

Miniature and auxiliary contactor CEC

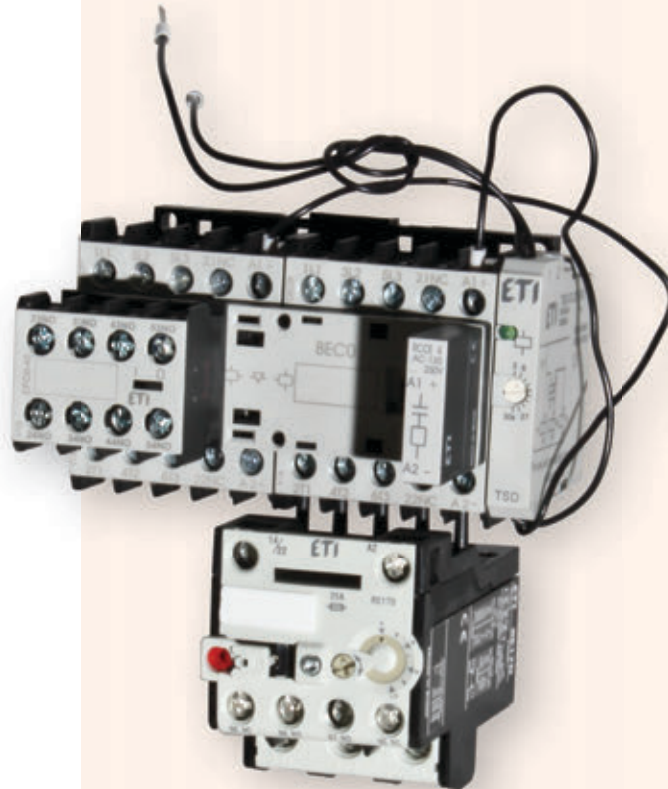
Application:

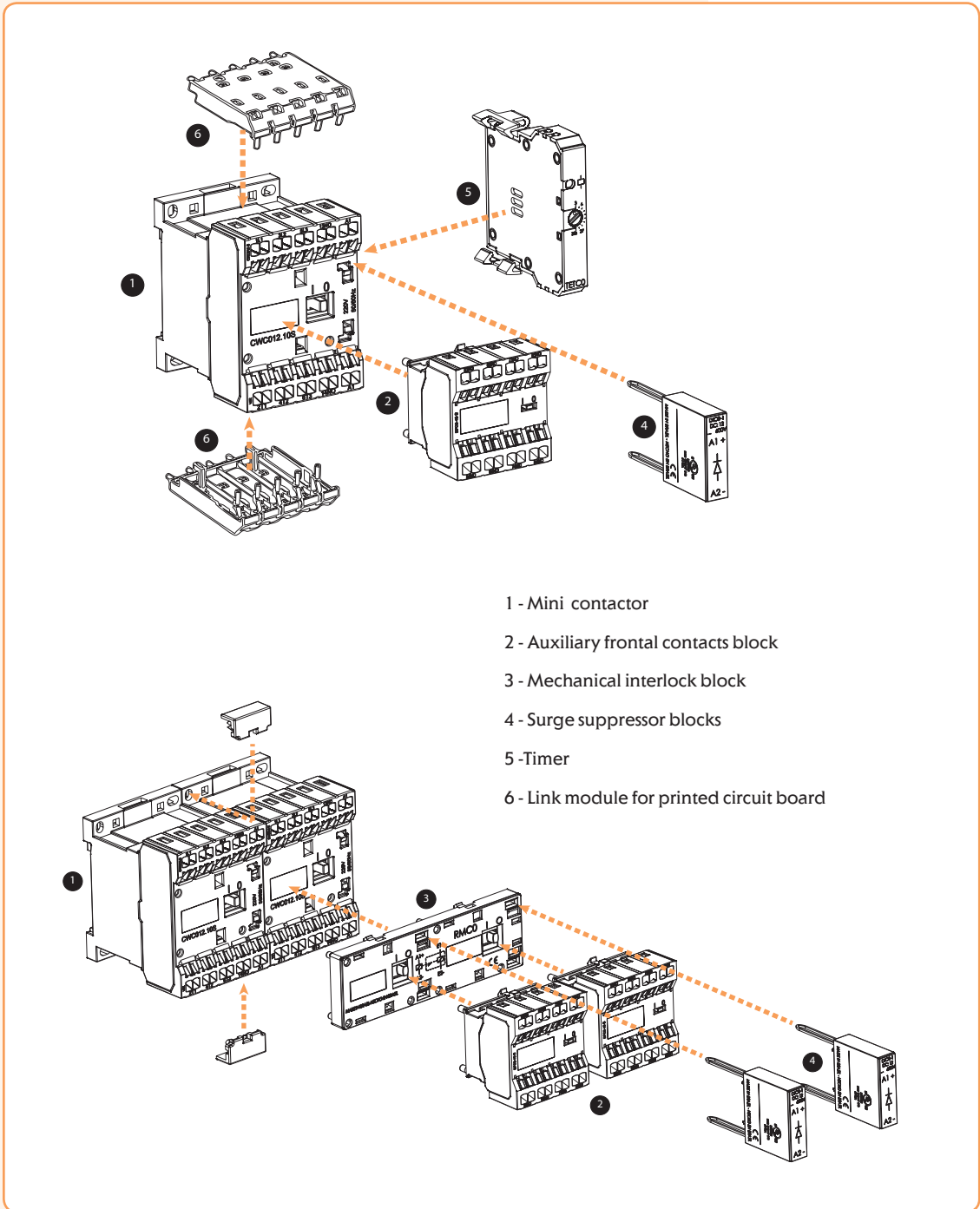
Miniature contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 7,5kW (at 400V AC3 duty), and auxiliary contactors are used for realizing a wide range of control circuits.

