

# Control and Automation

For industrial applications ED.03

Contactors and overload relays



GE imagination at work



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## GE Energy – Industrial Solutions, India

GE Energy – Industrial Solutions, India offers innovative solutions to meet customer needs in Power & Protection. The company has a pan India presence, with 4 regional offices, 13 sales offices and manufacturing plant at Bangalore.

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The India Innovation Center (IIC) is a dedicated engineering research & design IT development center for the global GE Energy – Industrial Solutions business. Established in 1999, IIC today is amongst the largest design and development centers for GE Energy – Industrial Solutions business. IIC employs more than 1000 engineers and IT professionals working with teams across the globe.

## About the Technology Team

The Technology teams at IIC develop new products and solutions for the global market in the areas of Circuit Breakers, Motors, Power Quality and Protection, Electrical Machines, Industrial Automation, Sensing Systems.



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2008 Most Respected Global Company



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## C.2 Series M - Minicontactors

Order codes

Terminal numbering

Dimensions

## C.10 Series CL - Contactors

Order codes

Terminal numbering

Dimensions

## C.18 Series CK - Contactors

Order Codes

Dimensions

## C.32 Series MT0 - Thermal overload relays for minicontactors

Order codes

Dimensions

Plug-in relays and Auxiliary contactors

## C.34 Series RT - Thermal overload relays for contactors

Order codes

Dimensions

Motor protection devices

[Contactors and Thermal overload relays](#)

## C.38 Series RE - Electronic overload relays

Order codes

Dimensions

Motorstarters

Control and signalling units

## C.48 Series CSCN - Contactors for capacitors

Order codes

Dimensions

Electronic relays

Limit switches

## C.52 Series 390.R - Clapper contactors

Order codes

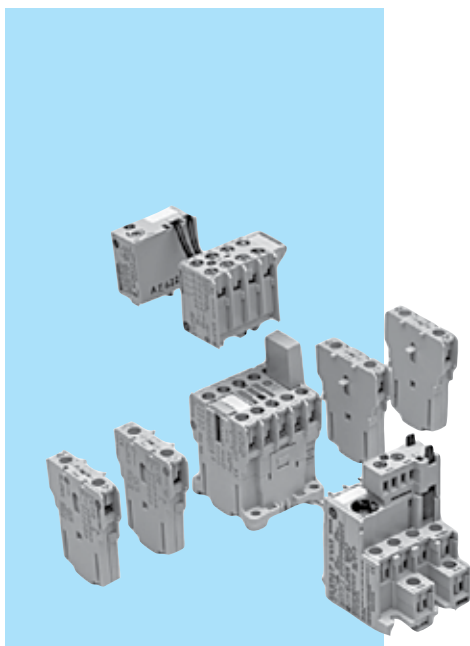
Dimensions

Speed drive units

Main switches

Numerical index





## Three and four pole minicontactors 6, 9 and 12A (AC3) 20A (AC1)

- Control circuit: Alternating current up to 600V  
Direct current up to 440V
- Terminal numbering in accordance with EN 50012
- Fixing by clipping onto 35 mm DIN rail (EN 50022-35) or by screws
- Screws and fast-on terminals protected against accidental contact in accordance with VDE 0106 T.100 and VBG4
- Versions: Ring terminal and printed circuit terminals
- Facility to mount instant and timed auxiliary contact blocks and voltage suppressor block
- Degree of protection IP20 (EN 60529).
- Maximum number of auxiliary contacts to be added: 6

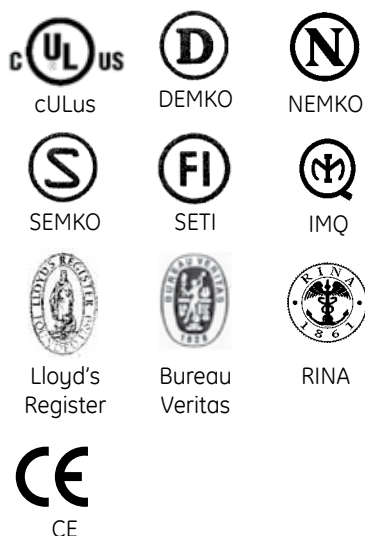
### Standards

|                  |                |
|------------------|----------------|
| IEC/EN 60947-1   | BS 4794        |
| IEC/EN 60947-4-1 | NFC 63-110     |
| IEC/EN 60947-5-1 | CSA C22.2/14   |
| EN 50003         | VDE 0660       |
| EN 50005         | SEV 10254      |
| EN 50012         | JIS C8325      |
| UL 508           | JEM 1038       |
| NEMA ICS-1       | CENELEC HD 419 |

### General data

|                                                           | MC0...  | MC1... | MC2... |
|-----------------------------------------------------------|---------|--------|--------|
| Maximum number of poles                                   | 4       | 4      | 4      |
| Rated thermal current (Ith) $\theta$ H 60° <sup>(1)</sup> | (A) 20  | 20     | 20     |
| Rated operational current Ie <sup>(2)</sup>               | (A) 6   | 9      | 12     |
| <b>(3x440V, 50/60Hz, AC3)</b>                             |         |        |        |
| Rated insulation current Ui                               | (V) 750 | 750    | 750    |
| Rated operational current Ue                              | (V) 690 | 690    | 690    |

### Approvals



|                          |          |
|--------------------------|----------|
| Order codes              | pg. C.3  |
| Auxiliary contact blocks | pg. C.6  |
| Accessories              | pg. C.8  |
| Dimensions               | pg. C.22 |

### Standard voltages

To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (other voltages on request)\*

#### Alternating current (V). Bifrequency coil

| ♦       | 10 | 1  | 2  | 9  | 3   | 4   | 5   | 6   | 7   | 8   | 12  | 13  |
|---------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| AC      | 12 | 24 | 42 | 48 | 110 | 120 | 220 | 230 | 240 | 440 | 380 | 400 |
| 50/60Hz |    |    |    |    | 115 |     |     |     |     |     |     |     |

#### Operating voltages limits with bifrequency coils:

With 60Hz=0.85 to 1.1 x Us

With 50Hz=0.8 to 1.1 x Us in continuous service (ED=100%) with a maximum ambient temperature of 40°C

#### Alternating current (V).

| ♦    | A | E  | G  | K   | M   | N   | S   | U   | W   | Y   |
|------|---|----|----|-----|-----|-----|-----|-----|-----|-----|
| AC   |   |    | 48 | 115 |     | 220 | 260 | 380 | 415 | 500 |
| 50Hz |   |    |    | 127 |     | 240 |     | 400 | 440 |     |
| AC   | 6 | 32 | 60 |     | 208 | 240 |     | 440 | 480 | 600 |
| 60Hz |   |    |    |     | 220 | 277 |     |     |     |     |

#### Direct current (V)

| ♦  | A | B  | C  | D  | E  | F  | G  | H  | I  | J   | K   | L   | N   | 17  | R   | S   | 16  |
|----|---|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| DC | 6 | 12 | 32 | 24 | 36 | 42 | 48 | 60 | 72 | 110 | 120 | 125 | 220 | 230 | 240 | 250 | 440 |

#### Direct current (V) - Wide voltage range

| ♦  | WD | WE | WG | WI | WJ  | WN  |
|----|----|----|----|----|-----|-----|
| DC | 24 | 33 | 48 | 72 | 110 | 220 |

\* Please Consult GE for non standard Coil Voltages

## Three pole minicontactors



| Max.operat.current<br>Non-inductive loads<br>AC1 <sup>(2)</sup><br>A | Motors<br><440V,<br>3 ~<br>50/60Hz<br>AC3 <sup>(3)</sup><br>A | Admissible power AC3 |             |          |            |            | Aux. contacts |          | Control circuit:<br>Alternating current |          | Control circuit:<br>Direct current |          |
|----------------------------------------------------------------------|---------------------------------------------------------------|----------------------|-------------|----------|------------|------------|---------------|----------|-----------------------------------------|----------|------------------------------------|----------|
|                                                                      |                                                               | 1-phase              |             | 3-phase  |            |            | •3 <br>•4     | •1<br>•2 | Cat. no. <sup>(1)</sup>                 | Pack     | Cat. no. <sup>(1)</sup>            | Pack     |
|                                                                      |                                                               | 115V                 | 220V        | 220V     | 380V       | 500V       |               |          |                                         |          |                                    |          |
|                                                                      |                                                               | kW                   | kW          | kW       | kW         | kW         |               |          |                                         |          |                                    |          |
|                                                                      |                                                               | HP                   | HP          | HP       | HP         | HP         |               |          |                                         |          |                                    |          |
|                                                                      |                                                               |                      |             |          |            |            |               |          | Ref. no. see bottom                     |          | Ref. no. see bottom                |          |
| <b>Terminal: screw</b>                                               |                                                               |                      |             |          |            |            |               |          |                                         |          |                                    |          |
| 20                                                                   | 6                                                             | 0.37<br>0.5          | 0.75<br>1   | 1.5<br>2 | 2.2<br>3   | 3<br>4     | 1<br>0        | 0<br>1   | MC0A310AT ♦<br>MC0A301AT ♦              | 20<br>20 | MC0C310AT ♦<br>MC0C301AT ♦         | 10<br>10 |
| 20                                                                   | 9                                                             | 0.56<br>0.75         | 1.12<br>1.5 | 2.2<br>3 | 4<br>5.5   | 4<br>5.5   | 1<br>0        | 0<br>1   | MC1A310AT ♦<br>MC1A301AT ♦              | 20<br>20 | MC1C310AT ♦<br>MC1C301AT ♦         | 10<br>10 |
| 20                                                                   | 12                                                            | 0.75<br>1            | 2<br>2.6    | 3<br>4   | 5.5<br>7.3 | 5.5<br>7.3 | 1<br>0        | 0<br>1   | MC2A310AT ♦<br>MC2A301AT ♦              | 20<br>20 | MC2C310AT ♦<br>MC2C301AT ♦         | 10<br>10 |
| <b>Terminal: ring terminal</b>                                       |                                                               |                      |             |          |            |            |               |          |                                         |          |                                    |          |
| 20                                                                   | 6                                                             | 0.37<br>0.5          | 0.75<br>1   | 1.5<br>2 | 2.2<br>3   | 3<br>4     | 1<br>0        | 0<br>1   | MC0A310AR ♦<br>MC0A301AR ♦              | 20<br>20 | MC0C310AR ♦<br>MC0C301AR ♦         | 10<br>10 |
| 20                                                                   | 9                                                             | 0.56<br>0.75         | 1.12<br>1.5 | 2.2<br>3 | 4<br>5.5   | 4<br>5.5   | 1<br>0        | 0<br>1   | MC1A310AR ♦<br>MC1A301AR ♦              | 20<br>20 | MC1C310AR ♦<br>MC1C301AR ♦         | 10<br>10 |
| 20                                                                   | 12                                                            | 0.75<br>1            | 2<br>2.6    | 3<br>4   | 5.5<br>7.3 | 5.5<br>7.3 | 1<br>0        | 0<br>1   | MC2A310AR ♦<br>MC2A301AR ♦              | 20<br>20 | MC2C310AR ♦<br>MC2C301AR ♦         | 10<br>10 |
| <b>Terminal: faston 2x2.8 insulated (5)</b>                          |                                                               |                      |             |          |            |            |               |          |                                         |          |                                    |          |
| 16 <sup>(4)</sup>                                                    | 6                                                             | 0.37<br>0.5          | 0.75<br>1   | 1.5<br>2 | 2.2<br>3   | 3<br>4     | 1<br>0        | 0<br>1   | MC0A310AF ♦<br>MC0A301AF ♦              | 20<br>20 | MC0C310AF ♦<br>MC0C301AF ♦         | 10<br>10 |
| 16 <sup>(4)</sup>                                                    | 9                                                             | 0.56<br>0.75         | 1.12<br>1.5 | 2.2<br>3 | 4<br>5.5   | 4<br>5.5   | 1<br>0        | 0<br>1   | MC1A310AF ♦<br>MC1A301AF ♦              | 20<br>20 | MC1C310AF ♦<br>MC1C301AF ♦         | 10<br>10 |
| <b>Terminal: printed circuit</b>                                     |                                                               |                      |             |          |            |            |               |          |                                         |          |                                    |          |
| 20                                                                   | 6                                                             | 0.37<br>0.5          | 0.75<br>1   | 1.5<br>2 | 2.2<br>3   | 3<br>4     | 1<br>0        | 0<br>1   | MC0A310AI ♦<br>MC0A301AI ♦              | 20<br>20 | MC0C310AI ♦<br>MC0C301AI ♦         | 10<br>10 |
| 20                                                                   | 9                                                             | 0.56<br>0.75         | 1.12<br>1.5 | 2.2<br>3 | 4<br>5.5   | 4<br>5.5   | 1<br>0        | 0<br>1   | MC1A310AI ♦<br>MC1A301AI ♦              | 20<br>20 | MC1C310AI ♦<br>MC1C301AI ♦         | 10<br>10 |
| 20                                                                   | 12                                                            | 0.75<br>1            | 2<br>2.6    | 3<br>4   | 5.5<br>7.3 | 5.5<br>7.3 | 1<br>0        | 0<br>1   | MC2A310AI ♦<br>MC2A301AI ♦              | 20<br>20 | MC2C310AI ♦<br>MC2C301AI ♦         | 10<br>10 |
| <b>Spare coil</b>                                                    |                                                               |                      |             |          |            |            |               |          | MB0A ♦                                  | 10       | MB0C ♦                             | 10       |

- (1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (other voltages on request) (see C.2)
- (2) Electrical endurance AC-1: MC0... 0.2 × 10<sup>6</sup> operations  
MC1... 0.3 × 10<sup>6</sup> operations  
MC2... 0.35 × 10<sup>6</sup> operations
- (3) Electrical endurance AC-3: MC0... (6A) = 1.2 × 10<sup>6</sup> operations  
MC1... (9A) = 0.85 × 10<sup>6</sup> operations  
MC2... (12A) = 0.6 × 10<sup>6</sup> operations
- (4) Terminal with wire 1.5 mm<sup>2</sup>: I<sub>e</sub> = 16A  
with wire 1 mm<sup>2</sup>: I<sub>e</sub> = 10A  
Insulated terminal type B 2.8 × 0.8 and wire 1 mm<sup>2</sup> I<sub>e</sub> = 8A in accordance with DIN 46247.
- (5) Fast-on 1 × 6.3 terminals on request (replace letter F by H in the catalogue number)

## Three pole interface contactors



| Max. oper. current<br>Non-inductive load<br>AC1<br>A | Motors<br><440V,<br>3 ~<br>50/60Hz<br>AC3 <sup>[3]</sup><br>A | Admissible power AC3 |      |         |      |      | Aux.<br>contacts                                                                  |                                                                                   | Voltage 24V D.C, coil 1.2W <sup>[1]</sup> |          |      | Voltage 24V D.C, coil 2W <sup>[2]</sup> |          |      |  |
|------------------------------------------------------|---------------------------------------------------------------|----------------------|------|---------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------|----------|------|-----------------------------------------|----------|------|--|
|                                                      |                                                               | 1-phase              |      | 3-phase |      |      |                                                                                   |                                                                                   | Cat. no. <sup>[1]</sup>                   | Ref. no. | Pack | Cat. no. <sup>[1]</sup>                 | Ref. no. | Pack |  |
|                                                      |                                                               | 115V                 | 220V | 220V    | 380V | 500V | 230V                                                                              | 400V                                                                              |                                           |          |      |                                         |          |      |  |
|                                                      |                                                               |                      |      |         |      |      |  |  |                                           |          |      |                                         |          |      |  |
|                                                      |                                                               |                      |      |         |      |      |  |  |                                           |          |      |                                         |          |      |  |
| Terminal: screw                                      |                                                               |                      |      |         |      |      |                                                                                   |                                                                                   |                                           |          |      |                                         |          |      |  |
| 20                                                   | 6                                                             | 0.37                 | 0.75 | 1.5     | 2.2  | 3    | 1                                                                                 | 0                                                                                 | MC0I310ATD                                | 100570   | 10   | MC0K310ATD                              | 100574   | 10   |  |
|                                                      |                                                               |                      |      |         |      |      | 0                                                                                 | 1                                                                                 | MC0I301ATD                                | 100571   | 10   | MC0K301ATD                              | 100575   | 10   |  |
| 20                                                   | 9                                                             | 0.56                 | 1.12 | 2.2     | 4    | 4    | 1                                                                                 | 0                                                                                 | MC1I310ATD                                | 100572   | 10   | MC1K310ATD                              | 100576   | 10   |  |
|                                                      |                                                               |                      |      |         |      |      | 0                                                                                 | 1                                                                                 | MC1I301ATD                                | 100573   | 10   | MC1K301ATD                              | 100577   | 10   |  |
| 20                                                   | 12                                                            | 0.75                 | 2    | 3       | 5.5  | 5.5  | 1                                                                                 | 0                                                                                 | MC2I310ATD                                | 100559   | 10   | MC2K310ATD                              | 103590   | 10   |  |
|                                                      |                                                               |                      |      |         |      |      | 0                                                                                 | 1                                                                                 | MC2I301ATD                                | 100538   | 10   | MC2K301ATD                              | 103591   | 10   |  |
|                                                      |                                                               |                      |      |         |      |      |                                                                                   |                                                                                   |                                           |          |      |                                         |          |      |  |
|                                                      |                                                               |                      |      |         |      |      |                                                                                   |                                                                                   |                                           |          |      |                                         |          |      |  |
|                                                      |                                                               |                      |      |         |      |      |                                                                                   |                                                                                   | MB0ID                                     | 100470   | 10   | MB0KD                                   | 100471   | 10   |  |
|                                                      |                                                               |                      |      |         |      |      |                                                                                   |                                                                                   |                                           |          |      |                                         |          |      |  |

(1) No possibility of adding instantaneous auxiliary contact blocks.

(2) Facility to mount an instantaneous auxiliary contact block of two contacts or two instantaneous auxiliary contact blocks of one contact.

(3) Electrical endurance AC-3:

MC0... (6A) =  $1.2 \times 10^6$  operations.

MC1... (9A) =  $0.85 \times 10^6$  operations.

MC2... (12A) =  $0.6 \times 10^6$  operations.

## Four poles minicontactors



| Max.oper.current                     |                                                               | Admissible power AC3 |          |          |          |          | Poles                                                                             |                                                                                   | Control circuit:<br>Alternating current |      | Control circuit:<br>Direct current |      |   |   |             |    |             |    |
|--------------------------------------|---------------------------------------------------------------|----------------------|----------|----------|----------|----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------|------|------------------------------------|------|---|---|-------------|----|-------------|----|
| Non-inductive load                   | Motors<br><440V,<br>3 ~<br>50/60Hz<br>AC3 <sup>(3)</sup><br>A | 1-phase              |          | 3-phase  |          |          |  |  | Cat. no. <sup>(1)</sup>                 | Pack | Cat. no. <sup>(1)</sup>            | Pack |   |   |             |    |             |    |
|                                      |                                                               | 115V                 | 220V     | 220V     | 380V     | 500V     |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 230V 400V            |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| AC1 <sup>(2)</sup><br>A              | A                                                             | kW<br>HP             | kW<br>HP | kW<br>HP | kW<br>HP | kW<br>HP |                                                                                   |                                                                                   | Ref. no. see bottom                     |      | Ref. no. see bottom                |      |   |   |             |    |             |    |
| Screw terminal                       |                                                               |                      |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 6                                                             | AC1                  |          | 6.1      | 10.5     | 13.8     | 4                                                                                 | 0                                                                                 | MC0A400AT ♦                             | 20   | MC0C400AT ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 1.8                  | 3.5      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC0AB00AT ♦ | 20 | MC0CB00AT ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC0AA00AT ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.37                 | 0.75     | 1.5      | 2.2      | 3        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.5                  | 1        | 2        | 3        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 9                                                             | AC1                  |          | 7.5      | 13       | 17       | 4                                                                                 | 0                                                                                 | MC1A400AT ♦                             | 20   | MC1C400AT ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 2.3                  | 4.4      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC1AB00AT ♦ | 20 | MC1CB00AT ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC1AA00AT ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.56                 | 1.12     | 2.2      | 4        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.75                 | 1.5      | 3        | 5.5      | 5.5      |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 12                                                            | AC1                  |          | 13       | 17       |          | 4                                                                                 | 0                                                                                 | MC2A400AT ♦                             | 20   | MC2C400AT ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 2.3                  | 4.4      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC2AB00AT ♦ | 20 | MC2CB00AT ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - |             |    |             |    |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.75                 | 2        | 3        | 5.5      | 5.5      |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 1                    | 2.6      | 4        | 7.3      | 7.3      |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| Terminal: faston 2x2.8 insulated (5) |                                                               |                      |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 6                                                             | AC1                  |          | 6.1      | 10.5     | 13.8     | 4                                                                                 | 0                                                                                 | MC0A400AF ♦                             | 20   | MC0C400AF ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 1.8                  | 3.5      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC0AB00AF ♦ | 20 | MC0CB00AF ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC0AA00AF ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.37                 | 0.75     | 1.5      | 2.2      | 3        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.5                  | 1        | 2        | 3        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 16 <sup>(4)</sup>                    | 9                                                             | AC1                  |          | 7.5      | 13       | 17       | 4                                                                                 | 0                                                                                 | MC1A400AF ♦                             | 20   | MC1C400AF ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 2.3                  | 4.4      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC1AB00AF ♦ | 20 | MC1CB00AF ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC1AA00AF ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.56                 | 1.12     | 2.2      | 4        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.75                 | 1.5      | 3        | 5.5      | 5.5      |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| Terminal: printed circuit            |                                                               |                      |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 6                                                             | AC1                  |          | 6.1      | 10.5     | 13.8     | 4                                                                                 | 0                                                                                 | MC0A400AI ♦                             | 20   | MC0C400AI ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 1.8                  | 3.5      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC0AB00AI ♦ | 20 | MC0CB00AI ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC0AA00AI ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.37                 | 0.75     | 1.5      | 2.2      | 3        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.5                  | 1        | 2        | 3        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| 20                                   | 9                                                             | AC1                  |          | 7.5      | 13       | 17       | 4                                                                                 | 0                                                                                 | MC1A400AI ♦                             | 20   | MC1C400AI ♦                        | 10   |   |   |             |    |             |    |
|                                      |                                                               | 2.3                  | 4.4      |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | 2 | 2 | MC1AB00AI ♦ | 20 | MC1CB00AI ♦ | 10 |
|                                      |                                                               | -                    | -        |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      | - | - | 0           | 4  | MC1AA00AI ♦ | 20 |
|                                      |                                                               | AC3                  |          |          |          |          |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.56                 | 1.12     | 2.2      | 4        | 4        |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
|                                      |                                                               | 0.75                 | 1.5      | 3        | 5.5      | 5.5      |                                                                                   |                                                                                   |                                         |      |                                    |      |   |   |             |    |             |    |
| Spare coil                           |                                                               |                      |          |          |          |          |                                                                                   |                                                                                   | MB0A ♦                                  | 10   | MB0C ♦                             | 10   |   |   |             |    |             |    |

(1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.2)

(2) Electrical endurance AC-1: MC0... 0.2 × 10<sup>6</sup> operations  
MC1... 0.3 × 10<sup>6</sup> operations  
MC2... 0.35 × 10<sup>6</sup> operations

(3) Electrical endurance AC-3: MC0... (6A) = 1.2 × 10<sup>6</sup> operations  
MC1... (9A) = 0.85 × 10<sup>6</sup> operations  
MC2... (12A) = 0.6 × 10<sup>6</sup> operations

(4) Terminal with wire 1.5 mm<sup>2</sup>: I<sub>e</sub> = 16A  
with wire 1 mm<sup>2</sup>: I<sub>e</sub> = 10A  
Insulated terminal type B 2.8 × 0.8 and wire of 1 mm<sup>2</sup> I<sub>e</sub> = 8A in accordance with DIN 46247.

(5) Faston 1 × 6.3 terminals on request, (replace letter F by H in the catalogue number).



**Instantaneous auxiliary contact blocks****Front mounting**

| Number contacts                                                                                                                       | Combinations with basic contactor 10E | Contacts in acc. with EN 50012 | Contacts in acc. with EN 50005 | Aux. contacts |   | Cat. no.  | Ref. no. | Pack |
|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------|--------------------------------|---------------|---|-----------|----------|------|
|                                                                                                                                       |                                       |                                |                                |               |   |           |          |      |
| • Two or four additional contacts, to cover combinations of 3 or 5 contacts without increasing the surface are of the basic contactor |                                       |                                |                                |               |   |           |          |      |
| <b>Screw terminal</b>                                                                                                                 |                                       |                                |                                |               |   |           |          |      |
| 2                                                                                                                                     | 21E                                   | 11                             |                                | 1             | 1 | MACN211AT | 100999   | 10   |
| 2                                                                                                                                     | 12E                                   | 02                             |                                | 0             | 2 | MACN202AT | 100998   | 10   |
| 2                                                                                                                                     |                                       |                                | 20                             | 2             | 0 | MARN220AT | 100994   | 10   |
| 2                                                                                                                                     |                                       |                                | 11                             | 1             | 1 | MARN211AT | 100993   | 10   |
| 2                                                                                                                                     |                                       |                                | 02                             | 0             | 2 | MARN202AT | 100992   | 10   |
| 4                                                                                                                                     | 41E                                   | 31                             |                                | 3             | 1 | MACN431AT | 100997   | 10   |
| 4                                                                                                                                     | 32E                                   | 22                             |                                | 2             | 2 | MACN422AT | 100996   | 10   |
| 4                                                                                                                                     | 23E                                   | 13                             |                                | 1             | 3 | MACN413AT | 100995   | 10   |
| 4                                                                                                                                     |                                       |                                | 40                             | 4             | 0 | MARN440AT | 100991   | 10   |
| 4                                                                                                                                     |                                       |                                | 31                             | 3             | 1 | MARN431AT | 100990   | 10   |
| 4                                                                                                                                     |                                       |                                | 22                             | 2             | 2 | MARN422AT | 100989   | 10   |
| 4                                                                                                                                     |                                       |                                | 13                             | 1             | 3 | MARN413AT | 100988   | 10   |
| 4                                                                                                                                     |                                       |                                | 04                             | 0             | 4 | MARN404AT | 100987   | 10   |
| <b>Ring terminal</b>                                                                                                                  |                                       |                                |                                |               |   |           |          |      |
| 2                                                                                                                                     | 21E                                   | 11                             |                                | 1             | 1 | MACN211AR | 103557   | 10   |
| 2                                                                                                                                     | 12E                                   | 02                             |                                | 0             | 2 | MACN202AR | 103558   | 10   |
| 2                                                                                                                                     |                                       |                                | 20                             | 2             | 0 | MARN220AR | 103349   | 10   |
| 2                                                                                                                                     |                                       |                                | 11                             | 1             | 1 | MARN211AR | 103350   | 10   |
| 2                                                                                                                                     |                                       |                                | 02                             | 0             | 2 | MARN202AR | 103351   | 10   |
| 4                                                                                                                                     | 41E                                   | 31                             |                                | 3             | 1 | MACN431AR | 103559   | 10   |
| 4                                                                                                                                     | 32E                                   | 22                             |                                | 2             | 2 | MACN422AR | 103560   | 10   |
| 4                                                                                                                                     | 23E                                   | 13                             |                                | 1             | 3 | MACN413AR | 103561   | 10   |
| 4                                                                                                                                     |                                       |                                | 40                             | 4             | 0 | MARN440AR | 103352   | 10   |
| 4                                                                                                                                     |                                       |                                | 31                             | 3             | 1 | MARN431AR | 103353   | 10   |
| 4                                                                                                                                     |                                       |                                | 22                             | 2             | 2 | MARN422AR | 103354   | 10   |
| 4                                                                                                                                     |                                       |                                | 13                             | 1             | 3 | MARN413AR | 103355   | 10   |
| 4                                                                                                                                     |                                       |                                | 04                             | 0             | 4 | MARN404AR | 103300   | 10   |

**Instantaneous auxiliary contact blocks****Lateral mounting**

| Number contacts | Combinations with basic contactor 10E | Contacts in acc. with EN 50012 | Contacts in acc. with EN 50005 | Aux. contacts |          | Cat. no. | Ref. no. | Pack |
|-----------------|---------------------------------------|--------------------------------|--------------------------------|---------------|----------|----------|----------|------|
|                 |                                       |                                |                                | •3 <br>•4     | •1<br>•2 |          |          |      |

- One or two additional blocks, to cover combinations of 1 or 2 contacts without increasing the height of the basic unit contactor

|                                             |     |    |  |   |   |           |        |    |
|---------------------------------------------|-----|----|--|---|---|-----------|--------|----|
| <b>Screw terminal</b>                       |     |    |  |   |   |           |        |    |
| 1                                           | 20  | 10 |  | 1 | 0 | MACL110AT | 100560 | 10 |
| 1                                           | 11E | 01 |  | 0 | 1 | MACL101AT | 100561 | 10 |
| <b>Ring terminal</b>                        |     |    |  |   |   |           |        |    |
| 1                                           | 20  | 10 |  | 1 | 0 | MACL110AR | 103555 | 10 |
| 1                                           | 11E | 01 |  | 0 | 1 | MACL101AR | 103556 | 10 |
| <b>Terminal: faston 2x2.8 insulated (1)</b> |     |    |  |   |   |           |        |    |
| 1                                           | 20  | 10 |  | 1 | 0 | MACL110AF | 100562 | 10 |
| 1                                           | 11E | 01 |  | 0 | 1 | MACL101AF | 100563 | 10 |
| <b>Terminal: printed circuit</b>            |     |    |  |   |   |           |        |    |
| 1                                           | 20  | 10 |  | 1 | 0 | MACL110AI | 100564 | 10 |
| 1                                           | 11E | 01 |  | 0 | 1 | MACL101AI | 100565 | 10 |

- One or two additional blocks, when up to 6 or 7 contacts are needed (combination possible with frontal blocks)
- One or two additional blocks on both sides, to cover up to five contacts (combination possible only with lateral blocks)

|                                             |  |  |    |   |   |            |        |    |
|---------------------------------------------|--|--|----|---|---|------------|--------|----|
| <b>Screw terminal</b>                       |  |  |    |   |   |            |        |    |
| 1                                           |  |  | 10 | 1 | 0 | MARL110ATS | 100519 | 10 |
| 1                                           |  |  | 01 | 0 | 1 | MARL101ATS | 100520 | 10 |
| <b>Ring terminal</b>                        |  |  |    |   |   |            |        |    |
| 1                                           |  |  | 10 | 1 | 0 | MARL110ARS | 103299 | 10 |
| 1                                           |  |  | 01 | 0 | 1 | MARL101ARS | 103298 | 10 |
| <b>Terminal: faston 2x2.8 insulated (1)</b> |  |  |    |   |   |            |        |    |
| 1                                           |  |  | 10 | 1 | 0 | MARL110AFS | 100521 | 10 |
| 1                                           |  |  | 01 | 0 | 1 | MARL101AFS | 100522 | 10 |
| <b>Terminal: printed circuit</b>            |  |  |    |   |   |            |        |    |
| 1                                           |  |  | 10 | 1 | 0 | MARL110AIS | 100523 | 10 |
| 1                                           |  |  | 01 | 0 | 1 | MARL101AIS | 100524 | 10 |

- (1) Terminal with wire 1 mm<sup>2</sup>: I<sub>e</sub> = 10A  
Insulated terminal type B 2.8 x 0.8 with wire 1 mm<sup>2</sup>: I<sub>e</sub> = 8A, in accordance with DIN 46247

## Accessories

|                                                                                   |                                             |                                          |               |          |                  |            |          |      |  |
|-----------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------|---------------|----------|------------------|------------|----------|------|--|
|  | Electronic timer block                      | For use with:                            | Time          | Function | Ue               | Cat. no.   | Ref. no. | Pack |  |
|                                                                                   |                                             | Lateral or front fixing to the contactor |               |          |                  |            |          |      |  |
|                                                                                   |                                             | MCR..MC_ ...                             | 0.5 - 60 seg. | delay ON | 24... 250V AC/DC | MREBC10AC2 | 100541   | 10   |  |
|                                                                                   |                                             | MCR..MC_ ...                             | 0.2 - 24 seg. | delay ON | 24...250V AC/DC  | MREBC20AC2 | 100542   | 10   |  |
|  | DIN rail adaptor for electronic timer block | For fixing onto EN 50022-35              |               |          |                  |            |          |      |  |
|                                                                                   |                                             | MREBC...                                 |               |          |                  | MVB0R      | 100543   | 10   |  |
|                                                                                   |                                             |                                          |               |          |                  |            |          |      |  |

|                                                                                     |                          |                                                     |                    |                   |                   |          |          |      |  |
|-------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------|--------------------|-------------------|-------------------|----------|----------|------|--|
|    | Voltage suppressor block | For use with:                                       | Type               | Control           | Ue                | Cat. no. | Ref. no. | Pack |  |
|                                                                                     |                          | Connection and (plug-in) fixing on to the connector |                    |                   |                   |          |          |      |  |
|                                                                                     |                          | MCRA,MC_ ...                                        | R/C                | AC                | 12...60V 50/60Hz  | MP0AAE1  | 100544   | 10   |  |
|                                                                                     |                          | MCRA,MC_ ...                                        | R/C                | AC                | 72...250V 50/60Hz | MP0AAE2  | 100545   | 10   |  |
|                                                                                     |                          | MCRC,MC_ ...                                        | Diode              | DC                | 6...250V DC       | MP0CAE3  | 100546   | 10   |  |
|                                                                                     |                          | MCRC,MC_ ...                                        | Varistor           | AC/DC             | 24-48V            | MP0DAE4  | 100536   | 10   |  |
|  | Pole paralleling links   | For use with:                                       | Phases             | Terminal capacity | Ue                | Cat. no. | Ref. no. | Pack |  |
|                                                                                     |                          | To connect two, three or four phases in parallel    |                    |                   |                   |          |          |      |  |
|                                                                                     |                          | MC_ ...                                             | 2, 3, 4 (parallel) | Ø4.5mm - 16mm²    |                   | MVPOC    | 100600   | 10   |  |

|                                                                                     |                      |                                       |  |  |  |          |          |      |  |
|-------------------------------------------------------------------------------------|----------------------|---------------------------------------|--|--|--|----------|----------|------|--|
|  | Mechanical interlock | For use with:                         |  |  |  | Cat. no. | Ref. no. | Pack |  |
|                                                                                     |                      | Mechanical interlock and pole jumpers |  |  |  |          |          |      |  |
|                                                                                     |                      | MCR, MC_ ...                          |  |  |  | MMH0     | 100547   | 10   |  |

|                |               |                                                                             |  |  |          |          |      |
|----------------|---------------|-----------------------------------------------------------------------------|--|--|----------|----------|------|
| Identification | For use with: |                                                                             |  |  | Cat. no. | Ref. no. | Pack |
|                | MCR, MC_ ...  | Labels (10 sheets of 260 labels)                                            |  |  | EAT 260  | 100548   | 1    |
|                | MCR, MC_ ...  | Labelling plate base. Plug-in labelling plate bases (50 pieces in one pack) |  |  | SPR      | 100549   | 1    |
|                |               |                                                                             |  |  |          |          |      |

