

ETICON

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*Capacitor duty contactors are in the CP chapter, see page 358

CONTACTORS



Modular contactors for installation into distribution boards

Modular contactor for installation into distribution board

Description

Modular contactors are used for installation in consumer units in dwellings, business premises, hotels, hospitals, shopping centres, sport centers, production halls, warehouses etc.

They are used for remote switching and automatic control of electric devices and equipment, such as:

- lightning
- all types of pumps
- air-conditioning
- electric heating
- single-phase and three-phase motors

They excel in silent operation, long mechanical life time and high quality.

The contactors are designed for mounting on 35 mm mounting rail in accordance with the EN 60715 standard and they can be leaded by means of lead covers. The auxiliary contact block is available for signalization and ventilation module is available for preventing exceeded heating when contactors are used side-by-side.

All contactors have degree of protection IP20.

Besides the basic AC controlled types R20, R25, R40 and R63, types with increased silent operation RD20, RD25, RD40 and RD63 are available. Due to DC magnet and rectifier enable DC and AC voltage control. Surge arrester is built in for over voltage protection.

Types R20-R, RD20-R, R25-R and RD25-R are upgraded versions of basic types of modular contactors. Besides basic functions they enable manual control with a handle.

Description of the handle positions:

- A: the contactor functions as an installation contactor without manual control
- O: permanently OFF
- I: manual shifting the handle from position A to I causes the contactor to close; when control voltage is applied, the handle is automatically set to position A.

Types RD20-R and RD25-R are provided with a varistor for over voltage protection and a rectifier, which enables control with AC and DC voltage.

Contactors with manual control enable:

- switching depending on tariff (selection of the most convenient tariff)
- switching when control voltage is not applied

Technical specifications according to:

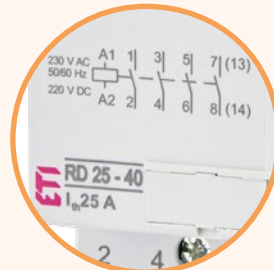
EN60947-4-1; EN60947-5-1; VDE 0660, IEC 947-4-1; IEC 947-5-1

Advantages

→ Contactors RD series are universal power supply AC/DC with built-in varistor surge protection. RD contactors produce less noise (DC coil inside)



→ Special terminals provide reliable connection with cables.



→ Spring-loaded latch ensures reliable mounting on DIN rail TH 35



→ Contactors series R-R have operating mode switch:
 - Automatic mode (normal operation with control circuit-coil)
 - Manual mode (0 - permanently open, I - constantly closed).

In manual mode constantly close operation I presence of voltage on control circuit-coil returns contactor in automatic mode operation.



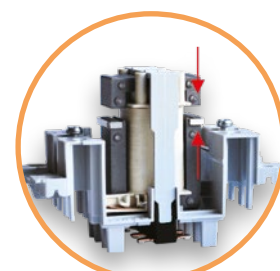
→ Contact status can be monitored visually or remote by auxiliary contacts



→ Silver contacts provide the best conductivity and lowest contact resistance



→ Spring loaded contacts to reduce bouncing effect and prolong contact life time



→ Specially designed mechanism consisting of two movable cores significantly reduces the noise level at switching



2-pole, 1 module (17,5 mm), 20 A (AC1, 230V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 20-20 230V	002461210		130	12
R 20-20 24V	002461211		130	12
R 20-11 230 V	002461220		130	12
R 20-11 24 V	002461221		130	12
R 20-02 230 V	002461230		130	12
R 20-02 24 V	002461231		130	12

1-pole, 1 module (17,5 mm), 25 A (AC1, 230V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 25-10-24V	002463507		130	12
R 25-10-230V	002463500		130	12

2-pole, 1 module (17,5 mm), 25 A (AC1, 230V)

R 25-20-24V	002463501		130	12
R 25-20 230V	002463502		130	12
R 25-11 24V	002463503		130	12
R 25-11 230V	002463504		130	12
R 25-02 24V	002463505		130	12
R 25-02 230V	002463506		130	12

4-pole, 2 modules (35 mm), 25 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 25-40 230 V	002462310		220	6
R 25-40 24 V	002462311		220	6
R 25-31 230 V	002462320		220	6
R 25-31 24 V	002462321		220	6
R 25-13 230 V	002462330		220	6
R 25-13 24 V	002462331		220	6
R 25-22 230 V	002462340		220	6
R 25-22 24 V	002462341		220	6
R 25-04 230 V	002462350		220	6
R 25-04 24 V	002462351		220	6

2-pole, 1 module (17,5 mm), 32 A (AC1, 230V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 32-20 230V AC/DC	002464077		130	10/80

4-pole, 2 modules (35 mm), 32 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 32-40 230V AC/DC	002464078		244	5/40

4-pole, 3 modules (52,5 mm), 40 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 40-40 230 V	002463410		360	4
R 40-40 24 V	002463411		360	4
R 40-31 230 V	002463420		360	4
R 40-31 24 V	002463421		360	4
R 40-22 230 V	002463430		360	4
R 40-22 24 V	002463431		360	4
R 40-04 230 V	002463440		360	4
R 40-04 24 V	002463441		360	4

Modular contactors for installation into distribution boards - type R

2 pole, 2 modules (35 mm), 63 A(AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 63-20 230V	002463482		240	6/60
R 63-20 24V	002463483		240	6/60
R 63-11 230V	002463484		240	6/60
R 63-11 24V	002463485		240	6/60

4 pole, 3 modules (52,5mm), 63 A(AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 63-40 230 V	002463450		360	4
R 63-40 24 V	002463451		360	4
R 63-31 230 V	002463460		360	4
R 63-31 24 V	002463461		360	4
R 63-22 230 V	002463470		360	4
R 63-22 24 V	002463471		360	4
R 63-04 230 V	002463480		360	4
R 63-04 24 V	002463481		360	4

Auxiliary contactor block for contactors R25, R40, R63 (max. 1 piece)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RH 11	002461101		26	3

*Not available for 1 modules size R contactors, only for 2 and above!

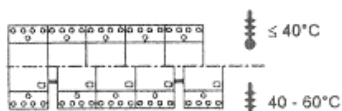
Sealing cover

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
P721	002461110	R 25	2	10
P690	002461120	R 40..., R 63...	3	10

Distance piece

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
P730	002461130	R20-R63	12	10

Distance piece



Distance piece is used where ambient temperature is higher than 40°C. Piece width is 1/2 module (8,8 mm)

Max 3 contactors can be side by side - use of distance piece is highly recommended.





1-pole, 1 module (17,5 mm), 20 A (AC1, 230 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 20-10-230V AC/DC	002464000		130	10
RD 20-10-24V AC/DC	002464001			
RD 20-01-230V AC/DC	002464002		130	10
RD 20-01-24V AC/DC	002464003			

2-pole, 1 module (17,5 mm), 20 A (AC1, 230 V)

RD 20-20-230V AC/DC	002464004		130	10
RD 20-20-24V AC/DC	002464005			
RD 20-11-230V AC/DC	002464006		130	10
RD 20-11-24V AC/DC	002464007			
RD 20-02-230V AC/DC	002464008		130	10
RD 20-02-24V AC/DC	002464009			

Take care of dissipated heat by: ≤ 40 °C max. 3 modules side by side
40 - 55 °C max. 2 modules side by side.

For more contactors together, use distance piece IKV



4-pole, 2 modules (35 mm), 25 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 25-40-230V AC/DC	002464010		240	5
RD 25-40-24V AC/DC	002464011			
RD 25-31-230V AC/DC	002464012		240	5
RD 25-31-24V AC/DC	002464013			
RD 25-22-230V AC/DC	002464014		240	5
RD 25-22-24V AC/DC	002464015			
RD 25-04-230V AC/DC	002464016		240	5
RD 25-04-24V AC/DC	002464017			

Take care of dissipated heat by: ≤ 40 °C max. 3 modules side by side
40 - 55 °C max. 2 modules side by side.

For more contactors together, use distance piece IKV



4-pole, 3 modules (52,5 mm), 40 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 40-40-230V AC/DC	002464018		420	5
RD 40-40-24V AC/DC	002464019			
RD 40-31-230V AC/DC	002464020		420	5
RD 40-31-24V AC/DC	002464021			
RD 40-22-230V AC/DC	002464022		420	5
RD 40-22-24V AC/DC	002464023			
RD 40-04-230V AC/DC	002464024		420	5
RD 40-04-24V AC/DC	002464025			

Take care of dissipated heat by: ≤ 40 °C max. 3 modules side by side
40 - 55 °C max. 2 modules side by side.

For more contactors together, use distance piece IKV

4 pole, 3 modules (52,5mm), 63 A(AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RD 63-40-230V AC/DC	002464026		420	5
RD 63-40-24V AC/DC	002464027			
RD 63-31-230V AC/DC	002464028		420	5
RD 63-31-24V AC/DC	002464029			
RD 63-22-230V AC/DC	002464030		420	5
RD 63-22-24V AC/DC	002464031			

Take care of dissipated heat by: ≤ 40 °C max. 3 modules side by side
40 - 55 °C max. 2 modules side by side.

For more contactors together, use distance piece IKV

Modular contactors for installation into distribution boards - type RD, R...R, RD...R

1-pole, ON - OFF - AUTO, 1 module (17,5 mm), 20 A (AC1, 230V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 20-10-R-230V AC	002464032		130	10
R 20-10-R-24V AC	002464033			
RD 20-10-R-230V AC/DC	002464034		130	10
RD 20-10-R-24V AC/DC	002464035			
R 20-01-R-230V AC	002464036		130	10
R 20-01-R-24V AC	002464037			
RD 20-01-R-230V AC/DC	002464038		130	10
RD 20-01-R-24V AC/DC	002464039			

2-pole, ON - OFF - AUTO, 1 module (17,5 mm), 20 A (AC1, 230V)

R 20-20-R-230V AC	002464040		130	10
R 20-20-R-24V AC	002464041			
RD 20-20-R-230V AC/DC	002464042		130	10
RD 20-20-R-24V AC/DC	002464043			
R 20-11-R-230V AC	002464044		130	10
R 20-11-R-24V AC	002464045			
RD 20-11-R-230V AC/DC	002464046		130	10
RD 20-11-R-24V AC/DC	002464047			
R 20-02-R-230V AC	002464048		130	10
R 20-02-R-24V AC	002464049			
RD 20-02-R-230V AC/DC	002464050		130	10
RD 20-02-R-24V AC/DC	002464051			

Take care of dissipated heat by: $\leq 40\text{ }^{\circ}\text{C}$ max. 3 modules side by side
 $40 - 55\text{ }^{\circ}\text{C}$ max. 2 modules side by side.

For more contactors together, use distance piece IKV



4-pole, ON - OFF - AUTO, 2 modules (35 mm), 25 A (AC1, 400 V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
R 25-40-R-230V AC	002464052		240	5
R 25-40-R-24V AC	002464053			
RD 25-40-R-230V AC/DC	002464054		240	5
RD 25-40-R-24V AC/DC	002464055			
R 25-31-R-230V AC	002464056		240	5
R 25-31-R-24V AC	002464057			
RD 25-31-R-230V AC/DC	002464058		240	5
RD 25-31-R-24V AC/DC	002464059			
R 25-22-R-230V AC	002464060		240	5
R 25-22-R-24V AC	002464061			
RD 25-22-R-230V AC/DC	002464062		240	5
RD 25-22-R-24V AC/DC	002464063			
R 25-04-R-230V AC	002464064		240	5
R 25-04-R-24V AC	002464065			
RD 25-04-R-230V AC/DC	002464066		240	5
RD 25-04-R-24V AC/DC	002464067			

Take care of dissipated heat by: $\leq 40\text{ }^{\circ}\text{C}$ max. 3 modules side by side
 $40 - 55\text{ }^{\circ}\text{C}$ max. 2 modules side by side.

For more contactors together, use distance piece IKV





Auxiliary contactor block for contactors RD, R...R, RD...R

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RN-20	002464068		30	1
RN-02	002464069		30	1
RN-11	002464070		30	1

* The auxiliary switch should not be applied in combination with RD20 and RD20-R.