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, 24 VDC, 48 VDC, 110 VDC, 220 VDC

Example of CEC configuration:





Miniature contactors CEC012; 22A(AC1); 12A,5,5kW(AC3 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEC012.10-24V-50/60Hz	004641074		180	1
CEC012.10-42V-50/60Hz	004641075			
CEC012.10-48V-50/60Hz	004641076			
CEC012.10-110V-50/60Hz	004641077			
CEC012.10-230V-50/60Hz	004641078			
CEC012.10-400V-50/60Hz	004641079			
CEC012.10-24VDC	004641104			
CEC012.10-48VDC	004641142			
CEC012.10-110VDC	004641143			
CEC012.10-220VDC	004641144			
CEC012.01-24V-50/60Hz	004641080			
CEC012.01-42V-50/60Hz	004641081			
CEC012.01-48V-50/60Hz	004641082			
CEC012.01-110V-50/60Hz	004641083		180	1
CEC012.01-230V-50/60Hz	004641084			
CEC012.01-400V-50/60Hz	004641085			
CEC012.01-24VDC	004641105			
CEC012.01-48VDC	004641145			
CEC012.01-110VDC	004641146			
CEC012.01-220VDC	004641147			


Miniature contactors CEC016; 22A(AC1); 16A,7,5kW(AC3 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEC016.10-24V-50/60Hz	004641086		180	1
CEC016.10-42V-50/60Hz	004641087			
CEC016.10-48V-50/60Hz	004641088			
CEC016.10-110V-50/60Hz	004641089			
CEC016.10-230V-50/60Hz	004641090			
CEC016.10-400V-50/60Hz	004641091			
CEC016.10-24VDC	004641106			
CEC016.10-48VDC	004641148			
CEC016.10-110VDC	004641149			
CEC016.10-220VDC	004641150			
CEC016.01-24V-50/60Hz	004641092			
CEC016.01-42V-50/60Hz	004641093			
CEC016.01-48V-50/60Hz	004641094			
CEC016.01-110V-50/60Hz	004641095		180	1
CEC016.01-230V-50/60Hz	004641096			
CEC016.01-400V-50/60Hz	004641097			
CEC016.01-24VDC	004641107			
CEC016.01-48VDC	004641151			
CEC016.01-110VDC	004641152			
CEC016.01-220VDC	004641153			



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					IEC 60 680-2			
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)		U_e min=17 V, I_e min=5 mA	U_e min=24 V, I_e min=30 mA
Tightening torque	Nm	0,8			1...1,5			0,8