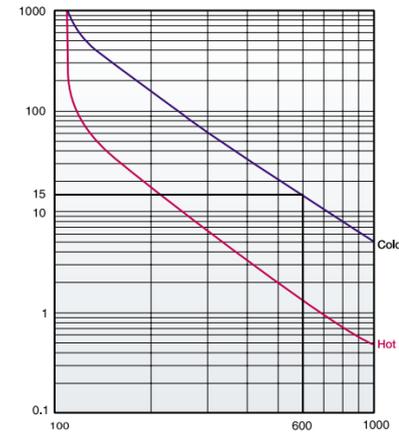


CGT-100/L

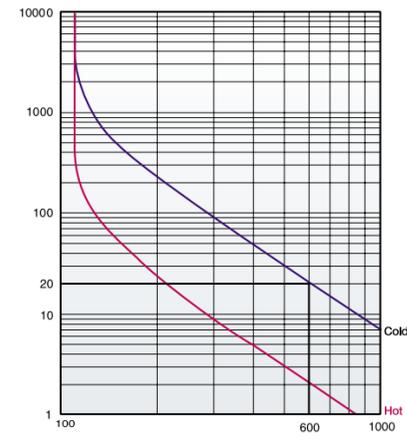
CGT-150/L



Trip class 15

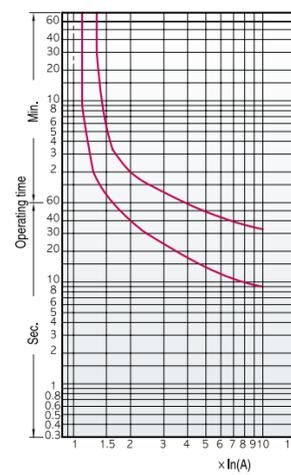


Trip class 20

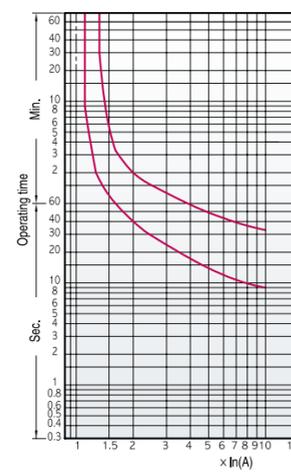


CGT-220/L

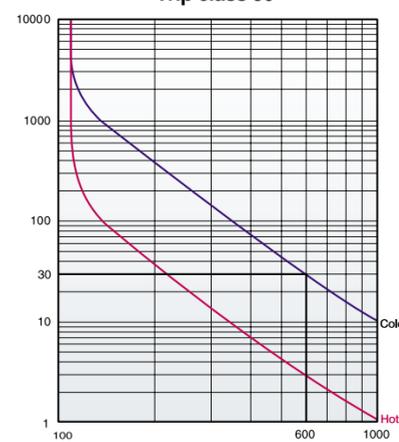
CGT-400/L



