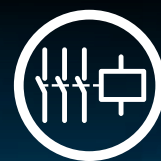




Controls



CONTACTORS – CWM (up to 800 A) and CWC (up to 25 A)





Contactors – CWM (up to 800 A)
and CWC (up to 25 A)



CONTACTORS

– CWM (up to 800 A)
and CWC (up to 25 A)

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Contactors and Overload Relays

CWM and RW - Contactors and Overload Relays

- Complete line from 9 to 800 A (AC-3)
- 3-pole and 4-pole versions
- Quick mounting on 35 mm DIN rail or screw mounting
- Coils available in AC and DC voltage
- Direct mounting on overload relays up to 105 A
- Large accessory range
- Star-delta and reversing wiring kits (easy connection) allows fast mounting and reduced space in the panel
- Overload relays with phase failure sensitivity, according to IEC 60947-4-1 and tripping class 10
- Special contactors for capacitor switching available
- Certifications: UL, CE, RCC, IRAM
- CWM112 to 800 and RW117 to 420 are designed for exclusively industrial and professional use














CWC0 - Compact Contactors

- AC-3 operation up to 22 A
- Spring terminal version available up to 12 A (AC-3)
- Quick mounting on 35 mm DIN rail or screw mounting
- Suitable for operation under AC-4 duty
- Built-in auxiliary contacts up to 10 A (AC-15)
- Low-consumption DC coil allows direct connection with PLCs output
- Direct mounting on overload relays
- Compact contactors CWC07 to CWC016 AC and DC coil with the same dimensions
- Fast mounting (clip on) of surge suppressors
- Miniature electronic timing with right-side fast mounting
- Front mounting and quick assembly of mechanical interlock and latch block
- Certifications: UL, CE, RCC, IRAM



















Overview

						
Reference	3 poles	CWC07	CWC09	CWC012	CWC016	CWC025
Rated operational power ¹⁾						
220/230 V ac	kW / hp	1.5 / 2	2.2 / 3	3 / 4	4 / 5	5.5 / 7.5
380 V ac	kW / hp	3 / 4	4 / 5	5.5 / 7.5	7.5 / 10	11 / 15
400/415 V ac	kW / hp	3 / 4	4 / 5	5.5 / 7.5	7.5 / 10	11 / 15
440 V ac	kW / hp	3.7 / 5	4.5 / 6	5.5 / 7.5	7.5 / 10	11 / 15
500 V ac	kW / hp	3.7 / 5	4.5 / 6	5.5 / 7.5	7.5 / 10	11 / 15
660/690 V ac	kW / hp	3 / 4	4 / 5	5.5 / 7.5	7.5 / 10	11 / 15
Rated operational current I_e AC-3 ($U_e \leq 440$ V)	A	7	9	12	16	22
Conventional thermal current $I_{th} = I_e$ AC-1	A	18	20	22	22	32
Rated operational current I_e AC-4 ($U_e \leq 440$ V)	A	2.8	3.5	4.5	5	9
Dimensions W x H x D	(mm)	45 x 58 x 52				45 x 48 x 56
Overload relay	A	RW17-1D 	0.28...0.4 0.4...0.63 0.56...0.8 0.8...1.2 1.2...1.8 1.8...2.8	2.8...4 4...6.3 5.6...8 7...10 8...12.5 10...15 11...17	RW17-2D 	7...10 8...12.5 10...15 11...17 15...23 22...32
Auxiliary contact blocks			BFC0-20 (2NO) BFC0-22 (2NO + 2NC) BFC0-11 (1NO + 1NC) BFC0-04 (4NC) BFC0-02 (2NC) BFC0-31 (2NO + 1NC) BFC0-40 (4NO) BFC0-13 (1NO + 3NC)			BFC025-11 (1NO + 1NC) BFC025-20 (2NO) BFC025-02 (2NC) BFC025-22 (2NO + 2NC)
Mechanical interlock			BICO			—
Timer				ON-Delay (TECO) OFF-Delay (TDCO) Star-Delta (TETCO)		
Surge suppressor			RC block: RCC0-1 D49 12-24 V 50/60 Hz RCC0-2 D53 24-48 V 50/60 Hz RCC0-3 D55 50-127 V 50/60 Hz RCC0-4 D63 130-250 V 50/60 Hz RCC0-5 D84 275-380 V 50/60 Hz RCC0-6 D73 400-510 V 50/60 Hz RCAC0 D87 180...230 V 50/60 Hz	Varistor block: VRC0-1 E01 12-48 V 50/60 Hz / 12-60 V dc VRC0-2 E34 50-127 V 50/60 Hz / 60-180 V dc VRC0-3 E50 130-250 V 50/60 Hz / 180-300 V dc VRC0-4 E41 277-380 V 50/60 Hz / 300-510 V dc VRC0-5 D73 400-510 V 50/60 Hz Diode block ³⁾ : DIC0-1 C33 12-600 V dc DIZ00 C26 12...250 V dc		

