

Auxiliary contactors $I_{th} = 16A$

- Control circuit: Alternating current up to 600V
Direct current up to 250V
- Terminal numbering in accordance with EN 50011
- Fixing system for rapid and simple mounting by clamping onto standard 35 mm DIN rail (EN 50022).
- Screw and push-on terminals protected against accidental contacts in accordance with VDE 0106 T.100 and VBG4.
- Printed circuit version.
- Ring terminal version.
- Facility to mount instant or timed auxiliary contact blocks and voltage suppressor blocks.
- Maximum number of auxiliary contacts to add: 6
- Degree of protection IP20 (EN 60529).
- According to IEC/EN 60947-1.

Standards

| | |
|------------------|----------------|
| IEC/EN 60947-5-1 | BS 4794 |
| IEC/EN 60947-1 | CENELEC HD 420 |
| EN 50002 | NFC 63-110 |
| EN 50005 | NFC 63-140 |
| EN 50011 | CSA C22.2/14 |
| UL 508 | VDE 0660 |

General data

| | | | | | | | | |
|--|----------|-----|---------|---------|-----|-----|-----|---------|
| Maximum number of contacts (MCR...) | 4 | | | | | | | |
| Rated thermal current (I_{th}) $\theta \leq 60^\circ$ | (A) 16 | | | | | | | |
| Rated operational voltage (U_e) acc. IEC 60947-1 | (V) 690 | | | | | | | |
| Insulation voltage (U_i) acc. IEC 60947-1 | (V) 750 | | | | | | | |
| Utilisation category: | | | | | | | | |
| AC-15 | V | 110 | 220/240 | 380/400 | 415 | 440 | 500 | 660/690 |
| | A | 6 | 6 | 4 | 4 | 3 | 2.5 | 1.5 |
| DC-13 | V | 24 | 48 | 110 | 220 | | | |
| | A | 5 | 3.5 | 1.2 | 0.6 | | | |

Approvals



Lloyd's Register

Bureau Veritas

RINA

Standard voltages

To complete the catalogue number, replace the symbol \blacklozenge by the code corresponding to the voltage and frequency of the control circuit.

Alternating current (V). Bifrequency coil

| | | | | | | | | | | | | |
|-----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| \blacklozenge | 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 | | | | | | | | |

Voltage operating limits of dual-frequency coil:

at 60Hz = $0.85 \text{ a } 1.1 \times U_s$

at 50Hz = $0.8 \text{ a } 1.1 \times U_s$ for uninterrupted duty (ED=100%), temperature = 40°C

Alternating current (V)

| | | | | | | | | | | |
|-----------------|---|----|----|-----|-----|-----|-----|-----|-----|-----|
| \blacklozenge | 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)

| | | | | | | | | | | | | | | | | | |
|-----------------|---|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| \blacklozenge | 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 |


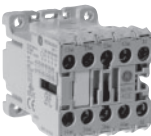



Direct current (V) - Wide voltage range

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

- Order codes ● pg. B.9
- Auxiliary contacts blocks ● pg. B.10
- Accessories ● pg. B.12
- Technical data ● pg. B.26
- Dimensions ● pg. B.34