CGT-600/L



Trip class 30

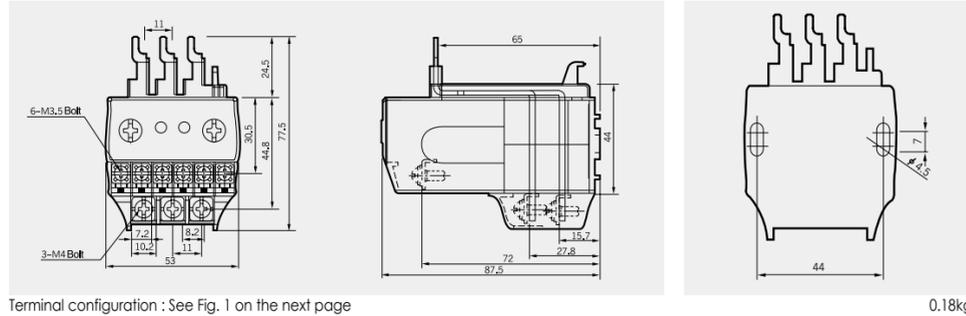


# Dimensions

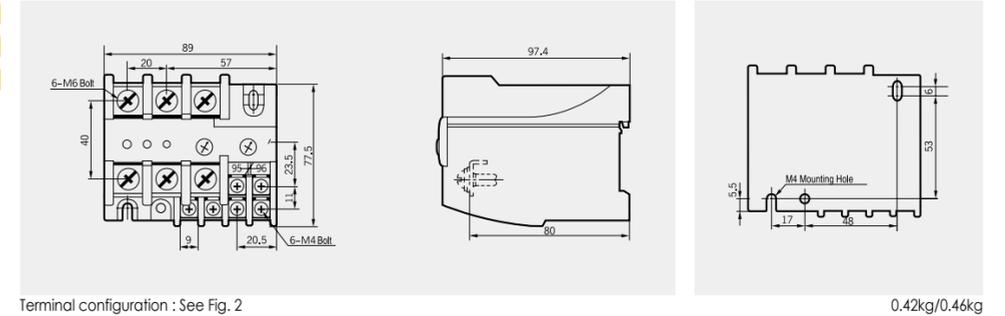
## Electronic Overload Relays



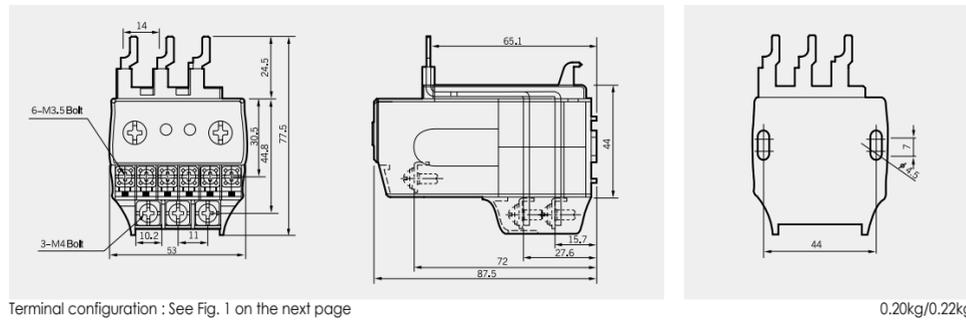
- CGE22-2P
- CGE22-3P
- CGE22-3PR



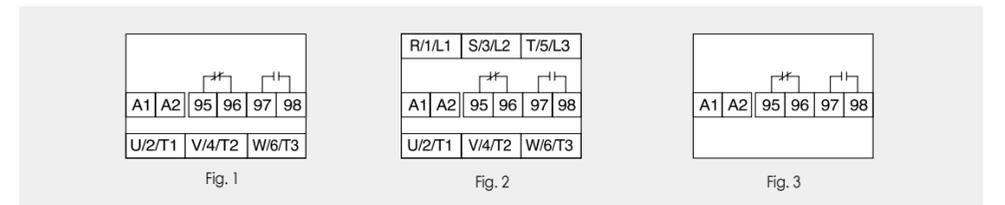
- CGE80-2S