Multipack. Series M and Series CL

To reduce the amount of waste packaging material and to save time during installation, we offer the opportunity to order contactors in a multipack without the individual packaging.

|  | Product        | Type             | Standard pack | Multipack (1) |
|--|----------------|------------------|---------------|---------------|
|  | Minicontactors | MC0A...MC2A      | 20            | 40            |
|  | Contactors     | CL00A...CL25A... | 20            | 40            |
|  |                | CL03...CL45...   | 10            | 20            |

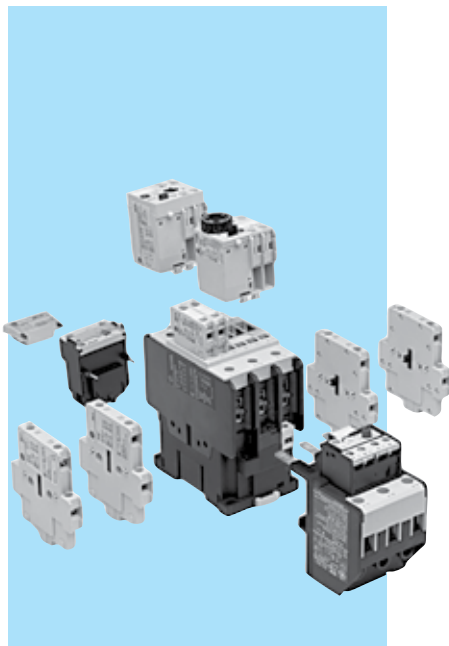
(1) The quantity ordered must be a multiple of the quantity in each multipack (with the same frame/size and coil voltage)

How to order

To order a multipack, add the suffix **MP** to the standard catalogue number

| Example |  | Standard pack | Multipack                           |
|---------|--|---------------|-------------------------------------|
|         |  | MC0A310ATN    | MC0A310ATN <b>MP</b><br>(40 pieces) |
|         |  | CL03A400MJ    | CL03A400MJ <b>MP</b><br>(20 pieces) |





## Three and four pole contactors 9 to 105A (AC3) 25 to 140A (AC1)

- Control circuit: Alternating current up to 690V  
Direct current up to 440V
- Terminal numbering in accordance with EN 50005 and EN 50012
- Fixing by clipping onto 35mm DIN rail EN 50022-35 or by screws
- Screws protected against accidental contact in accordance with VDE 0106 T.100, VBG4
- Ring terminal version
- Three coil terminals
- Mounting possibilities of front/side instantaneous auxiliary contact blocks, timed auxiliary contact blocks, mechanical latch, transient suppressor block and interface modules
- Degree of protection: IP20 to CL00 ... CL02  
IP10 to CL25 ... CL10
- Maximum number of auxiliary contacts: 4 for CL00 ... CL25  
6 for CL04 ... CL45  
8 for CL06 ... CL10

### Standards

|                  |                |
|------------------|----------------|
| IEC/EN 60947-1   | CSA 22.2/14    |
| IEC/EN 60947-4-1 | NFC 63-110     |
| IEC/EN 60947-5-1 | ASE 1025       |
| EN 50005         | VDE 0660/102   |
| UL 508           | CENELEC HD 419 |
| NEMA ICS 1       |                |
| BS 5424 & 775    |                |

### Approvals



Order codes | pg. C.11  
Auxiliary contact blocks | pg. C.15  
Accessories | pg. C.15  
Dimensions | pg. C.24

### Standard voltages

To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit.  
(other voltages on request)\*

#### Alternating current (V). Dual-frequency coil

| ♦       | 1  | 2  | 9  | 3   | 4   | 5   | 6   | 7   | 13  | 8   | 15  |
|---------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| AC      | 24 | 42 | 48 | 110 | 120 | 220 | 230 | 240 | 400 | 440 | 480 |
| 50/60Hz |    |    |    | 115 |     |     |     |     |     |     |     |

#### Alternating current (V).

| ♦    | E  | K   | L   | N   | T   | U   | W   | Y   | Z   |
|------|----|-----|-----|-----|-----|-----|-----|-----|-----|
| AC   | 32 | 127 |     | 220 |     | 380 | 415 | 500 | 660 |
| 50Hz |    |     |     | 230 |     | 400 |     |     | 690 |
| AC   |    |     | 208 | 277 | 380 | 480 | 460 | 600 |     |
| 60Hz |    |     |     |     |     |     |     |     |     |

#### Direct current (V)

For contactors type CL...D / Operating limits: 0.80 ... 1.10 x Us

| ♦       | B  | D  | E  | F  | G  | H  | I  | J   | K   | N   | P   | R   | T   | X   |
|---------|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Voltage | 12 | 24 | 36 | 42 | 48 | 60 | 72 | 110 | 120 | 220 | 230 | 240 | 250 | 440 |
|         |    |    |    |    |    |    |    |     | 125 |     |     |     |     |     |

Coil with electronic module for contactors CL...E (can also be used with alternating current)

| ♦       | D  | F  | H  | J   | N   | Y   |
|---------|----|----|----|-----|-----|-----|
| Voltage | 24 | 42 | 60 | 110 | 220 | 440 |
|         | 28 | 48 | 72 | 125 | 250 |     |

#### Direct current (V). Coil with wide voltage range (0.70 ... 1.30 x Us)

For contactors type CL...D

| ♦  | WB | WD | WE | WF | WG | WH | WI | WJ  | WK  | WN  | WP  | WR  | WT  | WX  |
|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| DC | 12 | 24 | 33 | 42 | 48 | 60 | 72 | 110 | 125 | 220 | 230 | 240 | 250 | 440 |

Maximum number of add-on auxiliary contact blocks:

CL00D...CL02D : 2NO or 1NC  
CL03D...CL45D : 1NO and 1NC  
CL05D...CL10D : 4NO or 2NC  
CL05E...CL10E : 4 cont. aux.

#### Coil with electronic module for contactors CL...E

| ♦       | WD | WE | WF | WH | WJ  | WN  |
|---------|----|----|----|----|-----|-----|
| Voltage | 24 | 33 | 48 | 72 | 110 | 220 |

Different auxiliary contact configurations, contact us.

\* Please Consult GE for non standard Coil Voltages

## Three pole contactors. Screw terminal

|                                                                                     | Max.oper.current               |                                       | Admissible power AC3 |              |              |            | Electrical endurance | Aux. contacts          |             | Control circuit: Alternating current                 |                                                | Control circuit: Direct current |                                                | Control circuit: Coil with electronic module (AC/DC) |                                                |                     |  |
|-------------------------------------------------------------------------------------|--------------------------------|---------------------------------------|----------------------|--------------|--------------|------------|----------------------|------------------------|-------------|------------------------------------------------------|------------------------------------------------|---------------------------------|------------------------------------------------|------------------------------------------------------|------------------------------------------------|---------------------|--|
|                                                                                     | Non-inductive load<br>AC1<br>A | Motors <440V, 3 ~ 50/60Hz<br>AC3<br>A | 220V<br>230V         | 380V<br>400V | 415V<br>440V | 500V       |                      | Cat. AC3<br>Operations | •3 <br>•4   | •1<br>•2                                             | Cat. no. <sup>(1)</sup><br>Ref. no. see bottom | Pack <sup>(3)</sup>             | Cat. no. <sup>(1)</sup><br>Ref. no. see bottom | Pack <sup>(3)</sup>                                  | Cat. no. <sup>(1)</sup><br>Ref. no. see bottom | Pack <sup>(3)</sup> |  |
|                                                                                     |                                |                                       |                      |              |              |            |                      |                        |             |                                                      |                                                |                                 |                                                |                                                      |                                                |                     |  |
|    | 25                             | 9                                     | 2.2<br>3             | 4<br>5.5     | 4<br>5.5     | 5.5<br>7.5 | 2×10 <sup>6</sup>    | 0<br>1<br>0            | 0<br>0<br>1 | CL00A300T♦<br>CL00A310T♦<br>CL00A301T♦               | 5<br>5<br>5                                    |                                 | CL00D310T♦<br>CL00D301T♦                       | 10<br>10                                             |                                                |                     |  |
|    | 25                             | 12                                    | 3<br>4               | 5.5<br>7.5   | 5.5<br>7.5   | 7.5<br>10  | 2×10 <sup>6</sup>    | 0<br>1<br>0            | 0<br>0<br>1 | CL01A300T♦<br>CL01A310T♦<br>CL01A301T♦               | 5<br>5<br>5                                    |                                 | CL01D310T♦<br>CL01D301T♦                       | 10<br>10                                             |                                                |                     |  |
|                                                                                     | 32                             | 18                                    | 4<br>5.5             | 7.5<br>10    | 7.5<br>10    | 10<br>13.5 | 1.7×10 <sup>6</sup>  | 0<br>1<br>0            | 0<br>0<br>1 | CL02A300T♦<br>CL02A310T♦<br>CL02A301T♦               | 5<br>5<br>5                                    |                                 | CL02D310T♦<br>CL02D301T♦                       | 10<br>10                                             |                                                |                     |  |
|                                                                                     | 45                             | 25                                    | 7.5<br>10            | 11<br>15     | 11<br>15     | 15<br>20   | 1.2×10 <sup>6</sup>  | 0<br>1<br>0            | 0<br>0<br>1 | CL25A300T♦<br>CL03A300M♦<br>CL03A310M♦<br>CL03A301M♦ | 5<br>10<br>10<br>10                            |                                 | CL25D300T♦<br>CL03D310M♦<br>CL03D301M♦         | 10<br>10<br>10                                       |                                                |                     |  |
|  | 45                             | 25                                    | 7.5<br>10            | 12<br>16     | 12<br>16     | 15<br>20   | 2×10 <sup>6</sup>    | 0<br>1<br>0            | 0<br>0<br>1 | CL03A300M♦<br>CL03A310M♦<br>CL03A301M♦               | 10<br>10<br>10                                 |                                 | CL03D310M♦<br>CL03D301M♦                       | 10<br>10                                             |                                                |                     |  |
|                                                                                     | 60                             | 32                                    | 9<br>12              | 16<br>22     | 16<br>22     | 18.5<br>25 | 2×10 <sup>6</sup>    | 0<br>1<br>0            | 0<br>0<br>1 | CL04A300M♦<br>CL04A310M♦<br>CL04A301M♦               | 10<br>10<br>10                                 |                                 | CL04D310M♦<br>CL04D301M♦                       | 10<br>10                                             |                                                |                     |  |
|                                                                                     | 60                             | 40                                    | 11<br>15             | 18.5<br>25   | 22<br>30     | 25<br>34   | 2×10 <sup>6</sup>    | 0<br>1<br>1            | 0<br>0<br>1 | CL45A300M♦<br>CL45A311M♦ <sup>(2)</sup>              | 10<br>10                                       |                                 | CL45D300M♦                                     | 10                                                   |                                                |                     |  |
|  | 90                             | 50                                    | 15<br>20             | 22<br>30     | 25<br>34     | 30<br>40   | 1.8×10 <sup>6</sup>  | 0<br>1<br>1            | 0<br>0<br>1 | CL06A300M♦<br>CL06A311M♦ <sup>(2)</sup>              | 1<br>1                                         |                                 | CL06D300M♦                                     | 1                                                    | CL06E300M♦                                     | 1                   |  |
|                                                                                     | 110                            | 65                                    | 18.5<br>25           | 30<br>40     | 37<br>50     | 40<br>55   | 1.7×10 <sup>6</sup>  | 0<br>1<br>1            | 0<br>0<br>1 | CL07A300M♦<br>CL07A311M♦ <sup>(2)</sup>              | 1<br>1                                         |                                 | CL07D300M♦                                     | 1                                                    | CL07E300M♦                                     | 1                   |  |
|                                                                                     | 110                            | 80                                    | 22<br>30             | 37<br>50     | 45<br>60     | 45<br>60   | 1.5×10 <sup>6</sup>  | 0<br>1<br>1            | 0<br>0<br>1 | CL08A300M♦<br>CL08A311M♦ <sup>(2)</sup>              | 1<br>1                                         |                                 | CL08D300M♦                                     | 1                                                    | CL08E300M♦                                     | 1                   |  |
|  | 140                            | 95                                    | 25<br>34             | 45<br>60     | 50<br>68     | 55<br>75   | 1.7×10 <sup>6</sup>  | 0<br>1<br>1            | 0<br>0<br>1 | CL09A300M♦<br>CL09A311M♦ <sup>(2)</sup>              | 1<br>1                                         |                                 | CL09D300M♦                                     | 1                                                    | CL09E300M♦                                     | 1                   |  |
|                                                                                     | 140                            | 105                                   | 30<br>40             | 55<br>75     | 55<br>75     | 65<br>88   | 1.5×10 <sup>6</sup>  | 0<br>1<br>1            | 0<br>0<br>1 | CL10A300M♦<br>CL10A311M♦ <sup>(2)</sup>              | 1<br>1                                         |                                 | CL10D300M♦                                     | 1                                                    | CL10E300M♦                                     | 1                   |  |
|  |                                |                                       |                      |              |              |            |                      |                        |             |                                                      | CL00 - CL25                                    | LB1A ♦                          | 5                                              | LB1D ♦                                               | 5                                              |                     |  |
|                                                                                     |                                |                                       |                      |              |              |            |                      |                        |             |                                                      | CL03 - CL45                                    | LB3A ♦                          | 5                                              | LB3D ♦                                               | 5                                              |                     |  |
|                                                                                     |                                |                                       |                      |              |              |            |                      |                        |             |                                                      | CL06 - CL10                                    | LB4A ♦                          | 5                                              | LB4D ♦                                               | 1                                              |                     |  |
|                                                                                     |                                |                                       |                      |              |              |            |                      |                        |             |                                                      | coil + electronic module CL06E - CL10E         |                                 |                                                |                                                      | LB4E ♦                                         | 1                   |  |

- (1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.10).  
 (2) Equipped with two blocks BCLF  
 (3) Multipack, see C.9

### Three pole contactors. Ring terminal

|                                                                                     | Max.oper.current<br>Non-inductive<br>load<br>AC1<br>A | Motors<br><440V,<br>3 ~<br>50/60Hz<br>AC3<br>A | Admissible power<br>AC3               |            |            |            | Electrical<br>endurance<br>Operations<br>Cat.<br>AC3 | Aux. contacts |             | Control circuit:<br>Alternating<br>current |                     | Control circuit:<br>Direct current |                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|---------------------------------------|------------|------------|------------|------------------------------------------------------|---------------|-------------|--------------------------------------------|---------------------|------------------------------------|---------------------|
|                                                                                     |                                                       |                                                | 220V 380V 415V 500V<br>230V 400V 440V |            |            |            |                                                      | 3<br>4        | 1<br>2      | Cat. no. <sup>(1)</sup>                    | Pack <sup>(2)</sup> | Cat. no. <sup>(1)</sup>            | Pack <sup>(2)</sup> |
|                                                                                     |                                                       |                                                | kW<br>HP                              | kW<br>HP   | kW<br>HP   | kW<br>HP   |                                                      |               |             |                                            |                     |                                    |                     |
|    | 25                                                    | 9                                              | 2.2<br>3                              | 4<br>5.5   | 4<br>5.5   | 5.5<br>7.5 | 2x10 <sup>6</sup>                                    | 0<br>1<br>0   | 0<br>0<br>1 | CL00A300R ♦<br>CL00A310R ♦<br>CL00A301R ♦  | 5<br>5<br>5         | CL00D310R ♦<br>CL00D301R ♦         | 10<br>10            |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|    | 25                                                    | 12                                             | 3<br>4                                | 5.5<br>7.5 | 5.5<br>7.5 | 7.5<br>10  | 2x10 <sup>6</sup>                                    | 0<br>1<br>0   | 0<br>0<br>1 | CL01A300R ♦<br>CL01A310R ♦<br>CL01A301R ♦  | 5<br>5<br>5         | CL01D310R ♦<br>CL01D301R ♦         | 10<br>10            |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|   | 32                                                    | 18                                             | 4<br>5.5                              | 7.5<br>10  | 7.5<br>10  | 10<br>13.5 | 1.7x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL02A300R ♦<br>CL02A310R ♦<br>CL02A301R ♦  | 5<br>5<br>5         | CL02D310R ♦<br>CL02D301R ♦         | 10<br>10            |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 45                                                    | 25                                             | 7.5<br>10                             | 11<br>15   | 11<br>15   | 15<br>20   | 1.2x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL25A300R ♦<br>CL25A310R ♦<br>CL25A301R ♦  | 5<br>5<br>5         | CL25D300R ♦                        | 10                  |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 45                                                    | 25                                             | 7.5<br>10                             | 12<br>16   | 12<br>16   | 15<br>20   | 2x10 <sup>6</sup>                                    | 0<br>1<br>0   | 0<br>0<br>1 | CL03A300R ♦<br>CL03A310R ♦<br>CL03A301R ♦  | 10<br>10<br>10      | CL03D310R ♦<br>CL03D301R ♦         | 10<br>10            |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 60                                                    | 32                                             | 9<br>12                               | 16<br>22   | 16<br>22   | 18.5<br>25 | 2x10 <sup>6</sup>                                    | 0<br>1<br>0   | 0<br>0<br>1 | CL04A300R ♦<br>CL04A310R ♦<br>CL04A301R ♦  | 10<br>10<br>10      | CL04D310R ♦<br>CL04D301R ♦         | 10<br>10            |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 60                                                    | 40                                             | 11<br>15                              | 18.5<br>25 | 22<br>30   | 25<br>34   | 2x10 <sup>6</sup>                                    | 0<br>1<br>0   | 0<br>0<br>1 | CL45A300R ♦<br>CL45A310R ♦<br>CL45A301R ♦  | 10<br>10<br>10      | CL45D300R ♦                        | 10                  |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 90                                                    | 50                                             | 15<br>20                              | 22<br>30   | 25<br>34   | 30<br>40   | 1.8x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL06A300R ♦<br>CL06A310R ♦<br>CL06A301R ♦  | 1<br>1<br>1         | CL06D300R ♦                        | 1                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 110                                                   | 65                                             | 18.5<br>25                            | 30<br>40   | 37<br>50   | 40<br>55   | 1.7x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL07A300R ♦<br>CL07A310R ♦<br>CL07A301R ♦  | 1<br>1<br>1         | CL07D300R ♦                        | 1                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 110                                                   | 80                                             | 22<br>30                              | 37<br>50   | 45<br>60   | 45<br>60   | 1.5x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL08A300R ♦<br>CL08A310R ♦<br>CL08A301R ♦  | 1<br>1<br>1         | CL08D300R ♦                        | 1                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 140                                                   | 95                                             | 25<br>34                              | 45<br>60   | 50<br>68   | 55<br>75   | 1.7x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL09A300R ♦<br>CL09A310R ♦<br>CL09A301R ♦  | 1<br>1<br>1         | CL09D300R ♦                        | 1                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|  | 140                                                   | 105                                            | 30<br>40                              | 55<br>75   | 55<br>75   | 65<br>88   | 1.5x10 <sup>6</sup>                                  | 0<br>1<br>0   | 0<br>0<br>1 | CL10A300R ♦<br>CL10A310R ♦<br>CL10A301R ♦  | 1<br>1<br>1         | CL10D300R ♦                        | 1                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
| Spare coils                                                                         |                                                       |                                                |                                       |            |            |            |                                                      |               |             |                                            |                     |                                    |                     |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      | CL00 - CL25   |             | LB1A ♦                                     | 5                   | LB1D ♦                             | 5                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      | CL03 - CL45   |             | LB3A ♦                                     | 5                   | LB3D ♦                             | 5                   |
|                                                                                     |                                                       |                                                |                                       |            |            |            |                                                      | CL06 - CL10   |             | LB4A ♦                                     | 5                   | LB4D ♦                             | 1                   |

(1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.10).

(2) Multipack, see C.9

## Four pole contactors. Screw terminal



| Max.oper.current<br>Non-inductive loads |          | Admissible power<br>AC1 |              |              |      | Electrical<br>endurance<br>Cat.<br>AC1<br>Operations | Power<br>contacts |   | Control circuit:<br>Alternating<br>current |                        | Control circuit:<br>Direct current |                        | Control circuit:<br>Coil with electronic<br>module (AC/DC) |                        |
|-----------------------------------------|----------|-------------------------|--------------|--------------|------|------------------------------------------------------|-------------------|---|--------------------------------------------|------------------------|------------------------------------|------------------------|------------------------------------------------------------|------------------------|
| AC1<br>A                                | AC3<br>A | 220V<br>230V            | 380V<br>400V | 415V<br>440V | 500V |                                                      |                   |   | Cat. no. <sup>(1)</sup>                    | Pack<br><sup>(2)</sup> | Cat. no. <sup>(1)</sup>            | Pack<br><sup>(2)</sup> | Cat. no. <sup>(1)</sup>                                    | Pack<br><sup>(2)</sup> |
|                                         |          | kW                      | kW           | kW           | kW   |                                                      |                   |   | Ref. no. see bottom                        |                        | Ref. no. see bottom                |                        | Ref. no. see bottom                                        |                        |
| 25                                      | 12       | 9.5                     | 16.5         | 18           | 21.5 | 1.5x10 <sup>6</sup>                                  | 4                 | 0 | CL01A400T♦                                 | 5                      | CL01D400T♦                         | 10                     |                                                            |                        |
| 32                                      | 18       | 12                      | 22           | 23           | 27.5 | 1.5x10 <sup>6</sup>                                  | 4                 | 0 | CL02A400T♦                                 | 5                      | CL02D400T♦                         | 10                     |                                                            |                        |
| 45                                      | 25       | 17                      | 29           | 32           | 39   | 2x10 <sup>6</sup>                                    | 4                 | 0 | CL03A400M♦                                 | 10                     | CL03D400M♦                         | 10                     |                                                            |                        |
| 60                                      | 32       | 22.5                    | 39.5         | 43           | 52   | 1.5x10 <sup>6</sup>                                  | 4                 | 0 | CL04A400M♦                                 | 10                     | CL04D400M♦                         | 10                     |                                                            |                        |
| 90                                      | 50       | 34                      | 59           | 64           | 78   | 1.5x10 <sup>6</sup>                                  | 4                 | 0 | CL05A400M♦                                 | 1                      | CL05D400M♦                         | 1                      | CL05E400M♦                                                 | 1                      |
| 110                                     | 65       | 42                      | 72.5         | 79           | 95   | 1.8x10 <sup>6</sup>                                  | 4                 | 0 | CL07A400M♦                                 | 1                      | CL07D400M♦                         | 1                      | CL07E400M♦                                                 | 1                      |
| 140                                     | 95       | 53                      | 92           | 100          | 121  | 1.8x10 <sup>6</sup>                                  | 4                 | 0 | CL09A400M♦                                 | 1                      | CL09D400M♦                         | 1                      | CL09E400M♦                                                 | 1                      |



| Max.oper.current<br>Non-inductive loads |                                               | Admissible power<br>AC3 |              |              |            | Electrical<br>endurance<br>Cat.<br>AC1<br>Operations | Power<br>contacts |   | Control circuit:<br>Alternating<br>current |                        | Control circuit:<br>Direct current |                        | Control circuit:<br>Coil with electronic<br>module (AC/DC) |                        |
|-----------------------------------------|-----------------------------------------------|-------------------------|--------------|--------------|------------|------------------------------------------------------|-------------------|---|--------------------------------------------|------------------------|------------------------------------|------------------------|------------------------------------------------------------|------------------------|
| AC1<br>A                                | Motors<br><440V,<br>3~<br>50/60Hz<br>AC3<br>A | 220V<br>230V            | 380V<br>400V | 415V<br>440V | 500V       |                                                      |                   |   | Cat. no. <sup>(1)</sup>                    | Pack<br><sup>(2)</sup> | Cat. no. <sup>(1)</sup>            | Pack<br><sup>(2)</sup> | Cat. no. <sup>(1)</sup>                                    | Pack<br><sup>(2)</sup> |
|                                         |                                               | kW<br>HP                | kW<br>HP     | kW<br>HP     | kW<br>HP   |                                                      |                   |   | Ref. no. see bottom                        |                        | Ref. no. see bottom                |                        | Ref. no. see bottom                                        |                        |
| 25                                      | 12                                            | 3<br>4                  | 5.5<br>7.5   | 5.5<br>7.5   | 7.5<br>10  |                                                      | 2                 | 2 | CL01AB00T♦                                 | 5                      | CL01DB00T♦                         | 5                      |                                                            |                        |
| 32                                      | 18                                            | 4<br>5.5                | 7.5<br>10    | 7.5<br>10    | 10<br>13.5 |                                                      | 2                 | 2 | CL02AB00T♦                                 | 5                      | CL02DB00T♦                         | 5                      |                                                            |                        |
| 45                                      | 25                                            | 7.5<br>10               | 12<br>16     | 12<br>16     | 15<br>20   |                                                      | 2                 | 2 | CL03AB00M♦                                 | 10                     | CL03DB00M♦                         | 10                     |                                                            |                        |
| 60                                      | 32                                            | 9<br>12                 | 16<br>22     | 16<br>22     | 18.5<br>25 |                                                      | 2                 | 2 | CL04AB00M♦                                 | 10                     | CL04DB00M♦                         | 10                     |                                                            |                        |
| 90                                      | 40                                            | 11<br>15                | 18.5<br>25   | 22<br>30     | 25<br>34   |                                                      | 2                 | 2 | CL05AB00M♦                                 | 1                      | CL05DB00M♦                         | 1                      | CL05EB00M♦                                                 | 1                      |
| 110                                     | 65                                            | 18.5<br>25              | 30<br>40     | 37<br>50     | 40<br>55   |                                                      | 2                 | 2 | CL07AB00M♦                                 | 1                      | CL07DB00M♦                         | 1                      | CL07EB00M♦                                                 | 1                      |
| 110                                     | 80                                            | 22<br>30                | 37<br>50     | 45<br>60     | 45<br>60   |                                                      | 2                 | 2 | CL08AB00M♦                                 | 1                      | CL08DB00M♦                         | 1                      | CL08EB00M♦                                                 | 1                      |

## Spare coils



|                          |               |        |   |        |   |        |   |
|--------------------------|---------------|--------|---|--------|---|--------|---|
|                          | CL00 - CL25   | LB1A ♦ | 5 | LB1D ♦ | 5 |        |   |
|                          | CL03 - CL45   | LB3A ♦ | 5 | LB3D ♦ | 5 |        |   |
|                          | CL05A - CL08A | LB4A ♦ | 5 | LB4D ♦ | 1 |        |   |
| Coil + Electronic module | CL05E - CL08E | LB4E ♦ | 1 |        |   | LB4E ♦ | 1 |

- (1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.10).  
 (2) Multipack, see C.9

### Four poles. Ring terminal



| Max.oper.current<br>Non-inductive load |          | Admissible power<br>AC1 |            |            |            | Electrical<br>endurance | Power<br>contacts |   | Control circuit:<br>Alternating<br>current |                     | Control circuit:<br>Direct current |                     |
|----------------------------------------|----------|-------------------------|------------|------------|------------|-------------------------|-------------------|---|--------------------------------------------|---------------------|------------------------------------|---------------------|
| AC1<br>A                               | AC3<br>A | 220V<br>kW              | 380V<br>kW | 415V<br>kW | 500V<br>kW |                         | d                 | b | Cat. no. <sup>(1)</sup>                    | Pack <sup>(2)</sup> | Cat. no. <sup>(1)</sup>            | Pack <sup>(2)</sup> |
|                                        |          |                         |            |            |            |                         |                   |   | Ref. no. see bottom                        |                     | Ref. no. see bottom                |                     |
| 25                                     | 12       | 9.5                     | 16.5       | 18         | 21.5       | 1.5×10 <sup>6</sup>     | 4                 | 0 | CL01A400R♦                                 | 5                   | CL01D400R♦                         | 10                  |
| 32                                     | 18       | 12                      | 22         | 23         | 27.5       | 1.5×10 <sup>6</sup>     | 4                 | 0 | CL02A400R♦                                 | 5                   | CL02D400R♦                         | 10                  |
| 45                                     | 25       | 17                      | 29         | 32         | 39         | 2×10 <sup>6</sup>       | 4                 | 0 | CL03A400R♦                                 | 10                  | CL03D400R♦                         | 10                  |
| 60                                     | 32       | 22.5                    | 39.5       | 43         | 52         | 1.5×10 <sup>6</sup>     | 4                 | 0 | CL04A400R♦                                 | 10                  | CL04D400R♦                         | 10                  |
| 90                                     | 50       | 34                      | 59         | 64         | 78         | 1.5×10 <sup>6</sup>     | 4                 | 0 | CL05A400R♦                                 | 1                   | CL05D400R♦                         | 1                   |
| 110                                    | 65       | 42                      | 72.5       | 79         | 95         | 1.8×10 <sup>6</sup>     | 4                 | 0 | CL07A400R♦                                 | 1                   | CL07D400R♦                         | 1                   |
| 140                                    | 95       | 53                      | 92         | 100        | 121        | 1.8×10 <sup>6</sup>     | 4                 | 0 | CL09A400R♦                                 | 1                   | CL09D400R♦                         | 1                   |



| Max.oper.current<br>Non-inductive load |                                               | Admissible power<br>AC3 |                  |                  |                  | Electrical<br>endurance | Power<br>contacts |   | Control circuit:<br>Alternating<br>current |                     | Control circuit:<br>Direct current |                     |
|----------------------------------------|-----------------------------------------------|-------------------------|------------------|------------------|------------------|-------------------------|-------------------|---|--------------------------------------------|---------------------|------------------------------------|---------------------|
| AC1<br>A                               | Motors<br><440V,<br>3~<br>50/60Hz<br>AC3<br>A | 220V<br>kW<br>HP        | 380V<br>kW<br>HP | 415V<br>kW<br>HP | 500V<br>kW<br>HP |                         | d                 | b | Cat. no. <sup>(1)</sup>                    | Pack <sup>(2)</sup> | Cat. no. <sup>(1)</sup>            | Pack <sup>(2)</sup> |
|                                        |                                               |                         |                  |                  |                  |                         |                   |   | Ref. no. see bottom                        |                     | Ref. no. see bottom                |                     |
| 25                                     | 12                                            | 3<br>4                  | 5.5<br>7.5       | 5.5<br>7.5       | 7.5<br>10        |                         | 2                 | 2 | CL01AB00R♦                                 | 5                   | CL01DB00R♦                         | 5                   |
| 32                                     | 18                                            | 4<br>5.5                | 7.5<br>10        | 7.5<br>10        | 10<br>13.5       |                         | 2                 | 2 | CL02AB00R♦                                 | 5                   | CL02DB00R♦                         | 5                   |
| 45                                     | 25                                            | 7.5<br>10               | 12<br>16         | 12<br>16         | 15<br>20         |                         | 2                 | 2 | CL03AB00R♦                                 | 10                  | CL03DB00R♦                         | 10                  |
| 60                                     | 32                                            | 9<br>12                 | 16<br>22         | 16<br>22         | 18.5<br>25       |                         | 2                 | 2 | CL04AB00R♦                                 | 10                  | CL04DB00R♦                         | 10                  |



#### Spare coils

|               |        |   |        |   |
|---------------|--------|---|--------|---|
| CL00 - CL25   | LR1A ♦ | 5 | LR1D ♦ | 5 |
| CL03 - CL45   | LR3A ♦ | 5 | LR3D ♦ | 5 |
| CL05A - CL08A | LR4A ♦ | 5 | LR4D ♦ | 1 |

- (1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.10).  
 (2) Multipack, see C.9

## Auxiliary contact blocks

| Instantaneous                                                                             |                                                                                   | Number of contacts      | Contacts                                                                          |                                                                                   |                                                                                   |                                                                                   | Type      | Time          | Cat. no. | Ref. no. | Pack   |    |  |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|---------------|----------|----------|--------|----|--|
|                                                                                           |                                                                                   |                         |  |  |  |  |           |               |          |          |        |    |  |
|          | Frontal mounting                                                                  | Terminal: screw         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|                                                                                           |                                                                                   | 1                       | 1                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |           |               | BCLF10   | 104700   | 10     |    |  |
|                                                                                           |                                                                                   | 1                       | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 |           |               | BCLF01   | 104701   | 10     |    |  |
|                                                                                           |                                                                                   | 1                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 |           |               | BCLF10G  | 104702   | 10     |    |  |
|                                                                                           |                                                                                   | 1                       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 |           |               | BCLF01G  | 104703   | 10     |    |  |
|                                                                                           |  | Side mounting           | Terminal: ring terminal                                                           |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|                                                                                           |                                                                                   |                         | 1                                                                                 | 1                                                                                 | 0                                                                                 | 0                                                                                 | 0         |               |          | BCRF10   | 108901 | 10 |  |
|                                                                                           |                                                                                   |                         | 1                                                                                 | 0                                                                                 | 1                                                                                 | 0                                                                                 | 0         |               |          | BCRF01   | 108902 | 10 |  |
|                                                                                           |                                                                                   |                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|                                                                                           |                                                                                   |                         | Terminal: screw                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
| 2                                                                                         |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |           | BCLL20        | 104706   | 10       |        |    |  |
| 2                                                                                         |                                                                                   | 1                       | 1                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |           | BCLL11        | 104707   | 10       |        |    |  |
| For combinations of more than 4 front-mounted and 2 side-mounted auxiliary contact blocks |                                                                                   |                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
| 2                                                                                         |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |           | BRLL20        | 104704   | 10       |        |    |  |
| 2                                                                                         |                                                                                   | 1                       | 1                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |           | BRLL11        | 104705   | 10       |        |    |  |
| 2                                                                                         | 0                                                                                 | 2                       | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   | BRLL02    | 106622        | 10       |          |        |    |  |
| Pneumatic timer                                                                           |                                                                                   |                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|         | Front mounting                                                                    | Terminal: screw         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay ON  | 0.1 - 30 sec. | BTLF30C  | 104709   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay ON  | 1 - 60 sec.   | BTLF60C  | 104710   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay OFF | 0.1 - 30 sec. | BTLF30D  | 104711   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay OFF | 1 - 60 sec.   | BTLF60D  | 104712   | 10     |    |  |
|                                                                                           |                                                                                   | Terminal: ring terminal |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          |          |        |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay ON  | 0.1 - 30 sec. | BTRF30C  | 108903   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay ON  | 1 - 60 sec.   | BTRF60C  | 108904   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay OFF | 0.1 - 30 sec. | BTRF30D  | 108905   | 10     |    |  |
|                                                                                           |                                                                                   | 2                       | 0                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                 | Delay OFF | 1 - 60 sec.   | BTRF60D  | 108906   | 10     |    |  |
|                                                                                           | Sealing cover protection for pneumatic timer                                      |                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |           |               |          | BTLFX    | 113001 | 5  |  |

## Accessories

|  |                                    |                                  |            |        |        |                    |                    |                         |                         |          |      |
|--|------------------------------------|----------------------------------|------------|--------|--------|--------------------|--------------------|-------------------------|-------------------------|----------|------|
|  |                                    | Number of contacts               | Contacts   |        |        |                    | For use with:      |                         | Cat. no. <sup>(1)</sup> | Ref. no. | Pack |
|  |                                    |                                  |            |        |        |                    |                    |                         |                         |          |      |
|  | Interlock                          | Mechanical                       |            |        |        |                    |                    |                         |                         |          |      |
|  |                                    | -                                | -          | -      | -      | CL00 ... CL10      |                    | BELA                    | 104723                  | 5        |      |
|  | Mech./ electrical                  | 2                                | 0          | 2      | -      | -                  | CL00 ... CL10      |                         | BELA02                  | 104724   | 5    |
|  |                                    | Support interlock                |            |        |        |                    |                    |                         |                         |          |      |
|  | Only for direct current contactors |                                  |            |        |        | CL00D...CL10D      |                    | SBELA                   | 101017                  | 5        |      |
|  |                                    |                                  |            |        |        |                    |                    |                         |                         |          |      |
|  |                                    |                                  |            |        |        |                    |                    |                         |                         |          |      |
|  | Mechanical latch blocks            | Frontal mounted to the contactor |            |        |        |                    |                    |                         |                         |          |      |
|  |                                    |                                  |            |        |        |                    |                    |                         |                         |          |      |
|  |                                    |                                  |            |        |        | CL00 ... CL10      |                    | RMLF ♦                  | see bottom              | 10       |      |
|  |                                    | ♦                                | D          | G      | HC     | J                  | N                  | U                       | Y                       |          |      |
|  |                                    | 50Hz                             | 24, 32     | 42, 48 |        | 110, 115, 120, 127 | 220, 230, 240      | 380, 400, 415, 440, 480 | 500, 660/690            |          |      |
|  |                                    | 60Hz                             | 24, 32     | 48, 60 |        | 110, 115, 120, 127 | 208, 220, 240, 277 | 380, 400, 415, 440, 480 | 600                     |          |      |
|  |                                    | DC                               | 24, 32, 36 | 42, 48 | 60, 72 | 110, 120, 125      | 220, 230, 240, 250 | 440                     |                         |          |      |

1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.10).