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;

2) Electrical and mechanical interlock;

3) Only available for CWC07 to 16.

										
CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105
2.2 / 3	3 / 4	4.5 / 6	5.5 / 7.5	9.2 / 12.5	11 / 15	15 / 20	18.5 / 25	22 / 30	22 / 30	30 / 40
4 / 5	5.5 / 7.5	7.5 / 10	11 / 15	15 / 20	18.5 / 25	22 / 30	30 / 40	37 / 50	45 / 60	55 / 75
4 / 5	5.5 / 7.5	7.5 / 10	11 / 15	15 / 20	18.5 / 25	22 / 30	30 / 40	45 / 60	55 / 75	55 / 75
4.5 / 6	5.5 / 7.5	9.2 / 12.5	11 / 15	15 / 20	22 / 30	30 / 40	37 / 50	45 / 60	55 / 75	55 / 75
4.5 / 6	5.5 / 7.5	9.2 / 12.5	11 / 15	15 / 20	22 / 30	30 / 40	37 / 50	45 / 60	55 / 75	55 / 75
5.5 / 7.5	7.5 / 10	11 / 15	11 / 15	18.5 / 25	22 / 30	30 / 40	37 / 50	45 / 60	55 / 75	55 / 75
9	12	18	25	32	40	50	65	80	95	105
25	25	32	45	60	60	90	110	110	140	140
5	7	8	12	16	18.5	23	30	37	44	50
45 x 81 x 87 (AC) / 115 (DC)			45 x 81 x 87 (AC) / 117 (DC)	55 x 89 x 98 (AC) / 118 (DC)		66 x 117 x 116			75 x 117 x 126	
RW27-1D  0.28...0.4 0.4...0.63 0.56...0.8 0.8...1.2 1.2...1.8 1.8...2.8 2.8...4 4...6.3		5.6...8 7...10 8...12.5 10...15 11...17 15...23 22...32		RW67-1D  25...40 32...50		RW67-2D  25...40 40...57 50...63 57...70 63...80		RW117-1D  63...80 75...97 90...112		
 BCXMF10 (1NO) BCXMF01 (1NC) BCXMF10 (1NC) BCXMF01 (1NC)					 BCXML 11 (1NO + 1NC) BCXML 20 (2NO) BCXMRL 11 (1NO + 1NC) BCXMRL 20 (2NO)					
 BLIM9-105 BLIM.02 ²⁹										
 RC block: BAMRC4 D53 24-48 V 50/60 Hz BAMRC5 D55 50-127 V 50/60 Hz BAMRC6 D63 130-250 V 50/60 Hz Diode block: BAMDI10 C33 12-600 V dc Varistor block: BAMV1 D68 270-380 V 50/60 Hz BAMV2 D73 400-510 V 50/60 Hz					 RC block: BAMRC7 D53 24-48 V 50/60 Hz BAMRC8 D55 50-127 V 50/60 Hz BAMRC9 D63 130-250 V 50/60 Hz Varistor block: BAMV1 D68 270-380 V 50/60 Hz BAMV2 D73 400-510 V 50/60 Hz					