- CGE80-3S
- CGE80-3SR



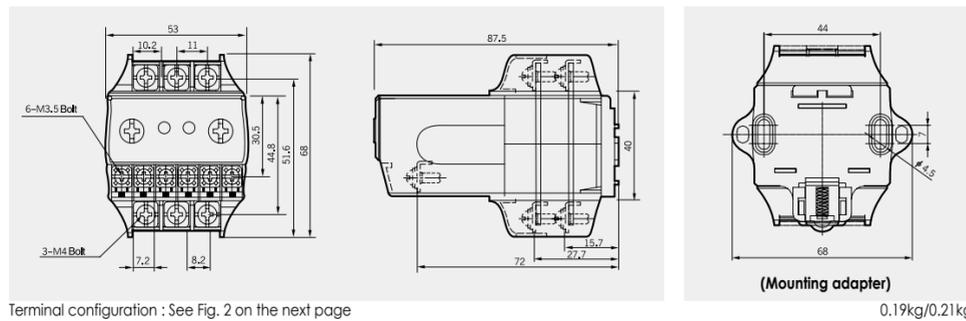
- CGE40-2P
- CGE40-3P
- CGE40-3PR



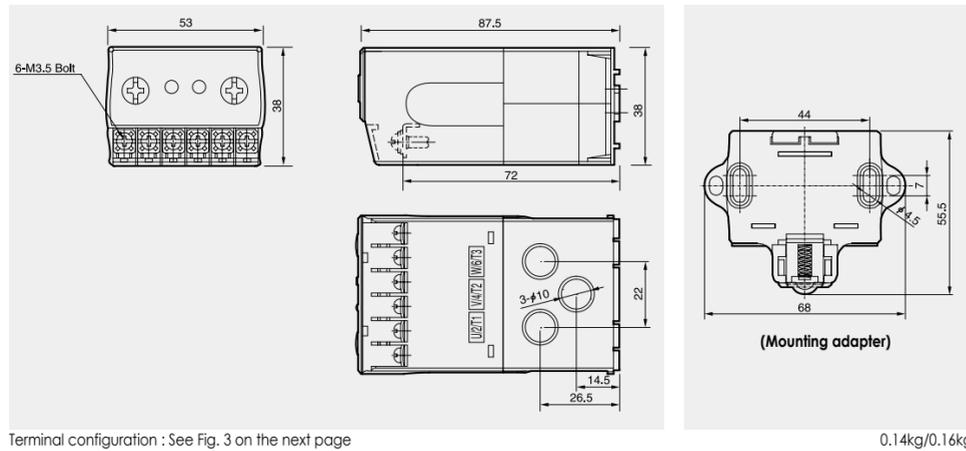
### Terminal configuration



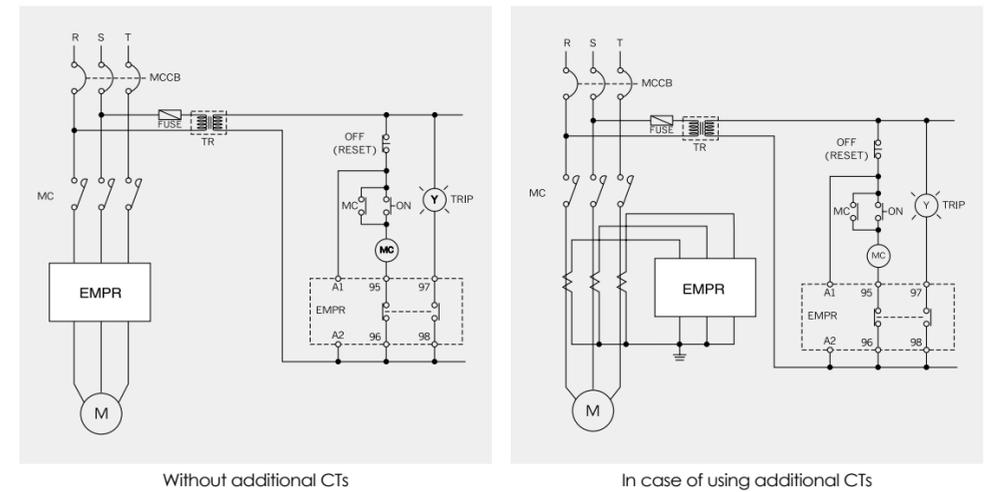
- CGE22-2S
- CGE22-3S
- CGE22-3SR
- CGE40-2S
- CGE40-3S
- CGE40-3SR