### Accessories

|                                                                                                                             | For use with:                                                                                   | Type     | Control circuit | Ue            | Cat. no.      | Ref. no. | Pack |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------|-----------------|---------------|---------------|----------|------|
|  <b>Transient voltage suppressor block</b> | Fixation to the coil terminals, that allows simultaneous use with the auxiliary contact blocks. |          |                 |               |               |          |      |
|                                                                                                                             | CL00 ... CL45                                                                                   | R/C      | AC              | 12V ... 48V   | <b>BSLR2G</b> | 104713   | 10   |
|                                                                                                                             | CL00 ... CL45                                                                                   | R/C      | AC              | 50V ... 127V  | <b>BSLR2K</b> | 104714   | 10   |
|                                                                                                                             | CL00 ... CL45                                                                                   | R/C      | AC              | 130V ... 250V | <b>BSLR2R</b> | 104715   | 10   |
|                                                                                                                             | CL05A ... CL10A                                                                                 | R/C      | AC              | 12V ... 48V   | <b>BSLR3G</b> | 104716   | 10   |
|                                                                                                                             | CL05A ... CL10A                                                                                 | R/C      | AC              | 50V ... 127V  | <b>BSLR3K</b> | 104717   | 10   |
|                                                                                                                             | CL05A ... CL10A                                                                                 | R/C      | AC              | 130V ... 250V | <b>BSLR3R</b> | 104718   | 10   |
|                                                                                                                             | CL ... D                                                                                        | Diode    | DC              | 12V ... 600V  | <b>BSLDZ</b>  | 104719   | 10   |
|                                                                                                                             | CL00 ... CL10                                                                                   | Varistor | AC / DC         | 24V ... 48V   | <b>BSLV3G</b> | 104720   | 10   |
|                                                                                                                             | CL00 ... CL10                                                                                   | Varistor | AC / DC         | 50V ... 127V  | <b>BSLV3K</b> | 104721   | 10   |
|                                                                                                                             | CL00 ... CL10                                                                                   | Varistor | AC / DC         | 130V ... 250V | <b>BSLV3R</b> | 104722   | 10   |
|                                                                                                                             | CL00 ... CL10                                                                                   | Varistor | AC / DC         | 277V ... 500V | <b>BSLV3U</b> | 110836   | 10   |

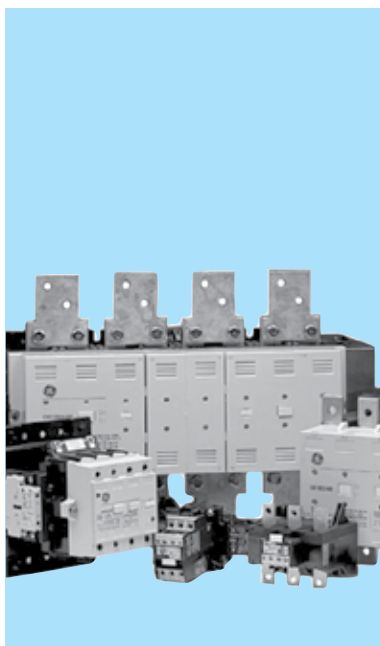
|                                                                                                                  | For use with:                                                                                   | Control circ. | Type      | Time          | Cat. no.       | Ref. no. | Pack |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------|-----------|---------------|----------------|----------|------|
|  <b>Electronic timer module</b> | Fixation to the coil terminals, that allows simultaneous use with the auxiliary contact blocks. |               |           |               |                |          |      |
|                                                                                                                  | CL00 ... CL10                                                                                   | 24-250V AC/DC | delay ON  | 0.1 - 2 sec.  | <b>BETL02C</b> | 113602   | 5    |
|                                                                                                                  | CL00 ... CL10                                                                                   | 24-250V AC/DC | delay ON  | 1.5 - 45 sec. | <b>BETL45C</b> | 113603   | 5    |
|                                                                                                                  | CL00 ... CL10                                                                                   | 24-250V AC/DC | delay OFF | 0.1 - 2 sec.  | <b>BETL02D</b> | 113604   | 5    |
|                                                                                                                  | CL00 ... CL10                                                                                   | 24-250V AC/DC | delay OFF | 1.5 - 45 sec. | <b>BETL45D</b> | 113605   | 5    |

**Accessories**

|                               | For use with: |                                              |  | Cat. no. | Ref. no. | Pack |
|-------------------------------|---------------|----------------------------------------------|--|----------|----------|------|
| Identification                | CL00 ... CL10 | Sheets of labels (sheets of 260 labels each) |  | EAT 260  | 100548   | 1    |
|                               | CL00 ... CL10 | Labelling plate base (50 pieces in one pack) |  | SPR      | 100549   | 1    |
|                               |               |                                              |  |          |          |      |
| Pole terminal protector IPXXB | CL03 ... CL04 |                                              |  | PTP04    | 113850   | 8    |
|                               | CL45          |                                              |  | PTP45    | 113851   | 6    |
|                               | CL05 ... CL08 |                                              |  | PTP08    | 113852   | 8    |
|                               | CL09 ... CL10 |                                              |  | PTP10    | 113853   | 8    |

**Spares**

|              | For use with:   | Number of sets | Type     |  | Cat. no. | Ref. no. | Pack |
|--------------|-----------------|----------------|----------|--|----------|----------|------|
| Contact kits | CL00 _ _ _      | 3              | NO       |  | V31200B  | 104738   | 1    |
|              | CL01_3_/CL01_4_ | 3              | NO       |  | V31201B  | 104739   | 1    |
|              | CL01_B _        | 4              | 2NO-2NC  |  | VB1201B  | 104740   | 1    |
|              | CL02_3_/CL02_4_ | 3              | NO       |  | V31202B  | 104741   | 1    |
|              | CL02_B _        | 4              | 2NO-2NC  |  | VB1202B  | 104742   | 1    |
|              | CL25_3_         | 3              | NO       |  | V31225B  | 104757   | 1    |
|              | CL03_3_/CL03_4_ | 3              | NO       |  | V31203B  | 104743   | 1    |
|              | CL03_B _        | 4              | 2NAO-2NC |  | VB1203B  | 133170   | 1    |
|              | CL04_3_/CL04_4_ | 3              | NO       |  | V31204B  | 104745   | 1    |
|              | CL04_B _        | 4              | 2NO-2NC  |  | VB1204B  | 133885   | 1    |
|              | CL45_3_         | 3              | NO       |  | V31245B  | 104758   | 1    |
|              | CL05_4_         | 4              | NO       |  | V31205B  | 104747   | 1    |
|              | CL05_B _        | 4              | 2NO-2NC  |  | VB1205B  | 104748   | 1    |
|              | CL06 _ _ _      | 3              | NO       |  | V31206B  | 104749   | 1    |
|              | CL07_3_/CL07_4_ | 3              | NO       |  | V31207B  | 104750   | 1    |
|              | CL07_B _        | 4              | 2NO-2NC  |  | VB1207B  | 104751   | 1    |
|              | CL08_3_/CL08_4_ | 3              | NO       |  | V31208B  | 104752   | 1    |
|              | CL08_B _        | 4              | 2NO-2NC  |  | VB1208B  | 104753   | 1    |
|              | CL09 _ _ _      | 3              | NO       |  | V31209B  | 104754   | 1    |
|              | CL10 _ _ _      | 3              | NO       |  | V31210B  | 104755   | 1    |



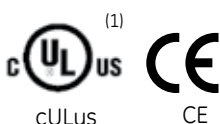
## Three and four pole contactors 150 to 825A (AC3) 200 to 1250A (AC1)

- Control circuit: Alternating current up to 690V  
Direct current up to 500V
- Degree of protection IP00 (IPxxB with accessories)
- CK07...CK13: auxiliary and coil terminals originally protected against accidental contacts  
Protection for power contacts on request (see accessories)
- Terminals protected against accidental contacts according to VDE 0106 T.100, VBG4
- CK...E with electronic module suitable for DC and AC. (50/60Hz)
- CK contactors always provided with one auxiliary contact block BCLL11 (1NO+1NC)

### Standards

|                  |                |
|------------------|----------------|
| IEC/EN 60947-1   | CSA 22.2/14    |
| IEC/EN 60947-4-1 | CENELEC HD 419 |
| IEC/EN 60947-5-1 | NFC 63-110     |
| EN 50005         | ASE 1025       |
| UL 508           | UNE 20109      |
| NEMA ICS 1       | VDE 0660/102   |
| BS 5424 & 775    |                |

### Approvals



Lloyd's Register



Bureau Veritas



RINA

### Standard voltages

To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit. (other voltages on request)\*

#### Alternating current (V)

Three-pole contactors: CK75CA3..., CK08CA3..., CK85BA3...  
Four-pole contactors: CK07BA4..., CK08BA4...

| ♦    | C  | D  | F  | G | H   | I   | J   | K   | M   | N   | R   | S   | T   | U   | V   | W   | X   | Y   | Z   |
|------|----|----|----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50Hz | 24 | 42 | 48 |   |     |     | 110 | 127 |     | 220 | 240 |     |     | 380 |     | 415 | 440 | 500 | 660 |
|      |    |    |    |   |     |     |     | 230 |     |     |     |     | 400 |     |     |     |     | 690 |     |
| 60Hz | 24 |    | 48 |   | 110 | 120 |     |     | 220 | 277 |     | 240 | 380 | 480 | 440 |     |     | 600 |     |

#### Alternating current (V). Dual-frequency coil

Three-pole contactors: CK75CA3..., CK08CA3..., CK85BA3...  
Four-pole contactors: CK07BA4..., CK08BA4...

| ♦       | 1  | 2  | 3   | 6   | 13  |
|---------|----|----|-----|-----|-----|
| 50/60Hz | 24 | 48 | 110 | 230 | 400 |

#### Alternating current (V)

Three-pole contactors: CK13BA3...  
Four-pole contactors: CK13BA4...

| ♦       | J   | N   | U   | Y   | Z   |
|---------|-----|-----|-----|-----|-----|
| 50/60Hz | 110 | 220 | 380 | 480 | 600 |
|         |     |     | 240 | 440 | 500 |
|         |     |     |     | 500 | 660 |

#### Control circuit with rectifier bridge

| ♦    | J   | N   | U   |
|------|-----|-----|-----|
| 50Hz | 110 | 220 | 380 |
|      |     | 230 | 400 |
| 60Hz | 120 | 240 | 480 |

#### Direct current (V). With electronic module (0.7 ... 1.3 x Us)

Three-pole contactors: CK75CE3..., CK08CE3....

| ♦       | WD | WE | WF | WH | WJ  | WN  |
|---------|----|----|----|----|-----|-----|
| Voltage | 24 | 33 | 48 | 72 | 110 | 220 |

#### Alternating c. / Direct c. (V). With electronic module (0.8 ... 1.10 x Us)

Three-pole & four-pole contactors: CK ..... E.....

| ♦       | D  | F  | J   | N   | U   | Y   |
|---------|----|----|-----|-----|-----|-----|
| Voltage | 24 | 42 | 110 | 220 | 380 | 440 |
|         |    | 28 | 48  | 127 | 250 | 415 |
|         |    |    |     | 500 |     |     |

(1) CK13 not UL

\* Please Consult GE for non standard Coil Voltages

|                          |          |
|--------------------------|----------|
| Order codes              | pg. C.19 |
| Auxiliary contact blocks | pg. C.20 |
| Accessories & Spares     | pg. C.21 |
| Dimensions               | pg. C.30 |



## Three pole contactors



| Max.oper.current    |                                                | Admissible power AC3 |              |              |            |            | Electrical endurance    | Control circuit:<br>Alternating current |                         | Control circuit:<br>A.C. / D.C. |                         |      |
|---------------------|------------------------------------------------|----------------------|--------------|--------------|------------|------------|-------------------------|-----------------------------------------|-------------------------|---------------------------------|-------------------------|------|
| Non-inductive loads | Motors<br><440V,<br>3 ~<br>50/60Hz<br>AC3<br>A | 220V<br>230V         | 380V<br>400V | 415V<br>440V | 440V       | 500V       |                         | Cat.<br>AC3<br>Operations               | Cat. no. <sup>(1)</sup> | Pack                            | Cat. no. <sup>(1)</sup> | Pack |
|                     |                                                | kW<br>HP             | kW<br>HP     | kW<br>HP     | kW<br>HP   | kW<br>HP   |                         |                                         |                         |                                 |                         |      |
| AC1<br>A            |                                                |                      |              |              |            |            |                         | Ref. no. see bottom                     |                         | Ref. no. see bottom             |                         |      |
| 250                 | 150                                            | 45<br>60             | 75<br>100    | 80<br>108    | 80<br>108  | 100<br>135 | 1.7×10 <sup>6</sup>     | CK75CA311 ♦                             | 1                       | CK75CE311 ♦                     | 1                       |      |
| 250                 | 185                                            | 55<br>75             | 90<br>125    | 100<br>135   | 100<br>135 | 110<br>150 | 1.2×10 <sup>6</sup>     | CK08CA311 ♦                             | 1                       | CK08CE311 ♦                     | 1                       |      |
| 315                 | 205                                            | 65<br>88             | 110<br>150   | 125<br>170   | 125<br>170 | 132<br>180 | 1.7×10 <sup>6</sup>     | CK85BA311 ♦                             | 1                       | CK85BE311 ♦                     | 1                       |      |
| 315                 | 250                                            | 75<br>100            | 132<br>180   | 132<br>180   | 132<br>180 | 160<br>220 | 1.5×10 <sup>6</sup>     |                                         |                         | CK09BE311 ♦                     | 1                       |      |
| 450                 | 309                                            | 90<br>125            | 160<br>220   | 160<br>220   | 185<br>250 | 200<br>270 | 1.1×10 <sup>6</sup>     |                                         |                         | CK95BE311 ♦                     | 1                       |      |
| 600                 | 420                                            | 125<br>170           | 220<br>300   | 230<br>312   | 230<br>312 | 300<br>405 | 1×10 <sup>6</sup>       |                                         |                         | CK10CE311 ♦                     | 1                       |      |
| 700                 | 550                                            | 160<br>220           | 280<br>380   | 315<br>425   | 315<br>425 | 400<br>540 | 0.8×10 <sup>6</sup>     |                                         |                         | CK11CE311 ♦                     | 1                       |      |
| 1000                | 700                                            | 220<br>300           | 375<br>510   | 400<br>540   | 425<br>580 | 480<br>650 | 0.7×10 <sup>6</sup>     |                                         |                         | CK12BE311 ♦                     | 1                       |      |
| 1250                | 825                                            | 250<br>340           | 450<br>610   | 450<br>610   | 450<br>610 | 500<br>680 | 0.7×10 <sup>6</sup> (2) | CK13BA311 ♦                             | 1                       |                                 |                         |      |

## Spare coil

|                   |                                                            |          |   |          |
|-------------------|------------------------------------------------------------|----------|---|----------|
|                   | CK75CA3 ... CK08CA3                                        | C12168 ♦ | 1 |          |
|                   | CK85BA3                                                    | C04255 ♦ | 1 |          |
|                   | CK13BA3                                                    | C08998 ♦ | 1 |          |
|                   | Control circuit with incorporated rectifier bridge CK13BA3 | C09120 ♦ | 1 |          |
| Coil              | CK75CE3 ... CK08CE3                                        |          |   | KB4E ♦ 1 |
|                   | CK85BE3 ... CK95BE3                                        |          |   | KB5E ♦ 1 |
|                   | CK12BE3                                                    |          |   | KB6E ♦ 1 |
|                   | CK10CE3 ... CK11CE3                                        |          |   | KB7E ♦ 1 |
| Electronic module | CK75CE3 ... CK08CE3                                        |          |   | KM4E ♦ 1 |
|                   | CK85BE3 ... CK95BE3                                        |          |   | KM5E ♦ 1 |
|                   | CK12BE3                                                    |          |   | KM6E ♦ 1 |
|                   | CK10CE3 ... CK11CE3                                        |          |   | KM7E ♦ 1 |

(1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.18).

(2) CK13 non allow the aux. block in right side.

### Four pole contactors



| Max.oper.<br>current               | Admissible power |     |              |              |      |      |      | Electrical<br>endurance | Control circuit:<br>Alternating<br>current |                         | Control circuit:<br>A.C. / D.C. |                         |      |
|------------------------------------|------------------|-----|--------------|--------------|------|------|------|-------------------------|--------------------------------------------|-------------------------|---------------------------------|-------------------------|------|
|                                    | AC3              |     | AC1          |              |      |      |      |                         | Cat.<br>AC3<br>Operations                  | Cat. no. <sup>(1)</sup> | Pack                            | Cat. no. <sup>(1)</sup> | Pack |
|                                    | 380V<br>400V     |     | 220V<br>230V | 380V<br>400V | 415V | 440V | 500V |                         |                                            |                         |                                 |                         |      |
| Non-inductive<br>loads<br>AC1<br>A | kW               | A   | kW           | kW           | kW   | kW   |      |                         | Ref. no. see bottom                        |                         | Ref. no. see bottom             |                         |      |
| 200                                | 55               | 105 | 76           | 131          | 143  | 151  | 173  | 1×10 <sup>6</sup>       | CK07BA41 ♦                                 | 1                       | CK07BE411 ♦                     | 1                       |      |
| 325                                | 100              | 185 | 123          | 214          | 233  | 247  | 281  | 0.6×10 <sup>6</sup>     | CK08BA411 ♦                                | 1                       | CK08BE411 ♦                     | 1                       |      |
| 400                                | 132              | 250 | 152          | 263          | 287  | 304  | 346  | 0.6×10 <sup>6</sup>     |                                            |                         | CK09BE411 ♦                     | 1                       |      |
| 500                                | 160              | 309 | 191          | 329          | 359  | 380  | 415  | 0.6×10 <sup>6</sup>     |                                            |                         | CK95BE411 ♦                     | 1                       |      |
| 600                                | 220              | 408 | 228          | 395          | 431  | 456  | 519  | 0.5×10 <sup>6</sup>     |                                            |                         | CK10CE411 ♦                     | 1                       |      |
| 700                                | 280              | 530 | 266          | 460          | 503  | 533  | 606  | 0.4×10 <sup>6</sup>     |                                            |                         | CK11CE411 ♦                     | 1                       |      |
| 1000                               | 375              | 680 | 381          | 658          | 719  | 762  | 866  | 0.4×10 <sup>6</sup>     |                                            |                         | CK12BE411 ♦                     | 1                       |      |
| 1250                               | 450              | 800 | 476          | 822          | 898  | 952  | 1082 | 0.6×10 <sup>6</sup> (2) | CK13BA411 ♦                                | 1                       |                                 |                         |      |

#### Spare coil

|                   |                                                            |          |   |          |
|-------------------|------------------------------------------------------------|----------|---|----------|
|                   | CK07BA4                                                    | C04255 ♦ | 1 |          |
|                   | CK08BA4                                                    | C04787 ♦ | 1 |          |
|                   | CK13BA4                                                    | C08998 ♦ | 1 |          |
|                   | Control circuit with incorporated rectifier bridge CK13BA4 | C09120 ♦ | 1 |          |
| Coil              | CK07BE4                                                    |          |   | KB5E ♦ 1 |
|                   | CK08BE4 ... CK95BE4, CK12BE4                               |          |   | KB6E ♦ 1 |
|                   | CK10CE4 ... CK11CE4                                        |          |   | KB7E ♦ 1 |
| Electronic module | CK07BE4                                                    |          |   | KM5E ♦ 1 |
|                   | CK08BE4 ... CK95BE4, CK12BE4                               |          |   | KM6E ♦ 1 |
|                   | CK10CE4 ... CK11CE4                                        |          |   | KM7E ♦ 1 |

(1) To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit (see C.18).

(2) CK13 non allow the aux. block in right side.

### Auxiliary instantaneous contact block



#### Side mounting

| Number of<br>contacts              | Contacts      |               |               |               | Cat. no. | Ref. no. | Pack |
|------------------------------------|---------------|---------------|---------------|---------------|----------|----------|------|
|                                    | •3<br> <br>•4 | •1<br> <br>•2 | •7<br> <br>•8 | •5<br> <br>•6 |          |          |      |
| 2                                  | 2             | 0             | 0             | 0             | BCLL20   | 104706   | 10   |
| 2                                  | 1             | 1             | 0             | 0             | BCLL11   | 104707   | 10   |
| combinations of more than 2 blocks |               |               |               |               |          |          |      |
| 2                                  | 2             | 0             | 0             | 0             | BRL20    | 104704   | 10   |
| 2                                  | 1             | 1             | 0             | 0             | BRL11    | 104705   | 10   |
| 2                                  | 0             | 2             | 0             | 0             | BRL02    | 106622   | 10   |

## Accessories

|                                                                                                                          | For use with:                                                                                   | Mounting        | Voltage       | Ue          | Cat. no.          | Ref. no. | Pack             |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------|---------------|-------------|-------------------|----------|------------------|
| <b>Transient voltage suppressor</b><br> | Fixation to the coil terminals, that allows simultaneous use with the auxiliary contact blocks. |                 |               |             |                   |          |                  |
|                                                                                                                          | CK75 ... CK08                                                                                   |                 | AC            | 24V - 48V   | <b>BSLR3G</b>     | 104716   | 10               |
|                                                                                                                          | CK75 ... CK08                                                                                   |                 | AC            | 50V - 127V  | <b>BSLR3K</b>     | 104717   | 10               |
|                                                                                                                          | CK75 ... CK08                                                                                   |                 | AC            | 130V - 240V | <b>BSLR3R</b>     | 104718   | 10               |
|                                                                                                                          | CK75 ... CK08                                                                                   |                 | AC            | 227V - 500V | <b>BSLV3U</b>     | 110836   | 10               |
|                                                                                                                          | CK85 ... CK13                                                                                   |                 | AC            | 24V         | <b>KRC24</b>      | 104760   | 10               |
|                                                                                                                          | CK85 ... CK13                                                                                   |                 | AC            | 260V        | <b>KRC48/260</b>  | 104761   | 10               |
|                                                                                                                          | CK85 ... CK13                                                                                   |                 | AC            | 415V        | <b>KRC380/415</b> | 104762   | 10               |
|                                                                                                                          |                                                                                                 |                 |               |             |                   |          |                  |
|                                                                                                                          |                                                                                                 |                 |               |             |                   |          |                  |
| <b>Mechanical interlock</b><br>         | CK07B ... CK12                                                                                  | Horizontal      |               |             | <b>BEKH</b>       | 104763   | 1                |
|                                                                                                                          | CK07B ... CK95                                                                                  | Vertical        |               |             | <b>BEKVS 1</b>    | 104786   | 1                |
|                                                                                                                          | CK10C ... CK12B                                                                                 | Vertical        |               |             | <b>BEKVA 1</b>    | 104785   | 1                |
|                                                                                                                          | CK13                                                                                            | Vertical        |               |             | <b>BEKV</b>       | 104764   | 1                |
|                                                                                                                          |                                                                                                 |                 |               |             |                   |          |                  |
| <b>Pole terminal protection</b>                                                                                          | CK75C ... CK08C                                                                                 | 1 pole. VDE0106 |               |             | <b>CM1CA5F</b>    | 105200   | 1                |
|                                                                                                                          | CK85B ... CK12B                                                                                 | 1 pole. VDE0106 | Contactors 3P |             | <b>C09476</b>     | 104766   | 6                |
|                                                                                                                          | CK08B ... CK12B                                                                                 | 1 pole. VDE0106 | Contactors 4P |             | <b>C09479</b>     | 204800   | 8                |
|                                                                                                                          | CK75C ... CK08C                                                                                 | 1 pole IPXXB    |               |             | <b>PTPCK75</b>    | 103747   | 1 <sup>(1)</sup> |
|                                                                                                                          | CK85B ... CK95B                                                                                 | 1 pole IPXXB    |               |             | <b>PTPCK95</b>    | 103748   | 3 <sup>(2)</sup> |
|                                                                                                                          | CK10C ... CK12B                                                                                 | 1 pole IPXXB    |               |             | <b>PTPCK11</b>    | 103749   | 1 <sup>(1)</sup> |
|                                                                                                                          |                                                                                                 |                 |               |             |                   |          |                  |

(1) One phase  
(2) Three pole

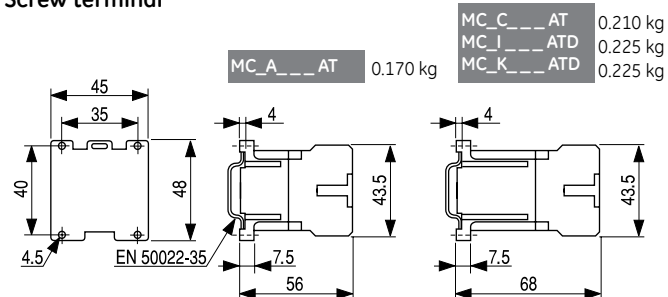
## Spares

|                                                                                                            | For use with:                                                                                                                                                                          | Type |               | Cat. no.       | Ref. no. | Pack |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|----------------|----------|------|
| <b>Contact kits</b><br> | One set consists of two fixed contacts, one moving contact and accessory parts.<br>When contact replacement is needed, it is recommended to replace all the contacts at the same time. |      |               |                |          |      |
|                                                                                                            | CK07B                                                                                                                                                                                  | NA   |               | <b>V1107BA</b> | 113612   | 1    |
|                                                                                                            | CK75C                                                                                                                                                                                  | NA   |               | <b>V1175CA</b> | 113613   | 1    |
|                                                                                                            | CK08C                                                                                                                                                                                  | NA   |               | <b>V1108CA</b> | 113614   | 1    |
|                                                                                                            | CK08B                                                                                                                                                                                  | NA   | Contactors 4P | <b>V1108BA</b> | 113505   | 1    |
|                                                                                                            | CK85B                                                                                                                                                                                  | NA   |               | <b>V1185BA</b> | 113615   | 1    |
|                                                                                                            | CK09B                                                                                                                                                                                  | NA   |               | <b>V1109BA</b> | 113616   | 1    |
|                                                                                                            | CK09B                                                                                                                                                                                  | NA   | Contactors 4P | <b>V1109BA</b> | 113899   | 1    |
|                                                                                                            | CK95B                                                                                                                                                                                  | NA   |               | <b>V1195BA</b> | 113617   | 1    |
|                                                                                                            | CK10C                                                                                                                                                                                  | NA   |               | <b>V1110CE</b> | 113618   | 1    |
|                                                                                                            | CK11C                                                                                                                                                                                  | NA   |               | <b>V1111CE</b> | 113619   | 1    |
|                                                                                                            | CK12B                                                                                                                                                                                  | NA   |               | <b>V1112BA</b> | 113620   | 1    |
|                                                                                                            | CK13B                                                                                                                                                                                  | NA   |               | <b>V1113BA</b> | 113621   | 1    |
|                                                                                                            |                                                                                                                                                                                        |      |               |                |          |      |
|                                                                                                            |                                                                                                                                                                                        |      |               |                |          |      |

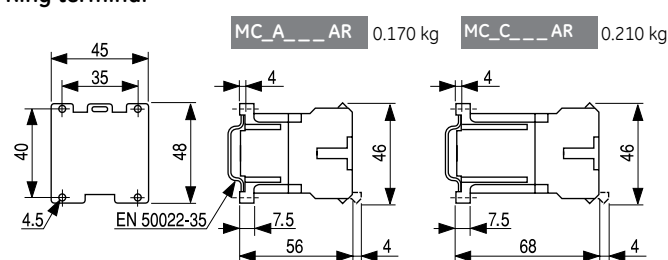
## Dimensional drawings

### Three and four pole minicontactors

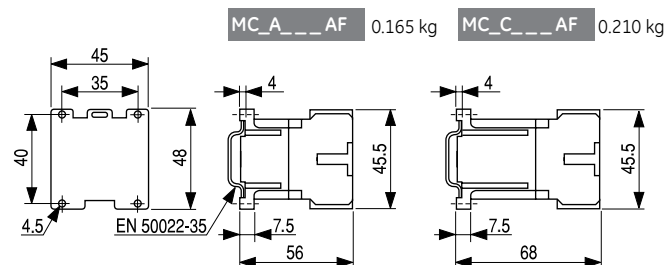
#### Screw terminal



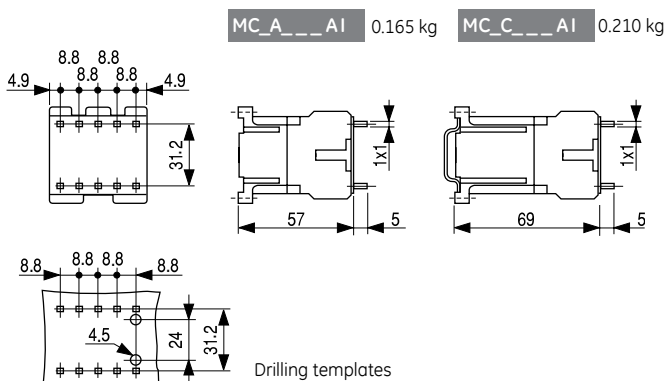
#### Ring terminal



#### Terminal: faston 2x2,8 insulated



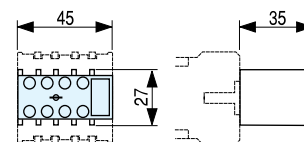
#### Terminal: printed circuit



### Auxiliary contact block. Lateral mounting

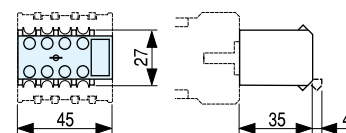
#### Screw terminal

MACN2\_\_\_AT - MARN2\_\_\_AT 0.025 kg  
MACN4\_\_\_AT - MARN4\_\_\_AT 0.040 kg



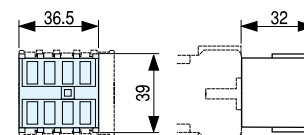
#### Ring terminal

MACN2\_\_\_AR - MARN2\_\_\_AR 0.025 kg  
MACN4\_\_\_AR - MARN4\_\_\_AR 0.040 kg



#### Terminal: faston 2x2.8 insulated

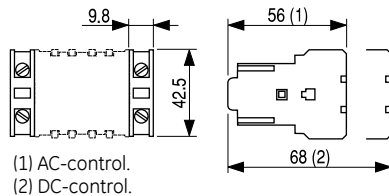
MACF4\_\_\_AF 0.035 kg  
MARF4\_\_\_AF 0.035 kg



## Auxiliary contact blocks. Lateral mounting

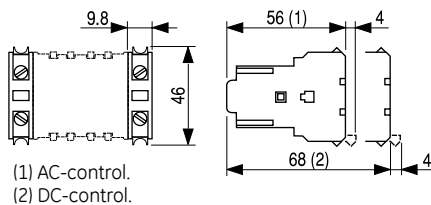
### Screw terminal

MACL\_\_\_AT 0.013 kg  
MARL\_\_\_ATS 0.013 kg



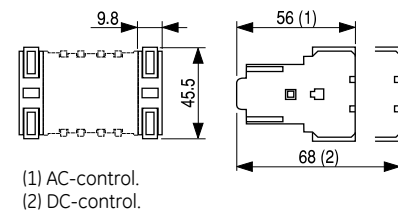
### Ring terminal

MACL\_\_\_AR 0.013 kg  
MARL\_\_\_ARS 0.013 kg



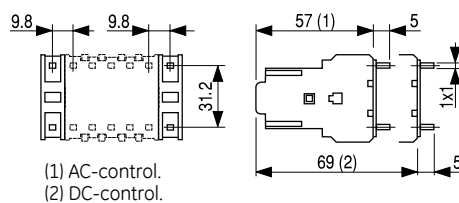
### Terminal: faston 2x2.8 insulated

MACL\_\_\_AF 0.009 kg  
MARL\_\_\_AFS 0.009 kg



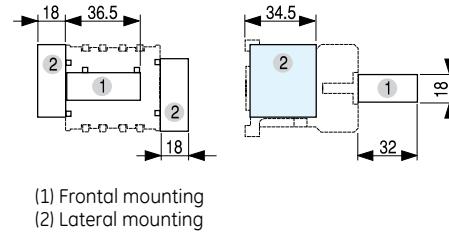
### Terminal: printed circuit

MACL\_\_\_AI 0.009 kg  
MARL\_\_\_AIS 0.009 kg



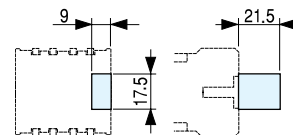
## Electronic timer block

MREBC\_0AC2 0.040 kg



## Voltage suppressor block

MP0A\_AE 0.010 kg  
MP0C\_AE3 0.010 kg

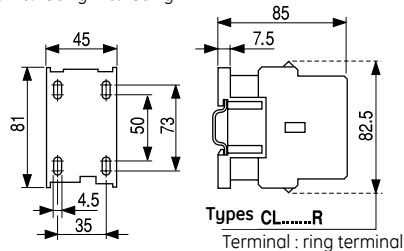


## Dimensional drawings. Three pole contactors

### Alternating current

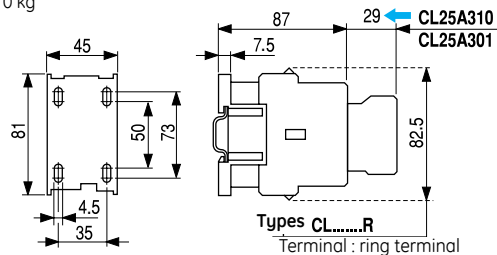
CL00A3..., CL01A3..., CL02A3...

