

Miniature and motor contactors, auxiliary contactors and overload relays

Advantages



→ Miniature contactors CEC have possibility to be mounted on printed circuit board with special connection module.



→ Contactors CEI series (kit) with mechanical interlock - solution for Reversing the motor or implementation of schemes star delta



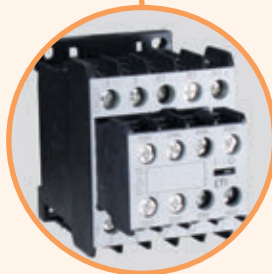
→ Special socket for RC noise filters (surge suppressors)



→ Additional time delay relays mounted on side of contactor



→ Mechanical interlock assures also mounting of auxiliary contacts



→ Front mounted auxiliary contact block



→ Overload protection relays (bimetal)

Miniature and auxiliary contactor CE, CAE, CEI7

Application:

Miniature contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 7,5kW (at 400V AC3 duty), and auxiliary contactors are used for realizing a wide range of control circuits.

Advantages:

- Mounting on DIN rail and mounting plates
- Small size and high technical performance
- Low power loss (current heat loss)
- Protection against direct contact from front (IEC 536) IP20
- Wide range of accessories
- Surge suppressor (as option)
- Reversing starter with mechanical interlock
- Control voltage 24VAC, 48VAC, 110VAC, 230VAC, 400VAC



Miniature contactor CE07, 16 A (AC1), 7A, 3 kW (AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CE07.10-24V-50/60Hz	004641020		130	1
CE07.10-48V-50/60Hz	004641021			
CE07.10-110V-50/60Hz	004641022			
CE07.10-230V-50/60Hz	004641023			
CE07.10-400V-50/60Hz	004641024		130	1
CE07.01-24V-50/60Hz	004641010			
CE07.01-48V-50/60Hz	004641011			
CE07.01-110V-50/60Hz	004641012			
CE07.01-230V-50/60Hz	004641013			
CE07.01-400V-50/60Hz	004641014			



Miniature contactor relay CAE0; 6A (AC15, 230V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CAE04.22-230V-50/60Hz	004641343		180	1
CAE04.22-24V-50/60Hz	004641340			
CAE04.31-230V-50/60Hz	004641363			
CAE04.31-24V-50/60Hz	004641360			
CAE04.13-230V-50/60Hz	004641353			
CAE04.13-24V-50/60Hz	004641350			
CAE04.40-230V-50/60Hz	004641383			
CAE04.40-24V-50/60Hz	004641380			

Miniature contactors CE and CEC

Technical data								
Type		CE07	CEC07	CEC09	CEC012	CEC016	CECA0	CAE04
Standards		IEC/EN 60 947, DIN VDE 0660, UL, CSA						
Rated insulation voltage U_i according to IEC/EN 60947, DIN VDE 0660	V	415 V			690 V			415 V
Rated impulse withstand voltage U_{imp}					4 kV			
Rated operational frequency					25 - 400 Hz			
Degree of protection								
Main circuits					IP20			
Control circuits and auxiliary contacts					IP20			
Ambient temperature								
Operating temperature					-25 ... +55°C			
Storage temperature					-55 ... +80°C			
Altitude								
Normal values					< 3000 m			
90% I_e / 80% U_e					3000 ... 4000 m			
80% I_e / 75% U_e					4000 ... 5000 m			
Overvoltage category / Pollution degree								
Climatic proofing					III/3			
Number of main poles		3		3			4	4
Rated operational voltage U_e		400-415 V			690 V			400-415 V
Conv. thermal current I_{th} at < 55°C								
rated operational current I_e / AC-1		16 A	18 A	20 A	22 A	22 A	10 A	16 A
AC3 Utilization category								
Rated operational power								
230 V	kW	1,5	1,5	2,2	3	4	-	-
400/415 V	kW	3	3	4	5,5	7,5	-	-
440 V	kW	-	3,7	4,5	5,5	7,5	-	-
500 V	kW	-	3,7	4,5	5,5	7,5	-	-
690 V	kW	-	3,7	5,5	7,5	7,5	-	-
AC4 Utilization category								
Rated operational current I_e AC-4 ($U_e \leq 440V$)			2,8	3,5	4,5	5		
Short circuit rating, max. fuse gG (A)		16	20	20	25	25	6	6
Max. electrical operating frequency								
AC-1	Ops/h	50			300		-	-
AC-3	Ops/h	300			600		-	-
AC-4	Ops/h	250			300		-	-
no load	Ops/h	2000			2500		2500	2500
Mechanical life span	Ops x 10 ⁶				10			
Electrical life span	Ops x 10 ⁶	0,8	1,4	1,3	1,2	1,1	1	1
Maximum number of auxiliary contacts		-			5		-	-
Rated operational current I_e								
AC-15	220-230 V	A	-	-	-	-	10	6
	380-400 V	A	-	-	-	-	6	4
	415 V	A	-	-	-	-	5	-
	500 V	A	-	-	-	-	4	-
	690 V	A					2	
DC-13	24 V	A	-	-	-	-	6,0	2,5
	48 V	A	-	-	-	-	4,0	1,5
	110 V	A	-	-	-	-	2	0,7
	220 V	A	-	-	-	-	0,7	0,35
Auxiliary contacts reliability								
Terminal capacity	mm ²				1 x / 2 x (0,5...2,5)			
Tightening torque	Nm	0,8			1...1,5			0,8
							U_e min=17 V, I_e min=5 mA	U_e min=24 V, I_e min=30 mA