

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:

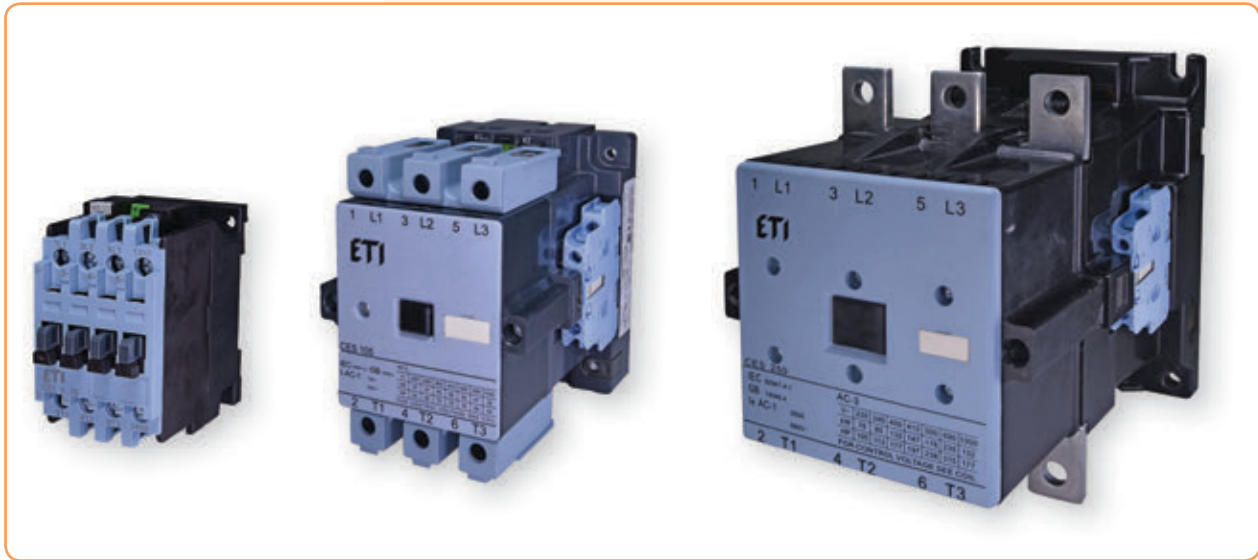
Up to 4 auxiliary contact blocks with 1 NO or 1 NC contact can be snapped onto the basic units (front).

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:

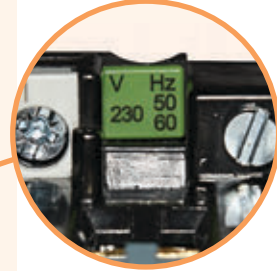
CES 9 . 0 1 - 230V - 50/60Hz
 1 2 3 4 5 6

- 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

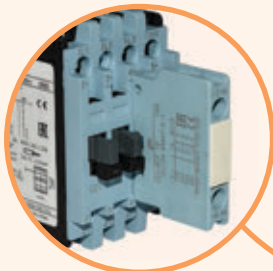
Advantages



→ Terminal clamps allow connection of different cross section cables.



→ Different voltage range of control circuit (coils).



→ Possible to mount auxiliary contacts on top



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



→ Overload relays (bimetal) tripping class 10



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

Overload relay



CES-RT0

CES-RT1



CES-RT2



CES-RT3



CES-RT4 120, 135, 150



CES-RT4 160, 180



CES-RT4 250, 400

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-AD-RT

Thermal overload relays, CLASS 10A

According to IEC 60947-4-1					
Type		CES-RT0	CES-RT1	CES-RT2	CES-RT3
General data					
Trip class	CLASS 10A ($2s < t_a \leq 10s$ at $7.2 \times I_e$ from cold state)				
Phase failure sensitivity by differential phase shift		✓	✓	✓	✓
Changeover to automatic reset		✓	✓	✓	✓
RESET button with trip-free feature		✓	✓	✓	✓
Temperature compensation		✓	✓	✓	✓
Switch position indicator		✓	✓	✓	✓
Test button actuates the NO and NC contacts		✓	✓	✓	✓
Terminal for contactor coil		✓	✓	✓	✗ ¹⁾
Permissible ambient temperature	°C	-25 ... +55			
Degree of protection acc. to IEC 60947-1		IP00/open or IP20			
Shock resistance	g/ms	8/10			
Main circuit					
Rated insulation voltage U_i (Pollution degree 3)	AC/DC V	690			
Rated impulse withstand voltage U_{imp}	kV	6			
Type of current, frequency range		DC; AC \leq 400 Hz			
Conductor cross-sections					
Terminal screw		M4	M5	M4	M5
solid or stranded	mm ²	2.5 ... 6	1.5 ... 25	1.5 ... 25	2.5 ... 35
finely stranded with end sleeve	mm ²	1.5 ... 4	1 ... 16	1 ... 16	1.5 ... 25
Flat bars	mm	--	--	--	--
Tightening torque	Nm	1 ... 1.5	2.5 ... 3	2.5 ... 3	2.5 ... 3
	lb.in	9 ... 13	22 ... 26.5	22 ... 26.5	22 ... 26.5
Power loss per conduction path (max.)					
at lowest value	W (VA)	0.9	1.2	1.2	2.6
at highest value of the setting range	W (VA)	2.25	3	3	4
Auxiliary circuit					
Auxiliary contacts		1 NO + 1 NC			
Conductor cross-sections					
Terminal screw		M3.5			
solid or stranded	mm ²	2 x (0.5 ... 1)/2 x (1 ... 2.5)			
finely stranded with end sleeve	mm ²	2 x (0.5 ... 1)/2 x (0.75 ... 2.5)			
Tightening torque	Nm	0.8 ... 1.4			
	lb.in	7 ... 12			
Rated insulation voltage U_i (pollution degree 3)		Unequal potential (NO + NC)	Equal potential (NO + NC connected as changeover contact)	Unequal potential (NO + NC)	Equal potential (NO + NC connected as changeover contact)
	V	400	690	400	690
Rated impulse withstand voltage U_{imp}	kV	6			
Switching capacity					
AC-15:					
Rated operational voltage U_e	V	24; 60; 125; 230; 400; 500; 690;			
Rated operational current I_e	A	2; 1.5; 1.25; 1.15; 1.1; 1; 0.8			
Conventional thermal current I_{th}	A	6			
Short-circuit protection		Fuses, utilization category gG 6A or miniature circuit-breaker with C-characteristics 3A			