0.280 kg 0.280 kg 0.280 kg



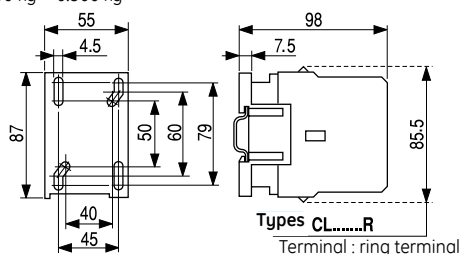
CL25A3...

0.270 kg



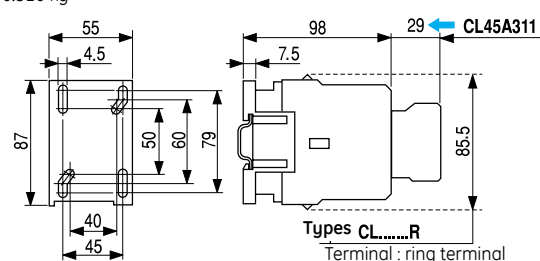
CL03A3..., CL04A3...

0.490 kg 0.500 kg



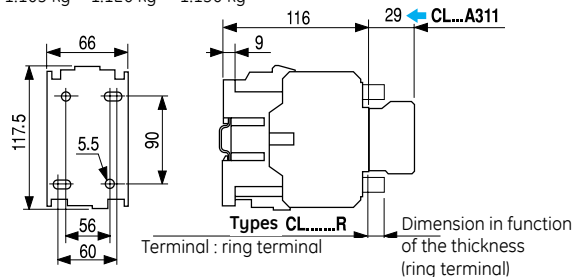
CL45A3...

0.520 kg



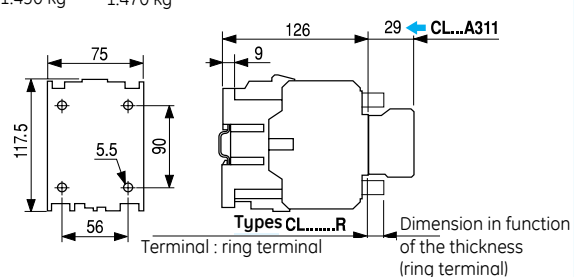
CL06A3..., CL07A3..., CL08A3...

1.105 kg 1.120 kg 1.130 kg



CL09A3..., CL10A3...

1.450 kg 1.470 kg

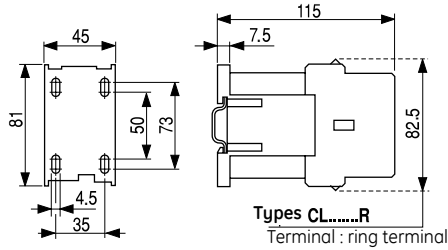


## Three pole contactors

### Direct current

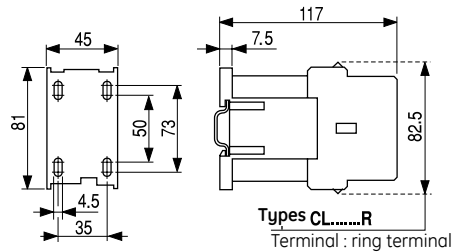
CL00D3..., CL01D3..., CL02D3...

0.490 kg 0.490 kg 0.490 kg



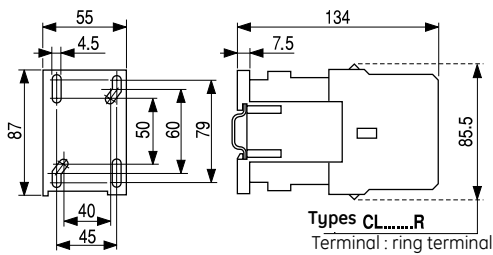
CL25D3...

0.480 kg



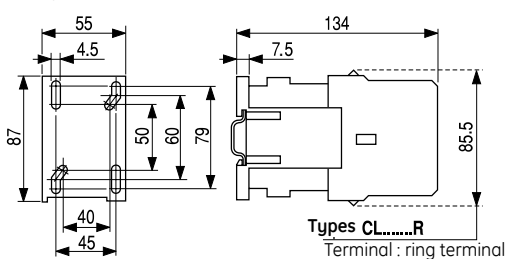
CL03D3..., CL04D3...

0.480 kg 0.835 kg



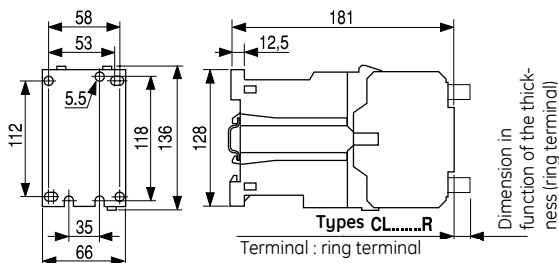
CL45D3...

0.825 kg



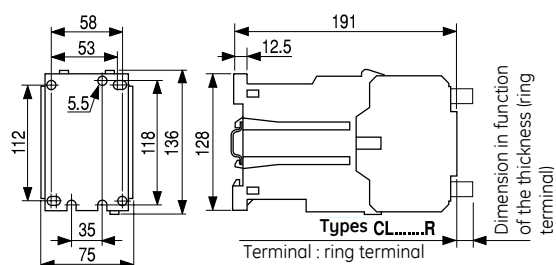
CL06D3..., CL07D3..., CL08D3...

1.110 kg 1.110 kg 1.110 kg



CL09D3..., CL10D3...

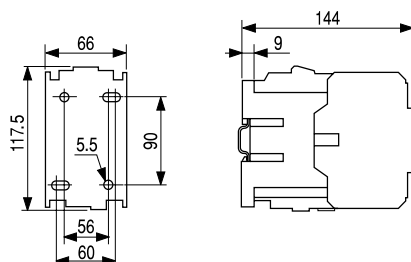
1.440 kg 1.440 kg



### Coil with electronic module

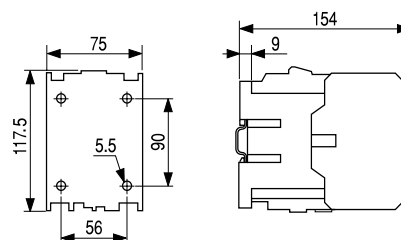
CL06E3..., CL07E3..., CL08E3...

1.095 kg 1.110 kg 1.120 kg



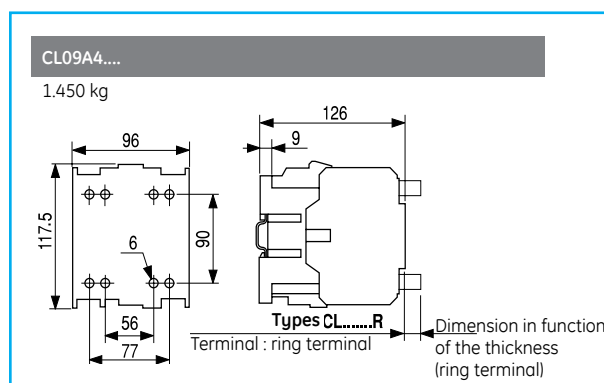
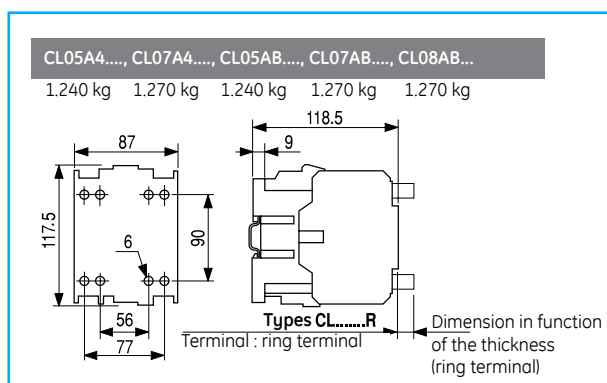
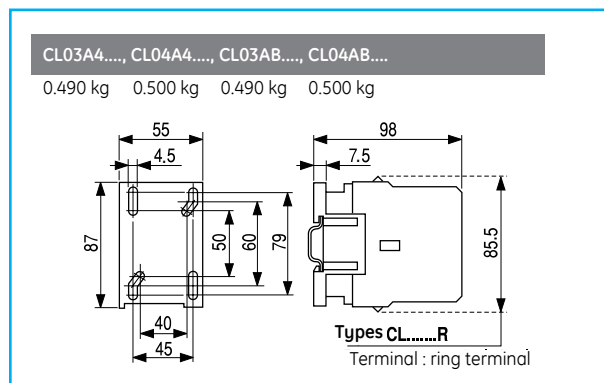
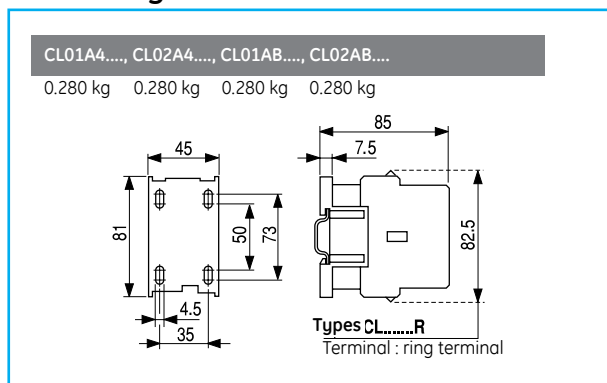
CL09E3..., CL10E3...

1.440 kg 1.460 kg

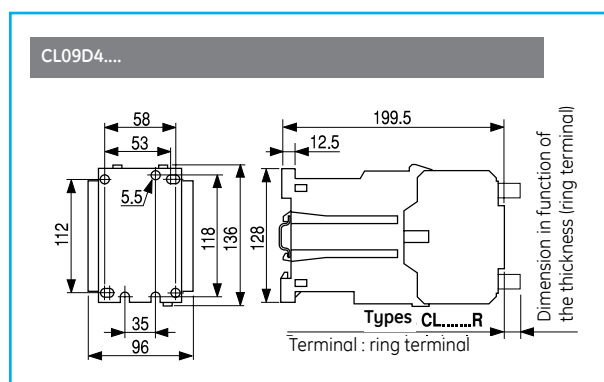
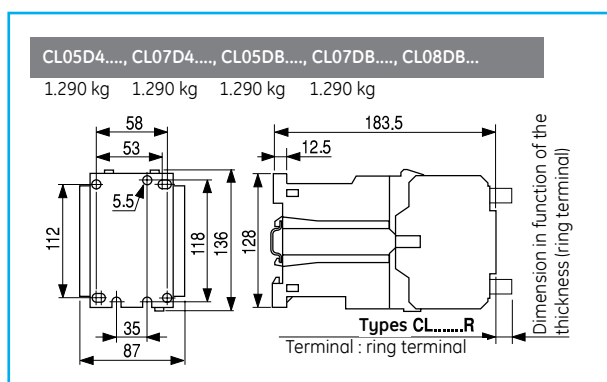
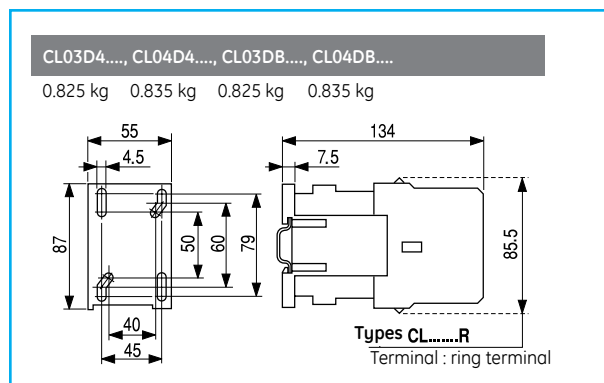
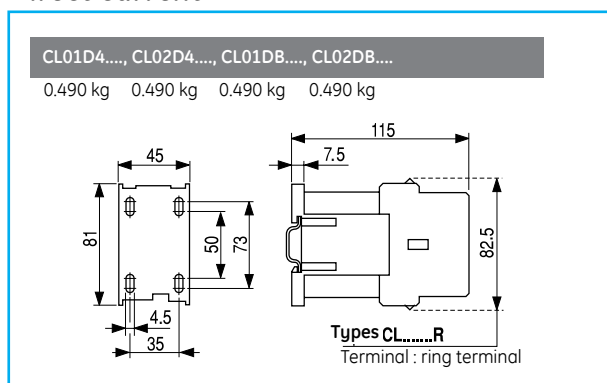


## Dimensional drawings. Four pole contactors

### Alternating current

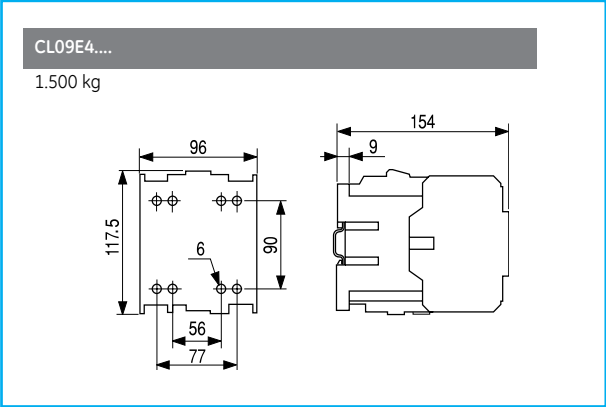
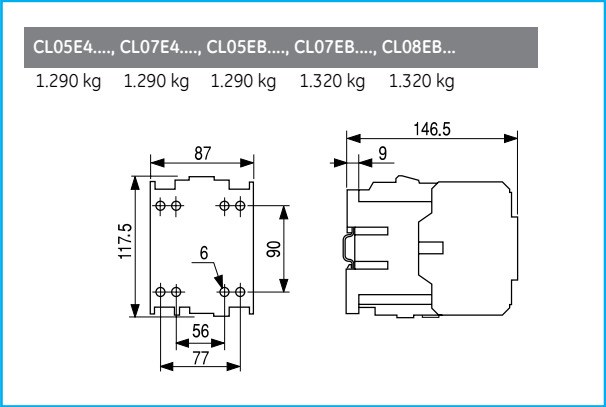


### Direct current



Four pole contactors

Coil with electronic module



3P and 4P contactors

A

B

C

D

E

F

G

H

I

X

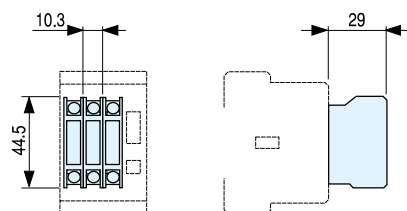


## Dimensional drawings

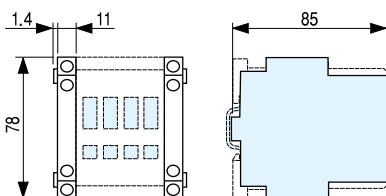
### Auxiliary contact blocks

#### Screw terminal

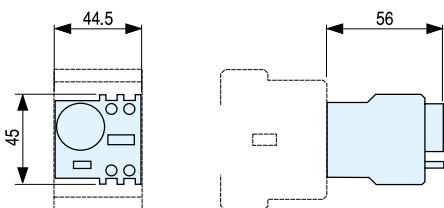
BCLF... 0.015 kg



BCLL..., BRLL... 0.048 kg

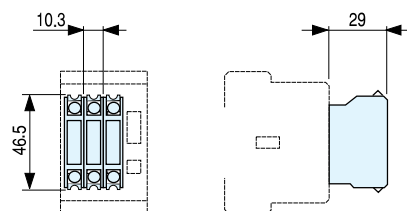


BTLF... 0.085 kg

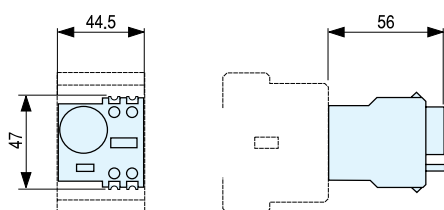


#### Ring terminal

BCRF... 0.015 kg



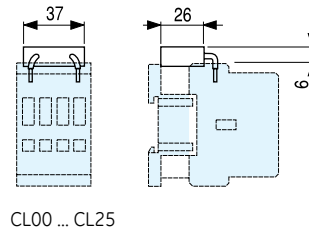
BTRF... 0.085 kg



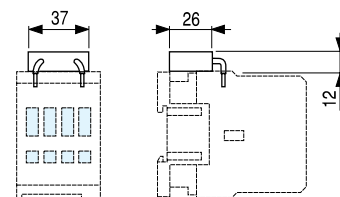
### Accessories

#### Voltage suppressor block

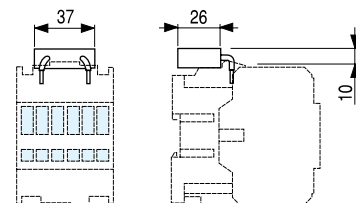
BSLR, BSLDZ, BSLV 0.020 kg



CL00 ... CL25



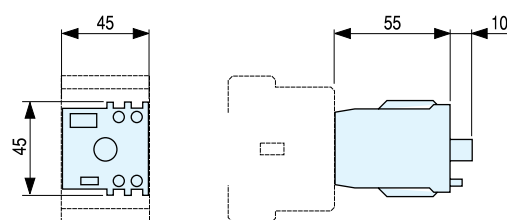
CL03 ... CL45



CL05 ... CL10

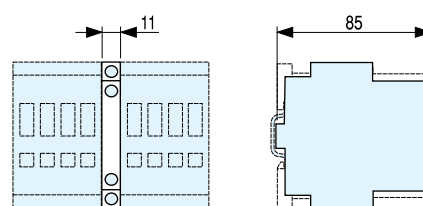
### Mechanical latch block

RMLF 0.082 kg



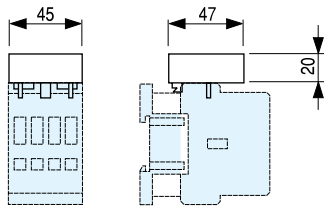
### Mechanical / mechanical-electrical interlock

BEL, BELA, BEL02, BELA02 0.025 kg

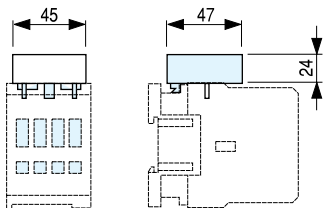


Electronic timer block

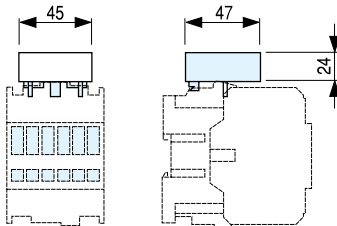
BETL02, BETL45 0.040 kg



CL00 ... CL25



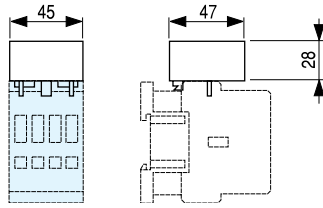
CL03 ... CL45



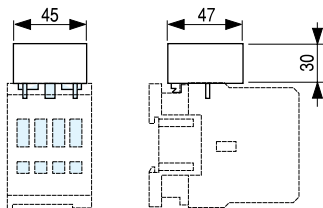
CL05 ... CL10

Interface modules

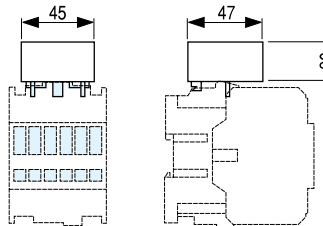
IMR..., IMRF..., IMSSD, IMAMS 0.020 kg



CL00 ... CL25



CL03 ... CL45



CL05 ... CL10

3P and 4P contactors

A

B

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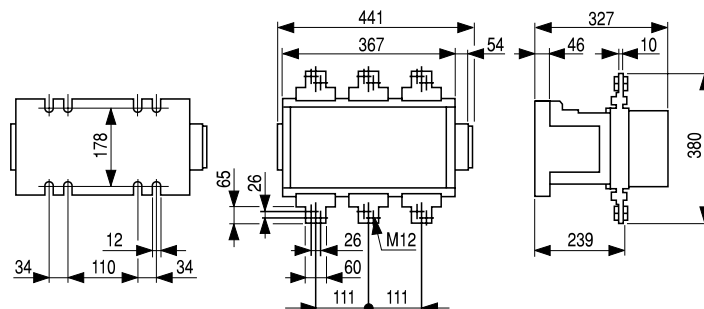
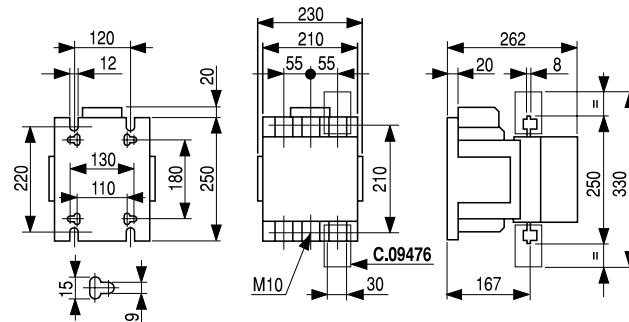
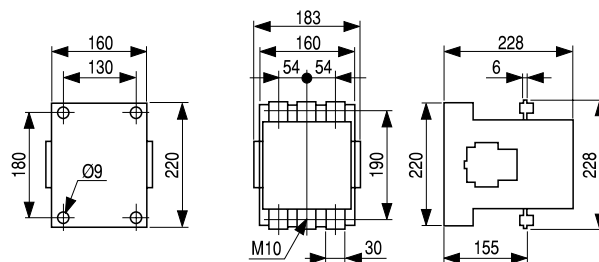
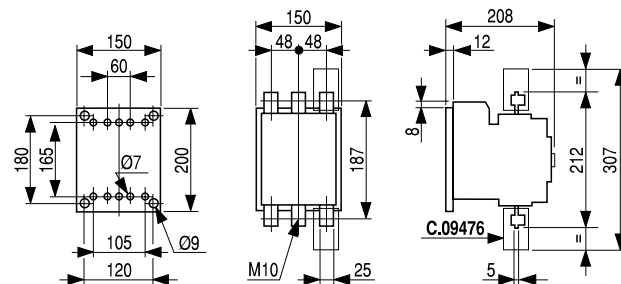
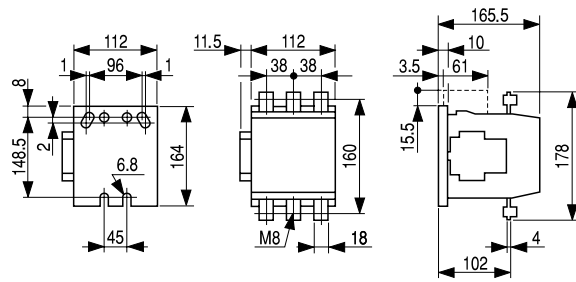
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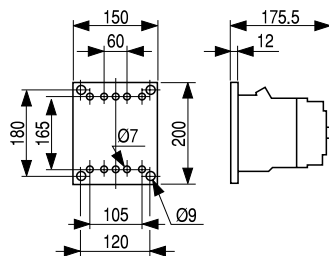
X



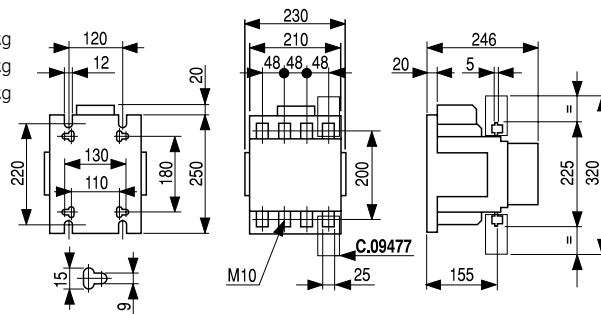


## Four pole contactors

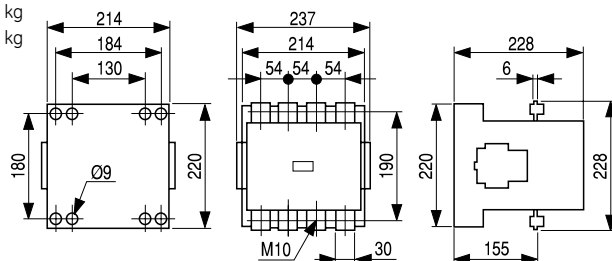
CK07B 4.700 kg



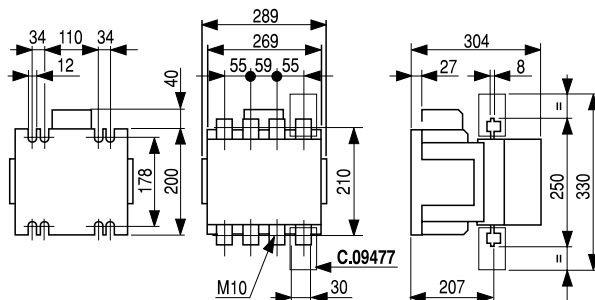
CK08B 14.90 kg  
CK09B 15.10 kg  
CK95B 15.30 kg



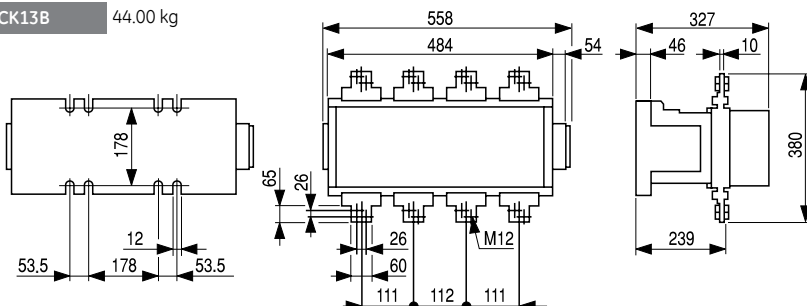
CK10C 22.30 kg  
CK11C 22.80 kg



CK12B 23.30 kg



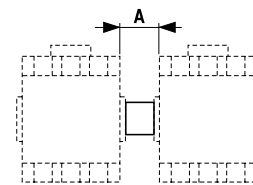
CK13B 44.00 kg



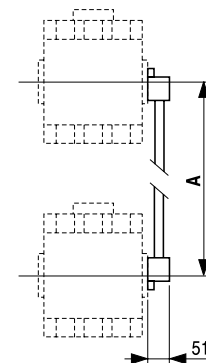
## Mechanical interlock

BEKH 0.350 kg

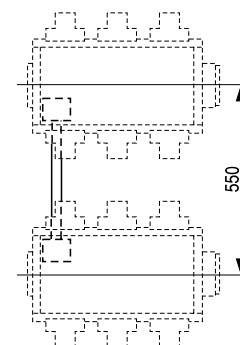
|                       | A  |
|-----------------------|----|
| CK75C3... - CK08C3... | 55 |
| CK85B3... - CK95B3... | 55 |
| CK10C3... - CK11C3... | 33 |
| CK12B3...             | 75 |



|        | A            |
|--------|--------------|
| BEKVA1 | 550 0.900 kg |
| BEKVS1 | 350 0.800 kg |



BEKV 1.200 kg





## Thermal overload relays for minicontactors from 0.11 to 14A

- Control circuit up to 690V
- Power circuit up to 690V
- Three-pole differential (phase unbalance protection)
- Automatic ambient temperature compensation between -25°C and +60°C
- Choice of manual or automatic reset
- Direct connection to contactor or independent mounting using accessories.
- Screw and Ring terminal versions
- Terminals protected against accidental contact in accordance with VDE 0106 T.100 and VBG4.
- Terminal numbering in accordance with EN 50005
- Degree of protection IP20 (EN 60529)
- Additional auxiliary contact block 1NO (with manual reset only)

### Standards

|                  |             |
|------------------|-------------|
| IEC/EN 60947-4-1 | CSA 22.2/14 |
| IEC/EN 60947-5-1 | NI C 63-650 |
| UNE 115          | VDE 0660    |
| NFC 63-650       | UL 508      |

### General characteristics

- Thermal protection against balanced overload.
- Three-pole differential (phase unbalance protection).
- Automatic ambient temperature compensation.
- Front mounted selector for choosing utilisation current.
- Reset button, 2 positions :  
Manual(H) and Automatic(A) by turning the blue selector.
- Stop push button, independent of reset (red).
- Manual trip lever (tripping test).
- Tripping indicator (0-1).
- To facilitate wiring arrangements terminal 96 fits directly onto coil terminal (A2) and terminal 14/22 fits directly onto the feedback auxiliary contact.

