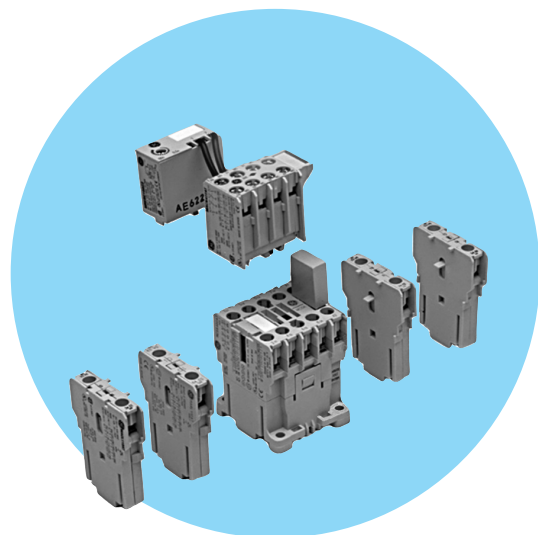




Standards

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

Approvals



Lloyd's Register



Bureau Veritas



RINA

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 35mm DIN rail (EN 50022).
- 6kV rated impulse withstand strength
- 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.

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

Standard voltages

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

AC Coils

AC	1	2	9	J	K	M	6	7	N	U	W	Y
50/60Hz	24	42	48				220-230	240				
50 Hz				110-115	115-127					380-400	415-440	500
60Hz				110-120		208-220			277	440	480	600

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

DC Coils

-	B	D	G	J
Voltage	12	24	48	110

DC Wide Range Coils

-	WD	WG	WI	WJ	WL	WN	WS
Voltage	24	48	72	110	125	220	250

Operating voltage limits with DC coils:

Standard = $0.8 \text{ to } 1.1 \times U_s$

Wide range = $0.7 \text{ to } 1.3 \times U_s$

- Order codes ● page B.9
 Auxiliary contacts blocks ● page B.10
 Accessories ● page B.12
 Technical data ● page B.29
 Dimensions ● page B.37



Auxiliary contactors



Contacts acc. EN 50011			Control circuit: alternating current			Control circuit: direct current		
			Cat. no. ⁽¹⁾	Ref. no. see bottom	Pack.	Cat. no. ⁽¹⁾	Ref. no. see bottom	Pack.
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	MCRC013AT ♦		10
04E	0	4	MCRA004AT ♦		5	MCRC004AT ♦		10
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	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 pag. B.8).

(2) Terminal: - with wire 1.5mm²: I_e = 16A - with wire 1mm²: I_e = 10A
 Insulated terminal type B 2.8x0.8 with wire 1mm²: I_e = 8A to DIN 46247
 Faston terminal 1x6.3 on request, replace the letter F by H in the catalogue number

Auxiliary contactors interface



Contacts acc. EN 50011			Control circuit: direct current 24V / 1.2W ⁽³⁾			Control circuit: direct current 24V / 2W ⁽⁴⁾		
			Operating limits from 19 to 30V (0.8-1.25xus)			Operating limits from 17 to 30V (0.7-1.25xUs)		
			Cat. no.	Ref. no.	Pack.	Cat. no.	Ref. no.	Pack.
Screw terminal								
40E	4	0	MCRI040ATD	100530	5	MCRK040ATD	100533	10
31E	3	1	MCRI031ATD	100531	5	MCRK031ATD	100534	10
22E	2	2	MCRI022ATD	100532	5	MCRK022ATD	100535	10
Spare coil			MB0ID	100470	10	MB0KD	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...).