Sealing cover

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
SC20	002464071	RD 20, R20...R	3	2
SC25	002464072	RD 25, R25...R	4	2
SC40/63	002464073	RD 40, RD 60	5	2



Distance piece

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
IKV	002464074	RD, R...R	6	1

Bistable switches RBS

Bistable Switch RBS

<p>Description</p> <p>REMOTE SWITCHING AND AUTOMATIC CONTROL:</p> <ul style="list-style-type: none"> ■ Lightning ■ Electric heating ■ Electric motors ■ Electric equipment 	<p>ADVANCED OPERATION:</p> <ul style="list-style-type: none"> ■ Impulse control ■ Manual control <p>OTHER BENEFITS:</p> <ul style="list-style-type: none"> ■ Small switch on coil consumption ■ No hold coil consumption ■ Wide application ■ Mounting on 35 mm rail ■ Sealing terminal covers
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1-pole, 1 module (17,5 mm), 20A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS220-10-230V AC	002464100		130	8
RBS220-10-24V AC	002464112		130	8

1-pole, 1 module (17,5 mm), 25A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS225-10-230V AC	002464101		130	8
RBS225-10-24V AC	002464113		130	8

1-pole, 1 module (17,5 mm), 32A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS232-10-230V AC	002464102		130	8
RBS232-10-24V AC	002464114		130	8



2-pole, 1 module (17,5 mm), 20A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS220-20-230V AC	002464103		130	8
RBS220-20-24V AC	002464115		130	8
RBS220-11-230V AC	002464106		130	8
RBS220-11-24V AC	002464118		130	8
RBS220-1C-230V AC	002464109		130	8
RBS220-1C-24V AC	002464121		130	8

2-pole, 1 module (17,5 mm), 25A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS225-20-230V AC	002464104		130	8
RBS225-20-24V AC	002464116		130	8
RBS225-11-230V AC	002464107		130	8
RBS225-11-24V AC	002464119		130	8
RBS225-1C-230V AC	002464110		130	8
RBS225-1C-24V AC	002464122		130	8

2-pole, 1 module (17,5 mm), 32A (AC1, 440V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS232-20-230V AC	002464105		130	8
RBS232-20-24V AC	002464117		130	8
RBS232-11-230V AC	002464108		130	8
RBS232-11-24V AC	002464120		130	8
RBS232-1C-230V AC	002464111		130	8
RBS232-1C-24V AC	002464123		130	8

Bistable switches RBS

3-pole, 2 modules (35 mm), 20A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS420-21-230V AC	002464127		200	4
RBS420-21-24V AC	002464145		200	4
RBS420-30-230V AC	002464130		200	4
RBS420-30-24V AC	002464148		200	4

3-pole, 2 modules (35 mm), 25A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS425-21-230V AC	002464128		200	4
RBS425-21-24V AC	002464146		200	4
RBS425-30-230V AC	002464131		200	4
RBS425-30-24V AC	002464149		200	4

3-pole, 2 modules (35 mm), 32A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS432-21-230V AC	002464129		200	4
RBS432-21-24V AC	002464147		200	4
RBS432-30-230V AC	002464132		200	4
RBS432-30-24V AC	002464150		200	4

4-pole, 2 modules (35 mm), 20A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS420-40-230V AC	002464124		200	4
RBS420-40-24V AC	002464142		200	4
RBS420-31-230V AC	002464133		200	4
RBS420-31-24V AC	002464151		200	4
RBS420-22-230V AC	002464136		200	4
RBS420-22-24V AC	002464154		200	4
RBS420-2C-230V AC	002464139		200	4
RBS420-2C-24V AC	002464157		200	4



4-pole, 2 modules (35 mm), 25A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS425-40-230V AC	002464125		200	4
RBS425-40-24V AC	002464143		200	4
RBS425-31-230V AC	002464134		200	4
RBS425-31-24V AC	002464152		200	4
RBS425-22-230V AC	002464137		200	4
RBS425-22-24V AC	002464155		200	4
RBS425-2C-230V AC	002464140		200	4
RBS425-2C-24V AC	002464158		200	4

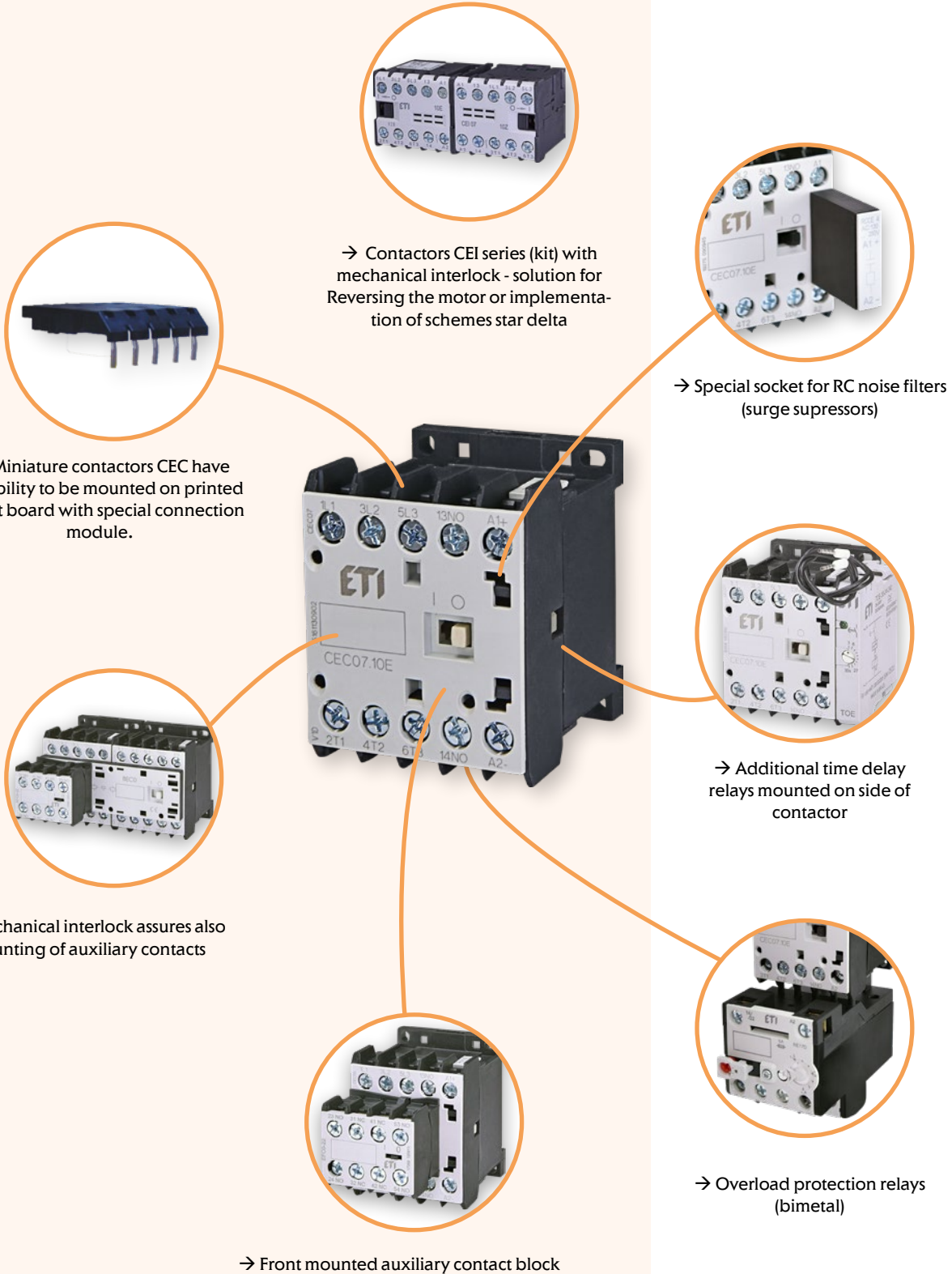
4-pole, 2 modules (35 mm), 32A (AC1, 440V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
RBS432-40-230V AC	002464126		200	4
RBS432-40-24V AC	002464144		200	4
RBS432-31-230V AC	002464135		200	4
RBS432-31-24V AC	002464153		200	4
RBS432-22-230V AC	002464138		200	4
RBS432-22-24V AC	002464156		200	4
RBS432-2C-230V AC	002464141		200	4
RBS432-2C-24V AC	002464159		200	4

Sealing cover			
Type	Code No.	Weight [g]	Packaging [pcs]
SC	002464160	3	2

*Size of one module - for covering 2-module sized RBS two pcs are needed, one for each side

Miniature and motor contactors, auxiliary contactors and overload relays

Advantages



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 contactor-reversing starter with mechanical interlock CEI07.10, 16A (AC1), 3,5A, 1,5 kW (AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEI7.10-24V-50/60Hz	004641620		250	1
CEI7.10-48V-50/60Hz	004641621			
CEI7.10-110V-50/60Hz	004641622			
CEI7.10-230V-50/60Hz	004641623			
CEI7.10-400V-50/60Hz	004641624			

Miniature contactor-reversing starter with mechanical interlock CEI07.01, 16A (AC1), 3,5A, 1,5 kW (AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEI7.01-24V-50/60Hz	004641610		250	1
CEI7.01-48V-50/60Hz	004641611			
CEI7.01-110V-50/60Hz	004641612			
CEI7.01-230V-50/60Hz	004641613			
CEI7.01-400V-50/60Hz	004641614			


Surge suppressor

Type	Code No.	Coil voltage	For use with	Weight [g]	Packaging [pcs]
RCE01	004641701	24-48 VAC	CE07, CEI07	14	1
RCE06	004641702	110-220 VAC	CE07, CEI07	14	1
RCE10	004641703	380-400 VAC	CE07, CEI07	14	1

Miniature and auxiliary contactor CEC

Application:

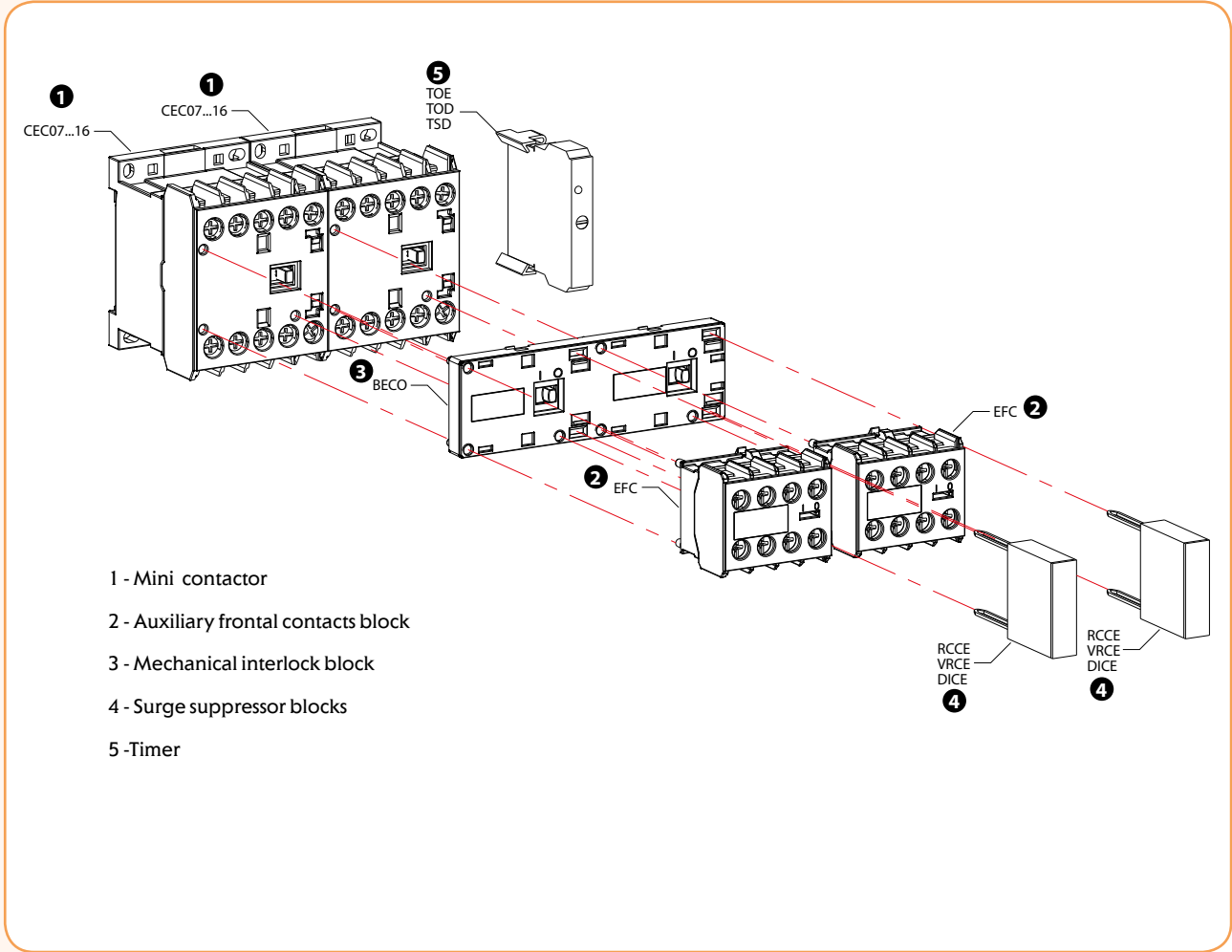
Miniature contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 7,5kW (at 400V AC3 duty), and auxiliary contactors are used for realizing a wide range of control circuits.