### Approvals



## Thermal overload relays for minicontactors



| For use with: | Setting range<br>(regulation) |           | Fuse   |        |        |          | Terminal:<br>screw |          | Terminal:<br>ring terminal |        | Pack |
|---------------|-------------------------------|-----------|--------|--------|--------|----------|--------------------|----------|----------------------------|--------|------|
|               |                               |           | aM     |        | gL     |          |                    |          |                            |        |      |
|               | Type 2                        |           | Type 1 | Type 2 | Type 1 | Cat. no. | Ref. no.           | Cat. no. | Ref. no.                   |        |      |
|               | min.<br>A                     | max.<br>A | A      | A      | A      |          |                    |          |                            | A      |      |
| MC0...        | 0.11                          | 0.17      | 0.5    | 0.5    | 0.5    | 0.5      | MT03A              | 101000   | MT03RA                     | 103540 | 10   |
| MC1...        | 0.17                          | 0.26      | 0.85   | 1      | 1      | 1        | MT03B              | 101001   | MT03RB                     | 103541 | 10   |
| MC2...        | 0.26                          | 0.43      | 1      | 2      | 2      | 4        | MT03C              | 101002   | MT03RC                     | 103542 | 10   |
|               | 0.43                          | 0.65      | 1      | 4      | 2      | 8        | MT03D              | 101003   | MT03RD                     | 103543 | 10   |
|               | 0.65                          | 1         | 2      | 6      | 4      | 12       | MT03E              | 101004   | MT03RE                     | 103544 | 10   |
|               | 0.85                          | 1.3       | 2      | 6      | 4      | 12       | MT03F              | 101005   | MT03RF                     | 103545 | 10   |
|               | 1.1                           | 1.6       | 2      | 10     | 4      | 16       | MT03G              | 101006   | MT03RG                     | 103546 | 10   |
|               | 1.35                          | 2         | 4      | 10     | 6      | 16       | MT03H              | 101007   | MT03RH                     | 103547 | 10   |
|               | 1.7                           | 2.4       | 4      | 16     | 6      | 25       | MT03I              | 101008   | MT03RI                     | 103548 | 10   |
|               | 2.2                           | 3.2       | 4      | 20     | 6      | 32       | MT03J              | 101009   | MT03RJ                     | 103549 | 10   |
|               | 2.5                           | 4         | 4      | 20     | 6      | 32       | MT03R              | 101015   |                            |        | 10   |
|               | 3                             | 4.7       | 6      | 20     | 10     | 32       | MT03K              | 101010   | MT03RK                     | 103550 | 10   |
|               | 4                             | 6.3       | 10     | 32     | 16     | 50       | MT03L              | 101011   | MT03RL                     | 103551 | 10   |
|               | 5.5                           | 8         | 12     | 50     | 20     | 63       | MT03M              | 101012   | MT03RM                     | 103552 | 10   |
|               | 7.5                           | 10.5      | 16     | 50     | 25     | 80       | MT03N              | 101013   | MT03RN                     | 103553 | 10   |
|               | 10                            | 14        | 20     | 32     | 32     | 100      | MT03P              | 101014   | MT03RP                     | 103554 | 10   |

## Accessories

|                                                                                                                    |                                                         | Terminal      | Cat. no. | Ref. no. | Pack |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------|----------|----------|------|
|                                                                                                                    |                                                         |               |          |          |      |
|  <b>Input terminals</b>          |                                                         | Screw         | MVE0T    | 101020   | 5    |
|                                                                                                                    |                                                         | Ring terminal | MVE0R    | 103562   | 5    |
|  <b>Base</b>                    | For separate mounting onto standard EN 50022-35 profile |               | MVB0T    | 101021   | 5    |
|                                                                                                                    |                                                         |               |          |          |      |
|  <b>Auxiliary contact block</b> | Frontal fixing to the relay                             | Screw         | MATV10AT | 101022   | 10   |
|                                                                                                                    | With trip indicator (0-I)                               | Ring terminal | MATV10AR | 103563   | 10   |
| <b>Identification</b>                                                                                              | One block per relay and only for manual reset           |               |          |          |      |
|                                                                                                                    |                                                         |               |          |          |      |
| <b>Identification</b>                                                                                              | Sheets of labels (sheets of 260 labels each)            |               | EAT 260  | 100548   | 1    |
|                                                                                                                    | Labeling plate base (50 pieces in one pack)             |               | SPR      | 100549   | 1    |

Order codes

A

B

C

D

E

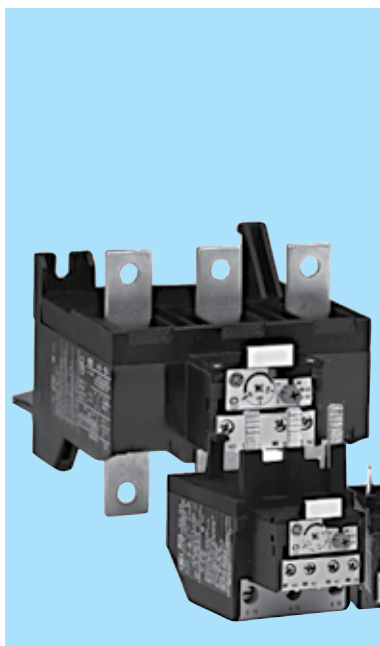
F

G

H

I

X



## Thermal overload relays for contactors from 0.16 to 850A

- Control circuit up to 690V AC
- Power circuit:
  - RT1, RT12: up to 690V
  - RT2, RT22, RT3, RT32, RT4/4L, RT5/5L & RT6/6L: up to 1000V
- Thermal protection against normal overloads.
- Three pole differential (phase unbalance protection).
- Protection against long starting times.
- Automatic ambient temperature compensation between - 25°C y + 60°C.
- Front mounted test button.
- Trip indication.
- Independent auxiliary contacts with double rupture (1NO + 1NC).
- Function selector:
  - Manual RESET
  - Manual RESET and STOP
  - Automatic RESET with STOP
  - Automatic RESET without STOP

## Standards

|                  |             |
|------------------|-------------|
| IEC/EN 60947-4-1 | CSA 22.2/14 |
| IEC/EN 60947-5-1 | NI C 63-650 |
| UNE 115          | VDE 0660    |
| NFC 63-650       | UL 508      |
| CEI 17-50        |             |

## Approvals



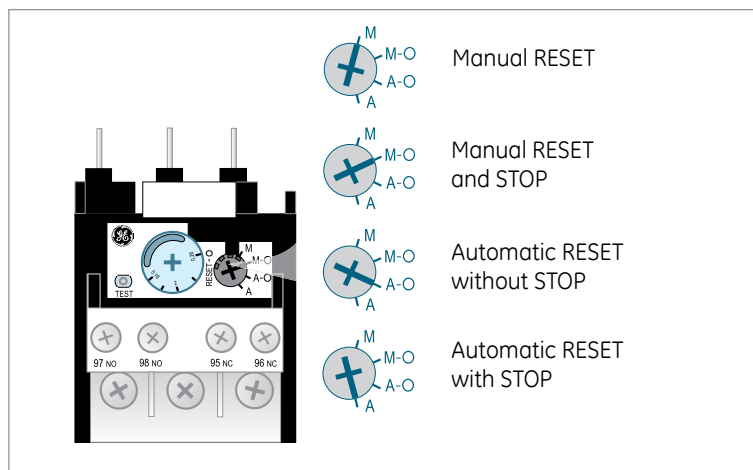
Lloyd's  
Register



Bureau  
Veritas



RINA



Order codes | pg. C.35  
Dimensions | pg. C.44

## Thermal overload relays for contactors



|           | For use with: | Setting range (regulation) |        | Fuses <sup>(1)</sup> |         | Screw terminal |          | Ring terminal |          | Pack |
|-----------|---------------|----------------------------|--------|----------------------|---------|----------------|----------|---------------|----------|------|
|           |               |                            |        | aM                   | gL - gG |                |          |               |          |      |
|           |               | min. A                     | max. A | A                    | A       | Cat. no.       | Ref. no. | Cat. no.      | Ref. no. |      |
| Class 10A | CL00          | 0.16                       | 0.26   | 2                    | 2       | RT1B           | 113700   | RT1RB         | 114087   | 5    |
|           | CL01          | 0.25                       | 0.41   | 2                    | 2       | RT1C           | 113701   | RT1RC         | 114088   | 5    |
|           | CL02          | 0.4                        | 0.65   | 2                    | 2       | RT1D           | 113702   | RT1RD         | 114089   | 5    |
|           | CL25          | 0.65                       | 1.1    | 2                    | 4       | RT1F           | 113703   | RT1RF         | 114090   | 5    |
|           | CL03          | 1.0                        | 1.5    | 4                    | 6       | RT1G           | 113704   | RT1RG         | 114091   | 5    |
|           | CL04          | 1.3                        | 1.9    | 4                    | 6       | RT1H           | 113705   | RT1RH         | 114092   | 5    |
|           | CL45          | 1.8                        | 2.7    | 6                    | 10      | RT1J           | 113706   | RT1RJ         | 114093   | 5    |
|           |               | 2.5                        | 4.0    | 8                    | 16      | RT1K           | 113707   | RT1RK         | 114094   | 5    |
|           |               | 4.0                        | 6.3    | 12                   | 20      | RT1L           | 113708   | RT1RL         | 114095   | 5    |
|           |               | 5.5                        | 8.5    | 16                   | 20      | RT1M           | 113709   | RT1RM         | 114096   | 5    |
|           |               | 8.0                        | 12.0   | 20                   | 25      | RT1N           | 113710   | RT1RN         | 114097   | 5    |
|           |               | 10.0                       | 16.0   | 25                   | 35      | RT1P           | 113711   | RT1RP         | 114098   | 5    |
|           |               | 14.5                       | 18.0   | 32                   | 50      | RT1S           | 113712   | RT1RS         | 114099   | 5    |
|           |               | 17.5                       | 22.0   | 40                   | 50      | RT1T           | 113713   | RT1RT         | 114100   | 5    |
|           |               | 21.0                       | 26.0   | 40                   | 63      | RT1U           | 113714   | RT1RU         | 114101   | 5    |
|           |               | 25.0                       | 32.0   | 50                   | 80      | RT1V           | 113715   | RT1RV         | 114102   | 5    |
|           |               | 30.0                       | 40.0   | 63                   | 100     | RT1W           | 113716   | RT1RW         | 114103   | 5    |
| Class 10  | CL05          | 11.5                       | 15.0   | 32                   | 35      | RT2A           | 113717   | RT2RA         | 114104   | 1    |
|           | CL06          | 14.5                       | 19.0   | 40                   | 50      | RT2B           | 113718   | RT2RB         | 114105   | 1    |
|           | CL07          | 18.5                       | 25.0   | 50                   | 63      | RT2C           | 113719   | RT2RC         | 114106   | 1    |
|           | CL08          | 24.0                       | 32.0   | 63                   | 100     | RT2D           | 113720   | RT2RD         | 114107   | 1    |
|           | CL09          | 30.0                       | 43.0   | 80                   | 125     | RT2E           | 113721   | RT2RE         | 114108   | 1    |
|           | CL10          | 42.0                       | 55.0   | 100                  | 160     | RT2G           | 113722   | RT2RG         | 114109   | 1    |
|           |               | 54.0                       | 65.0   | 125                  | 160     | RT2H           | 113723   | RT2RH         | 114110   | 1    |
|           |               | 64.0                       | 82.0   | 125                  | 200     | RT2J           | 113724   | RT2RJ         | 114111   | 1    |
|           |               | 78.0                       | 97.0   | 125                  | 200     | RT2L           | 113725   | RT2RL         | 114112   | 1    |
|           |               | 90.0                       | 110    | 160                  | 250     | RT2M           | 113726   | RT2RM         | 114113   | 1    |
| Class 20  | CL00          | 0.4                        | 0.65   | 2                    | 2       | RT12D          | 139138   | RT12RD        | 114060   | 5    |
|           | CL01          | 0.65                       | 1.1    | 2                    | 4       | RT12F          | 139139   | RT12RF        | 114061   | 5    |
|           | CL02          | 1                          | 1.5    | 4                    | 6       | RT12G          | 139140   | RT12RG        | 114062   | 5    |
|           | CL25          | 1.3                        | 1.9    | 4                    | 6       | RT12H          | 139141   | RT12RH        | 114063   | 5    |
|           | CL03          | 1.8                        | 2.7    | 8                    | 10      | RT12J          | 139142   | RT12RJ        | 114159   | 5    |
|           | CL04          | 2.5                        | 4.1    | 8                    | 16      | RT12K          | 113640   | RT12RK        | 114114   | 5    |
|           | CL45          | 4                          | 6.3    | 12                   | 20      | RT12L          | 113641   | RT12RL        | 114115   | 5    |
|           |               | 5.5                        | 8.5    | 16                   | 20      | RT12M          | 113642   | RT12RM        | 114116   | 5    |
|           |               | 8                          | 12     | 20                   | 35      | RT12N          | 113643   | RT12RN        | 114117   | 5    |
|           |               | 10                         | 16     | 25                   | 35      | RT12P          | 113644   | RT12RP        | 114118   | 5    |
|           |               | 14.5                       | 18     | 32                   | 50      | RT12S          | 113645   | RT12RS        | 114119   | 5    |
|           |               | 17.5                       | 22     | 40                   | 50      | RT12T          | 113646   | RT12RT        | 114120   | 5    |
|           |               | 21                         | 26     | 40                   | 63      | RT12U          | 113647   | RT12RU        | 114121   | 5    |
|           |               | 25                         | 32     | 50                   | 80      | RT12V          | 113648   | RT12RV        | 114122   | 5    |
|           |               | 30                         | 40     | 63                   | 100     | RT12W          | 113649   | RT12RW        | 114123   | 5    |
|           | CL05          | 24                         | 32     | 63                   | 80      | RT22D          | 113650   | RT22RD        | 114124   | 1    |
|           | CL06          | 30                         | 43     | 80                   | 100     | RT22E          | 113651   | RT22RE        | 114125   | 1    |
|           | CL07          | 42                         | 55     | 100                  | 160     | RT22G          | 113652   | RT22RG        | 114126   | 1    |
|           | CL08          | 54                         | 65     | 125                  | 160     | RT22H          | 113653   | RT22RH        | 114127   | 1    |
|           | CL09          | 64                         | 82     | 125                  | 200     | RT22J          | 113654   | RT22RJ        | 114128   | 1    |
|           | CL10          | 78                         | 97     | 125                  | 200     | RT22L          | 113655   | RT22RL        | 114129   | 1    |
|           |               | 90                         | 110    | 160                  | 250     | RT22M          | 113656   | RT22RM        | 114130   | 1    |

(1) Most suitable fuse in accordance with IEC 60947-4-1.

Order codes

A

B

C

D

E

F

G

H

I

X

### Thermal overload relays for contactors

|                                                                                              |                     | For use with:        | Setting range (regulation) |                     | Fuses <sup>(1)</sup> |         | Cat.no.<br>(Screw terminal) | Ref. no. | Pack   |        |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|----------------------------|---------------------|----------------------|---------|-----------------------------|----------|--------|--------|---|
|                                                                                                                                                                               |                     |                      |                            |                     | aM                   | gL - gG |                             |          |        |        |   |
|                                                                                                                                                                               |                     |                      | min.<br>A                  | max.<br>A           | A                    | A       |                             |          |        |        |   |
|                                                                                                                                                                               | Class 10            | Direct mounting      | CK75                       | 55                  | 80                   | 125     | 200                         | RT3B     | 113727 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK08                       | 63                  | 90                   | 125     | 200                         | RT3C     | 113728 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 90                  | 120                  | 160     | 250                         | RT3D     | 113729 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 110                 | 140                  | 200     | 315                         | RT3E     | 113730 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 140                 | 190                  | 250     | 355                         | RT3F     | 113731 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK85                       | 120                 | 190                  | 250     | 315                         | RT4N     | 113732 | 1      |   |
|                                                                                                                                                                               |                     | CK09                 | 175                        | 280                 | 315                  | 400     | RT4P                        | 113733   | 1      |        |   |
|                                                                                                                                                                               |                     |                      | CK95 <sup>(2)</sup>        | 200                 | 310                  | 400     | 500                         | RT4R     | 113734 | 1      |   |
|                                                                                                                                                                               |                     | CK10                 | 120                        | 190                 | 250                  | 315     | RT5A                        | 113750   | 1      |        |   |
|                                                                                                                                                                               |                     |                      | CK11                       | 175                 | 280                  | 315     | 400                         | RT5B     | 113751 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | CK12 <sup>(3)</sup> | 250                  | 400     | 500                         | 630      | RT5C   | 113752 | 1 |
|                                                                                                                                                                               | 315                 |                      |                            |                     | 500                  | 630     | 800                         | RT5D     | 113753 | 1      |   |
|                                                                                                                                                                               | 430                 |                      |                            |                     | 700                  | 800     | 1000                        | RT5E     | 113754 | 1      |   |
|                                                                                                                                                                               | CK13 <sup>(4)</sup> | 500                  | 850                        | 100                 | 1250                 | RT6A    | 113760                      | 1        |        |        |   |
|                                                                                                                                                                               |                     | Class 20             | Direct mounting            | CK75                | 63                   | 90      | 125                         | 200      | RT32C  | 113657 | 1 |
| CK08                                                                                                                                                                          |                     |                      |                            | 90                  | 120                  | 160     | 250                         | RT32D    | 113658 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 110                 | 140                  | 200     | 315                         | RT32E    | 113659 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 140                 | 190                  | 250     | 355                         | RT32F    | 113660 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            |                     |                      |         |                             |          |        |        |   |
| <br><br> | Class 30            | Mounting with screws | CL...                      | 2.5                 | 4                    | 10      | 16                          | RT4LA    | 113735 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK...                      | 4                   | 6.5                  | 12      | 20                          | RT4LB    | 113736 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 5.5                 | 8.5                  | 16      | 25                          | RT4LC    | 113737 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 7.5                 | 11                   | 20      | 32                          | RT4LD    | 113738 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 10                  | 16                   | 25      | 40                          | RT4LE    | 113739 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 12.5                | 20                   | 32      | 50                          | RT4LF    | 113740 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 17                  | 27                   | 50      | 80                          | RT4LG    | 113741 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 26                  | 40                   | 80      | 125                         | RT4LH    | 113742 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 32                  | 52                   | 100     | 160                         | RT4LJ    | 113743 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 45                  | 70                   | 125     | 160                         | RT4LK    | 113744 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 60                  | 90                   | 160     | 200                         | RT4LL    | 113745 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | 80                  | 125                  | 200     | 250                         | RT4LM    | 113746 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK85                       | 120                 | 190                  | 250     | 315                         | RT4LN    | 113747 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK09                       | 175                 | 280                  | 315     | 400                         | RT4LP    | 113748 | 1      |   |
|                                                                                                                                                                               |                     |                      | CK95 <sup>(2)</sup>        | 200                 | 310                  | 400     | 500                         | RT4LR    | 113749 | 1      |   |
|                                                                                                                                                                               |                     | CK10                 | 120                        | 190                 | 250                  | 315     | RT5LA                       | 113755   | 1      |        |   |
|                                                                                                                                                                               |                     |                      | CK11                       | 175                 | 280                  | 315     | 400                         | RT5LB    | 113756 | 1      |   |
|                                                                                                                                                                               |                     |                      |                            | CK12 <sup>(3)</sup> | 250                  | 400     | 500                         | 630      | RT5LC  | 113757 | 1 |
|                                                                                                                                                                               |                     |                      |                            |                     | 315                  | 500     | 630                         | 800      | RT5LD  | 113758 | 1 |
|                                                                                                                                                                               |                     |                      |                            |                     | 430                  | 700     | 800                         | 1000     | RT5LE  | 113759 | 1 |
|                                                                                                                                                                               |                     | CK13 <sup>(4)</sup>  | 500                        | 850                 | 1000                 | 1250    | RT6LA                       | 113761   | 1      |        |   |

(1) Most suitable fuse in accordance with IEC 60947-4-1.

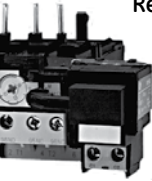
(2) Fitting direct to the contactor.

(3) Fitting direct to the contactor: by means of a coupling and connection set.

Separate mounting: with screws on DIN rail / with cable connection.

(4) RT6A = RT1 with right setting range plus RTXP, independent mounting base adaptor, to be utilised with current transformer connected by passing cable chosen by customer. Current transformer data on request.

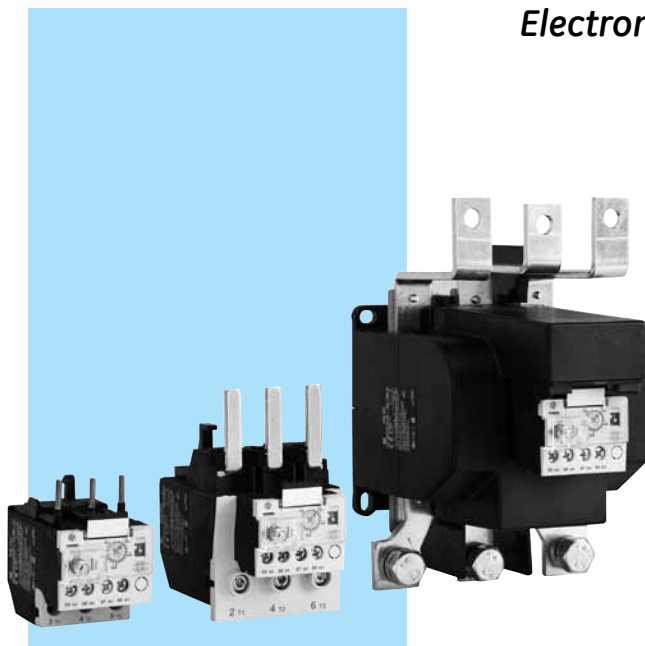
## Accessories

|                                                                                                                          |                                               |              | Cat. no.        | Ref. no. | Pack |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------|-----------------|----------|------|
|  <b>Base for separate mounting</b>      | DIN EN50022-35                                |              |                 |          |      |
|                                                                                                                          | RT1                                           |              | <b>RTXP</b>     | 105170   | 1    |
|                                                                                                                          | RT2                                           |              | <b>RT2XP</b>    | 113764   | 1    |
| <b>Setting range cover protection</b>                                                                                    | RT...                                         |              | <b>RTX3</b>     | 113762   | 1    |
|                                                                                                                          |                                               |              |                 |          |      |
|  <b>Push-button with flexible cable</b> | for distance RESET                            |              |                 |          |      |
|                                                                                                                          | RT1... - RT6... (front)                       | 0.5 meters   | <b>RTXS</b>     | 113855   | 1    |
|                                                                                                                          | RT1... - RT6... (front)                       | 1 meters     | <b>RTXSL</b>    | 113856   | 1    |
|                                                                                                                          | RT1..., RT2..., RT4..., RT5..., RT6... (back) |              | <b>RTXBS</b>    | 108864   | 1    |
| <b>Terminal protection</b>                                                                                               | for RT3 or CK75C/CK08C                        |              |                 |          |      |
|                                                                                                                          | Thermal overload relay                        | 1 pole IPxxB | <b>PTPCK75</b>  | 103747   | 1    |
|                                                                                                                          | Connection contactor-relay                    | 3 poles      | <b>RT3PXX3P</b> | 110565   | 1    |
|  <b>Remote electrical reset</b>       | RT1... - RT6...                               |              | <b>RTXRR</b> □  |          | 1    |
|                                                                                                                          |                                               |              |                 |          |      |

## Available coil voltages (V)

| ♦     | B  | D  | G  | J   | N   | U   | X   |
|-------|----|----|----|-----|-----|-----|-----|
| AC/DC | 12 | 24 | 48 | 110 | 220 | 380 | 440 |
|       |    |    |    | 240 | 415 | 480 |     |

## Electronic overload relay



### Approvals



### Product features

### ➤ Your benefits

|                                             |                                               |
|---------------------------------------------|-----------------------------------------------|
| Lower power consumption                     | ➤ Saving space into cabinet                   |
| Great accuracy                              | ➤ Better motor protection                     |
| Full reliability                            | ➤ Low risk to burn motor                      |
| Phase unbalance protection                  | ➤ Better motor protection and current control |
| Direct fitting to contactors Series CL      | ➤ Compact starter                             |
| Interchangeable with thermal overload relay | ➤ No need to redesign existing cabinet        |
| Multiple trip class selection               | ➤ One device cover for start time motor       |
| Manual / Auto reset                         | ➤ One device for two solutions                |

### Main characteristics

- Setting range from 0.1 up to 150A
- Self powered
- Thermal memory
- Phase loss protection
- Phase unbalance protection
- Direct fitting to contactors Series CL
- Interchangeable with thermal overload relay
- Multiple trip class selection
- Manual / Auto reset
- Increased flexibility, less order codes, less stock
- Tripp class: 5 - 10 - 20 - 30

Order codes | pg. C.39  
Dimensions | pg. C.47

## Electronic overload relay for contactors

|                                                                                   | Suitable for           | Setting range (A) |      | Fuses (A) <sup>(1)</sup> | Cat. no. | Ref. no. | Pack. |
|-----------------------------------------------------------------------------------|------------------------|-------------------|------|--------------------------|----------|----------|-------|
|                                                                                   |                        | Min.              | Max. | gL - gG                  |          |          |       |
|  | Frame 1<br>CL00...CL45 | 0,1               | 0,5  | 2                        | RE1D     | 101866   | 5     |
|                                                                                   |                        | 0,4               | 2    | 4                        | RE1H     | 101867   | 5     |
|                                                                                   |                        | 1,0               | 5    | 10                       | RE1K     | 101868   | 5     |
|                                                                                   |                        | 1,6               | 8    | 20                       | RE1M     | 101869   | 5     |
|                                                                                   |                        | 6,4               | 32   | 63                       | RE1S     | 101870   | 5     |
|                                                                                   |                        | 9,0               | 45   | 80                       | RE1W     | 101871   | 5     |
|                                                                                   |                        |                   |      |                          |          |          |       |
|  | Frame 2<br>CL05...CL10 | 15                | 75   | 125                      | RE2H     | 101872   | 1     |
|                                                                                   |                        | 22                | 110  | 125                      | RE2M     | 101873   | 1     |
|  | Frame 3<br>CK75-CK08   | 30                | 150  | 250                      | RE3E     | 101874   | 1     |

## Accessories

|                                                                                     |                                              | Cat. no. | Ref. no. | Pack. |
|-------------------------------------------------------------------------------------|----------------------------------------------|----------|----------|-------|
|  | Independent mounting base adaptor<br>Frame 1 | RE1XP    | 247302   | 1     |
|                                                                                     | Independent mounting base adaptor<br>Frame 2 | RE2XP    | 247303   | 1     |

(1) Most suitable fuse in accordance with IEC 60947-4-1, see coordination table on pg. C.76.