Auxiliary contactors

| | Contacts acc. EN 50011 | | Control circuit: alternating current | | | Control circuit: direct current | | | | |
|---|---|-----|--------------------------------------|---------------------|------|---------------------------------|---------------------|------|---|----|
| | •3 | •1 | Cat. no. ⁽¹⁾ | Ref. no. see bottom | Pack | Cat. no. ⁽¹⁾ | Ref. no. see bottom | Pack | | |
| | •4 | •2 | | | | | | | | |
|  | Screw terminal | | | | | | | | | |
| | 40E | 4 0 | MCRA040AT | ◆ | 5 | MCRC040AT | ◆ | 10 | | |
| | 31E | 3 1 | MCRA031AT | ◆ | 5 | MCRC031AT | ◆ | 10 | | |
| | 22E | 2 2 | MCRA022AT | ◆ | 5 | MCRC022AT | ◆ | 10 | | |
| | 13E | 1 3 | MCRA013AT | ◆ | 5 | | | | | |
| | 04E | 0 4 | MCRA004AT | ◆ | 5 | | | | | |
|  | Ring terminal | | | | | | | | | |
| | 40E | 4 0 | MCRA040AR | ◆ | 5 | MCRC040AR | ◆ | 10 | | |
| | 31E | 3 1 | MCRA031AR | ◆ | 5 | MCRC031AR | ◆ | 10 | | |
| | 22E | 2 2 | MCRA022AR | ◆ | 5 | MCRC022AR | ◆ | 10 | | |
| | 13E | 1 3 | MCRA013AR | ◆ | 5 | | | | | |
| | 04E | 0 4 | MCRA004AR | ◆ | 5 | | | | | |
|  | Terminal: faston 2x2,8 insulated (2) | | | | | | | | | |
| | 40E | 4 0 | MCRA040AF | ◆ | 5 | MCRC040AF | ◆ | 10 | | |
| | 31E | 3 1 | MCRA031AF | ◆ | 5 | MCRC031AF | ◆ | 10 | | |
| | 22E | 2 2 | MCRA022AF | ◆ | 5 | MCRC022AF | ◆ | 10 | | |
| | 13E | 1 3 | MCRA013AF | ◆ | 5 | | | | | |
| | 04E | 0 4 | MCRA004AF | ◆ | 5 | | | | | |
|  | Terminal: printed circuit | | | | | | | | | |
| | 40E | 4 0 | MCRA040AI | ◆ | 5 | MCRC040AI | ◆ | 10 | | |
| | 31E | 3 1 | MCRA031AI | ◆ | 5 | MCRC031AI | ◆ | 10 | | |
| | 22E | 2 2 | MCRA022AI | ◆ | 5 | MCRC022AI | ◆ | 10 | | |
| | 13E | 1 3 | MCRA013AI | ◆ | 5 | | | | | |
| | 04E | 0 4 | MCRA004AI | ◆ | 5 | | | | | |
|  | Spare coil | | MB0A | | ◆ | 10 | MBOC | | ◆ | 10 |

- (1) To complete the catalogue number, replace the symbol ◆ by the code corresponding to the voltage and frequency of the control circuit. (see pg.A.16).
 (2) Terminal: - with wire 1.5 mm²: I_e = 16A - with wire 1 mm²: I_e = 10A
 Insulated terminal type B2.8x0.8 with wire 1 mm²: I_e = 8A to DIN 46247
 Faston terminal 1 x 6.3 on request, replace the letter **F** by **H** in the catalogue number

Auxiliary contactors interface

| | Contacts acc. to EN 50011 | | Control circuit: direct current 24V / 1.2W ⁽³⁾ | | | Control circuit: direct current 24V / 2W ⁽⁴⁾ | | | | |
|---|---------------------------|-----|---|----------|--------|---|----------|------|--------|----|
| | •3 | •1 | Operating limits from 19 to 30V (0.8-1.25xUs) | | | Operating limits from 17 to 30V (0.7-1.25xUs) | | | | |
| | •4 | •2 | Cat. no. | Ref. no. | Pack | Cat. no. | Ref. no. | Pack | | |
|  | Screw terminal | | | | | | | | | |
| | 40E | 4 0 | MCRI040ATD | 100530 | 10 | MCRK040ATD | 100533 | 10 | | |
| | 31E | 3 1 | MCRI031ATD | 100531 | 10 | MCRK031ATD | 100534 | 10 | | |
| | 22E | 2 2 | MCRI022ATD | 100532 | 10 | MCRK022ATD | 100535 | 10 | | |
|  | Spare coil | | MB0ID | | 100470 | 10 | MBOKD | | 100471 | 10 |

- (3) No possibility of adding instantaneous auxiliary blocks.
 (4) Facility to mount instantaneous auxiliary contact block of two contacts (MARN2..) or two instantaneous auxiliary contact blocks of one contact (MARL1..).

For reference numbers, see chapter X, pg. X.6