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



Miniature contactors CEC07; 18A(AC1); 7A,3kW(AC3 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEC07.10-24V-50/60Hz	004641050		180	1
CEC07.10-42V-50/60Hz	004641051			
CEC07.10-48V-50/60Hz	004641052			
CEC07.10-110V-50/60Hz	004641053			
CEC07.10-230V-50/60Hz	004641054			
CEC07.10-400V-50/60Hz	004641055			
CEC07.10-24VDC	004641100			
CEC07.10-48VDC	004641130			
CEC07.10-110VDC	004641131			
CEC07.10-220VDC	004641132			
CEC07.01-24V-50/60Hz	004641056		180	1
CEC07.01-42V-50/60Hz	004641057			
CEC07.01-48V-50/60Hz	004641058			
CEC07.01-110V-50/60Hz	004641059			
CEC07.01-230V-50/60Hz	004641060			
CEC07.01-400V-50/60Hz	004641061			
CEC07.01-24VDC	004641101			
CEC07.01-48VDC	004641133			
CEC07.01-110VDC	004641134			
CEC07.01-220VDC	004641135			



Miniature contactors CEC09; 20A(AC1); 9A,4kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEC09.10-24V-50/60Hz	004641062		180	1
CEC09.10-42V-50/60Hz	004641063			
CEC09.10-48V-50/60Hz	004641064			
CEC09.10-110V-50/60Hz	004641065			
CEC09.10-230V-50/60Hz	004641066			
CEC09.10-400V-50/60Hz	004641067			
CEC09.10-24VDC	004641102			
CEC09.10-48VDC	004641136			
CEC09.10-110VDC	004641137			
CEC09.10-220VDC	004641138			
CEC09.01-24V-50/60Hz	004641068		180	1
CEC09.01-42V-50/60Hz	004641069			
CEC09.01-48V-50/60Hz	004641070			
CEC09.01-110V-50/60Hz	004641071			
CEC09.01-230V-50/60Hz	004641072			
CEC09.01-400V-50/60Hz	004641073			
CEC09.01-24VDC	004641103			
CEC09.01-48VDC	004641139			
CEC09.01-110VDC	004641140			
CEC09.01-220VDC	004641141			

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		180	1
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		218	1
CEC012.01-110V-50/60Hz	004641083			
CEC012.01-230V-50/60Hz	004641084			
CEC012.01-400V-50/60Hz	004641085			
CEC012.01-24VDC	004641105			
CEC012.01-48VDC	004641145			
CEC012.01-110VDC	004641146		218	1
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		180	1
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		218	1
CEC016.01-110V-50/60Hz	004641095			
CEC016.01-230V-50/60Hz	004641096			
CEC016.01-400V-50/60Hz	004641097			
CEC016.01-24VDC	004641107			
CEC016.01-48VDC	004641151			
CEC016.01-110VDC	004641152		218	1
CEC016.01-220VDC	004641153			





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		218	1
CECA0.04-230V-50/60Hz	004642394			
CECA0.22-24VDC	004646010			
CECA0.22-220VDC	004641170			
CECA0.31-24VDC	004646011			
CECA0.31-220VDC	004641171			
CECA0.13-24VDC	004646012			
CECA0.13-220VDC	004641172			
CECA0.40-24VDC	004646013		180	1
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		180	1
CEC016.4P-24VDC	004641213			
CEC07.PR-230V-50/60Hz	004641204			
CEC09.PR-230V-50/60Hz	004641205			
CEC012.PR-230V-50/60Hz	004641206			
CEC016.PR-230V-50/60Hz	004641207			
CEC07.PR-24V-DC	004641214	180	1	
CEC09.PR-24V-DC	004641215			
CEC012.PR-24V-DC	004641216			
CEC016.PR-24V-DC	004641217			

Surge suppressor

Type	Code No.	voltage	Wiring diagram	Weight [g]	Packaging [pcs]
RCCE-1	004641720	12-24V 50/60Hz		6	1
RCCE-2	004641721	24-48V 50/60Hz			
RCCE-3	004641722	48-127V 50/60Hz			
RCCE-4	004641723	127-250V 50/60Hz			
RCCE-5	004641724	250-380V 50/60Hz			
RCCE-6	004641725	380-510V 50/60Hz			
VRCE-1	004641726	12-48V AC/12-60V DC		6	1
VRCE-2	004641727	50-127V AC/60-180V DC			
VRCE-3	004641728	130-275V AC/180-300V DC			
VRCE-4	004641729	277-380V AC/300-510V DC			
VRCE-5	004641730	400-510V AC			
DICE-1	004641731	12-600V DC		6	1


Mechanical interlock

Type	Code No.	Weight [g]	Packaging [pcs]
BECO	004643603	15	1

For use with CEC


Printed circuit board adapter

Type	Code No.	Weight [g]	Packaging [pcs]
CECO	004642720	126	1

For use with CEC


Overload relay RE17D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE17D-0,4	004641400	0,28-0,4	CEC07 – CEC016	150	1
RE17D-0,63	004641401	0,4-0,63			
RE17D-0,8	004641402	0,56-0,8			
RE17D-1,2	004641403	0,8-1,2			
RE17D-1,8	004641404	1,2-1,8			
RE17D-2,8	004641405	1,8-2,8			
RE17D-4,0	004641406	2,8-4,0			
RE17D-6,3	004641407	4-6,3			
RE17D-8,0	004641408	5,6-8			
RE17D-10	004641409	7-10			
RE17D-12,5	004641410	8-12,5			
RE17D-15	004641411	10-15			
RE17D-17	004641412	15-17			





EFCO



EFCA



EFC4



Example of using EFCO and RCCE

Auxiliary contact blocks								
Type	Code No.	Wiring diagram	For use with	Weight [g]	Packaging [pcs]			
EFCO-20	004641520		CECO 3 pole	28	1			
EFCO-11	004641521							
EFCO-02	004641522							
EFCO-40	004641523							
EFCO-22	004641524							
EFCO-04	004641525							
EFCO-31	004641526							
EFCO-13	004641527							
EFCA-20	004641530					CECA0	28	1
EFCA-11	004641531							
EFCA-02	004641532							
EFCA-40	004641533							
EFCA-22	004641534							
EFCA-04	004641535							
EFCA-31	004641536							
EFCA-13	004641537		CECO 4 pole	28	1			
EFC4-20	004641540							
EFC4-11	004641541							
EFC4-02	004641542							
EFC4-40	004641543							
EFC4-22	004641544							
EFC4-04	004641545							
EFC4-31	004641546		CECO 4 pole	28	1			
EFC4-13	004641547							

Electronic timing relays

Type	Code No.	Time	Supply Voltage	Weight [g]	Packaging [pcs]
ON delay					
TOE-3-24-240	004642730	0,3-3 sec	24-240V AC/DC	126	1
TOE-10-24-240	004642731	1-10 sec			
TOE-30-24-240	004642732	3-30 sec			
TOE-60-24-240	004642733	6-60 sec			
TOE-100-24-240	004642734	10-100 sec			
TOE-300-24-240	004642735	30-300 sec			
TOE-1800-24-240	004642736	180-1800 sec			
OFF delay					
TOD-3-24-60	004642740	0,3-3 sec	24-60V AC/DC	126	1
TOD-10-24-60	004642741	1-10 sec			
TOD-30-24-60	004642742	3-30 sec			
TOD-60-24-60	004642743	6-60 sec			
TOD-100-24-60	004642744	10-100 sec			
TOD-300-24-60	004642745	30-300 sec			
TOD-1800-24-60	004642746	180-1800 sec			
TOD-3-100-240	004642747	0,3-3 sec	110-240V AC/DC	126	1
TOD-10-100-240	004642748	1-10 sec			
TOD-30-100-240	004642749	3-30 sec			
TOD-60-100-240	004642750	6-60 sec			
TOD-100-100-240	004642751	10-100 sec			
TOD-300-100-240	004642752	30-300 sec			
TOD-1800-100-240	004642753	180-1800 sec			
Star-delta					
TSD-30-24-28	004642760	3-30 sec	24-48V AC	126	1
TSD-30-110-130	004642761		110-130V AC		
TSD-30-220-240	004642762		220 - 240V AC		



Motor contactor CES

ETICON CES SERIES

IEC 60947-4-1

Contact reliability

Contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 200kW (at 400V AC3 duty)

Auxiliary contacts

CES 6 to CES 45:

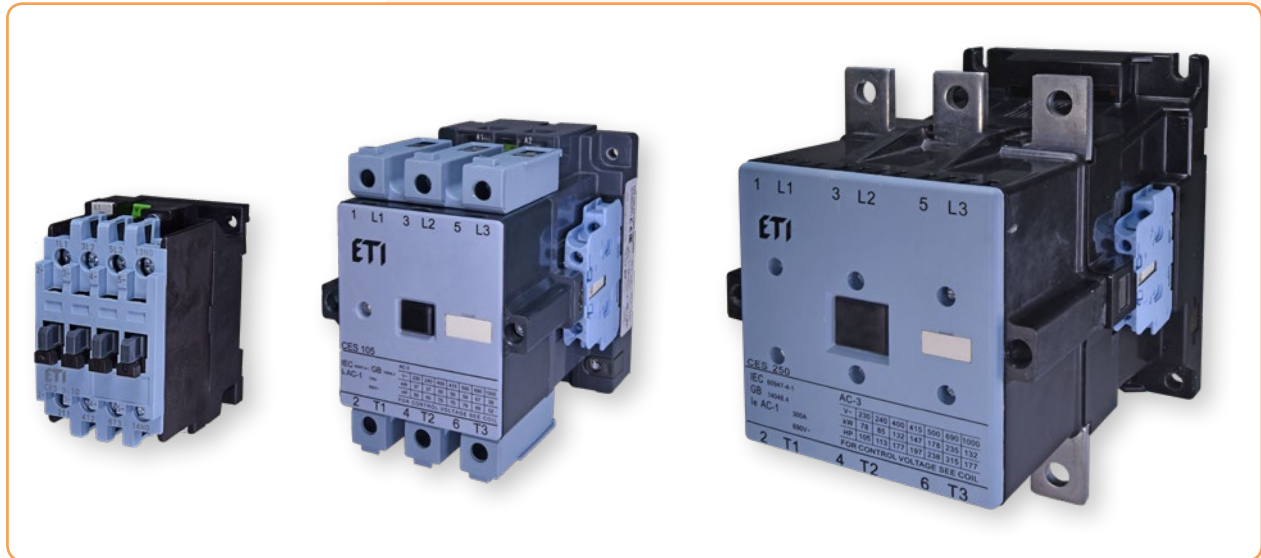
Up to 4 auxiliary contact blocks with 1 NO or 1 NC contact can be snapped onto the basic units (front).

CES 65 to CES 105:

Maximum 4 auxiliary contact blocks with 1 NO + 1 NC contacts (lateral) assembled.

When the contactors are energized, the NC contacts open before the NO contacts close.

CES 65..400 NOT POSSIBLE TO MOUNT ON DIN RAIL



Ordering:

CES 9 . 0 1 - 230V - 50/60Hz
 1 2 3 4 5 6

- 1 - Contactor type
- 2 - Rated operational current I_e (AC3)
- 3 - Number and type NO auxiliary contacts
- 4 - Number and type NC auxiliary contacts
- 5 - Coil voltage
- 6 - Frequency

Advantages



→ CES 40...105 contactor terminals allow simultaneous connection not only single-stranded and stranded conductors, but also conductors of different sections.