Order codes

A

B

C

D

E

F

G

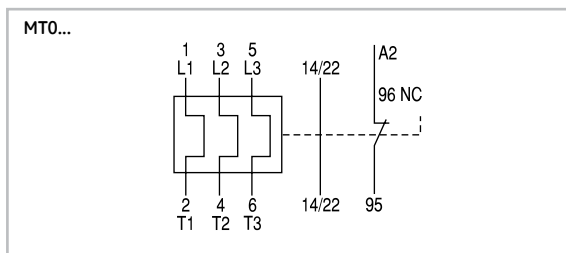
H

I

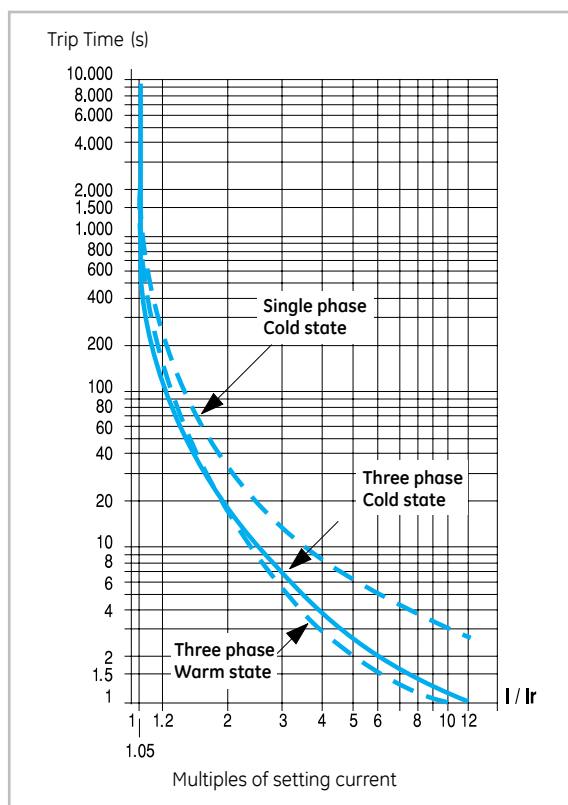
X

# Series MTO

## Numbering of the terminals

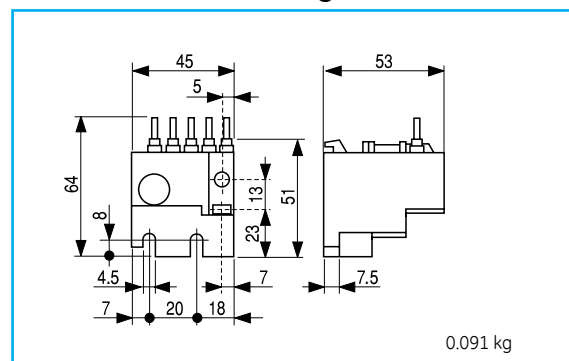


## Tripping curves

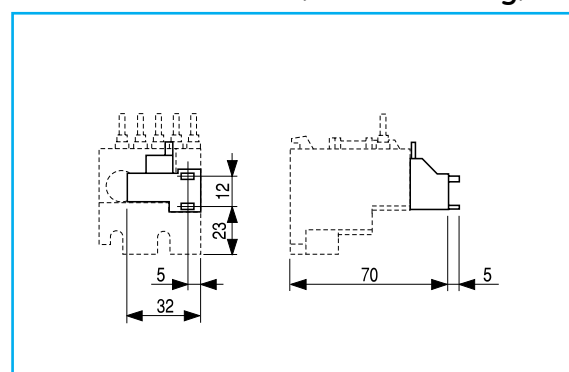


## Dimensional drawings

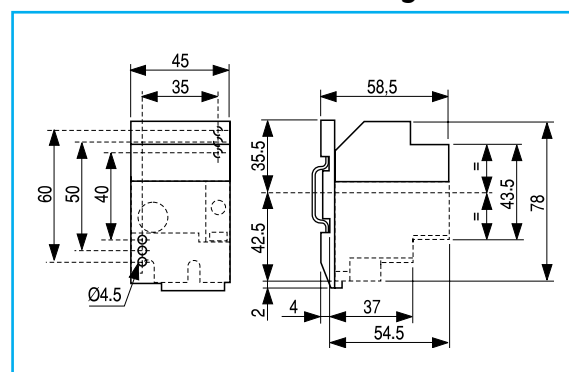
### Thermal overload relay



### Thermal overload relay + aux. contact block (front mounting)

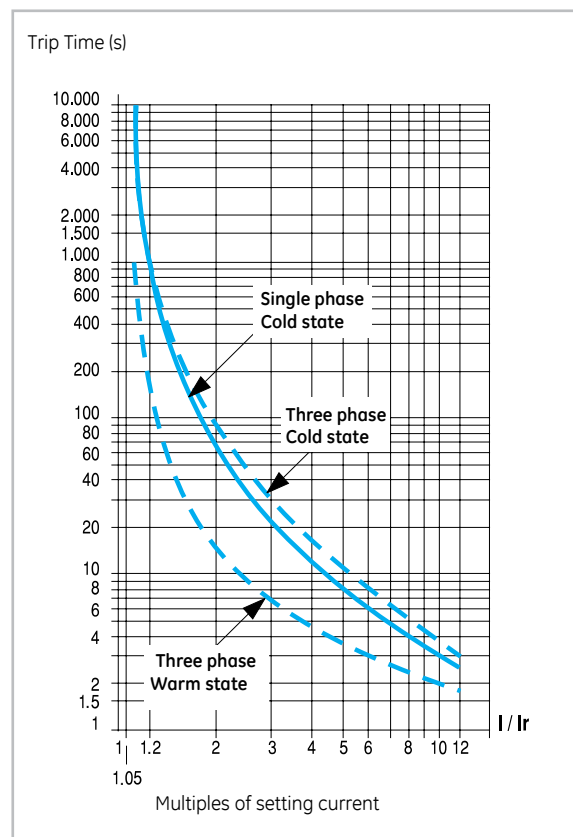


### Independent mounting of the thermal overload relay

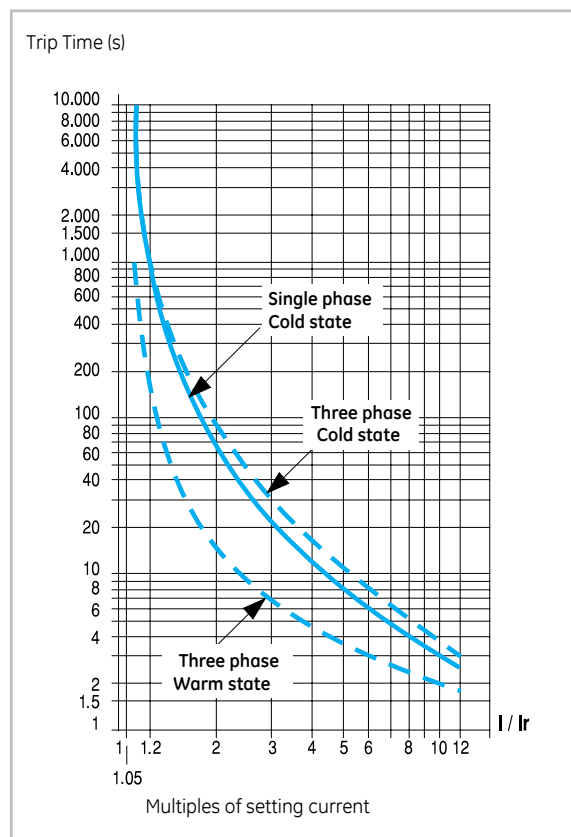


## Tripping curves

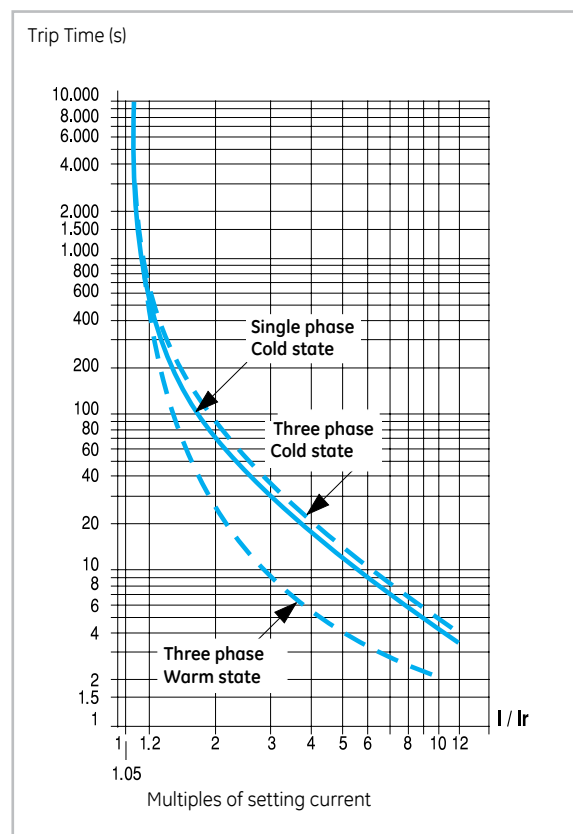
### RT1 Class 10A



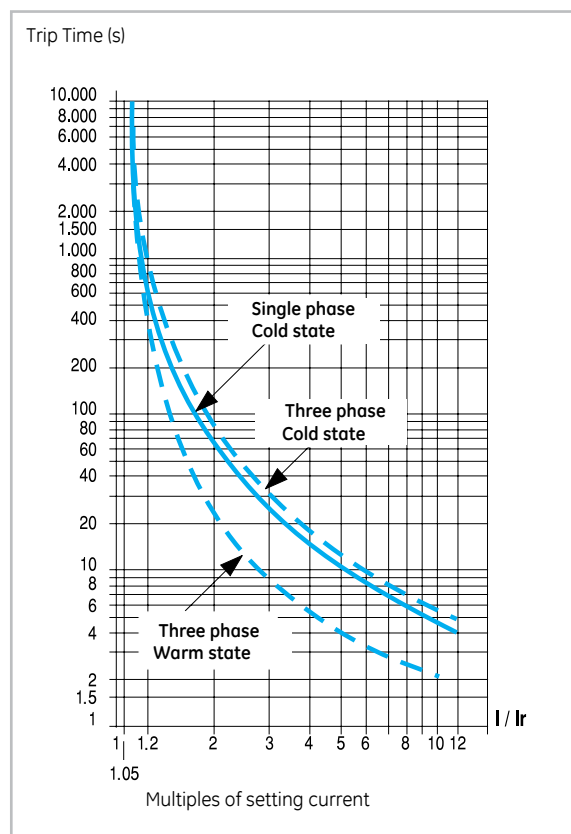
### RT2 Class 10



### RT12 Class 20

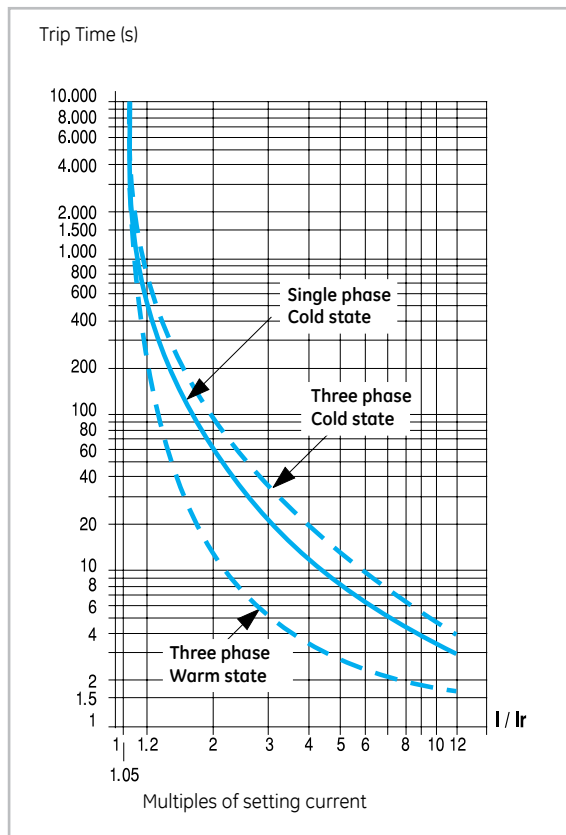


### RT22 Class 20

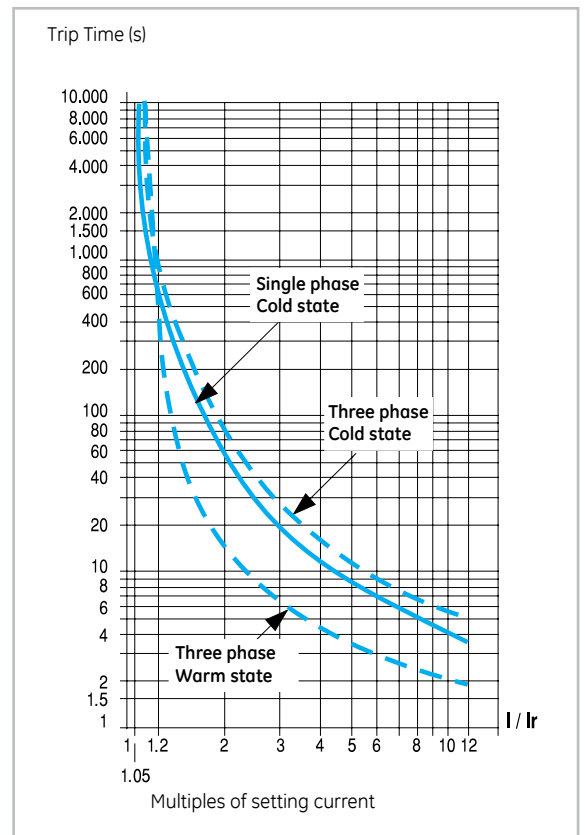


## Tripping curves

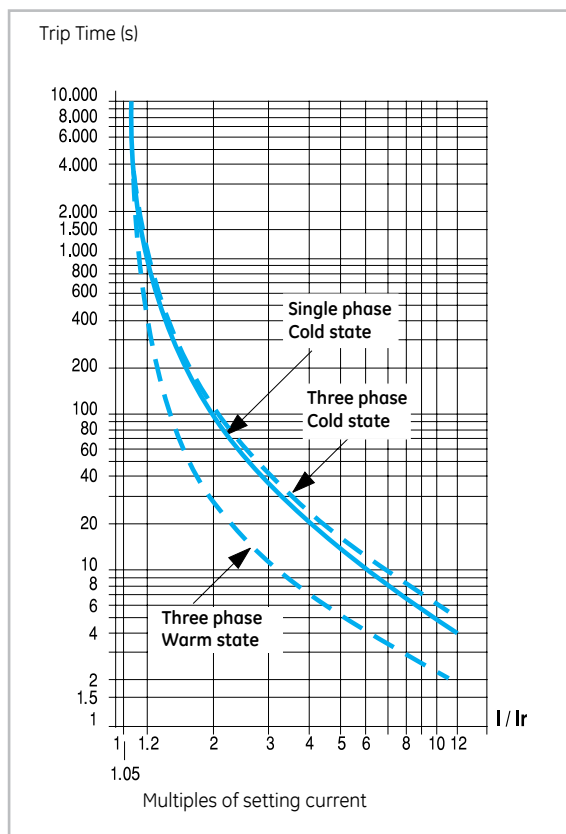
RT3 Class 10



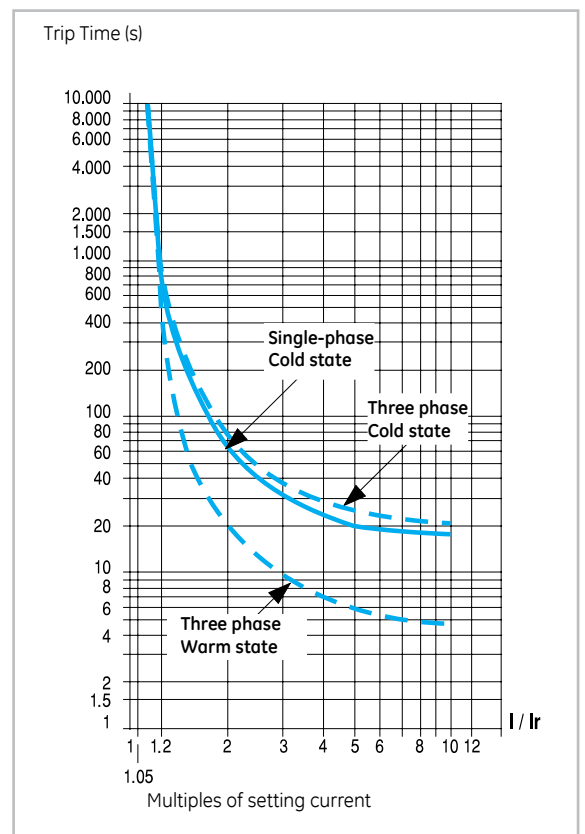
RT4 Class 10



RT32 Class 20

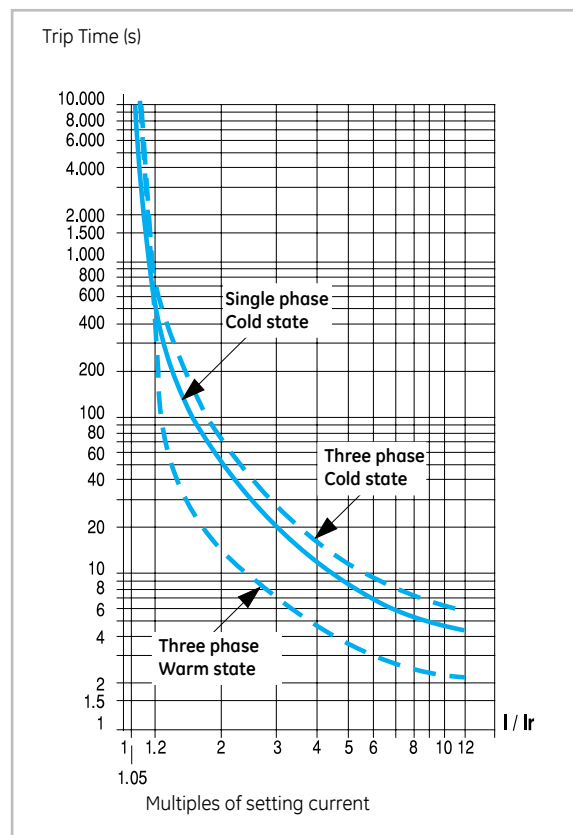


RT4L Class 30

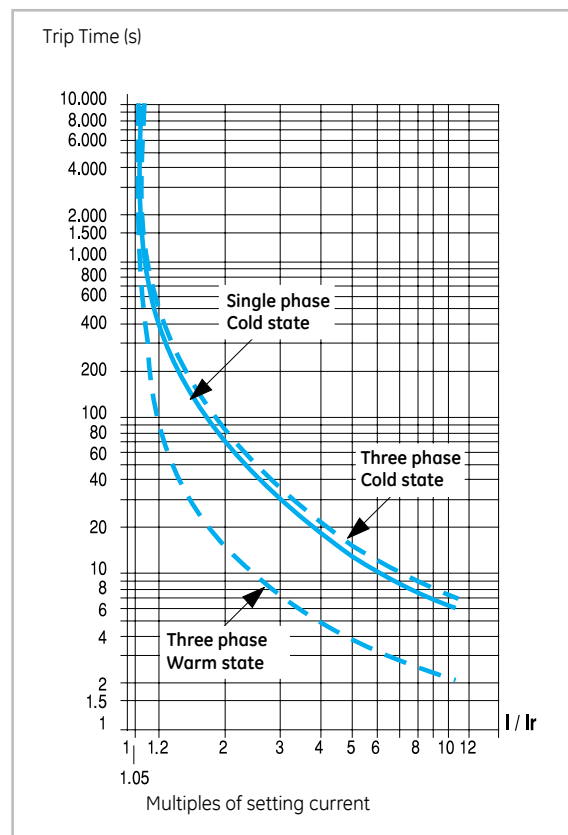


## Tripping curves

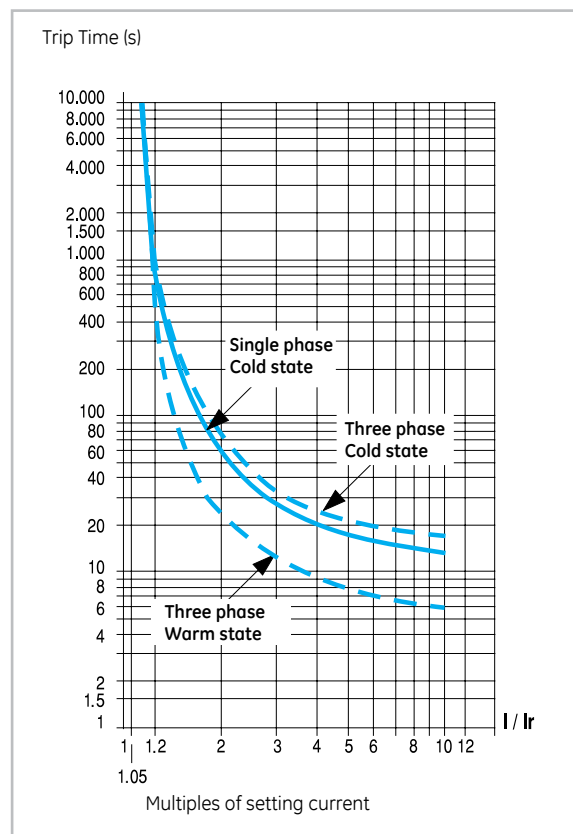
### RT5 Class 10



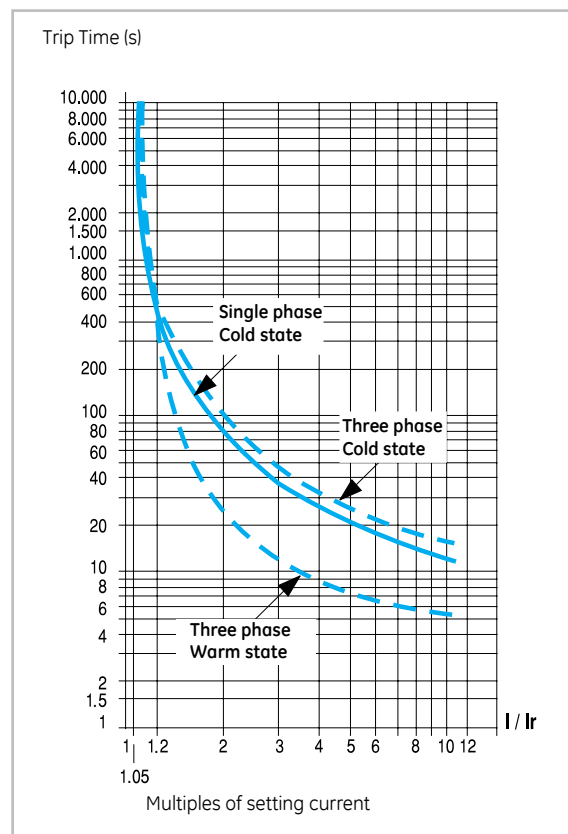
### RT6 Class 10



### RT5L Class 30



### RT6L Class 30

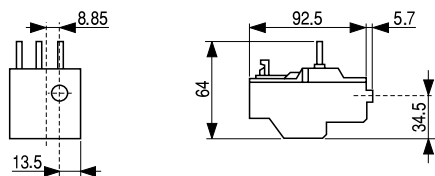


## Dimensional drawings

### Thermal overload relay for contactors

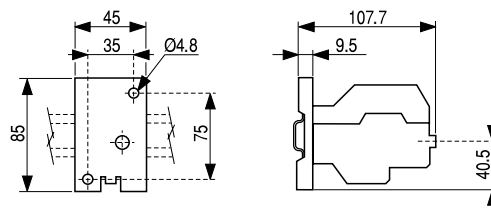
RT1 - RT12

0.190 kg



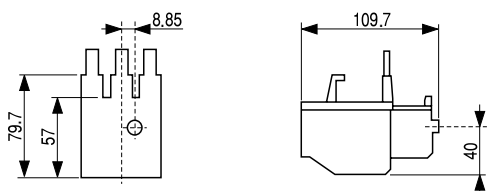
RT1 + RT XP

RT12 + RTXP



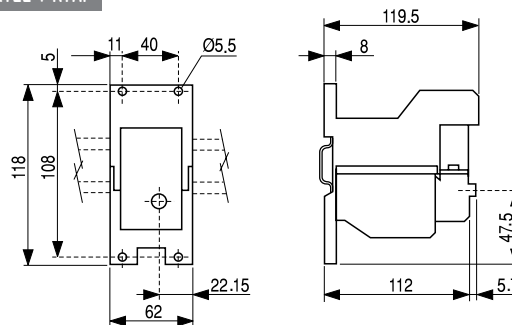
RT2 - RT22

0.400 kg



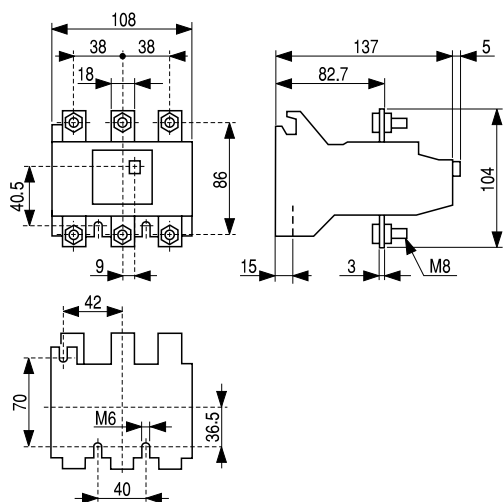
RT2 + RT XP

RT22 + RTXP



RT3 - RT32

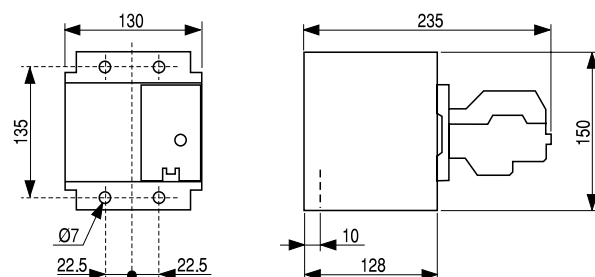
0.900 kg



## Thermal overload relay for contactors

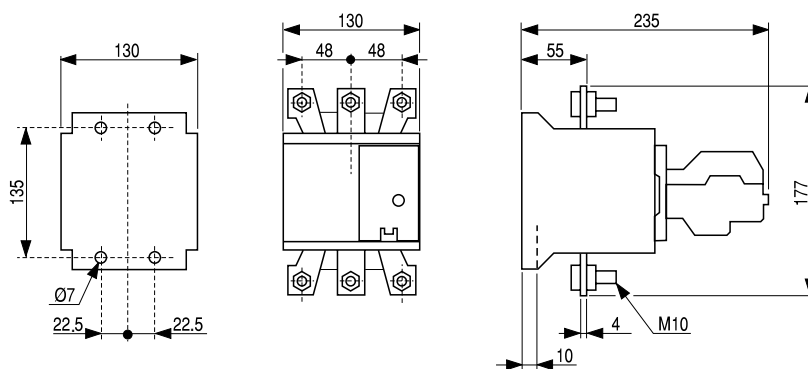
RT4LA...RT4LM

2.400 kg



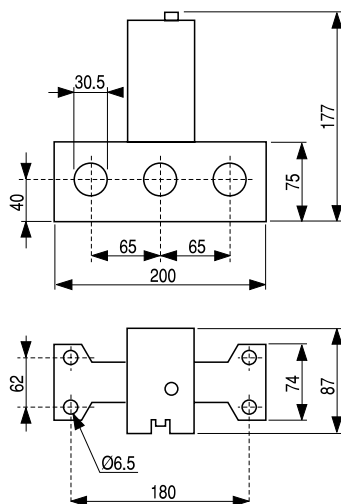
RT4/4LN...RT4/4LR

2.400 kg

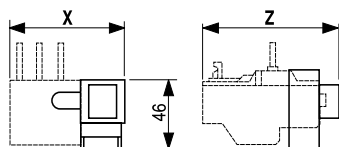


RT5 / 5L

0.875 kg



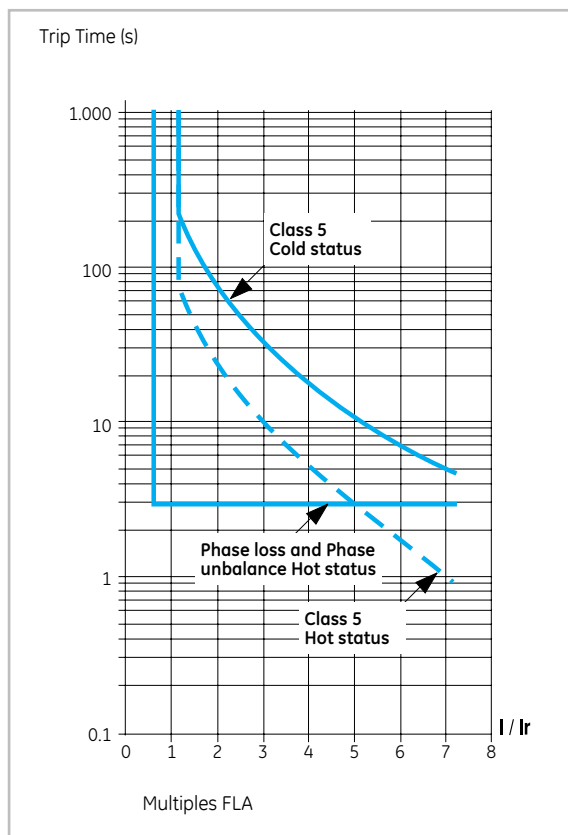
## Remote electrical reset



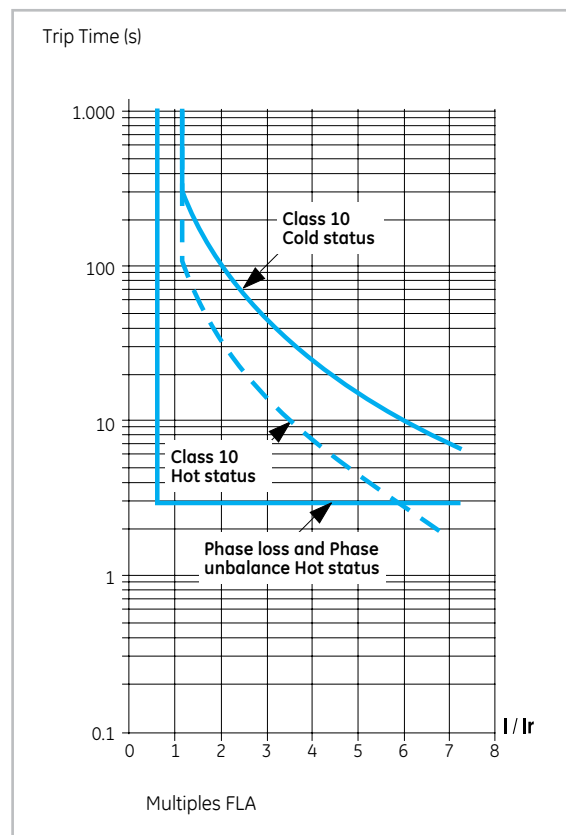
| RTXRR + ... | X   | Z   |
|-------------|-----|-----|
| RT1         | 75  | 110 |
| RT2         | 84  | 121 |
| RT3         | 108 | 153 |
| RT4         | 150 | 240 |
| RT5         | 200 | 196 |

## Tripping curves

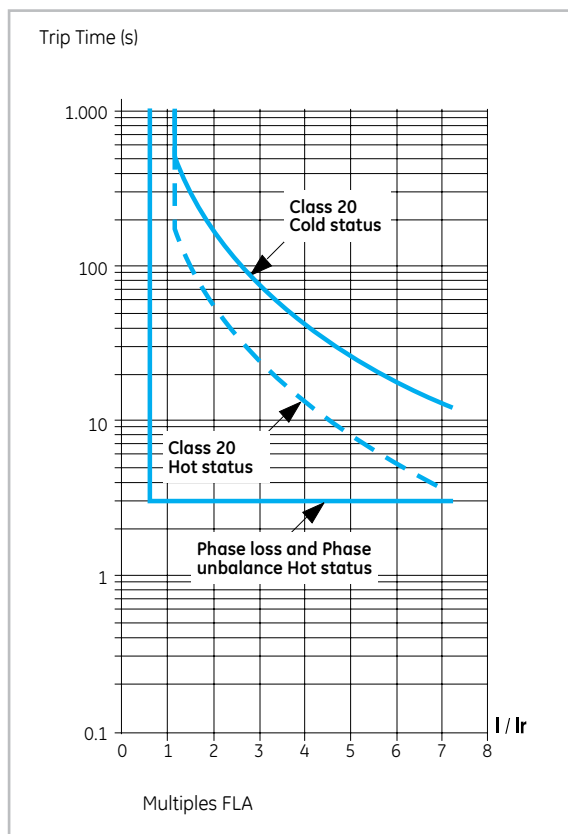
### Class 5



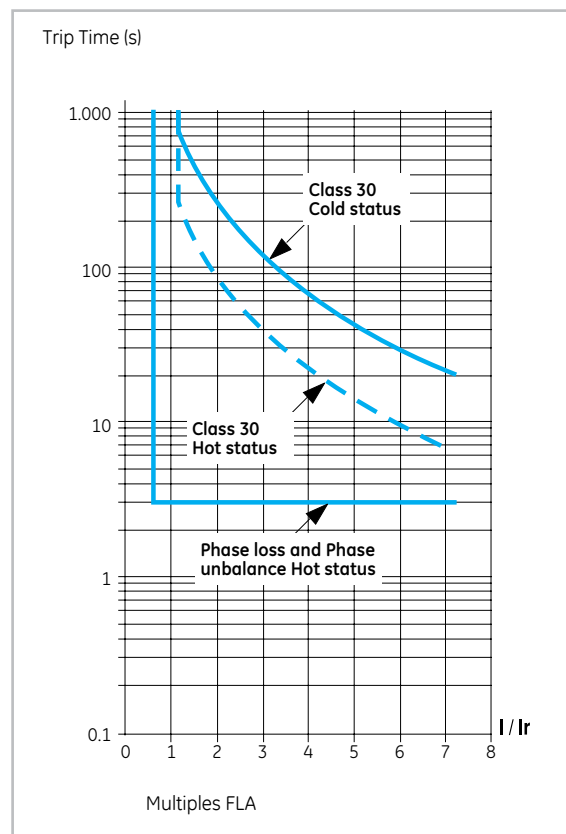
### Class 10



### Class 20

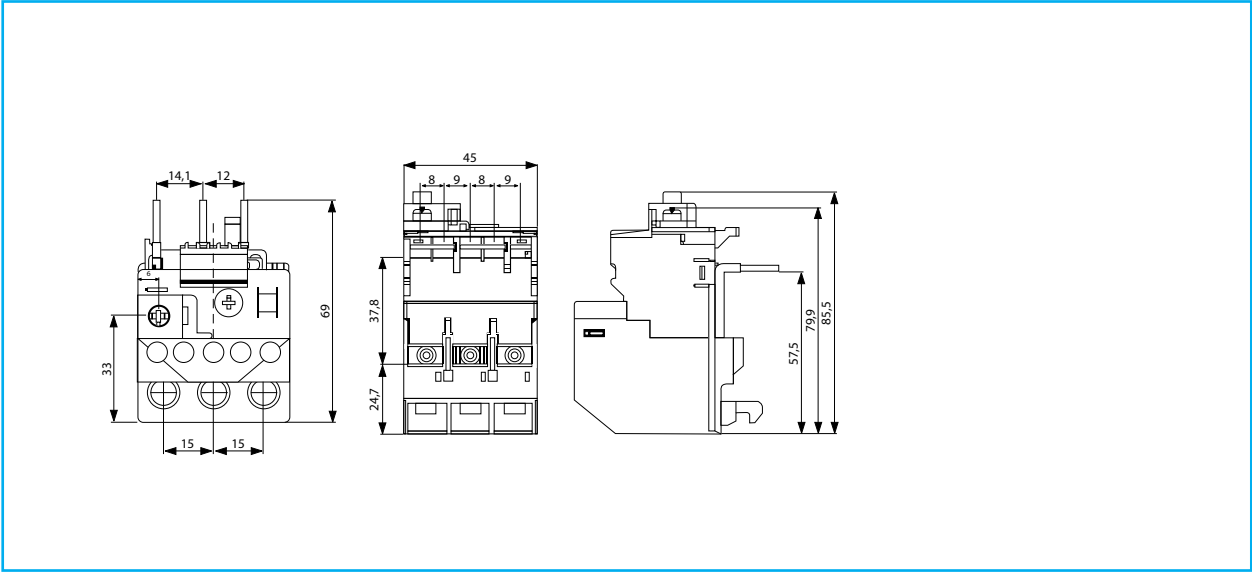


### Class 30

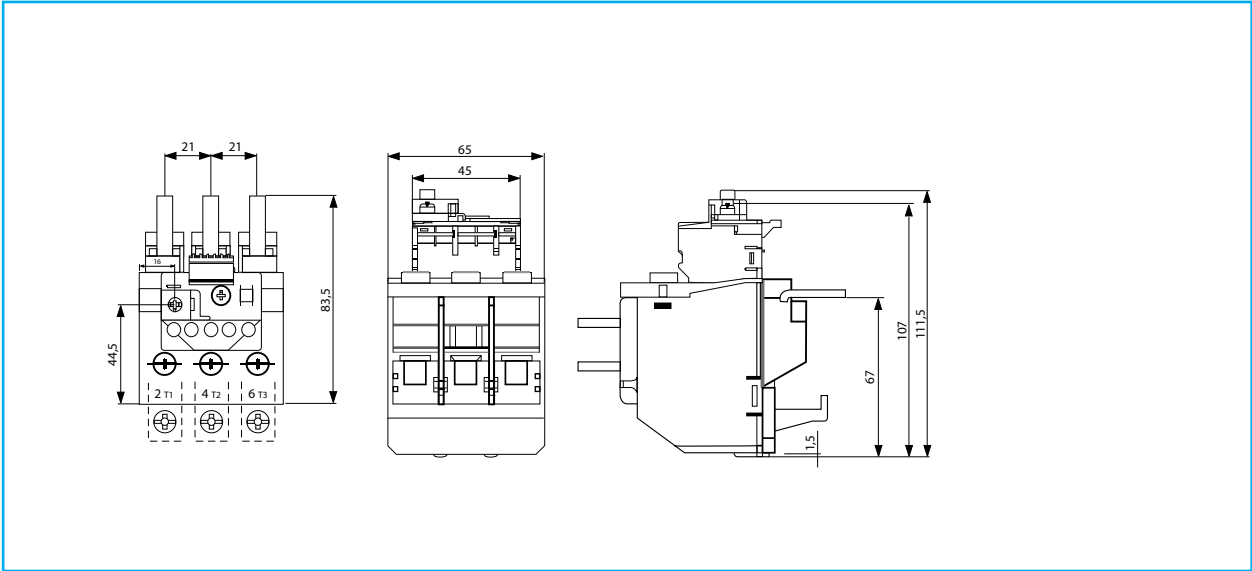


Dimensional drawings

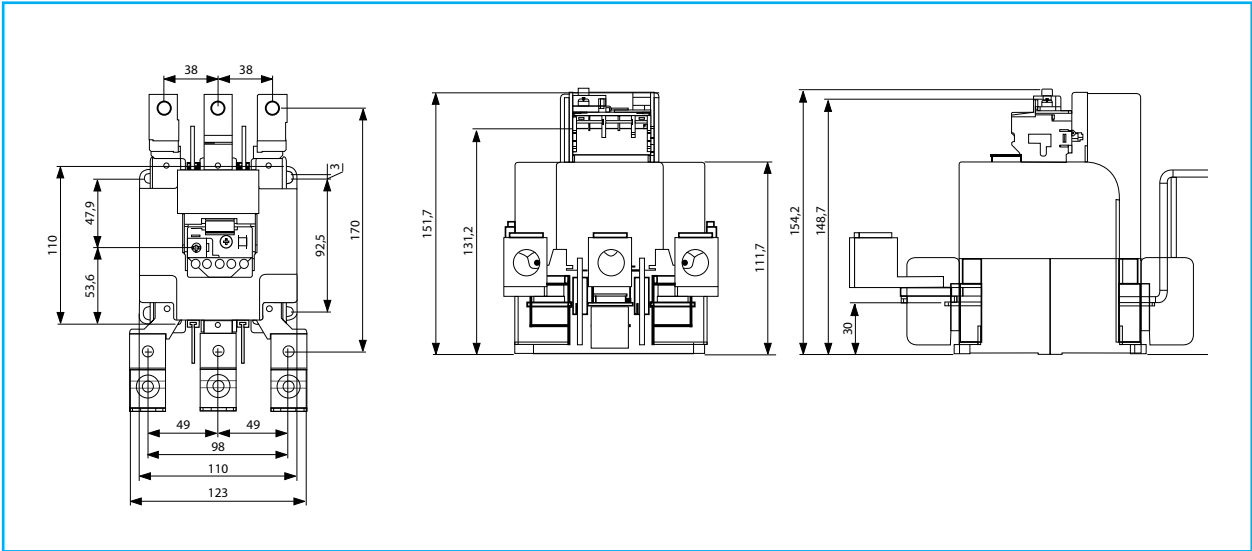
Frame 1



Frame 2



Frame 3



Dimensions

A

B

C

D

E

F

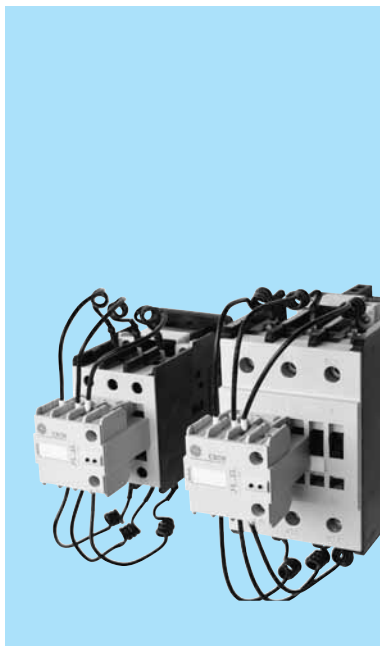
G

H

I

X





### Standards / Marking

|                  |                |
|------------------|----------------|
| IEC/EN 60947-1   | CENELEC HD 419 |
| IEC/EN 60947-4-1 | VDE 0660/102   |
| IEC/EN 60947-5-1 | NFC 63-110     |
| EN 50005         | ASE 1025       |
| UL 508           | UNE 20109      |
| CSA C22.2/14     |                |

### Approvals



## Contactors for capacitors switching

### With built-in resistance to switch three phase capacitor banks

"CSCN" contactors incorporate a front block with three early-make auxiliary contacts together with 6 quick discharge resistors (two per phase) through which the capacitors are switched to the network, reducing the current peak. Once the resistors have damped the current peak, the main contacts short-circuit the resistors, carrying the uninterrupted current.

A few milliseconds later the early-make auxiliary contact closes to guarantee that all current flows through the main contacts.

