

Miniature and auxiliary contactor CEC

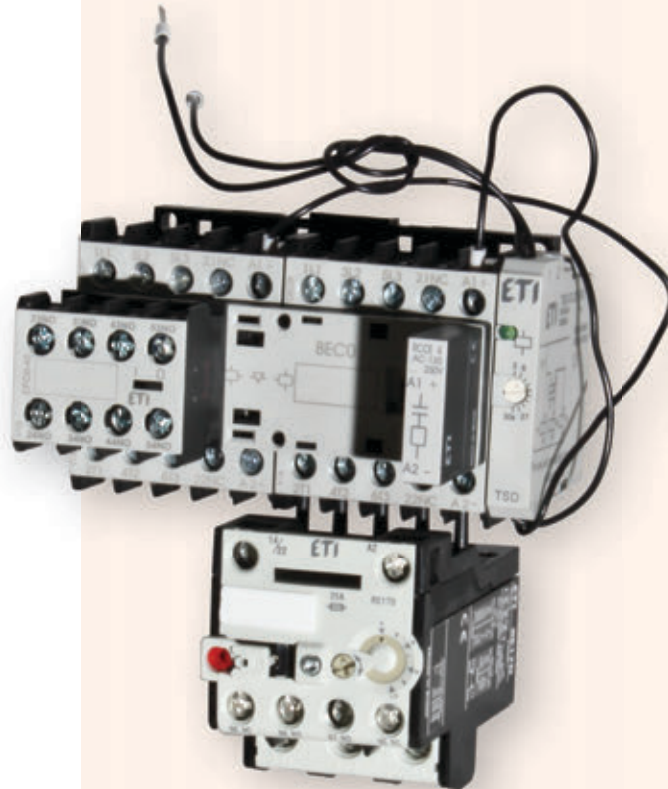
Application:

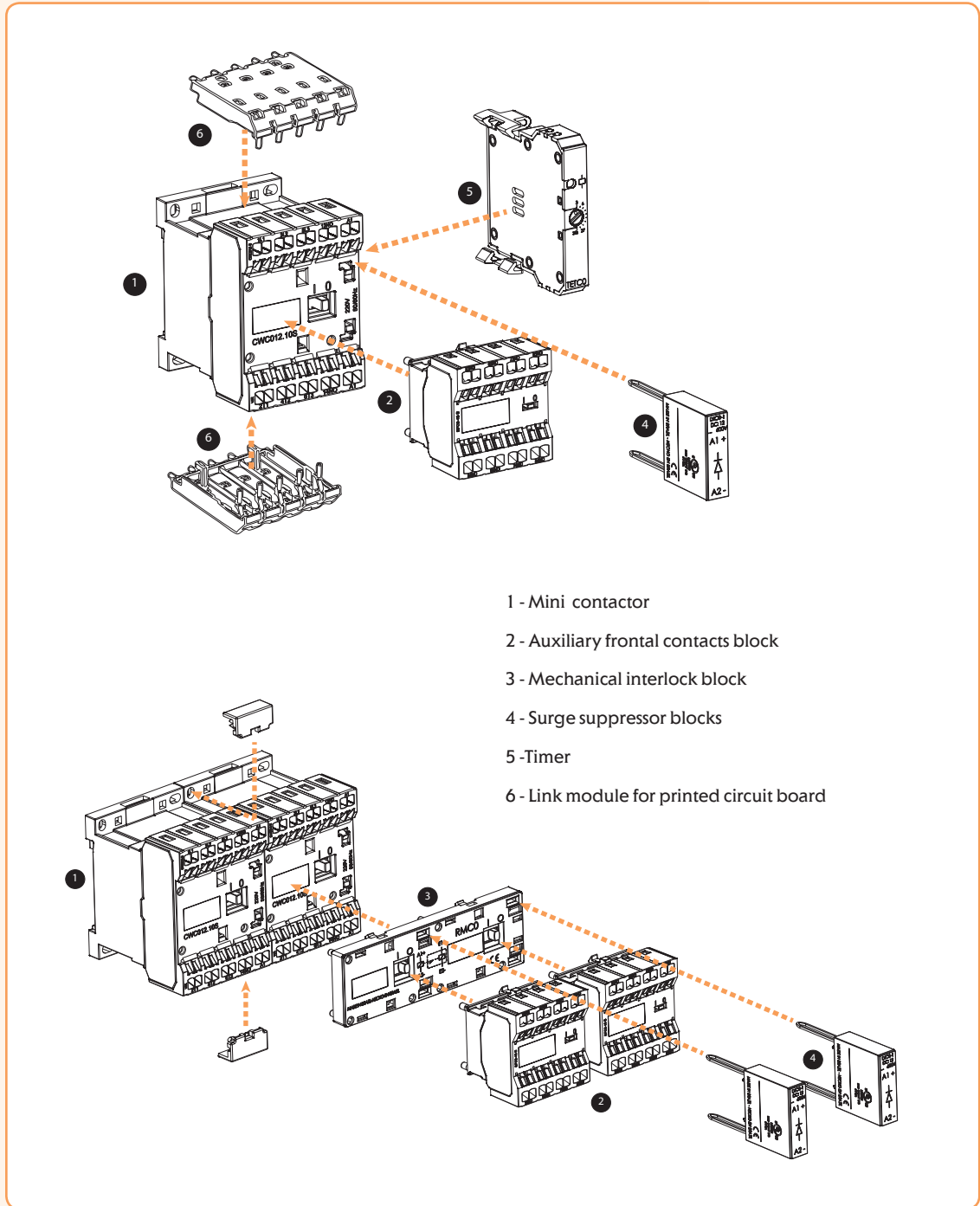
Miniature contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 7,5kW (at 400V AC3 duty), and auxiliary contactors are used for realizing a wide range of control circuits.