						
Reference	3 Poles	CWM112 ¹⁾	CWM150 ³⁾	CWM180 ¹⁾	CWM250 ¹⁾	CWM300 ³⁾
Rated operational power ⁴⁾						
220/230 V ac	kW / hp	30 / 40	45 / 60	55 / 75	75 / 100	90 / 125
380 V ac	kW / hp	55 / 75	75 / 100	90 / 125	132 / 175	150 / 200
400/415 V ac	kW / hp	55 / 75	75 / 100	90 / 125	132 / 175	160 / 220
440 V ac	kW / hp	55 / 75	90 / 125	110 / 150	150 / 200	185 / 250
500 V ac	kW / hp	55 / 75	90 / 125	110 / 150	160 / 220	200 / 270
660/690 V ac	kW / hp	75 / 100	110 / 150	110 / 150	160 / 220	200 / 270
Rated operational current I_e AC-3 ($U_e \leq 440$ V)	A	112	150	180	250	300
Conventional thermal current $I_n = I_e$, AC-1	A	180	225	225	350	410
Rated operational current I_e AC-4 ($U_e \leq 440$ V)	A	63	69	73	110	145
Dimensions W x H x D	(mm)	122 x 155 (AC) / 163 (AC/DC) x 147		139 x 180 (AC) / 183 (AC/DC) x 172	148 x 205 x 181	
Overload relays	A	RW117-2D  63...80 75...97 90...112		RW317-1D  100...150 140...215 200...310 275...420		
		 BCXML11 (1NO + 1NC) BCXML20 (2NO) BCXMRL11 (1NO + 1NC) BCXMRL20 (2NO)				
Mechanical interlock		 BLIM112-300				
Surge suppressor ²⁾		RC block: BAMRC13 D53 24-48 V 50/60 Hz BAMRC14 D56 50-250 V 50/60 Hz Varistor block: BAMV3 D68 270-380 V 50/60 Hz BAMV4 D73 400-510 V 50/60 Hz		—	RC block: BAMRC13 D53 24-48 V 50/60 Hz BAMRC14 D56 50-250 V 50/60 Hz Varistor block: BAMV3 D68 270-380 V 50/60 Hz BAMV4 D73 400-510 V 50/60 Hz	







Notes: 1) Available with AC coil or with electronic module - AC/DC;

2) Only applicable for contactors without electronic module;

3) Only with electronic module;

4) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design.



			
CWM400 [®]	CWM500 [®]	CWM630 [®]	CWM800 [®]
110 / 150	150 / 200	185 / 250	220 / 300
220 / 300	260 / 350	330 / 450	440 / 600
220 / 300	260 / 350	330 / 450	440 / 600
220 / 300	300 / 400	330 / 450	440 / 600
220 / 300	260 / 350	330 / 450	500 / 700
260 / 350	370 / 500	330 / 450	500 / 700
400	500	630	800
450	580	660	900
300	350	400	630
163 x 243 x 201	285 x 331 x 247		
	RW407-1D 400...600 560...840		
			
BCXML11 CWM800 (1NO + 1NC) BCXMRL11 CWM800 (1NO + 1NC) ⁴⁾			
			
BLIM CWM400	BLIM CWM800		



Compact Contactors

The CWC0 compact contactors are offered as a complete solution for switching and controlling motors.