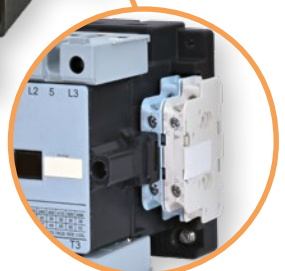
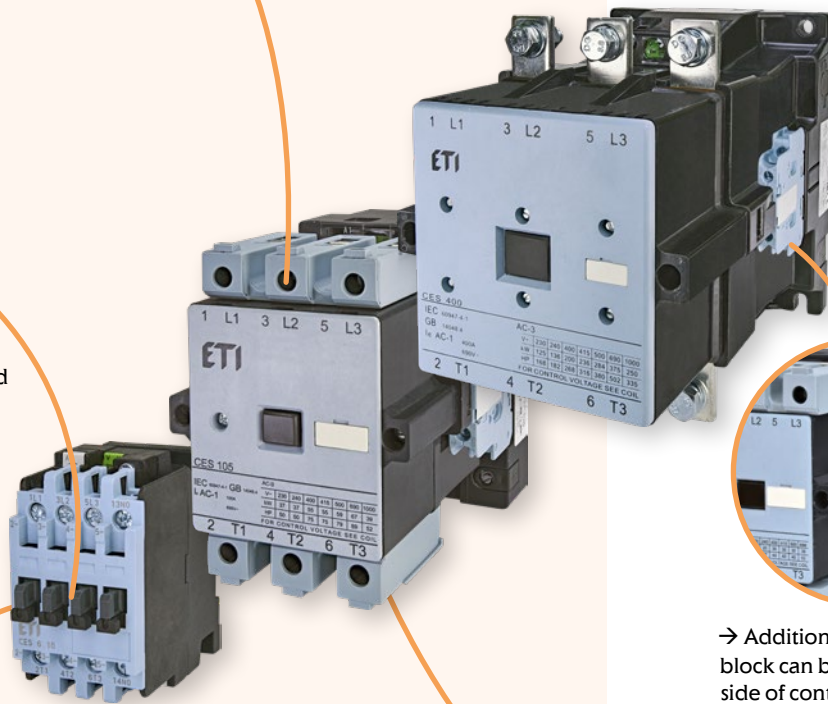
→ Additional EMC filters can be installed (CES 140...400 have already integrated).



→ Voltage range control at 230 V AC: from 0.85 up to 1.15 x Us in accordance with IEC 60947.



→ CES 6...45 additional aux. contact blocks can be installed on front of device.



→ Additional 2nd aux. contact block can be installed on each side of contactor CES65...300.



→ Design allows to mount contactor on DIN rail TH 35 or directly on panel



→ Mechanical interlock can be installed between 2 contactors.



→ Possible to mount overload relay directly on contactor or DIN rail TH 35 with mounting adapter CES-AD-RT



→ Overload relays (bimetal) tripping class 10



CES 6

Motor contactor CES 6; 25A(AC1); 6A/2,2kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 6.10-24V-50/60Hz	004646500		370	1
CES 6.10-110V-50/60Hz	004646503		370	1
CES 6.10-230V-50/60Hz	004646501		370	1
CES 6.10-400V-50Hz	004646502		370	1
CES 6.10-24V DC	004646504		0,58	1
CES 6.01-24V-50/60Hz	004646505		370	1
CES 6.01-110V-50/60Hz	004646508		370	1
CES 6.01-230V-50/60Hz	004646506		370	1
CES 6.01-400V-50Hz	004646507		370	1
CES 6.01-24V DC	004646509		580	1

CES 6.10 - Integrated auxiliary contact 1xNO; CES 6.01 - Integrated auxiliary contact 1xNC



CES 9

Motor contactor CES 9; 25A(AC1); 9A/4kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 9.10-24V-50/60Hz	004646510		370	1
CES 9.10-110V-50/60Hz	004646511		370	1
CES 9.10-230V-50/60Hz	004646512		370	1
CES 9.10-400V-50Hz	004646513		370	1
CES 9.10-24V DC	004646514		580	1
CES 9.01-24V-50/60Hz	004646515		370	1
CES 9.01-110V-50/60Hz	004646516		370	1
CES 9.01-230V-50/60Hz	004646517		370	1
CES 9.01-400V-50Hz	004646518		370	1
CES 9.01-24V DC	004646519		580	1

CES 9.10 - Integrated auxiliary contact 1xNO; CES 9.01 - Integrated auxiliary contact 1xNC



CES 12

Motor contactor CES 12; 25A(AC1); 12A/5,5kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 12.10-24V-50/60Hz	004646520		370	1
CES 12.10-110V-50/60Hz	004646521		370	1
CES 12.10-230V-50/60Hz	004646522		370	1
CES 12.10-400V-50Hz	004646523		370	1
CES 12.10-24V DC	004646524		580	1
CES 12.10-42V-50/60Hz	004646525		370	1
CES 12.01-24V-50/60Hz	004646526		370	1
CES 12.01-110V-50/60Hz	004646527		370	1
CES 12.01-230V-50/60Hz	004646528		370	1
CES 12.01-400V-50Hz	004646529		370	1
CES 12.01-24V DC	004646530	580	1	

CES 12.10 - Integrated auxiliary contact 1xNO; CES 12.01 - Integrated auxiliary contact 1xNC



CES 18

Motor contactor CES 18; 25A(AC1); 18A/7,5kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 18.10-24V-50/60Hz	004646531		370	1
CES 18.10-110V-50/60Hz	004646532		370	1
CES 18.10-230V-50/60Hz	004646533		370	1
CES 18.10-400V-50Hz	004646534		370	1
CES 18.10-24V DC	004646535		580	1
CES 18.01-24V-50/60Hz	004646536		370	1
CES 18.01-110V-50/60Hz	004646537		370	1
CES 18.01-230V-50/60Hz	004646538		370	1
CES 18.01-400V-50Hz	004646539		370	1
CES 18.01-24V DC	004646540		580	1

CES 18.10 - Integrated auxiliary contact 1xNO; CES 18.01 - Integrated auxiliary contact 1xNC

Motor contactor CES 25; 42A(AC1); 25A/11kW(AC3, 400V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 25.00-24V-50/60Hz	004646541		410	1
CES 25.00-110V-50/60Hz	004646542		410	1
CES 25.00-230V-50/60Hz	004646543		410	1
CES 25.00-400V-50Hz	004646544		410	1
CES 25.00-24V DC	004646545		660	1
CES 25.00-42V-50/60Hz	004646546		410	1

Auxiliary contacts top or side mounted must be ordered separately

Motor contactor CES 32; 42A(AC1); 32A/15kW(AC3, 400V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 32.00-24V-50/60Hz	004646547		410	1
CES 32.00-110V-50/60Hz	004646548		410	1
CES 32.00-230V-50/60Hz	004646549		410	1
CES 32.00-400V-50Hz	004646550		410	1
CES 32.00-24V DC	004646551		660	1

Auxiliary contacts top or side mounted must be ordered separately

Motor contactor CES 40; 65A(AC1); 40A/18,5kW(AC3, 400V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 40.00-24V-50/60Hz	004646552		670	1
CES 40.00-110V-50/60Hz	004646553		670	1
CES 40.00-230V-50/60Hz	004646554		670	1
CES 40.00-400V-50Hz	004646555		670	1

Auxiliary contacts top or side mounted must be ordered separately

Motor contactor CES 45; 65A(AC1); 45A/22kW(AC3, 400V)				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 45.00-24V-50/60 Hz	004646556		640	1
CES 45.00-230V-50/60 Hz	004646557		640	1
CES 45.00-400V-50Hz	004646558		640	1
CES 45.00-110V-50/60 Hz	004646559		640	1

Auxiliary contacts top or side mounted must be ordered separately



CES 25...32



CES 40...45



CES 65...140



CES 65...140

Motor contactor CES 65; 90A(AC1); 65A/30kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 65.22-230V-50/60Hz	004646560		1.625	1
CES 65.22-24V-50/60Hz	004646561		1.625	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 75; 100A(AC1); 75A/37kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 75.22-24V-50/60 Hz	004646562		2.530	1
CES 75.22-230V-50/60 Hz	004646563		2.530	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 85; 120A(AC1); 85A/45kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 85.22-24V-50/60 Hz	004646564		2.530	1
CES 85.22-230V-50/60 Hz	004646565		2.530	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 105; 120A(AC1); 105A/55kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 105.22-230V-50/60Hz	004646566		3.758	1
CES 105.22-24V-50/60Hz	004646567		3.758	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 140; 160A(AC1); 140A/75kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 140.22-230V-50/60Hz	004646568		3.300	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 170; 210A(AC1); 170A/90kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 170.22-230V-50/60Hz	004646569		4.800	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 205; 220A(AC1); 205A/110kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 205.22-230V-50/60Hz	004646570		4.800	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 250; 300A(AC1); 250A/132kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 250.22-230V-50/60Hz	004646571		6.200	1

Included side mounted auxiliary contacts 2xNO+2xNC

Motor contactor CES 300; 320A(AC1); 300A/160kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 300.22-230V-50/60Hz	004646572		6.200	1

Included side mounted auxiliary contacts 2xNO+2xNC

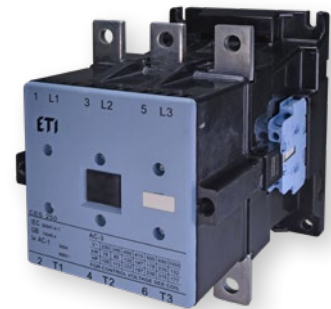
Motor contactor CES 400; 500A(AC1); 400A/200kW(AC3, 400V)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CES 400.22-230V-50/60Hz	004646573		6.800	1

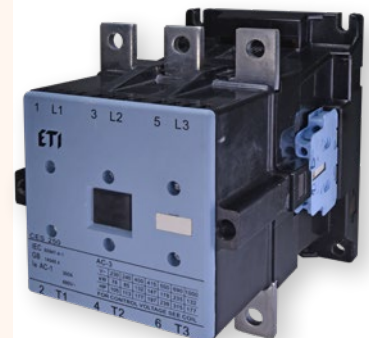
Included side mounted auxiliary contacts 2xNO+2xNC



CES 170...205



CES 250...300



CES 400

Accessories



CES-BCF



CES-BCSU 11



CES-BCSS 11



CES-MIL 6-45



CES-MIL 65-300



CES-DIC3

Auxiliary contact block - front mounted; 5,6A(230V, AC-15/AC-14), 3,8A(400V, AC-15/AC-14)

Type	Code No.	Description	For use with	Wiring diagram	Weight [g]	Packaging [pcs]
CES-BCF 10	004646574	1 NO	CES 6...CES 45		20	10
CES-BCF 01	004646575	1 NC	CES 6...CES 45		20	10

Up to max. 4 contacts

Auxiliary contact block - lateral; 5,6A(230V, AC-15/AC-14), 3,8A(400V, AC-15/AC-14)

Type	Code No.	Description	For use with	Wiring diagram	Weight [g]	Packaging [pcs]
CES-BCSU 11	004646576	1 NO + 1 NC	CES65...CES 400		52	2
CES-BCSS 11	004646577	1 NO + 1 NC	CES65...CES 400		42	2

Up to max. 4 contacts, 2 per each side

BCSU - upgrade contact with screws

BCSS - spare part only, no mounting screws

Possible to order only multiples of 2pcs (2, 4, 6, 8...) due to the default packaging system

Mechanical interlock for mechanical locking of contactors

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
CES-MIL 6-45	004646578	CES6...CES45	20	1
CES-MIL 65-300	004646579	CES65...CES300	130	1
CES-MIL 400	004646580	CES400	130	1

Surge suppressor

Type	Code No.	Coil voltage	For use with	Weight [g]	Packaging [pcs]
CES-DIC3	004646581	24 - 250 VDC	CES6...CES32	15	1
CES-VR4	004646582	24-48 VAC	CES6...CES45	15	1
CES-VR5	004646583	127-240 VAC	CES6...CES45	15	1
CES-VR6	004646584	240-400 VAC	CES6...CES45	23	1
CES-VR7	004646585	24-48 VAC	CES65...CES400	14	1
CES-VR8	004646586	127-240 VAC	CES65...CES400	15	1