- CGE22-2T
- CGE22-3T
- CGE22-3TR
- CGE40-2T
- CGE40-3T
- CGE40-3TR



### Circuit diagram

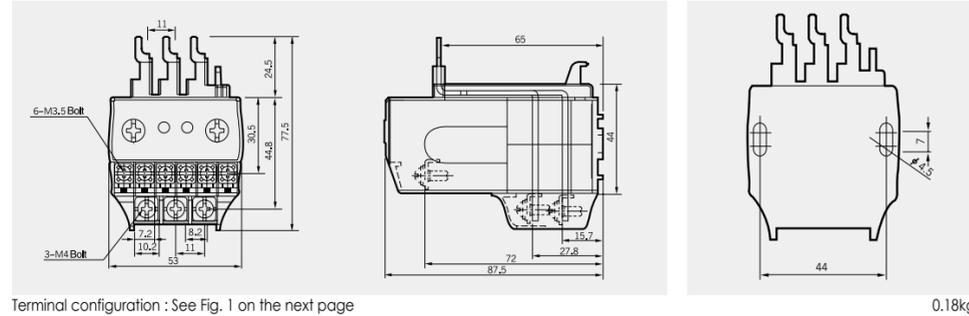


# Dimensions

## Electronic Overload Relays



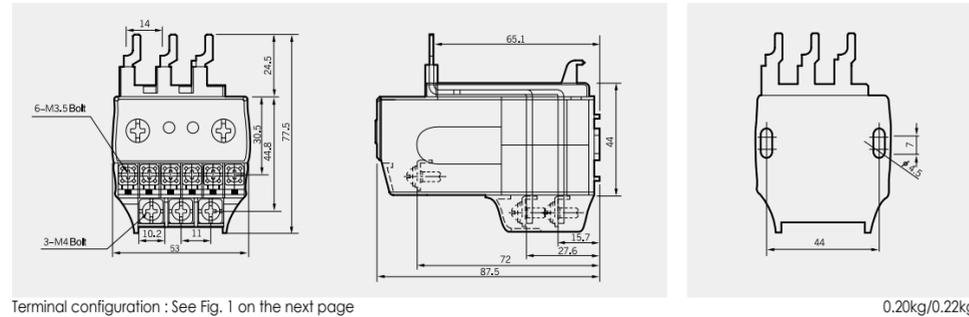
- CGE22-2P
- CGE22-3P
- CGE22-3PR



Terminal configuration : See Fig. 1 on the next page

0.18kg

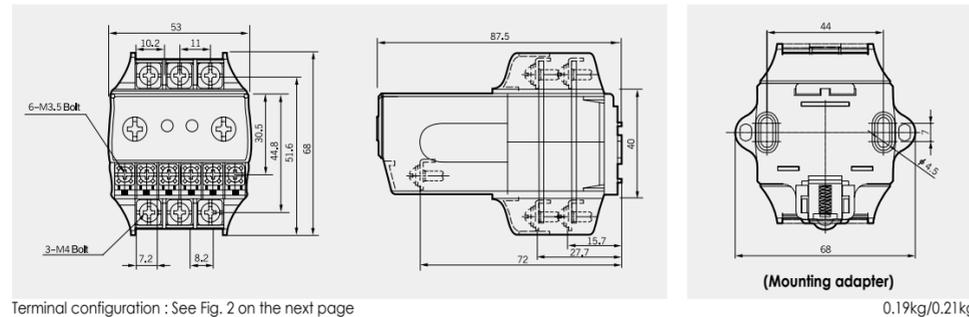
- CGE40-2P
- CGE40-3P
- CGE40-3PR



Terminal configuration : See Fig. 1 on the next page

0.20kg/0.22kg

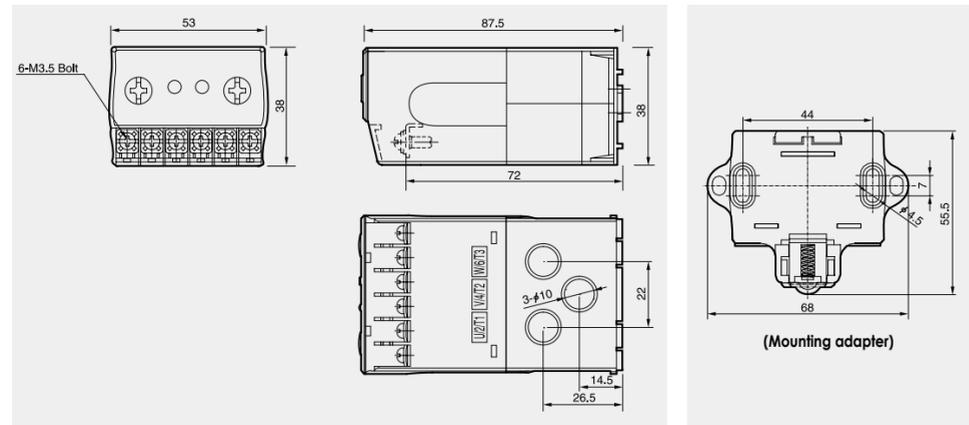
- CGE22-2S
- CGE22-3S
- CGE22-3SR
- CGE40-2S
- CGE40-3S
- CGE40-3SR