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:





- 1 - Mini contactor
- 2 - Auxiliary frontal contacts block
- 3 - Mechanical interlock block
- 4 - Surge suppressor blocks
- 5 - Timer
- 6 - Link module for printed circuit board



Miniature contactor relay CECA0; 10A (AC15, 230V)						
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]		
CECA0.22-24V-50/60Hz	004641160		180	1		
CECA0.22-230V-50/60Hz	004642390					
CECA0.31-24V-50/60Hz	004641161					
CECA0.31-230V-50/60Hz	004642391					
CECA0.13-24V-50/60Hz	004641162					
CECA0.13-230V-50/60Hz	004642392					
CECA0.40-24V-50/60Hz	004641163					
CECA0.40-230V-50/60Hz	004642393					
CECA0.04-24V-50/60Hz	004641164					
CECA0.04-230V-50/60Hz	004642394					
CECA0.22-24VDC	004646010				218	1
CECA0.22-220VDC	004641170					
CECA0.31-24VDC	004646011					
CECA0.31-220VDC	004641171					
CECA0.13-24VDC	004646012					
CECA0.13-220VDC	004641172					
CECA0.40-24VDC	004646013					
CECA0.40-220VDC	004641173					
CECA0.04-24VDC	004646014					
CECA0.04-220VDC	004641174					



4-pole miniature contactors				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEC07.4P-230V-50/60Hz	004641200		180	1
CEC09.4P-230V-50/60Hz	004641201			
CEC012.4P-230V-50/60Hz	004641202			
CEC016.4P-230V-50/60Hz	004641203			
CEC07.4P-24VDC	004641210			
CEC09.4P-24VDC	004641211			
CEC012.4P-24VDC	004641212			
CEC016.4P-24VDC	004641213			
CEC07.PR-230V-50/60HZ	004641204		180	1
CEC09.PR-230V-50/60HZ	004641205			
CEC012.PR-230V-50/60HZ	004641206			
CEC016.PR-230V-50/60HZ	004641207			
CEC07.PR-24V-DC	004641214			
CEC09.PR-24V-DC	004641215			
CEC012.PR-24V-DC	004641216			
CEC016.PR-24V-DC	004641217			

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)		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