Already integrated in CES140...CES400

Overload relay

Thermal overload relays

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
CES-RT0-0,4	004646587	0,25 - 0,4	CES6...CES18	140	1
CES-RT0-0,63	004646588	0,4 - 0,63	CES6...CES18	140	1
CES-RT0-1	004646589	0,63 - 1	CES6...CES18	140	1
CES-RT0-1,6	004646590	1 - 1,6	CES6...CES18	140	1
CES-RT0-2,5	004646591	1,6 - 2,5	CES6...CES18	140	1
CES-RT0-4.0	004646592	2,5 - 4	CES6...CES18	140	1
CES-RT0-6,3	004646593	4 - 6,3	CES6...CES18	140	1
CES-RT0-10	004646594	6,3 - 10	CES6...CES18	140	1
CES-RT0-12,5	004646595	8 - 12,5	CES6...CES18	140	1
CES-RT0-18	004646596	12,5 - 18	CES6...CES18	140	1
CES-RT1-16	004646597	10 - 16	CES25...CES32	200	1
CES-RT1-25	004646598	16 - 25	CES25...CES32	200	1
CES-RT1-32	004646599	25 - 32	CES25...CES32	200	1
CES-RT2-36	004646600	25 - 36	CES40...CES45	200	1
CES-RT2-45	004646601	36 - 45	CES40...CES45	200	1
CES-RT3-57	004646602	40 - 57	CES65...CES105	400	1
CES-RT3-70	004646603	57 - 70	CES65...CES105	400	1
CES-RT3-88	004646604	70 - 88	CES65...CES105	400	1
CES-RT3-105	004646605	88 - 105	CES65...CES105	400	1
CES-RT4-120	004646606	90 - 120	CES140...CES400	700	1
CES-RT4-135	004646607	110 - 135	CES140...CES400	700	1
CES-RT4-150	004646608	120 - 150	CES140...CES400	700	1
CES-RT4-160	004646609	135 - 160	CES140...CES400	700	1
CES-RT4-180	004646610	150 - 180	CES140...CES400	2.500	1
CES-RT4-250	004646611	160 - 250	CES140...CES400	2.500	1
CES-RT4-400	004646612	250 - 400	CES140...CES400	2.500	1

Overload relay mounting kits for rails TH35

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
CES-AD-RT0	004646613	CES-RT0	50	1
CES-AD-RT1	004646614	CES-RT1	50	1
CES-AD-RT2	004646615	CES-RT2	132	1
CES-AD-RT3	004646616	CES-RT3	164	1



CES-RT0

CES-RT1



CES-RT2



CES-RT3



CES-RT4 120, 135, 150



CES-RT4 160, 180



CES-RT4 250, 400

Motor contactor CEM

Application

Contactors are used to remotely control and protect (in combination with overload relays) electric motors and other electric loads with nominal power up to 300kW (at 400V AC3 duty).

Advantages

- Mounting on DIN rail and mounting plates
- 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)
- Control voltage 24VAC, 48VAC, 110VAC, 230VAC, 400VAC

IEB CONFORM



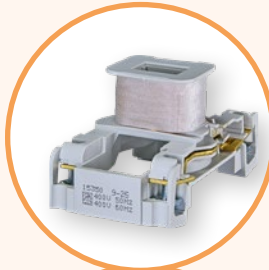
Ordering:

CEM9.01-230V-50/60Hz

I(Ac3)[A] Coil voltage

Nr. of NO Nr. of NC - Number and type of auxiliary contacts

Advantages



AC



→ Additionally EMC filter can be connected close to coil to suppress RF signals and surges.

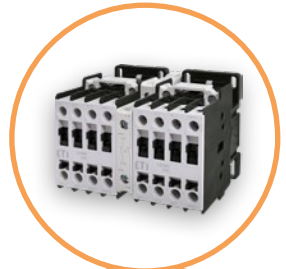


→ Lateral (side mounting) of auxiliary contacts.



DC

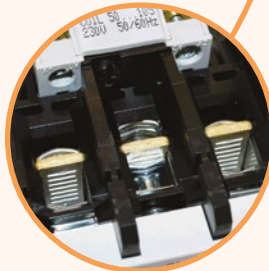
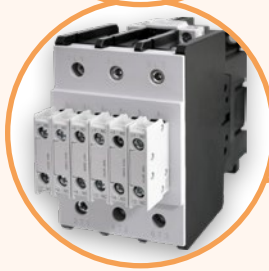
→ Possible to exchange coils with different coil voltages.



→ Mechanical interlock can lock two different size contactors
New: mechanical interlock with integrated aux. contacts BLIME 9-105 02.



→ Front mounted auxiliary contacts



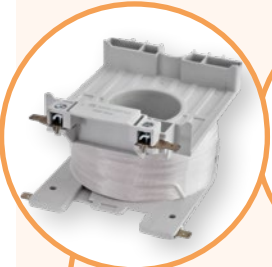
→ CEM 32 ... CEM105 Contactor terminals allow simultaneous connection not only single-stranded and stranded conductors, but also conductors of different sections.



→ Mounting on DIN rail or directly on panel.



→ Wide range of bimetal relays for overload protection. Possible to install directly on contactor or on DIN rail by using additional adapter BF.



→ Replacement control coils and electronics available.



→ Additional protection covers against touch.



→ Built in Varistor (EMC filter).



→ Additional TBE terminals allow simultaneous connection not only single-stranded and stranded conductors, but also conductors of different sections.



→ Possibility to install additional 2nd aux. contact block on each side of contactor.



→ Possible to install mechanical interlock between 2 contactors.



→ Easy access for maintenance and visual control of damages.



→ Overload bimetal relays for overload protection are available.

Motor contactor CEM9.10; 25A(AC1); 9A; 4kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM9.10-24V-50/60Hz	004642120		295	1
CEM9.10-48V-50/60Hz	004642121		295	1
CEM9.10-110V-50/60Hz	004642122		295	1
CEM9.10-230V-50/60Hz	004642123		295	1
CEM9.10-400V-50/60Hz	004642124		295	1
CEM9.10-24V DC	004642220		510	1
CEM9.10-220V DC	004642221		510	1

* Auxiliary contact 1NO integrated

Motor contactor CEM9.01; 25A(AC1); 9A; 4kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM9.01-24V-50/60Hz	004642110		295	1
CEM9.01-48V-50/60Hz	004642111		295	1
CEM9.01-110V-50/60Hz	004642112		295	1
CEM9.01-230V-50/60Hz	004642113		295	1
CEM9.01-400V-50/60Hz	004642114		295	1
CEM9.01-24V DC	004642210		510	1
CEM9.01-220V DC	004642211		510	1

* Auxiliary contact 1NC integrated

Motor contactor CEM12.10; 25A(AC1); 12A; 5.5kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM12.10-24V-50/60Hz	004643120		295	1
CEM12.10-48V-50/60Hz	004643121		295	1
CEM12.10-110V-50/60Hz	004643122		295	1
CEM12.10-230V-50/60Hz	004643123		295	1
CEM12.10-400V-50/60Hz	004643124		295	1
CEM12.10-24V DC	004643220		510	1
CEM12.10-220V DC	004643221		510	1

* Auxiliary contact 1NO integrated

Motor contactor CEM12.01; 25A(AC1); 12A; 5.5kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM12.01-24V-50/60Hz	004643110		295	1
CEM12.01-48V-50/60Hz	004643111		295	1
CEM12.01-110V-50/60Hz	004643112		295	1
CEM12.01-230V-50/60Hz	004643113		295	1
CEM12.01-400V-50/60Hz	004643114		295	1
CEM12.01-24V DC	004643210		510	1
CEM12.01-220V DC	004643211		510	1

* Auxiliary contact 1NC integrated



For auxiliary contact blocks, see page 254



Motor contactor CEM18.10; 32A(AC1); 18A; 7.5kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM18.10-24V-50/60Hz	004644120		295	1
CEM18.10-48V-50/60Hz	004644121		295	1
CEM18.10-110V-50/60Hz	004644122		295	1
CEM18.10-230V-50/60Hz	004644123		295	1
CEM18.10-400V-50/60Hz	004644124		295	1
CEM18.10-24V DC	004644220		510	1
CEM18.10-220V DC	004644221		510	1

* Auxiliary contact 1NO integrated

Motor contactor CEM18.01; 32A(AC1); 18A; 7.5kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM18.01-24V-50/60Hz	004644110		295	1
CEM18.01-48V-50/60Hz	004644111		295	1
CEM18.01-110V-50/60Hz	004644112		295	1
CEM18.01-230V-50/60Hz	004644113		295	1
CEM18.01-400V-50/60Hz	004644114		295	1
CEM18.01-24V DC	004644210		510	1
CEM18.01-220V DC	004644211		510	1

* Auxiliary contact 1NC integrated



For auxiliary contact blocks, see page 254



Motor contactor CEM25.00; 45A(AC1); 25A; 11kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM25.00-24V-50/60Hz	004645100		295	1
CEM25.00-48V-50/60Hz	004645101		295	1
CEM25.00-110V-50/60Hz	004645102		295	1
CEM25.00-230V-50/60Hz	004645103		295	1
CEM25.00-400V-50/60Hz	004645104		295	1
CEM25.00-24V DC	004645200		510	1
CEM25.00-220V DC	004645201		510	1

For different configurations of auxiliary contacts up to 4 auxiliary contacts can be added to contactor and must be ordered separately.

Motor contactor CEM32.00; 60A(AC1); 32A; 15kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM32.00-24V-50/60Hz	004646100		520	1
CEM32.00-48V-50/60Hz	004646101		520	1
CEM32.00-110V-50/60Hz	004646102		520	1
CEM32.00-230V-50/60Hz	004646103		520	1
CEM32.00-400V-50/60Hz	004646104		520	1
CEM32.00-24V DC**	004646200		850	1
CEM32.00-220V DC**	004646201		850	1

For different configurations of auxiliary contacts up to 4 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28 V DC), 220V DC (208...240V DC)

Motor contactor CEM40.00; 60A(AC1); 40A; 18.5kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM40.00-24V-50/60Hz	004647100		540	1
CEM40.00-48V-50/60Hz	004647101		540	1
CEM40.00-110V-50/60Hz	004647102		540	1
CEM40.00-230V-50/60Hz	004647103		540	1
CEM40.00-400V-50/60Hz	004647104		540	1
CEM40.00-24V DC**	004647200		850	1
CEM40.00-220V DC**	004647201		850	1

For different configurations of auxiliary contacts up to 4 auxiliary contacts can be added to contactor and must be ordered separately

** 24V DC (24...28V DC), 220V DC (208...240V DC).


Motor contactor CEM50.00; 80A(AC1); 50A; 22kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM50.00-24V-50/60Hz	004648100		1105	1
CEM50.00-48V-50/60Hz	004648101		1105	1
CEM50.00-110V-50/60Hz	004648102		1105	1
CEM50.00-230V-50/60Hz	004648103		1105	1
CEM50.00-400V-50/60Hz	004648104		1105	1
CEM50.00-24V DC**	004648200		1240	1
CEM50.00-220V DC**	004648201		1240	1

For different configurations of auxiliary contacts up to 6 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28V DC), 220V DC (208...240V DC)


Motor contactor CEM65.00; 110A(AC1); 65A; 30kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM65.00-24V-50/60Hz	004649100		1120	1
CEM65.00-48V-50/60Hz	004649101		1120	1
CEM65.00-110V-50/60Hz	004649102		1120	1
CEM65.00-230V-50/60Hz	004649103		1120	1
CEM65.00-400V-50/60Hz	004649104		1120	1
CEM65.00-24V DC**	004649200		1240	1
CEM65.00-220V DC**	004649201		1240	1

For different configurations of auxiliary contacts up to 6 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28V DC), 220V DC (208...240V DC)

For auxiliary contact blocks, see page 254


Motor contactor CEM80.00; 110A(AC1); 80A; 37kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM80.00-24V-50/60Hz	004650100		1130	1
CEM80.00-48V-50/60Hz	004650101		1130	1
CEM80.00-110V-50/60Hz	004650102		1130	1
CEM80.00-230V-50/60Hz	004650103		1130	1
CEM80.00-400V-50/60Hz	004650104		1130	1
CEM80.00-24V DC**	004650200		1240	1
CEM80.00-220V DC**	004650201		1240	1

For different configurations of auxiliary contacts up to 6 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28V DC), 220V DC (208...240V DC)

** Range of operating voltages is shown in technical part of catalogue

Motor contactor CEM95.00; 140A(AC1); 95A; 45kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM95.00-24V-50/60Hz	004651100		1450	1
CEM95.00-48V-50/60Hz	004651101		1450	1
CEM95.00-110V-50/60Hz	004651102		1450	1
CEM95.00-230V-50/60Hz	004651103		1450	1
CEM95.00-400V-50/60Hz	004651104		1450	1
CEM95.00-24V DC **	004651200		1500	1
CEM95.00-220V DC **	004651201		1500	1

For different configurations of auxiliary contacts up to 6 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28 V DC), 220V DC (208...240V DC)

Motor contactor CEM105.00; 140A(AC1); 105A; 55kW(AC3)

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM105.00-24V-50/60Hz	004652100		1470	1
CEM105.00-48V-50/60Hz	004652101		1470	1
CEM105.00-110V-50/60Hz	004652102		1470	1
CEM105.00-230V-50/60Hz	004652103		1470	1
CEM105.00-400V-50/60Hz	004652104		1470	1
CEM105.00-24V DC **	004652200		1500	1
CEM105.00-220V DC **	004652201		1500	1

For different configurations of auxiliary contacts up to 6 auxiliary contacts can be added to contactor and must be ordered separately.