### Standard voltages

To complete the catalogue number, replace the symbol ♦ by the code corresponding to the voltage and frequency of the control circuit. (other voltages on request)\*

#### Alternating current (V). Dual-frequency

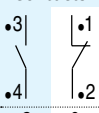
| ♦       | 1  | 2  | 3   | 4   | 5   | 6   | 7   | 8   | 9  |
|---------|----|----|-----|-----|-----|-----|-----|-----|----|
| 50/60Hz | 24 | 42 | 110 | 120 | 220 | 230 | 240 | 440 | 48 |
|         |    |    | 115 |     |     |     |     |     |    |

#### Alternating current (V)

| ♦    | E  | K   | L   | N   | T   | U   | W   | Y   | Z   |
|------|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50Hz | 32 | 127 |     | 220 |     | 380 | 415 | 500 | 660 |
|      |    |     |     | 230 |     |     | 400 |     | 690 |
| 60Hz |    |     | 208 | 277 | 380 | 480 | 460 | 600 |     |

\* Please Consult GE for non standard Coil Voltages

## Contactors for capacitors switching

| Ith                          | Ambient temperature              |              |              |              |                      |                                  |              |              |              |                      | Fuse<br>gl - gG | Contacts                                                                           |              | Cat. no. <sup>(1)</sup> | Pack                                                                                |   |
|------------------------------|----------------------------------|--------------|--------------|--------------|----------------------|----------------------------------|--------------|--------------|--------------|----------------------|-----------------|------------------------------------------------------------------------------------|--------------|-------------------------|-------------------------------------------------------------------------------------|---|
|                              | $\theta \leq 55^{\circ}\text{C}$ |              |              |              |                      | $\theta \leq 70^{\circ}\text{C}$ |              |              |              |                      |                 |  |              |                         |                                                                                     |   |
|                              | 230V<br>240V<br>kvar             | 400V<br>kvar | 415V<br>kvar | 500V<br>kvar | 660V<br>690V<br>kvar | 230V<br>240V<br>kvar             | 400V<br>kvar | 415V<br>kvar | 500V<br>kvar | 660V<br>690V<br>kvar |                 |                                                                                    |              |                         |                                                                                     |   |
| A                            |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         |                                                                                     |   |
| 25                           | 7.5                              | 12.5         | 13           | 16           | 15                   | 3.7                              | 7.5          | 8            | 9.5          | 10                   | 25              | 2 0                                                                                | CSCN12A320 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 1                                                                                | CSCN12A311 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 2                                                                                | CSCN12A302 ♦ | 1                       |                                                                                     |   |
| 32                           | 10                               | 16.7         | 17           | 21           | 20                   | 5                                | 10           | 11           | 12.5         | 12.5                 | 35              | 2 0                                                                                | CSCN16A320 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 1                                                                                | CSCN16A311 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 2                                                                                | CSCN16A302 ♦ | 1                       |                                                                                     |   |
| 45                           | 12.5                             | 20           | 21           | 25           | 25                   | 7.5                              | 12.5         | 13           | 16           | 15                   | 40              | 1 0                                                                                | CSCN20A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN20A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 1                                                                                | CSCN20A321 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN20A312 ♦ | 1                       |                                                                                     |   |
| 45                           | 15                               | 25           | 26           | 31           | 30                   | 10                               | 15           | 16           | 18           | 20                   | 50              | 1 0                                                                                | CSCN25A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN25A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 1                                                                                | CSCN25A321 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN25A312 ♦ | 1                       |                                                                                     |   |
| 60                           | 20                               | 30           | 31           | 38           | 35                   | 16                               | 22           | 23           | 27           | 25                   | 63              | 1 0                                                                                | CSCN30A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN30A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 1                                                                                | CSCN30A321 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN30A312 ♦ | 1                       |                                                                                     |   |
| 90                           | 25                               | 45           | 47           | 56           | 55                   | 20                               | 35           | 36           | 44           | 40                   | 80              | 1 0                                                                                | CSCN45A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN45A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 0                                                                                | CSCN45A320 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 1                                                                                | CSCN45A311 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN45A312 ♦ | 1                       |                                                                                     |   |
| 110                          | 35                               | 55           | 57           | 69           | 65                   | 30                               | 45           | 47           | 56           | 50                   | 125             | 1 0                                                                                | CSCN55A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN55A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 0                                                                                | CSCN55A320 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 1                                                                                | CSCN55A311 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN55A312 ♦ | 1                       |                                                                                     |   |
| 140                          | 45                               | 70           | 73           | 88           | 85                   | 35                               | 60           | 62           | 75           | 70                   | 160             | 1 0                                                                                | CSCN70A310 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 0 1                                                                                | CSCN70A301 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 2 0                                                                                | CSCN70A320 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 1                                                                                | CSCN70A311 ♦ | 1                       |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 | 1 2                                                                                | CSCN70A312 ♦ | 1                       |                                                                                     |   |
| Spare coils                  |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         |  |   |
| For series CSCN12 ... CSCN25 |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         |                                                                                     |   |
| For series CSCN30            |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         |                                                                                     |   |
| For series CSCN45 ... CSCN70 |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         |                                                                                     |   |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         | LB1A ♦                                                                              | 5 |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         | LB3A ♦                                                                              | 5 |
|                              |                                  |              |              |              |                      |                                  |              |              |              |                      |                 |                                                                                    |              |                         | LB4A ♦                                                                              | 5 |

**Standard contactors****Series "CL" and "CK" contactors, to switch three phase capacitor banks**

Electrical endurance: &gt;100,000 operations

| Contactor           |      | $\theta \leq 55^{\circ}\text{C}$ |              |              |              |                      | $\theta \leq 70^{\circ}\text{C}$ |              |              |              |                      | Fuse<br>gI - gG | I max.<br>(peak) |
|---------------------|------|----------------------------------|--------------|--------------|--------------|----------------------|----------------------------------|--------------|--------------|--------------|----------------------|-----------------|------------------|
| Type <sup>(1)</sup> | Ith  | 220V<br>230V<br>240V<br>kvar     | 400V<br>kvar | 415V<br>kvar | 500V<br>kvar | 690V<br>660V<br>kvar | 220V<br>230V<br>240V<br>kvar     | 400V<br>kvar | 415V<br>kvar | 500V<br>kvar | 690V<br>660V<br>kvar | A               | A                |
| CL00A               | 25   | 3                                | 5            | 5.5          | 6.5          | 5.7                  | 2.4                              | 4            | 4.5          | 5.2          | 4.5                  | 10              | 1000             |
| CL01A               | 25   | 4.5                              | 9.5          | 10.5         | 12.5         | 11                   | 3.6                              | 6            | 6.5          | 10           | 7                    | 16              | 1000             |
| CL02A               | 32   | 6.5                              | 11           | 12           | 14.5         | 12.5                 | 5.2                              | 8.5          | 9            | 11.5         | 10                   | 25              | 1000             |
| CL25A               | 45   | 7.5                              | 12.5         | 14           | 16           | 15                   | 6.5                              | 10           | 11           | 13           | 12                   | 25              | 1000             |
| CL03A               | 45   | 9                                | 15           | 16.5         | 20           | 17.5                 | 7.2                              | 12           | 13           | 16           | 14                   | 35              | 2500             |
| CL04A               | 60   | 12.5                             | 21           | 23           | 27.5         | 24                   | 10                               | 17           | 18           | 22           | 19.5                 | 40              | 2500             |
| CL45A               | 60   | 16.5                             | 25           | 27           | 32           | 30                   | 13                               | 20           | 22           | 25           | 22                   | 50              | 2500             |
| CL06A               | 90   | 22                               | 40           | 43           | 52           | 50                   | 17                               | 30           | 33           | 41           | 35                   | 80              | 3500             |
| CL07A               | 110  | 25                               | 45           | 48           | 58           | 65                   | 19                               | 35           | 37           | 46           | 40                   | 125             | 3500             |
| CL08A               | 110  | 30                               | 50           | 54           | 65           | 70                   | 22                               | 40           | 43           | 52           | 50                   | 125             | 3500             |
| CL09A               | 140  | 40                               | 65           | 70           | 85           | 95                   | 35                               | 58           | 62           | 75           | 85                   | 160             | 3500             |
| CL10A               | 140  | 50                               | 80           | 85           | 105          | 120                  | 43                               | 70           | 75           | 90           | 105                  | 160             | 3500             |
| CK75C               | 250  | 60                               | 110          | 118          | 145          | 150                  | 48                               | 88           | 94           | 116          | 120                  | 250             | 5000             |
| CK08C               | 250  | 70                               | 125          | 135          | 162          | 170                  | 56                               | 100          | 107          | 130          | 136                  | 250             | 5000             |
| CK85B               | 315  | 80                               | 150          | 160          | 195          | 200                  | 64                               | 120          | 130          | 156          | 160                  | 315             | 5000             |
| CK09B               | 315  | 95                               | 165          | 177          | 215          | 230                  | 85                               | 148          | 160          | 192          | 205                  | 315             | 5000             |
| CK95B               | 450  | 105                              | 190          | 205          | 250          | 288                  | 95                               | 175          | 188          | 230          | 265                  | 450             | 5500             |
| CK10C               | 600  | 135                              | 260          | 280          | 340          | 370                  | 120                              | 235          | 252          | 375          | 330                  | 630             | 10000            |
| CK11C               | 700  | 190                              | 325          | 350          | 425          | 450                  | 152                              | 260          | 280          | 340          | 360                  | 800             | 10000            |
| CK12B               | 1000 | 250                              | 400          | 430          | 520          | 600                  | 200                              | 320          | 344          | 416          | 480                  | 1000            | 12000            |
| CK13B               | 1250 | 315                              | 525          | 565          | 685          | 650                  | 252                              | 420          | 452          | 548          | 520                  | 1250            | 15000            |

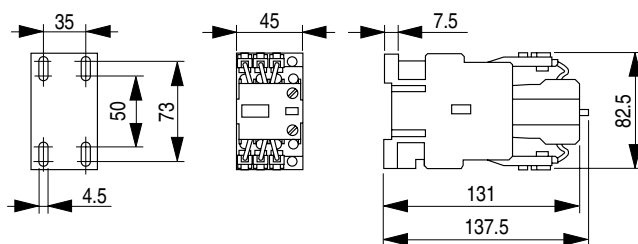
(1) To complete contactor reference, see C.10 for CL and C.18 for CK

Please Contact GE for CSC type capacitor duty contactors.

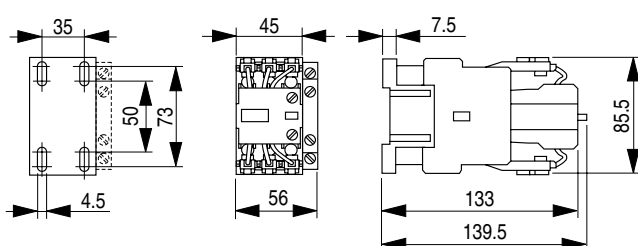
## Dimensional drawings

### Contactors for capacitors switching

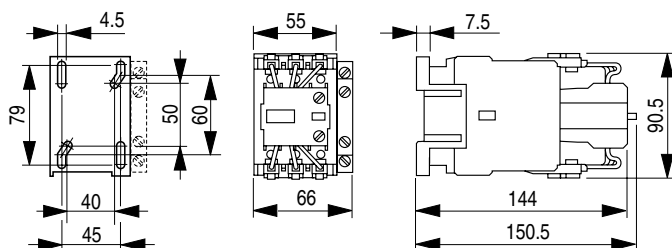
CSCN12..., CSCN16...



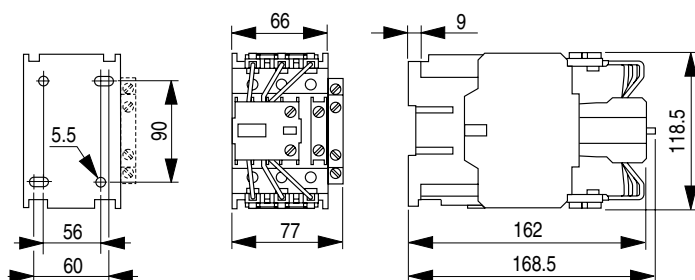
CSCN20..., CSCN25...



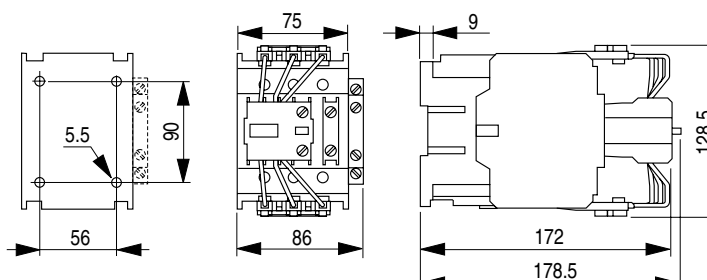
CSCN30...

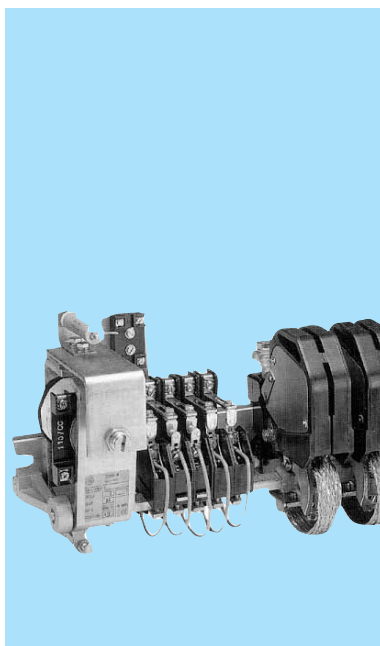


CSCN45..., CSCN55...



CSCN70...





## Standards

IEC/EN 60947-1  
IEC/EN 60947-4-1  
IEC/EN 60947-5-1

## Standard voltages

Alternating current (V) Dual-frequency coils

|         | AP | CP | EP  | GP  |
|---------|----|----|-----|-----|
| 50/60Hz | 24 | 48 | 110 | 220 |

Direct current (V)

|         | A  | B  | C  | D  | E  | F   | G   | H   | M   | R   |
|---------|----|----|----|----|----|-----|-----|-----|-----|-----|
| Voltage | 20 | 24 | 40 | 48 | 97 | 110 | 197 | 220 | 230 | 125 |

## Clapper contactors 40A to 800A (AC-3) / 45A to 1200A (AC-1)

AC and DC control using a bridge rectifier, designed to meet the most recent stringent requirements in terms of reliability, service life and performance.

## Main characteristics

- Sliding contact holder, set on self-centering and self-lubricating bronze bushings
- Minutubes made of high-strength, high electrical resistance material
- Individual auxiliary contacts

## Construction

Variable composition contactors (the number of main poles and auxiliary contacts may vary), preferably secured on mounts

## Control circuit

Solid iron magnetic circuit with coil powered by direct or rectified current, particularly for heavy-duty applications (e.g., cranes, roll mills, reversing winches, etc.).

The coils are sized for intermittent operation. For continuous operation, insert an economy resistor in series with the coil using the respective auxiliary contact.

## Main contacts

The sintered main contacts are classified as Type 4/2 for intermittent operation and Type 5/2 for continuous operation.

The 4/2 sintered contact may be used only for heavy-duty operation when the number of switching operations per hour is above 60 and the operating intermittence is equal or less than 60% (cranes, roll mills, etc.).

If used for continuous operation, the contact will overheat.

The 5/2 sintered contact may be used only for normal duty when the number of switching operations per hour is equal to or less than 60% and the operating intermittence is above 60%.

## Auxiliary contacts

Individual NO or NC single-break contacts

Possibility to advance or delay contact making or breaking

## Special versions

The following items may be supplied upon request:

- Contactors with coils having an operating limit that exceeds the limits required by the standards
- Contactors with an operating voltage up to 3000V (rotary disconnect switches, induction furnaces, etc.)
- Vertical mechanical interlocks ideal for interlocking 3 contactors.

## Spare parts and additional components

|                      |          |
|----------------------|----------|
| Order codes          | pg. C.53 |
| Coils                | pg. C.56 |
| Spare parts          | pg. C.57 |
| Dimensional drawings | pg. C.60 |

Spare parts and additional components for the contactors are listed on page C.91.

## Control voltage and normal combinations

Normal rated voltages, shaft spacing and combinations (main and auxiliary poles) have been defined for each switchgear unit, thereby allowing the contactor to be rapidly selected.

AC rated voltages: 24V - 48V - 110V - 220/230V

DC rated voltages: 24V - 48V - 110V - 220/230V

Spacing between standardised shafts and combinations:

See pages C.96 to C.98

Standard center-to-center spacing (mm): 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000

## Main poles

The poles can be constructed as follows, depending on the operating conditions:

### Z design (NO)

- For load breaking, with high breaking capacity
- For AC or DC use
- Equipped with magnetic arc-quenching coil. In the case of AC, the poles are normally supplied with an appropriate arc-quenching coil for the maximum rated current of the pole.
- Arc-quenching coils for medium rated currents with respect to the expected peak current are available for DC use upon request, for more effective pole performance (see table on page C.90).

### RN design (NC)

- Based on the use of break poles, which are open when the coil is energized and closed when the coil is de-energised.
- For AC or DC use in special circuits where high interrupting capacities are not required.
- This design is intended to be used with contactors R1, R2, R3, R4, R5, R7.

| Poles | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 |
|-------|----|----|----|----|----|----|----|----|----|
| Z     | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  |
| RN    | ■  | ■  | ■  | ■  | ■  |    | ■  |    |    |

## Order codes - Clapper contactors

| Peak operating current          |                                       | AC-3 admissible rated powers |                              |                              |                      | Electric endur.<br><br>Cat. AC3<br>Switching operations | AC or DC<br><br>See the following pages C.84 and C.85 on how to complete the catalogue number | Pack. |
|---------------------------------|---------------------------------------|------------------------------|------------------------------|------------------------------|----------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------|
| Resistive loads<br><br>AC1<br>A | Motors <440V, 3 ~ 50/60Hz<br>AC3<br>A | 220V<br>230V<br><br>kW<br>HP | 380V<br>400V<br><br>kW<br>HP | 415V<br>440V<br><br>kW<br>HP | 500V<br><br>kW<br>HP |                                                         |                                                                                               |       |
| 45                              | 40                                    | 11,5                         | 20                           | 20                           | 20                   | 1 × 10 <sup>6</sup>                                     | R1...                                                                                         | 1     |
| 90                              | 90                                    | 26                           | 45                           | 45                           | 45                   | 1 × 10 <sup>6</sup>                                     | R2...                                                                                         | 1     |
| 125                             | 120                                   | 36.5                         | 62                           | 62                           | 73.5                 | 1 × 10 <sup>6</sup>                                     | R3...                                                                                         | 1     |
| 250                             | 200                                   | 72.5                         | 100                          | 100                          | 120                  | 1 × 10 <sup>6</sup>                                     | R4...                                                                                         | 1     |
| 320                             | 320                                   | 93                           | 160                          | 160                          | 165                  | 1.2 × 10 <sup>6</sup>                                   | R5...                                                                                         | 1     |
| 450                             | 450                                   | 130                          | 225                          | 225                          | 300                  | 1.5 × 10 <sup>6</sup>                                   | R6...                                                                                         | 1     |
| 630                             | 630                                   | 184                          | 315                          | 315                          | 400                  | 1 × 10 <sup>6</sup>                                     | R7...                                                                                         | 1     |
| 800                             | 800                                   | 232                          | 400                          | 400                          | 500                  | 0.9 × 10 <sup>6</sup>                                   | R8...                                                                                         | 1     |
| 1500                            | -                                     | -                            | -                            | -                            | -                    | -                                                       | R9...                                                                                         | 1     |

## Catalogue number structure

| 1            | 2    | 3            | 4        | 5                    | 6                    | 7             | 8         | 9 |
|--------------|------|--------------|----------|----------------------|----------------------|---------------|-----------|---|
| Product line | Size | Coil voltage | Resistor | No. NO aux. contacts | No. NC aux. contacts | No. "Z" poles | "Z" poles |   |

| 1 | 2 | Size       | 1 | 2 |
|---|---|------------|---|---|
|   |   | <b>lth</b> |   |   |
|   |   | Max.       | R | 1 |
|   |   | 500V AC    | R | 2 |
|   |   | 250V DC    | R | 3 |
|   |   |            | R | 4 |
|   |   |            | R | 5 |
|   |   |            | R | 6 |
|   |   |            | R | 7 |
|   |   |            | R | 8 |
|   |   |            | R | 9 |

| 6 | 7 | Auxiliary contacts | 6 | 7 |
|---|---|--------------------|---|---|
|   |   | <b>NO NC</b>       |   |   |
|   |   | 1                  | 1 |   |
|   |   | 2                  | 2 |   |
|   |   | 3                  | 3 |   |
|   |   | 4                  | 4 |   |
|   |   | 5                  | 5 |   |
|   |   | 6                  | 6 |   |
|   |   |                    | 1 | 1 |
|   |   |                    | 2 | 2 |
|   |   |                    | 3 | 3 |
|   |   |                    | 4 | 4 |

| 11 | "RN" poles (NC)              | 11 |
|----|------------------------------|----|
|    | <b>"RN" poles "RN" poles</b> |    |
|    | 0                            | 0  |
|    | 1                            | 1  |
|    | 2                            | 2  |
|    | 3                            | 3  |
|    | 4                            | 4  |

Note: The "RN" poles are not available for the R6, R8 and R9 types.

| 3 | 4 | Coil voltage           | 3 | 4 |
|---|---|------------------------|---|---|
|   |   | <b>AC DC</b>           |   |   |
|   |   | <b>Types R1 ... R7</b> |   |   |
|   |   | 24V                    | A | P |
|   |   | 48V                    | C | P |
|   |   | 110V                   | E | P |
|   |   | 220V                   | G | P |
|   |   |                        | A | - |
|   |   | 20V                    | B | - |
|   |   | 24V                    | C | - |
|   |   | 40V                    | D | - |
|   |   | 48V                    | E | - |
|   |   | 97V                    | F | - |
|   |   | 110V                   | G | - |
|   |   | 197V                   | H | - |
|   |   | 220V                   | M | - |
|   |   | 230V                   | R | - |
|   |   | 125V                   | R | - |
|   |   | <b>Types R8 and R9</b> |   |   |
|   |   | 110V                   | E | P |
|   |   | 220V                   | G | P |
|   |   |                        | E | - |
|   |   | 110V                   | F | - |
|   |   | 197V                   | G | - |
|   |   | 220V                   | H | - |
|   |   | 230V                   | M | - |
|   |   | 125V                   | R | - |

| 8 | "Z" poles (N)    | 8 |
|---|------------------|---|
|   | <b>"Z" poles</b> |   |
|   | 0                | - |
|   | 1                | 1 |
|   | 2                | 2 |
|   | 3                | 3 |
|   | 4                | 4 |

| 9 | "Z" poles           | 9 |
|---|---------------------|---|
|   | <b>Type of pole</b> |   |
|   | Z                   | Z |
|   | No "Z" poles        | - |

| 10 | Arc-quenching coil "Z" poles | Standard Upon request | A    | B    | C |
|----|------------------------------|-----------------------|------|------|---|
|    | <b>Type</b>                  |                       |      |      |   |
|    | R1                           | 45A                   | 14A  | 25A  |   |
|    | R2                           | 90A                   | 45A  | -    |   |
|    | R3                           | 125A                  | 75A  | -    |   |
|    | R4                           | 200A                  | 50A  | 130A |   |
|    | R5                           | 320A                  | 150A | -    |   |
|    | R6                           | 450A                  | 270A | -    |   |
|    | R7                           | 630A                  | 320A | -    |   |
|    | R8                           | 800A                  | 320A | 400A |   |
|    | R9                           | 1200A                 | -    | -    |   |

| 12 | "RN" poles          | 12 |
|----|---------------------|----|
|    | <b>Type of pole</b> |    |
|    | RN                  | V  |
|    | No "RN" poles       | -  |

Note: The "RN" poles are not available for the R6, R8 and R9 types.

| 13 | Arc-quenching coil «RN» poles | Standard Upon request | A    | B    | C |
|----|-------------------------------|-----------------------|------|------|---|
|    | <b>Type</b>                   |                       |      |      |   |
|    | R1                            | 45A                   | 14A  | 25A  |   |
|    | R2                            | 90A                   | 45A  | -    |   |
|    | R3                            | 125A                  | 75A  | -    |   |
|    | R4                            | 200A                  | 50A  | 130A |   |
|    | R5                            | 320A                  | 150A | -    |   |
|    | R6                            | -                     | -    | -    |   |
|    | R7                            | 630A                  | 320A | -    |   |
|    | R8                            | -                     | -    | -    |   |
|    | R9                            | -                     | -    | -    |   |

Note: The "RN" poles are not available for the R6, R8 and R9 types.

| 5 | Economy resistor                  | 5 |
|---|-----------------------------------|---|
|   | <b>If required (5/2 contacts)</b> | R |
|   | <b>If not required</b>            | - |

| 14 | Type of contacts | 14                 |
|----|------------------|--------------------|
|    | <b>Type</b>      |                    |
|    | 4/2              | Intermittent op. 4 |
|    | 5/2              | Continuous op. 5   |

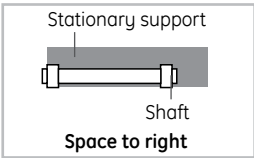
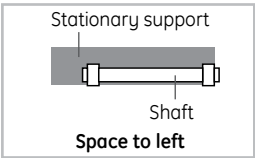
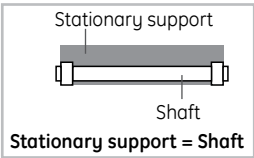
|                              |                |            |                               |                  |                    |       |       |           |
|------------------------------|----------------|------------|-------------------------------|------------------|--------------------|-------|-------|-----------|
| 10                           | 11             | 12         | 13                            | 14               | 15                 | 16    | 17    | 18        |
| Arc-quenching coil "Z" poles | No. "RN" poles | "RN" poles | Arc-quenching coil "RN" poles | Type of contacts | Stationary support | Space | Shaft | Isolation |

|    |                    |                |          |                |    |  |
|----|--------------------|----------------|----------|----------------|----|--|
| 15 | Stationary support | Contactor type |          |                |    |  |
|    |                    | R1<br>R2<br>R3 | R4<br>R5 | R6<br>R7<br>R8 | R9 |  |
|    | Length (mm)        |                |          |                |    |  |
|    | 150                | A              | -        | -              | -  |  |
|    | 200                | B              | -        | -              | -  |  |
|    | 250                | C              | C        | -              | -  |  |
|    | 300                | D              | D        | -              | -  |  |
|    | 350                | E              | E        | E              | -  |  |
|    | 400                | F              | F        | F              | F  |  |
|    | 450                | G              | G        | G              | G  |  |
|    | 500                | H              | H        | H              | H  |  |
|    | 600                | I              | I        | I              | I  |  |
|    | 700                | L              | L        | L              | L  |  |
|    | 800                | M              | M        | M              | M  |  |
|    | 900                | N              | N        | N              | N  |  |
|    | 1000               | O              | O        | O              | O  |  |

|    |                     |                |          |                |    |  |
|----|---------------------|----------------|----------|----------------|----|--|
| 17 | Shaft (Hstat. sup.) | Contactor type |          |                |    |  |
|    |                     | R1<br>R2<br>R3 | R4<br>R5 | R6<br>R7<br>R8 | R9 |  |
|    | Length (mm)         |                |          |                |    |  |
|    | 150                 | A              | -        | -              | -  |  |
|    | 200                 | B              | -        | -              | -  |  |
|    | 250                 | C              | C        | -              | -  |  |
|    | 300                 | D              | D        | -              | -  |  |
|    | 350                 | E              | E        | E              | -  |  |
|    | 400                 | F              | F        | F              | F  |  |
|    | 450                 | G              | G        | G              | G  |  |
|    | 500                 | H              | H        | H              | H  |  |
|    | 600                 | I              | I        | I              | I  |  |
|    | 700                 | L              | L        | L              | L  |  |
|    | 800                 | M              | M        | M              | M  |  |
|    | 900                 | N              | N        | N              | N  |  |
|    | 1000                | O              | O        | O              | O  |  |

|    |           |                    |    |
|----|-----------|--------------------|----|
| 18 | Isolation |                    | 18 |
|    |           | For more isolation | M  |
|    |           | Not required       | -  |

|    |          |                     |    |
|----|----------|---------------------|----|
| 16 | Space    |                     | 16 |
|    | No space | Station. sup.=Shaft | -  |
|    | Space    | Left                | S  |
|    |          | Right               | -  |



Order codes

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X



**Standardised DC or rectified coils**

The DC coils are suitable for intermittent operation; for continuous operation, an economy resistor must be used.

The coils for rectified rated voltages 20-40-97-197V obtained from AC power supplies. (before the rectifier). 24-48-110-220V are available upon request. For the contactor of "RN" break poles, contact GE.

| Contactor | Voltage<br>VDC | Coil       |          | Economy resistor<br>for continuous operation ± 5% |      |                |          | Single-phase bridge rectifier<br>for AC power |                  |          |
|-----------|----------------|------------|----------|---------------------------------------------------|------|----------------|----------|-----------------------------------------------|------------------|----------|
|           |                | Cat. no.   | Ref. no. | W                                                 | Ω    | Cat. no.       | Ref. no. | V<br>50/60Hz                                  | Cat. no.         | Ref. no. |
| R1<br>R2  | 20             | 39012Y20D  | 244107   | 4                                                 | 8.2  | RSS13/64TA8,2  | 204177   | 24                                            | MSK-B250/220-1,5 | 209997   |
|           | 24             | 39012Y24D  | 202327   |                                                   | 18   | RSS13/64TA18   | 211727   | -                                             |                  |          |
|           | 40             | 39012Y40D  | 244106   |                                                   | 33   | RSS13/64TA33   | 211728   | 48                                            | MSK-B250/220-1,5 | 209997   |
|           | 48             | 39012Y48D  | 244734   |                                                   | 68   | RSS13/64TA6,8  | 214869   | -                                             |                  |          |
|           | 97             | 39012Y97D  | 202328   |                                                   | 220  | RSS13/64TA220  | 212702   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 39012Y110D | 202323   |                                                   | 330  | RSS13/64TA330  | 211745   | -                                             |                  |          |
|           | 197            | 39012Y197D | 202325   |                                                   | 680  | RSS13/64TA680  | 214580   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 39012Y220D | 202326   |                                                   | 1200 | RSS13/64TA1200 | 213034   | -                                             |                  |          |
|           | 230            | 39012Y230D | 211706   |                                                   | 1200 | RSS13/64TA1200 | 213034   | -                                             |                  |          |
|           | 125            | 39012Y125D | 202324   |                                                   | 330  | RSS13/64TA300  | 211714   | -                                             |                  |          |
| R3        | 20             | 3903Y20D   | 215278   | 4                                                 | 8.2  | RSS13/64TA8,2  | 204177   | 24                                            | MSK-B250/220-1,5 | 209997   |
|           | 24             | 3903Y24D   | 244735   |                                                   | 18   | RSS13/64TA18   | 211727   | -                                             |                  |          |
|           | 40             | 3903Y40D   | 244088   |                                                   | 39   | RSS13/64TA39   | 211730   | 48                                            | MSK-B250/220-1,5 | 209997   |
|           | 48             | 3903Y48D   | 212705   |                                                   | 47   | RSS13/64TA47   | 211731   | -                                             |                  |          |
|           | 97             | 3903Y97D   | 213691   |                                                   | 270  | RSS13/64TA270  | 214399   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 3903Y110D  | 202437   |                                                   | 330  | RSS13/64TA330  | 211745   | -                                             |                  |          |
|           | 197            | 3903Y197D  | 214442   |                                                   | 820  | RSS13/64TA820  | 214400   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3903Y220D  | 202438   |                                                   | 1200 | RSS13/64TA1200 | 213034   | -                                             |                  |          |
|           | 230            | 3903Y230D  | 211107   |                                                   | 1200 | RSS13/64TA1200 | 213034   | -                                             |                  |          |
|           | 125            | 3903Y125D  | 216100   |                                                   | 330  | RSS13/64TA300  | 211714   | -                                             |                  |          |
| R4        | 20             | 3904Y20D   | 244084   | 6                                                 | 8.2  | RSS13/64TA8,2  | 204177   | 24                                            | MSK-B250/220-1,5 | 209997   |
|           | 24             | 3904Y24D   | 202483   |                                                   | 18   | RSS13/64TA18   | 211727   | -                                             |                  |          |
|           | 40             | 3904Y40D   | 244083   |                                                   | 33   | RSS13/64TA33   | 211728   | 48                                            | MSK-B250/220-1,5 | 209997   |
|           | 48             | 3904Y48D   | 213814   |                                                   | 33   | RSS13/64TA33   | 211728   | -                                             |                  |          |
|           | 97             | 3904Y97D   | 213601   |                                                   | 180  | RSS13/64TA180  | 211744   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 3904Y110D  | 202479   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
|           | 197            | 3904Y197D  | 202481   |                                                   | 680  | RSS13/64TA680  | 214580   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3904Y220D  | 202482   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 230            | 3904Y230D  | 211708   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 125            | 3904Y125D  | 202480   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
| R5        | 20             | 3905Y20D   | 244073   | 10                                                | 6.8  | RSS13/64TA6,8  | 214869   | 24                                            | SKB-B80/70-4     | 211716   |
|           | 24             | 3905Y24D   | 244072   |                                                   | 10   | RSS13/64TA10   | 211742   | -                                             |                  |          |
|           | 40             | 3905Y40D   | 244071   |                                                   | 27   | RSS13/64TA27   | 244192   | 48                                            | MSK-B250/220-1,5 | 209997   |
|           | 48             | 3905Y48D   | 244736   |                                                   | 27   | RSS13/64TA27   | 244192   | -                                             |                  |          |
|           | 97             | 3905Y97D   | 202513   |                                                   | 120  | RSS13/64TA120  | 243281   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 3905Y110D  | 202512   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
|           | 197            | 3905Y197D  | 244074   |                                                   | 470  | RSS13/64TA470  | 244191   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3905Y220D  | 212706   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 230            | 3905Y230D  | 211709   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 125            | 3905Y125D  | 242260   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
| R6        | 20             | 3906Y20D   | 244065   | 10                                                | 6.8  | RSS13/64TA6,8  | 214869   | 24                                            | SKB-B80/70-4     | 211716   |
|           | 24             | 3906Y24D   | 244064   |                                                   | 8.2  | RSS13/64TA8,2  | 204177   | -                                             |                  |          |
|           | 40             | 3906Y40D   | 244063   |                                                   | 27   | RSS13/64TA27   | 244192   | 48                                            | MSK-B250/220-1,5 | 209997   |
|           | 48             | 3906Y48D   | 212707   |                                                   | 27   | RSS13/64TA27   | 244192   | -                                             |                  |          |
|           | 97             | 3906Y97D   | 202533   |                                                   | 100  | RSS13/64TA100  | 211744   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 3906Y110D  | 202532   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
|           | 197            | 3906Y197D  | 244066   |                                                   | 470  | RSS13/64TA470  | 244191   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3906Y220D  | 213612   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 230            | 3906Y230D  | 211770   |                                                   | 680  | RSS13/64TA680  | 214580   | -                                             |                  |          |
|           | 125            | 3906Y125D  | 211711   |                                                   | 180  | RSS13/64TA180  | 211744   | -                                             |                  |          |
| R7        | 20             | 3907Y20D   | 244058   | 16                                                | 5.6  | RSS13/64TA5,6  | 211735   | 24                                            | SKB-B80/70-4     | 211716   |
|           | 24             | 3907Y24D   | 244057   |                                                   | 5.6  | RSS13/64TA5,6  | 211735   | -                                             |                  |          |
|           | 40             | 3907Y40D   | 244056   |                                                   | 15   | RSS13/64TA15   | 211737   | 48                                            | SKB-B80/70-4     | 211716   |
|           | 48             | 3907Y48D   | 244737   |                                                   | 18   | RSS13/64TA18   | 211727   | -                                             |                  |          |
|           | 97             | 3907Y97D   | 244738   |                                                   | 82   | RSS13/64TA82   | 204177   | 110                                           | MSK-B250/220-1,5 | 209997   |
|           | 110            | 3907Y110D  | 202547   |                                                   | 100  | RSS13/64TA100  | 211743   | -                                             |                  |          |
|           | 197            | 3907Y197D  | 244059   |                                                   | 330  | RSS13/64TA330  | 211745   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3907Y220D  | 202548   |                                                   | 390  | RSS13/64TA390  | 211746   | -                                             |                  |          |
|           | 230            | 3907Y230D  | 211712   |                                                   | 1200 | RSS13/64TA1200 | 213034   | -                                             |                  |          |
|           | 125            | 3907Y125D  | 211713   |                                                   | 330  | RSS13/64TA330  | 211745   | -                                             |                  |          |
| R8        | 97             | 3908Y97D   | 212959   | 16                                                | 82   | RSS20/165TA82  | 214081   | 110                                           | SKB-B250/220-4   | 212165   |
|           | 110            | 3908Y110D  | 202565   |                                                   | 120  | RSS20/165TA120 | 213664   | -                                             |                  |          |
|           | 197            | 3908Y197D  | 214066   |                                                   | 390  | RSS20/165TA390 | 211748   | 220                                           | MSK-B250/220-1,5 | 209997   |
|           | 220            | 3908Y220D  | 202566   |                                                   | 470  | RSS20/165TA470 | 211739   | -                                             |                  |          |
| R9        | 97             | 3909Y97D   | 214146   | 140                                               | 100  | RSS20/165TA100 | 213663   | 110                                           | SKB-B30/08       | 211720   |
|           | 110            | 3909Y110D  | 202572   |                                                   | 150  | RSS20/165TA150 | 215004   | -                                             |                  |          |
|           | 197            | 3909Y197D  | 204181   |                                                   | 390  | RSS20/165TA390 | 211748   | 220                                           | SKB-B500/445-4   | 214501   |
|           | 220            | 3909Y220D  | 244739   |                                                   | 560  | RSS20/165TA560 | 244987   | -                                             |                  |          |

(1) To insert the resistors, use NC auxiliary contacts in series.