Terminal configuration : See Fig. 2 on the next page

0.19kg/0.21kg

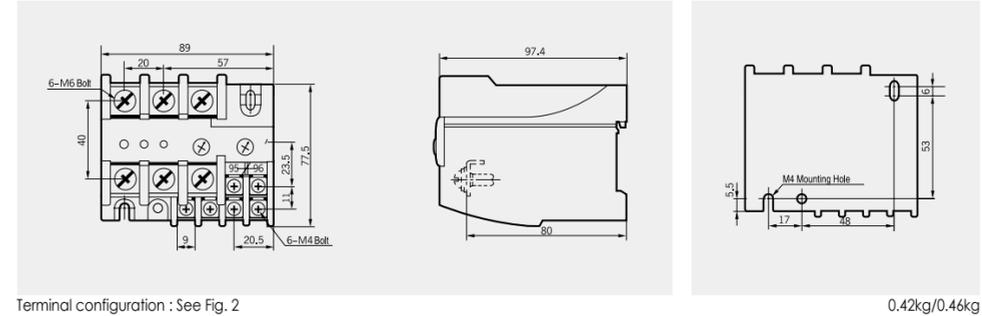
- CGE22-2T
- CGE22-3T
- CGE22-3TR
- CGE40-2T
- CGE40-3T
- CGE40-3TR



Terminal configuration : See Fig. 3 on the next page

0.14kg/0.16kg

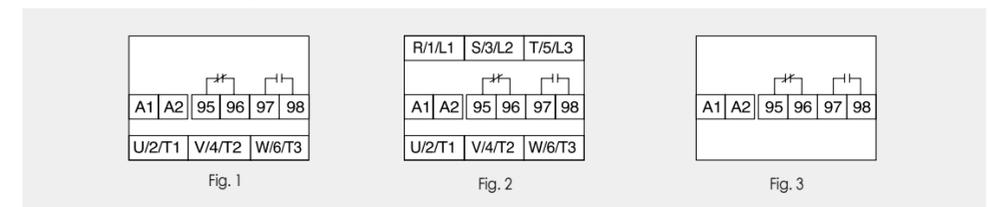
- CGE80-2S
- CGE80-3S
- CGE80-3SR



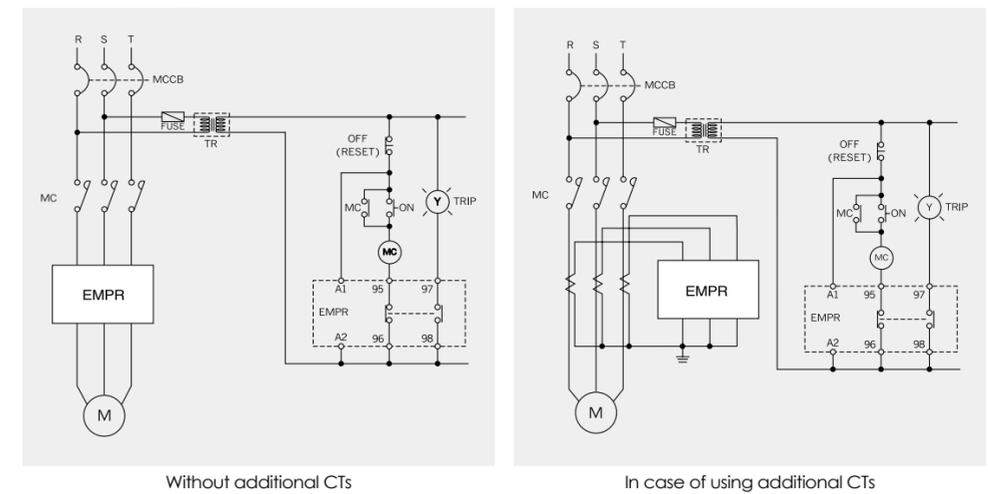
Terminal configuration : See Fig. 2

0.42kg/0.46kg

### Terminal configuration



### Circuit diagram



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