** 24V DC (24...28 V DC), 220V DC (208...240V DC)

Motor contactor CEM112.22(E); 180A(AC1); 112A; 55kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM112.22-24V-50/60Hz	004653140		2400	1
CEM112.22-48V-50/60Hz	004653141			
CEM112.22-110V-50/60Hz	004653142			
CEM112.22-230V-50/60Hz	004653143			
CEM112.22-400V-50/60Hz	004653144			
CEM112E.22-28V AC/DC **	004646018			
CEM112E.22-130V AC/DC **	004646019			
CEM112E.22-250V AC/DC **	004646020			
CEM112E.22-415V AC/DC **	004646021			

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)

**28V AC/DC (24...28V), 130V AC/DC (110...130V), 250V AC/DC (208...250V), 415V AC/DC (360...415V)

Surge suppressor is already integrated

Motor contactor CEM150E.22; 225A(AC1); 150A; 75kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM150E.22-28V AC/DC **	004654240		2400	1
CEM150E.22-130V AC/DC **	004646023			
CEM150E.22-250V AC/DC **	004654241			
CEM150E.22-415V AC/DC **	004646025			

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)

**28V AC/DC (24...28V), 130V AC/DC (110...130V), 250V AC/DC (208...250V), 415V AC/DC (360...415V)

Surge suppressor is already integrated



For auxiliary contact blocks, see page 254



Motor contactor CEM180.22(E); 225A(AC1); 180A; 90kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM180.22-24V-50/60Hz	004655140		3900	1
CEM180.22-48V-50/60Hz	004655141			
CEM180.22-110V-50/60Hz	004655142			
CEM180.22-230V-50/60Hz	004655143			
CEM180.22-400V-50/60Hz	004655144			
CEM180E.22-28V AC/DC **	004646029			
CEM180E.22-130V AC/DC **	004646026			
CEM180E.22-250V AC/DC **	004646027			
CEM180E.22-415V AC/DC **	004646028			

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)

**28V AC/DC (24...28V), 130V AC/DC (110...130V), 250V AC/DC (208...250V), 415V AC/DC (360...415V)

Surge suppressor is already integrated


Motor contactor CEM250.22(E); 350A(AC1); 250A; 132kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM250.22-24V-50/60Hz	004656140		6000	1
CEM250.22-48V-50/60Hz	004656141			
CEM250.22-110V-50/60Hz	004656142			
CEM250.22-230V-50/60Hz	004656143			
CEM250.22-400V-50/60Hz	004656144			
CEM250E.22-28V AC/DC **	004646030			
CEM250E.22-130V AC/DC **	004646031			
CEM250E.22-250V AC/DC **	004646032			
CEM250E.22-415V AC/DC **	004646033			

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)

**28V AC/DC (24...28V), 130V AC/DC (110...130V), 250V AC/DC (208...250V), 415V AC/DC (360...415V)

Surge suppressor is already integrated

** Range of operating voltages is shown in the technical part of catalogue



For auxiliary contact blocks, see page 254

Motor contactor CEM300.22(E), 410A(AC1), 300A, 160kW(AC3)*

Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM300E.22-28V AC/DC	004656300		6900	1
CEM300E.22-50V AC/DC	004656301			
CEM300E.22-72V AC/DC	004656302			
CEM300E.22-130V AC/DC	004656303			
CEM300E.22-250V AC/DC	004656304			
CEM300E.22-415V AC/DC	004656305			

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)

**28V AC/DC (24...28V), 130V AC/DC (110...130V), 250V AC/DC (208...250V), 415V AC/DC (360...415V)

Surge suppressor is already integrated





Motor contactor CEM450.22(E), 600A(AC1), 450A, 260kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM450E.22-255V AC/DC	004656306		12000	1

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)
Surge suppressor is already integrated

Motor contactor CEM560.22(E), 700A(AC1), 560A, 300kW(AC3)*				
Type	Code No.	Wiring diagram	Weight [g]	Packaging [pcs]
CEM560E.22-255V AC/DC	004656307		12000	1

* Integrated auxiliary contacts: two side mounted auxiliary contact blocks 2 X (1NO + 1 NC)
Surge suppressor is already integrated

Accessories



Auxiliary contact block - front mounted						
Type	Code No.	Description	For use with	Wiring diagram	Weight [g]	Packaging [pcs]
BCXMFE10	004641510	1 NO	CEM9-CEM105		15	1
BCXMFE01	004641501	1 NC	CEM9-CEM105		15	1
BCXMFAE10	004642510	1 NO - early-make	CEM9-CEM105		15	1
BCXMFRE01	004643510	1 NC - late-break	CEM9-CEM105		15	1
BCXMFE10S*	004646094	Special aux. Contact 1xNO	CEM9-CEM105		15	1
BCXMFE01S*	004646095	Special aux. Contact 1xNC	CEM9-CEM105		15	1

not for CEM7,5CN and CEM10CN!
available free aux. contact blocks places:
CEM 9 CEM 40: 4 contact blocks
CEM 50 CEM 105: 6 contact blocks
CEM 112 CEM 300: mounting not available - only lateral, see below

*Special aux. contacts (Au -gold) for low signals switching min. 1mA /17V

Auxiliary contact block - lateral

Type	Code No.	Description	For use with	Wiring diagram	Weight [g]	Packaging [pcs]
BCXMLE11	004644511	1 NO - 1 NC (main)	CAEM4, CEM9-CEM250		15	1
BCXMLE20	004644520	2 NO (main)	CAEM4, CEM9-CEM250		15	1
BCXMRL11	004645511	1 NO - 1 NC side mounted (upgraded)	CAEM4, CEM9-CEM250		15	1
BCXMRL20	004645520	2 NO side mounted (upgraded)	CAEM4, CEM9-CEM250		15	1
BLRBE-11	004656308	1 NO - 1 NC side mounted (upgrade)	CEM450-CEM560		34	1
BLBE-11	004656325	1 NO - 1 NC side mounted (spare part)	CEM450-CEM560		34	1

not for CEM7,5CN and CEM10CN!

Main lateral auxiliary contact block can be mounted on the front side of the contactor, it can be upgraded max. with one additional auxiliary contact block.

Max. number of auxiliary contacts together (top and side mounted):
 max. 4: CEM9-CEM25, CAEM 4
 max. 6: CEM32-CEM40
 max. 8: CEM50-CEM105
 max. 8: CEM112-CEM300


Mechanical interlock

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
BLIME 9-105	004643601	CEM9-CEM105	50	1
BLIME9-105 02*	004646093	CEM9-CEM105	69	1
BLIME 112-300E	004643602	CEM112(E)-CEM560(E)	150	1

*Mechanical interlock with integrated auxiliary contacts 2xNC



Surge suppressor

Type	Code No.	Coil voltage	For use with	Weight [g]	Packaging [pcs]
BAMRCE4	004642701	24-48 VAC	CEM9-CEM40	14	1
BAMRCE5	004642702	50-127 VAC	CEM9-CEM40	14	1
BAMRCE6	004642703	130-250 VAC	CEM9-CEM40	14	1
BAMRCE7	004642705	24-48 VAC	CEM50-CEM105	14	1
BAMRCE8	004642706	50-127 VAC	CEM50-CEM105	14	1
BAMRCE9	004642707	130-250 VAC	CEM50-CEM105	14	1
BAMDIE10	004643701	12-600 VDC	CEM9-CEM105	14	1
BAMRCE13	004642708	24-48 VAC	CEM112-CEM250	14	1
BAMRCE14	004642711	50-250 VAC	CEM112-CEM250	14	1
BAMVES 255V/ACDC	004656320	100-255VAC	CEM450E-CEM560E	18	1



Terminal blocks

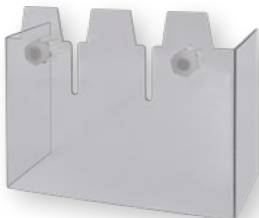
Type	Code No.	For use with	Weight [g]	Packaging [pcs]
TBE150	004646090	CEM112...CEM150	210	1
TBE180	004646091	CEM180	270	1
TBE300	004646092	CEM250...CEM300	575	1



Spare contacts*

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
SCCEM450	004656323	CEM450(E)	1120	1
SCCEM560	004656324	CEM560(E)	1120	1

*1 (pc) reference code includes 3 spare contacts (1 pc = 3 spare contacts -> 3 moving parts and 6 fixed parts)



Terminal cover

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
CCEM150	004646080	CEM150	231	1
CCEM180	004646081	CEM180	231	1
CCEM300	004646082	CEM300	231	1
CCEM560	004656309	CEM560	231	1

*1 (pc) reference code includes 2 covers (1pc=top+bottom)

Overload relay

Overload relay RE27D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE27D-0,4	004642400	0,28-0,4	CEM09 ... CEM25	147	1
RE27D-0,63	004642401	0,4-0,63			
RE27D-0,8	004642402	0,56-0,8			
RE27D-1,2	004642403	0,8-1,2			
RE27D-1,8	004642404	1,2-1,8			
RE27D-2,8	004642405	1,8-2,8			
RE27D-4,0	004642406	2,8-4,0			
RE27D-6,3	004642407	4-6,3			
RE27D-8,0	004642408	5,6-8			
RE27D-10	004642409	7-10			
RE27D-12,5	004642410	8-12,5			
RE27D-15	004642411	10-15			
RE27D-17	004642412	11-17			
RE27D-23	004642413	15-23			
RE27D-32	004642414	22-32			



Overload relay RE67.1D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE67.1D-40	004643415	25-40	CEM32... CEM40	300	1
RE67.1D-50	004643416	32-50			



Overload relay RE67.2D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE67.2D-57	004644417	40-57	CEM50 ... CEM80	310	1
RE67.2D-63	004644418	50-63			
RE67.2D-70	004644419	57-70			
RE67.2D-80	004644420	63-80			



Overload relay RE117.1D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE117.1D-97	004645421	75-97	CEM95...	520	1
RE117.1D-112	004645422	90-112	CEM105		



Overload relay RE117.2D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE117.2D-97	004646421	75-97	CEM112(E)	550	1
RE117.2D-112	004646422	90-112			



Overload relay RE317.2D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE317D-150	004647423	100-150	CEM150(E)	900	1
RE317D-215	004647424	140-215	...		
RE317D-310	004647425	200-310	CEM250(E)		
RE317D-420	004656312	275-420	CEM450(E)	2000	

Overload relay RE407D

Type	Code No.	Current setting range [A]	For use with	Weight [g]	Packaging [pcs]
RE407D-600	004656313	400-600	CEM560(E)	3600	1



ETICON

Overload relay connection bars

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
GAE317-11D	004656310	CEM450(E)+RE317D-420	253	1
GAE407-1D	004656311	CEM560(E)+RE407D-600	461	1