(2) Two 20x165 resistors connected in parallel, each with a resistive value listed in the table.



## Spare parts

| Contactors | Description                                                           | Cat. no.         | Ref. no. | Pack (units) |
|------------|-----------------------------------------------------------------------|------------------|----------|--------------|
| R1         | "Z" stationary part with 14A arc-quenching coil and spark suppressor  | 390/3921PFZCS14  | 202273   | 1            |
|            | "Z" stationary part with 25A arc-quenching coil and spark suppressor  | 390/3921PFZCS25  | 244172   | 1            |
|            | "Z" stationary part with 45A arc-quenching coil and spark suppressor  | 390/3921PFZCS45  | 202274   | 1            |
|            | "RN" stationary part with spark suppressor                            | 390/3921PFRN     | 244173   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3921PMZI     | 202276   | 1            |
|            | "RN" moving part (with pressure spring and strap)                     | 390/3921PMRN     | 202275   | 1            |
|            | Stationary and moving main contact, type 4/2 (intermittent operation) | 390/3921/2FOM4/2 | 214120   | 1            |
|            | Stationary and moving main contact, type 5/2 (continuous operation)   | 390/3922FOM5/2   | 214121   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3921PZ       | 202277   | 1            |
|            |                                                                       |                  |          |              |
|            |                                                                       |                  |          |              |
| R2         | "Z" stationary part with 45A arc-quenching coil and spark suppressor  | 390/3922PFZCS45  | 244744   | 1            |
|            | "Z" stationary part with 90A arc-quenching coil and spark suppressor  | 390/3922PFZCS90  | 202278   | 1            |
|            | "RN" stationary part with spark suppressor                            | 390/3922PFRN     | 212709   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3922PMZI     | 202279   | 1            |
|            | "RN" moving part (with pressure spring and strap)                     | 390/3922PMRN     | 213014   | 1            |
|            | Stationary and moving main contact, type 4/2 (intermittent operation) | 390/3921/2FOM4/2 | 214120   | 1            |
|            | Stationary and moving main contact, type 5/2 (continuous operation)   | 390/3922FOM5/2   | 214121   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3922PZ       | 202280   | 1            |
| R3         | "Z" stationary part with 75A arc-quenching coil and spark suppressor  | 390/3923PFZCS75  | 244745   | 1            |
|            | "Z" stationary part with 125A arc-quenching coil and spark suppressor | 390/3923PFZCS125 | 202281   | 1            |
|            | "RN" stationary part with spark suppressor                            | 390/3923PFRN     | 213986   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3923PMZI     | 202283   | 1            |
|            | "RN" moving part (with pressure spring and strap)                     | 390/3923PMRN     | 202282   | 1            |
|            | Stationary and moving main contact, type 4/2 (intermittent operation) | 390/3923/2FOM4/2 | 214122   | 1            |
|            | Stationary and moving main contact, type 5/2 (continuous operation)   | 390/3923FOM5/2   | 214123   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3923PZ       | 202284   | 1            |
| R4         | "Z" stationary part with 125A arc-quenching coil and spark suppressor | 390/3924PFZCS125 | 202288   | 1            |
|            | "Z" stationary part with 200A arc-quenching coil and spark suppressor | 390/3924PFZCS200 | 202289   | 1            |
|            | "RN" stationary part with spark suppressor                            | 390/3924PFRN     | 202287   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3924PMZI     | 202291   | 1            |
|            | "RN" moving part (with pressure spring and strap)                     | 390/3924PMRN     | 202290   | 1            |
|            | Stationary main contact, type 4/2 (intermittent operation)            | 390/3924F4       | 214124   | 1            |
|            | Moving main contact, type 4/2 (intermittent operation)                | 390/3924M4/2     | 214126   | 1            |
|            | Stationary main contact, 5/2 type (continuous operation)              | 390/3924F5/2     | 204178   | 1            |
|            | Moving main contact, type 5/2 (continuous operation)                  | 390/3924M5/2     | 214127   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3924PZ       | 202292   | 1            |
| R5         | "Z" stationary part with 125A arc-quenching coil and spark suppressor | 390/3925PFZCS150 | 213573   | 1            |
|            | "Z" stationary part with 320A arc-quenching coil and spark suppressor | 390/3925PFZCS320 | 202295   | 1            |
|            | "RN" stationary part with spark suppressor                            | 390/3925PFRN     | 244746   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3925PMZI     | 202298   | 1            |
|            | "RN" moving part (with pressure spring and strap)                     | 390/3925PMRN     | 202297   | 1            |
|            | Stationary main contact, type 4/2 (intermittent operation)            | 390/3925F4/2     | 214128   | 1            |
|            | Moving main contact, type 4/2 (intermittent operation)                | 390/3925M4/2     | 214130   | 1            |
|            | Stationary main contact, 5/2 type (continuous operation)              | 390/3925F5/2     | 214129   | 1            |
|            | Moving main contact, type 5/2 (continuous operation)                  | 390/3925M5/2     | 214131   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3925PZ       | 202299   | 1            |
| R5         | "Z" stationary part with 270A arc-quenching coil and spark suppressor | 390/3926PFZCS270 | 202303   | 1            |
|            | "Z" stationary part with 450A arc-quenching coil and spark suppressor | 390/3926PFZCS450 | 213574   | 1            |
|            | "Z" moving part (with pressure spring and strap)                      | 390/3926PMZI     | 202304   | 1            |
|            | Stationary main contact, type 4/2 (intermittent operation)            | 390/3926F4/2     | 214133   | 1            |
|            | Moving main contact, type 4/2 (intermittent operation)                | 390/3926M4/2     | 214135   | 1            |
|            | Stationary main contact, 5/2 type (continuous operation)              | 390/3926F5/2     | 214134   | 1            |
|            | Moving main contact, type 5/2 (continuous operation)                  | 390/3926M5/2     | 214136   | 1            |
|            | Spark suppressor for "Z" and "RN" poles                               | 390/3926PZ       | 202654   | 1            |

Order codes

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**Spare parts (continued)**

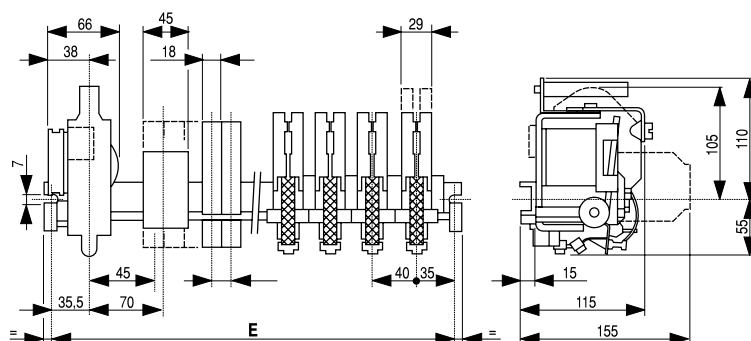
| Contactor | Description                                                           | Cat. no.         | Ref. no. | Pack (units) |
|-----------|-----------------------------------------------------------------------|------------------|----------|--------------|
| R7        | "Z" stationary part with 320A arc-quenching coil and spark suppressor | 390/3927PFZCS320 | 202307   | 1            |
|           | "Z" stationary part with 630A arc-quenching coil and spark suppressor | 390/3927PFZCS630 | 202308   | 1            |
|           | "RN" stationary part with spark suppressor                            | 390/3927PFRN     | 202306   | 1            |
|           | "Z" moving part (with pressure spring and strap)                      | 390/3927PMZI     | 202310   | 1            |
|           | "RN" moving part (with pressure spring and strap)                     | 390/3927PMRN     | 202309   | 1            |
|           | Stationary main contact, type 4/2 (intermittent operation)            | 390/3927F4/2     | 214137   | 1            |
|           | Moving main contact, type 4/2 (intermittent operation)                | 390/3927M4/2     | 214139   | 1            |
|           | Stationary main contact, 5/2 type (continuous operation)              | 390/3927F5/2     | 214138   | 1            |
|           | Moving main contact, type 5/2 (continuous operation)                  | 390/3927M5/2     | 214140   | 1            |
|           | Spark suppressor for "Z" and "RN" poles                               | 390/3927PZ       | 202311   | 1            |
|           |                                                                       |                  |          |              |
| R8        | "Z" stationary part with 400A arc-quenching coil and spark suppressor | 3908PFZCS400     | 202555   | 1            |
|           | "Z" stationary part with 800A arc-quenching coil and spark suppressor | 3908PFZCS800     | 202562   | 1            |
|           | "Z" moving part (with pressure spring and strap)                      | 3908PMZ          | 202563   | 1            |
|           | Stationary main contact, type 4/2 (intermittent operation)            | 3908F4/2         | 214144   | 1            |
|           | Moving main contact, type 4/2 (intermittent operation)                | 3908/9M4/2       | 214141   | 1            |
|           | Stationary main contact, 5/2 type (continuous operation)              | 3908F5/2         | 214145   | 1            |
|           | Moving main contact, type 5/2 (continuous operation)                  | 3908/9M5/2       | 214142   | 1            |
|           | Spark suppressor for "Z" and "RN" poles                               | 3908PZ           | 202564   | 1            |
|           |                                                                       |                  |          |              |
| R8        | "Z" stationary part with 1200A arc-quenching coil and spark suppr.    | 3909PFZCS120     | 244983   | 1            |
|           | "Z" moving part (with pressure spring and strap)                      | 3909PMZ          | 212962   | 1            |
|           | Stationary main contact, type 4/2 (intermittent operation)            | 3909F4/2         | 204179   | 1            |
|           | Moving main contact, type 4/2 (intermittent operation)                | 3908/9M4/2       | 214141   | 1            |
|           | Stationary main contact, 5/2 type (continuous operation)              | 3909F5/2         | 204180   | 1            |
|           | Moving main contact, type 5/2 (continuous operation)                  | 3908/9M5/2       | 214142   | 1            |
|           |                                                                       |                  |          |              |

## Operating categories

|                    |                          |               | R1... | R2... | R3... | R4... | R5... | R6...      | R7...      | R8...      | R9...      |
|--------------------|--------------------------|---------------|-------|-------|-------|-------|-------|------------|------------|------------|------------|
| AC-1               | Peak operating current   | 40°C (A)      | 45    | 90    | 125   | 250   | 320   | 450        | 630        | 800        | 1200       |
|                    | at ambient temp. of:     | 55°C (A)      | 45    | 90    | 125   | 250   | 320   | 450        | 600        | 750        | 1200       |
|                    | (for all rated voltages) | 70°C (A)      | 30    | 70    | 100   | 200   | 280   | 360        | 500        | 700        | 950        |
|                    | Max. operating power     | 230/220V (kW) | 17    | 30    | 45    | 90    | 114   | 170        | 195        | 240        | 450        |
|                    | Resistor III             | 400/380V (kW) | 29    | 55    | 75    | 155   | 196   | 310        | 330        | 410        | 750        |
|                    |                          | 440/415V (kW) | 32    | 57    | 85    | 180   | 227   | 340        | 330        | 500        | 900        |
|                    |                          | 500V (kW)     | 39    | 69    | 102   | 200   | 250   | 390        | 420        | 550        | 1030       |
|                    | Conductor                | (mm²)         | 10    | 35    | 50    | 120   | 185   | 2 x (30x5) | 2 x (40x5) | 2 x (60x5) | 4 x (50x5) |
|                    | Operation in % of peak   | 120 ops/h (%) | 100   | 100   | 100   | 100   | 100   | 100        | 100        | 100        | 50         |
|                    | operating current        | 300 ops/h (%) | 50    | 50    | 50    | 50    | 30    | 30         | 20         | 10         | 10         |
| AC-3               | Peak operating current   | Ue = 400V (A) | 40    | 90    | 110   | 200   | 320   | 450        | 630        | 800        | -          |
|                    | Max. operating power     | 230/220V (kW) | 11.5  | 26    | 36.5  | 72.5  | 93    | 130        | 184        | 232        | -          |
|                    |                          | 400/380V (kW) | 20    | 45    | 62    | 100   | 160   | 225        | 315        | 400        | -          |
|                    |                          | 440/415V (kW) | 20    | 45    | 68    | 100   | 160   | 225        | 315        | 400        | -          |
|                    |                          | 500V (kW)     | 20    | 45    | 72.5  | 120   | 165   | 280        | 400        | 500        | -          |
|                    | Use in % of peak         | 120 ops/h (%) | 100   | 100   | 100   | 100   | 100   | 100        | 100        | 100        | -          |
|                    | operating current        | 300 ops/h (%) | 50    | 50    | 50    | 50    | 50    | 50         | 30         | 30         | -          |
| AC-4               | Peak operating current   | Ue = 500V (A) | 18.5  | 44    | 55    | 110   | 125   | 150        | 165        | 250        | -          |
|                    | Operating power          | 230/220V (kW) | 4     | 11    | 15    | 33    | 37    | 45         | 50         | 80         | -          |
|                    | (200,000 switching       | (HP)          | 5.3   | 14.6  | 19.9  | 43.9  | 49.2  | 59.8       | 66.5       | 106        | -          |
|                    |                          | 400/380V (kW) | 9     | 22    | 28    | 55    | 63    | 80         | 90         | 132        | -          |
|                    |                          | (HP)          | 11.9  | 29.2  | 37.2  | 73.1  | 83.8  | 106        | 119.7      | 175.5      | -          |
|                    |                          | 500V (kW)     | 11    | 25    | 33    | 75    | 90    | 100        | 110        | 225        | -          |
|                    |                          | (HP)          | 14.6  | 33.2  | 43.9  | 99.7  | 119.7 | 133        | 146        | 299        | -          |
|                    | Peak operating current   | H 400V (A)    | 40    | 90    | 110   | 185   | 280   | 420        | 590        | 700        | -          |
|                    | Max. operating power     | 400/380V (kW) | 18.5  | 38    | 55    | 90    | 150   | 220        | 300        | 375        | -          |
|                    | Ue                       | Series poles  | R1... | R2... | R3... | R4... | R5... | R6...      | R7...      | R8...      | R9...      |
| DC1<br>L/R H 1ms   | 125V                     | 1             | 40    | 85    | 115   | 180   | 300   | 400        | 600        | 700        | 900        |
|                    |                          | 2             | 60    | 90    | 125   | 200   | 320   | 450        | 630        | 750        | 1000       |
|                    |                          | 3             | 60    | 90    | 125   | 200   | 320   | 450        | 630        | 800        | 1250       |
|                    |                          | 4             | 60    | 90    | 125   | 200   | 320   | 450        | 630        | 800        | 1250       |
|                    | 220V                     | 1             | 20    | 75    | 110   | 160   | 275   | 350        | 500        | 600        | 800        |
|                    |                          | 2             | 30    | 90    | 115   | 200   | 300   | 370        | 560        | 650        | 900        |
|                    |                          | 3             | 40    | 90    | 125   | 250   | 320   | 400        | 630        | 750        | 1000       |
|                    |                          | 4             | 40    | 90    | 125   | 250   | 320   | 450        | 630        | 800        | 1250       |
|                    | 440V                     | 1             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 2             | -     | 75    | 100   | 200   | 275   | 350        | 500        | 600        | 800        |
|                    |                          | 3             | 20    | 90    | 125   | 250   | 320   | 400        | 600        | 700        | 900        |
|                    |                          | 4             | 20    | 90    | 125   | 250   | 320   | 450        | 630        | 800        | 1000       |
| DC3<br>L/R H 2.5ms | 125V                     | 1             | 30    | 75    | 100   | 170   | 280   | 380        | 550        | 650        | -          |
|                    |                          | 2             | 40    | 80    | 110   | 200   | 320   | 450        | 630        | 800        | -          |
|                    |                          | 3             | 45    | 90    | 110   | 200   | 320   | 450        | 630        | 800        | -          |
|                    |                          | 4             | 45    | 100   | 120   | 220   | 340   | 480        | -          | -          | -          |
|                    | 220V                     | 1             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 2             | 15    | 65    | 90    | 155   | 245   | 340        | 460        | 550        | -          |
|                    |                          | 3             | 20    | 90    | 110   | 200   | 320   | 450        | 630        | 800        | -          |
|                    |                          | 4             | 25    | 90    | 110   | 200   | 320   | 450        | 630        | 800        | -          |
|                    | 440V                     | 1             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 2             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 3             | 10    | 55    | 75    | 120   | 200   | 300        | 400        | 500        | -          |
|                    |                          | 4             | 13    | 70    | 100   | 160   | 260   | 400        | 550        | 660        | -          |
| DC5<br>L/R H 15ms  | 125V                     | 1             | 27    | 50    | 70    | 90    | 240   | 320        | 400        | 500        | -          |
|                    |                          | 2             | 35    | 70    | 90    | 150   | 280   | 380        | 450        | 550        | -          |
|                    |                          | 3             | 40    | 90    | 100   | 200   | 320   | 420        | 500        | 600        | -          |
|                    |                          | 4             | 40    | 90    | 110   | 200   | 320   | 450        | 500        | 650        | -          |
|                    | 220V                     | 1             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 2             | 13    | 55    | 80    | 140   | 220   | 300        | 410        | 490        | -          |
|                    |                          | 3             | 18    | 80    | 100   | 180   | 290   | 400        | 560        | 700        | -          |
|                    |                          | 4             | 22    | 80    | 100   | 180   | 290   | 400        | 560        | 700        | -          |
|                    | 440V                     | 1             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 2             | -     | -     | -     | -     | -     | -          | -          | -          | -          |
|                    |                          | 3             | 9     | 50    | 67    | 100   | 180   | 270        | 360        | 450        | -          |
|                    |                          | 4             | 11    | 60    | 90    | 130   | 224   | 360        | 480        | 600        | -          |

### Dimensional drawings

#### R1..., R2...

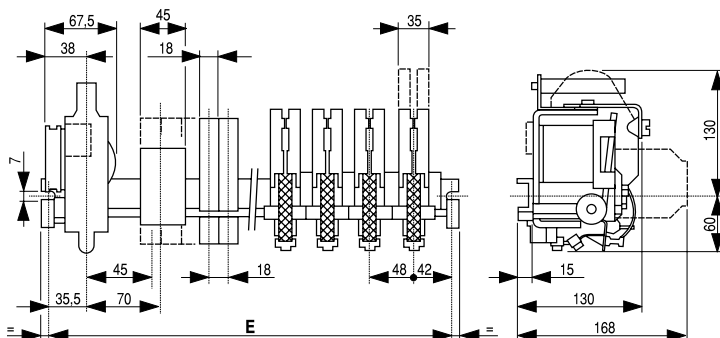


Contact combination

| "Z" main pole (1) | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|-------------------|---------------------------|---------|---------|--------------------------|
| 1                 | 1                         | 1       | 1       | 150                      |
|                   | 3                         | 3       | 3       | 200                      |
|                   | 6                         | 6       | 4       | 250                      |
|                   | 9                         | 6       | 4       | 300                      |
|                   | 10                        | 6       | 4       | 350                      |
| 2                 | 10                        | 6       | 4       | 400                      |
|                   | 1                         | 1       | 1       | 200                      |
|                   | 4                         | 4       | 4       | 250                      |
|                   | 7                         | 6       | 4       | 300                      |
|                   | 9                         | 6       | 4       | 350                      |
| 3                 | 9                         | 6       | 4       | 400                      |
|                   | 2                         | 2       | 2       | 250                      |
|                   | 5                         | 5       | 4       | 300                      |
|                   | 7                         | 6       | 4       | 350                      |
|                   | 7                         | 6       | 4       | 400                      |
| 4                 | 2                         | 2       | 2       | 300                      |
|                   | 5                         | 5       | 4       | 350                      |
|                   | 5                         | 5       | 4       | 400                      |

(1) A "RN" pole can be used to replace one of the "Z" poles. To use a higher number of "RN" poles, contact the manufacturer.

#### R3...

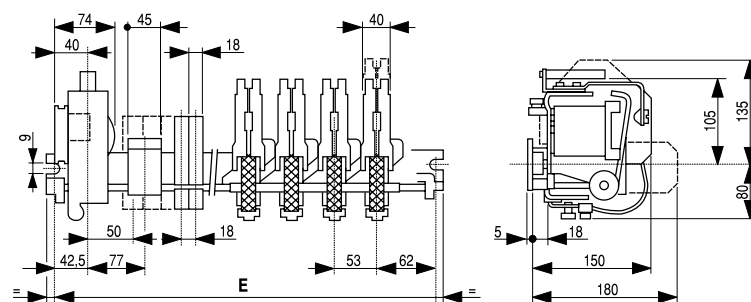


Contact combination

| "Z" main pole (1) | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|-------------------|---------------------------|---------|---------|--------------------------|
| 1                 | -                         | -       | -       | 150                      |
|                   | 3                         | 3       | 3       | 200                      |
|                   | 6                         | 6       | 4       | 250                      |
|                   | 9                         | 6       | 4       | 300                      |
|                   | 10                        | 6       | 4       | 350                      |
| 2                 | 10                        | 6       | 4       | 400                      |
|                   | -                         | -       | -       | 200                      |
|                   | 3                         | 3       | 3       | 250                      |
|                   | 6                         | 6       | 4       | 300                      |
|                   | 8                         | 6       | 4       | 350                      |
| 3                 | 9                         | 6       | 4       | 400                      |
|                   | -                         | -       | -       | 250                      |
|                   | 3                         | 3       | 3       | 300                      |
|                   | 6                         | 6       | 4       | 350                      |
|                   | 7                         | 6       | 4       | 400                      |
| 4                 | -                         | -       | -       | 300                      |
|                   | 3                         | 3       | 3       | 350                      |
|                   | 4                         | 4       | 4       | 400                      |

(1) A "RN" pole can be used to replace one of the "Z" poles. To use a higher number of "RN" poles, contact the manufacturer.

#### R4...

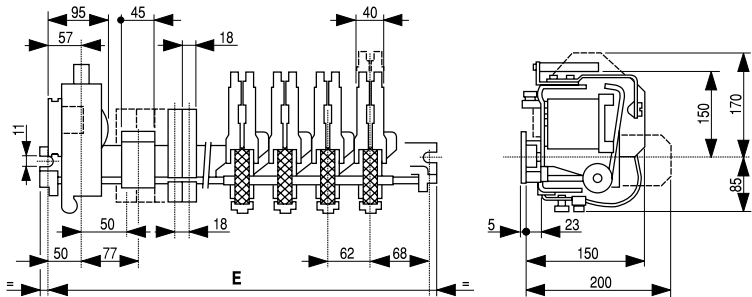


Contact combination

| "Z" main pole (1) | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|-------------------|---------------------------|---------|---------|--------------------------|
| 1                 | 3                         | 3       | 3       | 250                      |
|                   | 6                         | 6       | 4       | 300                      |
|                   | 9                         | 6       | 4       | 350                      |
|                   | 10                        | 6       | 4       | 400                      |
|                   | 10                        | 6       | 4       | 450                      |
| 2                 | -                         | -       | -       | 250                      |
|                   | 3                         | 3       | 3       | 300                      |
|                   | 6                         | 6       | 4       | 350                      |
|                   | 9                         | 6       | 4       | 400                      |
|                   | 10                        | 6       | 4       | 450                      |
| 3                 | -                         | -       | -       | 300                      |
|                   | 3                         | 3       | 3       | 350                      |
|                   | 6                         | 6       | 4       | 400                      |
|                   | 9                         | 6       | 4       | 450                      |
|                   | 9                         | 6       | 4       | 450                      |
| 4                 | 3                         | 3       | 3       | 400                      |
|                   | 4                         | 4       | 3       | 450                      |

(1) A "RN" pole can be used to replace one of the "Z" poles. To use a higher number of "RN" poles, contact the manufacturer.

R5...

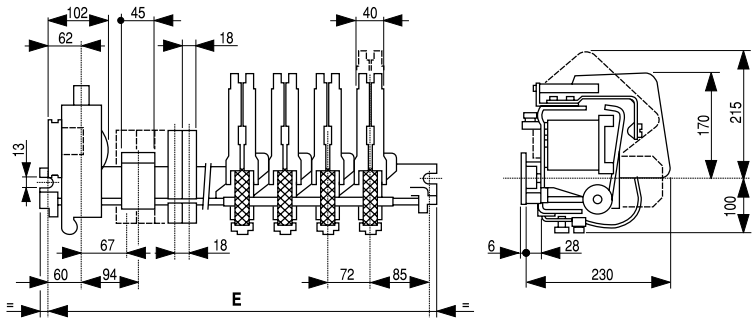


Contact combination

| "Z" main pole (1) | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|-------------------|---------------------------|---------|---------|--------------------------|
| 1                 | 2                         | 2       | 2       | 250                      |
|                   | 5                         | 5       | 4       | 300                      |
|                   | 8                         | 6       | 4       | 350                      |
|                   | 10                        | 6       | 4       | 400                      |
|                   | 10                        | 6       | 4       | 450                      |
| 2                 | 10                        | 6       | 4       | 500                      |
|                   | 2                         | 2       | 2       | 300                      |
|                   | 4                         | 4       | 4       | 350                      |
|                   | 7                         | 6       | 4       | 400                      |
|                   | 10                        | 6       | 4       | 450                      |
| 3                 | 10                        | 6       | 4       | 500                      |
|                   | 1                         | -       | -       | 350                      |
|                   | 4                         | 4       | 4       | 400                      |
|                   | 6                         | 6       | 4       | 450                      |
|                   | 7                         | 6       | 4       | 500                      |
| 4                 | -                         | -       | -       | 400                      |
|                   | 3                         | 3       | 3       | 450                      |
|                   | 3                         | 3       | 3       | 500                      |

(1) A "RN" pole can be used to replace one of the "Z" poles. To use a higher number of "RN" poles, contact the manufacturer.

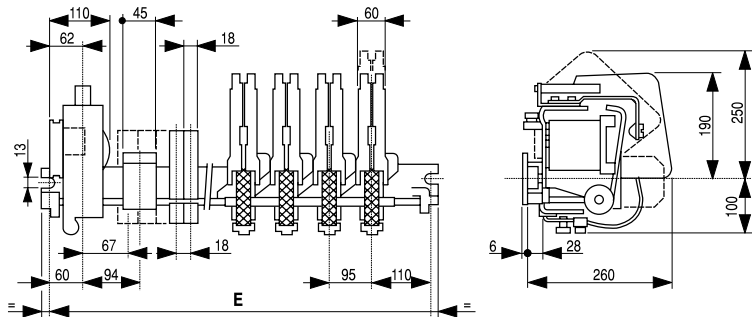
R6...



Contact combination

| "Z" main pole | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|---------------|---------------------------|---------|---------|--------------------------|
| 1             | 5                         | 2       | 4       | 350                      |
|               | 8                         | 6       | 4       | 400                      |
|               | 10                        | 6       | 4       | 450                      |
|               | 10                        | 6       | 4       | 500                      |
|               | 10                        | 6       | 4       | 600                      |
| 2             | 10                        | 6       | 4       | 700                      |
|               | 1                         | 1       | 1       | 350                      |
|               | 4                         | 4       | 4       | 400                      |
|               | 7                         | 6       | 4       | 450                      |
|               | 9                         | 6       | 4       | 500                      |
| 3             | 10                        | 6       | 4       | 600                      |
|               | 10                        | 6       | 4       | 700                      |
|               | 2                         | 2       | 2       | 450                      |
|               | 5                         | 5       | 4       | 500                      |
|               | 7                         | 6       | 4       | 600                      |
| 4             | 7                         | 6       | 4       | 700                      |
|               | 1                         | 1       | 1       | 500                      |
|               | 2                         | 2       | 2       | 600                      |
|               | 2                         | 2       | 2       | 700                      |

R7...



Contact combination

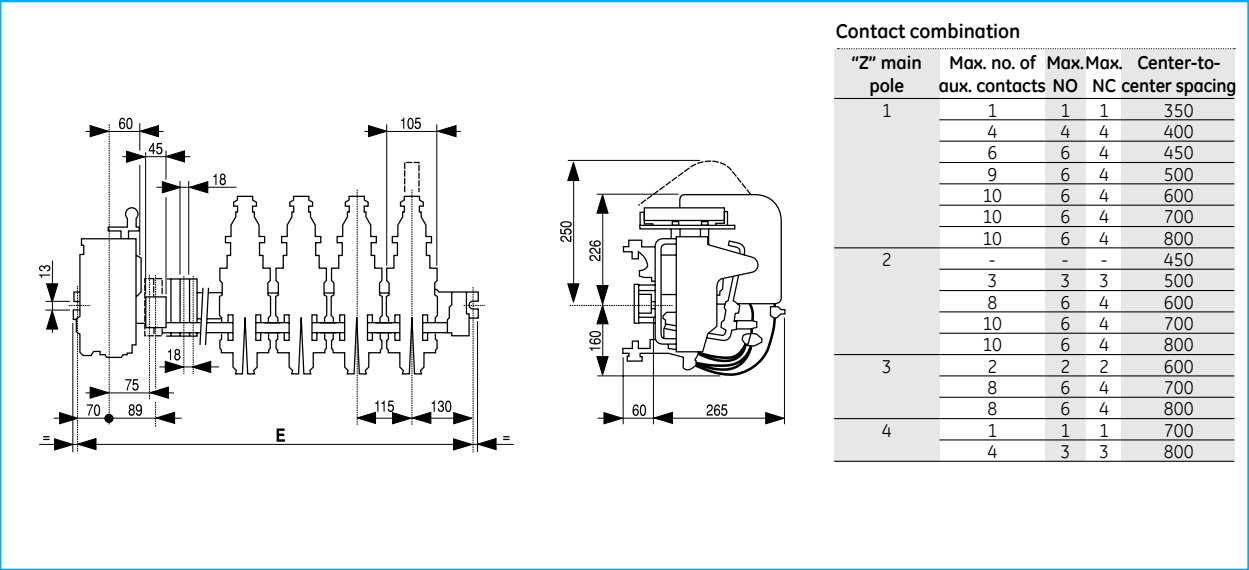
| "Z" main pole (1) | Max. no. of aux. contacts | Max. NO | Max. NC | Center-to-center spacing |
|-------------------|---------------------------|---------|---------|--------------------------|
| 1                 | 4                         | 4       | 4       | 350                      |
|                   | 6                         | 6       | 4       | 400                      |
|                   | 9                         | 6       | 4       | 450                      |
|                   | 10                        | 6       | 4       | 500                      |
|                   | 10                        | 6       | 4       | 600                      |
| 2                 | 10                        | 6       | 4       | 700                      |
|                   | 1                         | 1       | 1       | 400                      |
|                   | 4                         | 4       | 4       | 450                      |
|                   | 7                         | 6       | 4       | 500                      |
|                   | 10                        | 6       | 4       | 600                      |
| 3                 | 10                        | 6       | 4       | 700                      |
|                   | 1                         | 1       | 1       | 500                      |
|                   | 7                         | 6       | 4       | 600                      |
| 4                 | 8                         | 6       | 4       | 700                      |
|                   | 2                         | 2       | 2       | 600                      |
|                   | 5                         | 5       | 3       | 700                      |

(1) A "RN" pole can be used to replace one of the "Z" poles. To use a higher number of "RN" poles, contact the manufacturer.

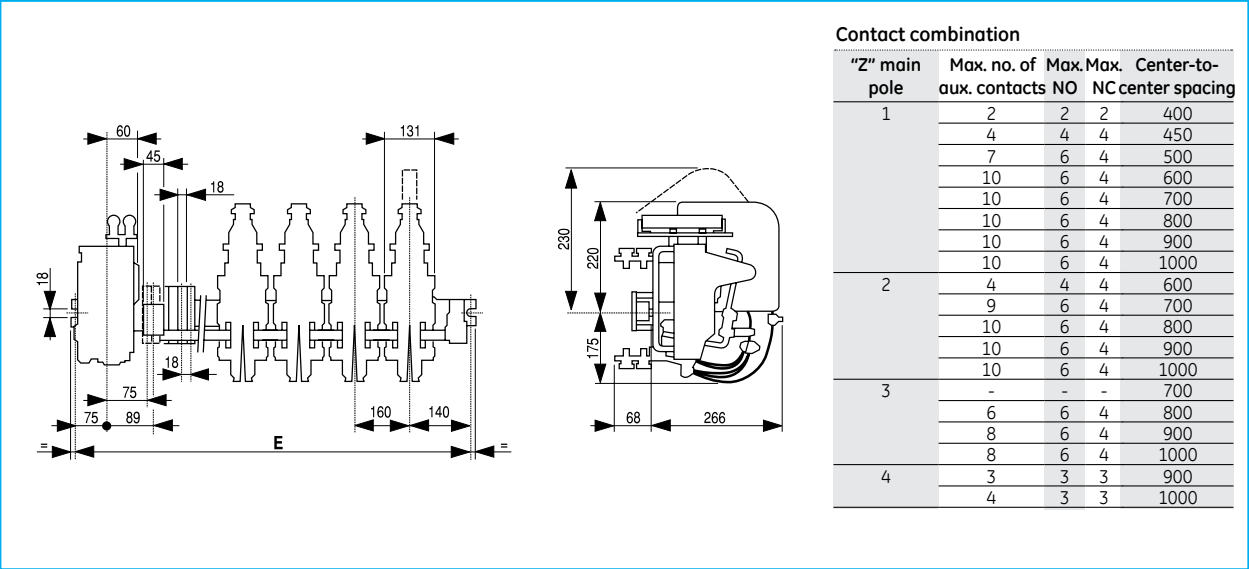


Dimensional drawings

R8...



R9...



## Notes

## Notes

## Notes

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