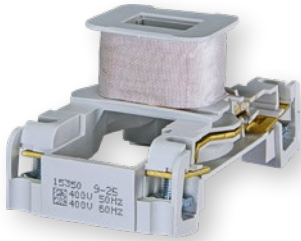
*1(pc) reference code includes 3 bars for one 3 pole connection


Overload relay mounting kits for rails TH35

Type	Code No.	For use with	Weight [g]	Packaging [pcs]
BF27D	004641901	RE27D	50	1
BF67.1D	004641902	RE67.1,	95	1
BF67.2D	004641904	RE67.2	95	1
BF117D	004641903	RE117.1D	110	1



Individual coil for control voltage contactor

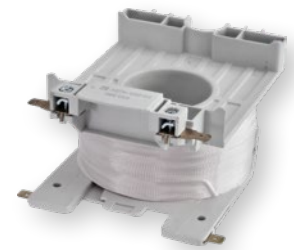


Individual coil for control voltage contactor					
Type	Code No.	AC; DC coil	For use with	Weight [g]	Packaging [pcs]
BCAE4-25-24 V-50/60 Hz*	004641810	AC	CEM9 -	65	1
BCAE4-25-48 V-50/60 Hz*	004641811	AC			
BCAE4-25-110 V-50/60 Hz*	004641812	AC			
BCAE4-25-230 V-50/60 Hz*	004641813	AC			
BCAE4-25-400 V-50/60 Hz*	004641814	AC	CEM25	120	
BCCE-25-24 V DC*	004642810	DC			
BCCE-25-48 V DC*	004642811	DC			
BCCE-25-110 V DC*	004642812	DC			
BCCE-25-220 V DC*	004642813	DC	CEM32 -	110	
BCAE-40-24 V-50/60 Hz*	004641820	AC			
BCAE-40-48 V-50/60 Hz*	004641821	AC			
BCAE-40-110 V-50/60 Hz*	004641822	AC			
BCAE-40-230 V-50/60 Hz*	004641823	AC	CEM40	180	
BCAE-40-400 V-50/60 Hz*	004641824	AC			
BCCE-40-24 V DC*	004642820	DC			
BCCE-40-48 V DC*	004642821	DC			
BCCE-40-110 V DC*	004642822	DC	CEM50 -	140	
BCCE-40-220 V DC*	004642823	DC			
BCAE-105-24 V-50/60 Hz	004641830	AC			
BCAE-105-48 V-50/60 Hz	004641831	AC			
BCAE-105-110 V-50/60 Hz	004641832	AC	CEM105	220	
BCAE-105-230 V-50/60 Hz	004641833	AC			
BCAE-105-400 V-50/60 Hz	004641834	AC			
BCCE-105-24 V DC	004642830	DC			
BCCE-105-48 V DC	004642831	DC	CEM112	235	
BCCE-105-110 V DC	004642832	DC			
BCCE-105-220 V DC	004642833	DC			
BCAE-112-24 V-50/60 Hz	004641840	AC			
BCAE-112-48 V-50/60 Hz	004641841	AC	CEM180	400	
BCAE-112-110 V-50/60 Hz	004641842	AC			
BCAE-112-230 V-50/60 Hz	004641843	AC			
BCAE-112-400 V-50/60 Hz	004641844	AC			
BCAE-180-24 V-50/60 Hz	004641850	AC	CEM250	675	
BCAE-180-48 V-50/60 Hz	004641851	AC			
BCAE-180-110 V-50/60 Hz	004641852	AC			
BCAE-180-230 V-50/60 Hz	004641853	AC			
BCAE-180-400 V-50/60 Hz	004641854	AC	CEM250	675	
BCAE-250-24 V-50/60 Hz	004641860	AC			
BCAE-250-48 V-50/60 Hz	004641861	AC			
BCAE-250-110 V-50/60 Hz	004641862	AC			
BCAE-250-230 V-50/60 Hz	004641863	AC	CEM250	675	
BCAE-250-400 V-50/60 Hz	004641864	AC			

* Only AC coils can be fitted to AC controlled contactors & only DC coils can be fitted to DC controlled contactors.

Individual coil for control voltage contactor

Type	Code No.	AC/CD coil	For use with	Weight [g]	Packaging [pcs]
BCEE-150E-28 V	004646044	AC/DC	CEM112E - CEM150E	235	1
BCEE-150E-130 V	004646045				
BCEE-150E-250 V	004646046				
BCEE-150E-415 V	004646047				
BCEE-180E-28 V	004646048		CEM180E	400	
BCEE-180E-130 V	004646049				
BCEE-180E-250 V	004646050				
BCEE-180E-415 V	004646051		CEM250E - CEM300E	670	
BCEE-300E-28 V	004646052				
BCEE-300E-130 V	004646053				
BCEE-300E-250 V	004646054		CEM450E - CEM560E	1360	
BCEE-300E-415 V	004646055				
BCEE-560E 255V-AC/DC	004656322				


Electronic modules for BCEE coils

Type	Code No.	AC/CD coil	For use with	Weight [g]	Packaging [pcs]
MEE-300 28V-AC/DC	004646070	AC/DC	BCEE-150E-28 V, BCEE-180E-28 V, BCEE-300E-28 V	96	1
MEE-300 110V-AC/DC	004646072		BCEE-150E-130 V, BCEE-180E-130 V, BCEE-300E-130 V		
MEE-300 250V-AC/DC	004646073		BCEE-150E-250 V, BCEE-180E-250 V, BCEE-300E-250 V		
MEE-300 415V-AC/DC	004646074		BCEE-150E-415 V, BCEE-180E-415 V, BCEE-300E-415 V		
MEE-560 255V-AC/DC	004656321		BCEE-560E-255V		



Motor protective circuit breakers

Motor protective circuit breakers MSP

Description

The MSP0, MSP1 motor starter protectors are compact motor starter protectors for currents up to 52 A which operate according to the current limiting principle. The devices are used for switching and protecting motors or other loads. They are fitted with instantaneous overcurrent releases and inverse-time delayed overload relay. Motor starter protectors and contactors can be combined to form fuseless starter combinations. The MSP0, MSP1 motor starter protectors are suitable for use in any climate.



MSP0

Motor Starter Protectors

- for motor protection
- MSP0: 0,4...25 A
- MSP1 : 22...52 A

The characteristic curves of these motor starter protectors are specially laid-out for the overload and short-circuit protection of motors. The inverse-time delayed releases ("a releases") are adjustable for setting the rated current of the motors to be protected. The instantaneous short-circuit releases ("n releases") are fixed-set to 12 times the value so as to assure faultless starting of the motors.



MSP1

Motor protective circuit breaker MSP							
Type	Code No.	Rated current [A]	Thermal overload release [A]	Instantaneous overcurrent release [A]	Motor power [kW]	Weight [g]	Packaging [pcs]
MSP0-0,6	004646618	0,6	0,4...0,6	7,2	0,12/0,18	290	1
MSP0-1,0	004646619	1	0,6...1,0	12	0,25	290	1
MSP0-1,6	004646620	1,6	1,0...1,6	19	0,37/0,55	290	1
MSP0-2,4	004646621	2,4	1,6...2,4	29	0,75	290	1
MSP0-4,0	004646622	4	2,4...4,0	48	1,1/1,5	290	1
MSP0-6,0	004646623	6	4,0...6,0	72	2,2	290	1
MSP0-10	004646624	10	6,0...10	120	3/4	290	1
MSP0-16	004646625	16	10...16	190	7,5	290	1
MSP0-20	004646626	20	14...20	240	7,5	290	1
MSP0-25	004646627	25	18...25	300	11	290	1
MSP1-32	004646628	32	22...32	380	15	760	1
MSP1-40	004646629	40	28...40	480	18,5	760	1
MSP1-52	004646630	52	36...52	600	22	760	1

Accessories

Combinations:

Right hand side of MSP: An auxiliary contact and/or a short-circuit signalling contact
 Left hand side of MSP: Undervoltage release or Shunt release

Short circuit trip indication

Type	Code No.	Description	Wiring diagram	Weight [g]	Packaging [pcs]
MSP-AS	004646617	1NO+1NC (AC-15: 3A/230V, 1.5A/400V, 1A/500V)		40	1

width=9mm

Auxiliary contact

Type	Code No.	Description	Wiring diagram	Weight [g]	Packaging [pcs]
MSP-PS11	004646631	1NO+1NC (AC-15: 3A/230V, 1.5A/400V, 1A/500V)		40	1

width=9mm

Shunt release

Type	Code No.	Rated voltage Un	Operation range	Weight [g]	Packaging [pcs]
MSP-A 230	004646632	230 VAC (220-230V 50Hz)	154-253 VAC	110	1
MSP-A 24	004646633	24 VAC (24V 50Hz, 24-60V DC)	16.8 - 26.4 VAC, 16.8 - 66VDC	110	1

width=18mm, operation range: 0.7-1.1*Un

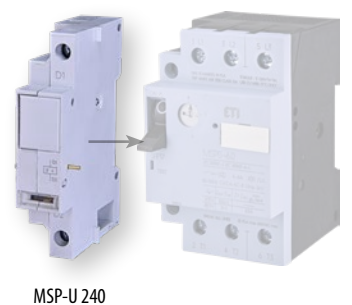
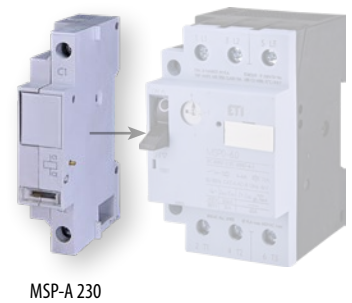
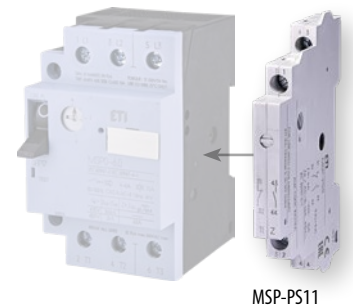
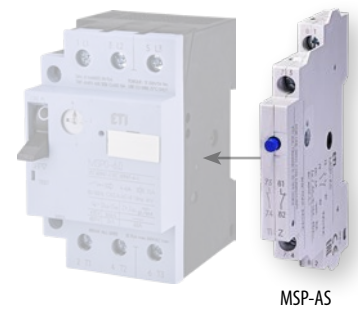
Undervoltage release

Type	Code No.	Rated voltage Un	Operation range (for keeping)	Weight [g]	Packaging [pcs]
MSP-U 240	004646634	240 V 50Hz	204-264 VAC	110	1

width=18mm, Falling (tripping) voltage: 0.35-0.7 Un, keeping voltage: 0.85-1.1Un.

Connection terminals

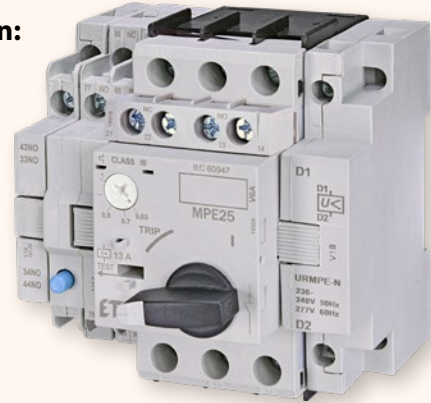
Type	Code No.	Description	Weight [g]	Packaging [pcs]
MSP-IZ2	004646635	busbar connection of 2 MSPs	50	1
MSP-IZ3	004646636	busbar connection of 3 MSPs	50	1
MSP-IZ4	004646637	busbar connection of 4 MSPs	100	1
MSP-TA1	004646638	3 phase line side terminal	110	1
MSP-TA2	004646639	3 phase line side terminal (in combination with MSP-IZ...)	50	1



Motor protective circuit breakers MPE

Rated current
0,16 - 32 A

Example of MPE configuration:



Advantages

- With overload and short circuit protection
- Fixed short circuit release 13 x Iu
- With phase-failure sensitivity according to IEC/EN 60947-4-1
- With temperature compensation
- Can be used as main switch
- MPE25 up to 10A at 400/415V are self-protected
- MPE25 above 10A provide a breaking capacity of 50kA at 400/415V according to IEC/EN 60947-2
- MPE80 provide a breaking capacity of 60kA at 380V according to IEC/EN 60947-2

IE3 CONFORM



Motor protective circuit breaker MPE

Type	Code No.	Operational inst. current I _u (A)	Setting overl. release I _r (A)	Short-circuit release I _{rm} (A)	Weight [g]	Packaging [pcs]
MPE25-0,16	004648001	0,16	0,1-0,16	2,08	322	1
MPE25-0,25	004648002	0,25	0,16-0,25	3,25	322	1
MPE25-0,40	004648003	0,4	0,25-0,4	5,2	322	1
MPE25-0,63	004648004	0,63	0,4-0,63	8,2	322	1
MPE25-1,0	004648005	1	0,63-1,0	13	322	1
MPE25-1,6	004648006	1,6	1,0-1,6	20,8	322	1
MPE25-2,5	004648007	2,5	1,6-2,5	32,5	322	1
MPE25-4,0	004648008	4	2,5-4,0	52	322	1
MPE25-6,3	004648009	6,3	4,0-6,3	82	322	1
MPE25-10	004648010	10	6,3-10	130	322	1
MPE25-16	004648011	16	10-16	208	322	1
MPE25-20	004648012	20	16-20	260	322	1
MPE25-25	004648013	25	20-25	325	322	1
MPE25-32	004648014	32	25-32	416	322	1
MPE25-40	004648015	40	32-40	520	322	1
MPE80-50	004648016	50	40-50	650	1070	1
MPE80-65	004648017	65	50-65	845	1070	1
MPE80-80	004648018	80	65-80	1040	1070	1

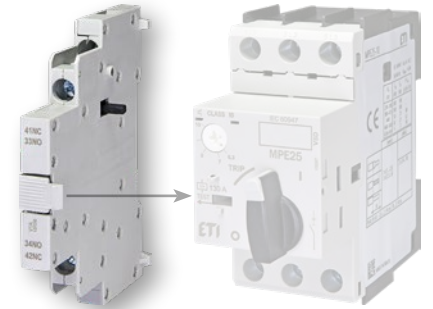
Front mountable auxiliary contact block, the 45mm widths - MPE remain unchanged

Type	Code No.	Wiring diagram	Auxiliary contacts NO, NC	Weight [g]	Packaging [pcs]
ACBFE-11	004648021		1, 1	20	1

Motor protective circuit breakers

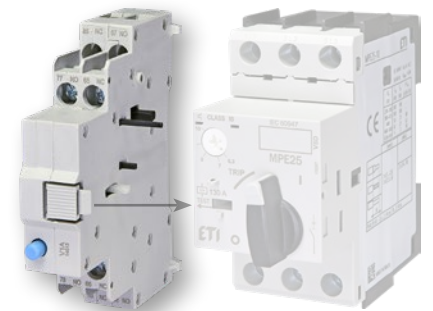
Left side mountable contact block, can be combined with front mountable auxiliary contact block

Type	Code No.	Wiring diagram	Auxiliary contacts NO, NC	Weight [g]	Packaging [pcs]
ACBSE-11	004648022		1, 1	38	1
ACBSE-20	004648023		2, 0	38	1



Trip indicating contact block, mounted on the left side

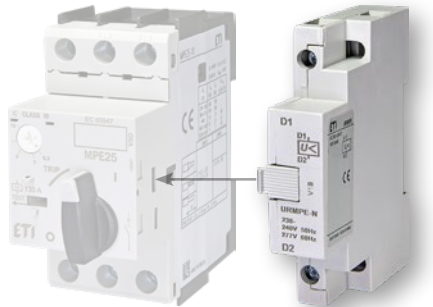
Type	Code No.	Wiring diagram	Notes	Weight [g]	Packaging [pcs]
TSBE	004648024		Separate tripped and short-circuit 1NC for each circuit. Allows mounting with lateral aux. contact block. Left side mounting. TBSE alarms, 1NO +	150	1



Undervoltage release, mounted on the right side

Type	Code No.	Wiring diagram	actuating voltages	Weight [g]	Packaging [pcs]
URMPE-N	004648027		230-240V AC	115	1
URMPE-U	004648028		400-415V AC		

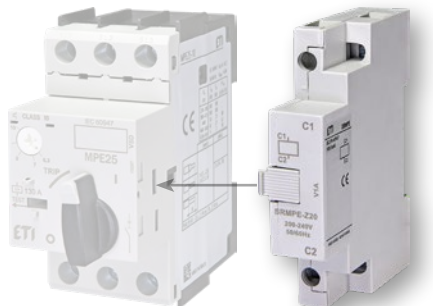
Pick-up voltage $>0,85 \times U_e$ Drop-out voltage $0,35-0,7 \times U_e 100\%DF$



Shunt release, mounted on the right side

Type	Code No.	Wiring diagram	actuating voltages	Weight [g]	Packaging [pcs]
SRMPE-Z20	004648030		200-240V AC	115	1

Pick-up voltage $0,7 \times U_e 100\%DF$





Accessories				
Type	Code No.	Description	Weight [g]	Packaging [pcs]
SCMPE	004648025	Scale cover	15	5
PLMPE	004648026	Push-in-lugs	25	2



Insulated enclosure with black/grey rotary handle, IP55					
For use with	Code No.	Notes	Type	Weight [g]	Packaging [pcs]
MPE25 + ACBFE11 + ACBSE11 // ACBSE20 + PL..	004648032	with black/grey rotary handle with integrated PE(N) terminal	MPEE55G	365	1
MPE25 + URMPE // SRMPE + ACBFE11 + ACBSE11 ali ACBSE20 + PL..	004648033	lockable in OFF position with 3 padlocks two M25 metric cable entry knockout, top and bottom	MLPEE55G	415	1



Insulated enclosure with red/yellow rotary handle, IP55					
For use with	Code No.	Notes	Type	Weight [g]	Packaging [pcs]
MPE25 + ACBFE11 + ACBSE11 // ACBSE20 + PL..	004648034	with red/yellow rotary handle for use as Emergency-Stop switches to IEC/EN 60204 with integrated PE(N) terminal	MPEE55G-E	365	1
MPE25 + URMPE // SRMPE + ACBFE11 + ACBSE11 or ACBSE20 + PL..	004648035	lockable in OFF position with 3 padlocks two M25 metric cable entry knockout, top and bottom	MLPEE55G-E	415	1

Neutral terminal					
For use with	Code No.	Description	Type	Weight [g]	Packaging [pcs]
MPEE55G, MLPEE55G, MPEE55G-E & MLPEE55G-E	004648038	for connection of a 5th conductor	NL-MPEE	365	1

Motor protective circuit breakers

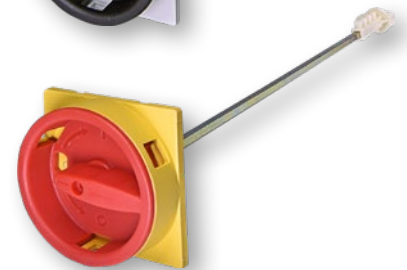
Flush mounting enclosure

Type	Code No.	colour	Description	Weight [g]	Packaging [pcs]
FMEE55	004648036	black	- for MPE mounting on panel door - degree of protection IP55 - moulded plastic front plate with rotary operating mechanism	200	1
FMEE55-E	004648037	red/yellow	- lockable in OFF position - allows access. ACBFE-11, ACBSE-11 or ACBSE-20 and URMPE / SRMPE - allow installation of sig. lamp	200	1



Door coupling rotary handle black/grey and red/yellow, IP55

Type	Code No.	colour	Notes	Weight [g]	Packaging [pcs]
RMMPE130 (130 mm)	004648039	black	- extension shaft, length 130 to 155mm - extension shaft, length 330 to 355mm	76	1
RMMPE330 (330 mm)	004648040		- door coupling rotary handle black/grey - extension shaft can be cut of any required length min. 80mm	114	
RMMPE130E (130 mm)	004648041	red/yellow	- thickness of panel door 1 to 3,5mm - for use of main switch IEC/EN60204 - ON/OFF/Tripped position	76	1
RMMPE330E (330 mm)	004648042		- lockable in OFF pos. with 3 padlocks - the MPE can also be used turned 90°	114	



Indicator light

Type	Code No.	Notes	colour	Weight [g]	Packaging [pcs]
PLE230 PLE400	004648043 004648044	voltage: 210...230V voltage: 400...560V	red	17	10
PLE230G PLE400G	004648045 004648046	voltage: 210...230V voltage: 400...560V	green		
PLE230W PLE400W	004648047 004648048	voltage: 210...230V voltage: 400...560V	white		



Circuit breaker-contactor link module

Type	Code No.	Notes	For use with	Weight [g]	Packaging [pcs]
ECCMPE07	004648052	for electrical and mechanical linking motor protective circuit breaker	CE07	27	1
ECCMPE25	004648053	MPE25 and contactor	CEM9...25		



Motor protective circuit breaker MS25

Main application field: control (start-up, protection and switch-off) of AC electric motors with powers up to 11 kW (380/400 V) or other consumers up to 25 A; it can also be used as the main switch according to EN 60204 or VDE 0113 standards.

Versions:

- MS25 - with overload and short circuit protection

Manual control:

- START, STOP, push-buttons
- Test of release function (TEST)

- Phase-failure sensitivity according to IEC/EN 60947-4-1
- Automatic switch-off with thermal or magnetic release
- Control with under-voltage release or shunt release
- Isolating distance between contacts: 4.5 mm per contact place
- Hard wire or fine wire connection
- Simple and fast mounting by snap fitting on 35 mm wide mounting rail in compliance with EN 60715; fixing with two screws is also possible
- Vertical or horizontal operation position



Motor protective circuit breaker MS25

Type	Code No.	Operational inst. current I _u (A)	Setting overl. release I _r (A)	Weight [g]	Packaging [pcs]
MS25-0,16	004600010	0.16	0,1-0,16	255	1
MS25-0,25	004600020	0.25	0,16-0,25	255	1
MS25-0,40	004600030	0.4	0,25-0,4	255	1
MS25-0,63	004600040	0.63	0,4-0,63	255	1
MS25-1,0	004600050	1	0,63-1,0	255	1
MS25-1,6	004600060	1.6	1,0-1,6	255	1
MS25-2,5	004600070	2.5	1,6-2,5	255	1
MS25-4,0	004600080	4	2,5-4,0	255	1
MS25-6,3	004600090	6.3	4,0-6,3	255	1
MS25-10	004600100	10	6,3-10	255	1
MS25-16	004600110	16	10-16	255	1
MS25-20	004600120	20	16-20	255	1
MS25-25	004600320	25	20-25	255	1

Motor protective circuit breakers

Auxiliary switch for lateral mounting PS

Auxiliary switch for lateral mounting PS					
Type	Code No.	Wiring diagram	Auxiliary contacts NO, NC	Weight [g]	Packaging [pcs]
PS 20	004600160		2,0	30	1/10
PS 01	004600150		0,1	30	1/10
PS 10	004600140		1,0	30	1/10
PS 11	004600130		1,1	30	1/10



Shunt release

Shunt release					
Type	Code No.	Wiring diagram	actuating voltages	Weight [g]	Packaging [pcs]
A 230	004600170		220V-240V	30	1/10



Undervoltage release

Undervoltage release					
Type	Code No.	Wiring diagram	actuating voltages	Weight [g]	Packaging [pcs]
U 230	004600180		220V-240V	30	1/10



Enclosure O Front plate CP

Enclosure O Front plate CP				
Type	Code No.	IP	Weight [g]	Packaging [pcs]
O - 41	004600190	41	25	1
O - 55	004600200	55	25	1
CP - 41	004600210	41	20	1
CP - 55	004600220	55	20	1



O-IP41/55



CP-IP41/55

Emergency stop push-button



Emergency stop push-button

Type	Code No.	Weight [g]	Packaging [pcs]
NAT	004600270	15	1/20
NAT-lock	004600280	20	1/20

Padlocking feature Z



Padlocking feature Z

Type	Code No.	Weight [g]	Packaging [pcs]
Z	004600260	30	1/10

Neutral link NL



Neutral link NL

Type	Code No.	Weight [g]	Packaging [pcs]
NL	004600330	10	1/10

Signal lamp SS



Signal lamp SS

Type	Code No.	Colour	Weight [g]	Packaging [pcs]
SS B 400V	004600230	white	10	1/10
SS R 400V	004600240	red	10	1/10
SS Z 400V	004600250	green	10	1/10