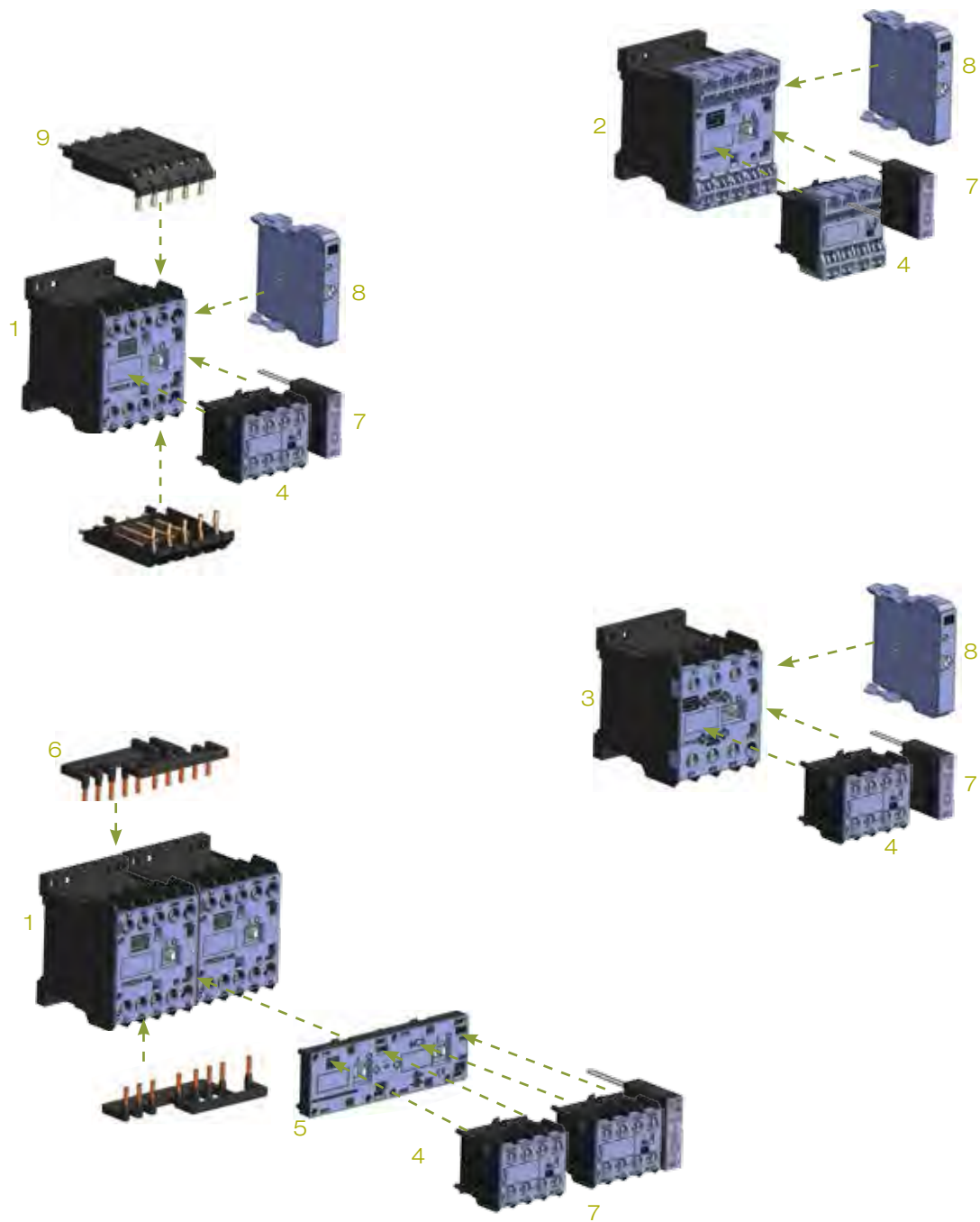
Main Features

- Contactors with screw terminals for AC-3 operation up to 22 A
- Contactors with spring terminals for AC-3 operation up to 12 A (CE Certification only)
- Compact contactors up to 16 A with the same size both for AC and DC coils
- Rated insulation voltage 690 V
- Significantly less consumption and heat dissipation, allowing PLC direct operation without coupling relay
- Wide range of accessories, compact and fast mounting
- Designed according to the standards IEC 60947 and UL 508
- Power and auxiliary contacts comply with IEC 60947-4-1 (mirror contacts) and IEC 60947-5-1 (mechanically linked contacts)
- Mounting through screws or DIN rail 35 mm
- Terminals easy to access and protected against accidental touch (IP20)



Certifications





- 1 Compact contactors CWC07...16 (screw terminal)
- 2 Compact contactors CWC07...12_S (spring terminal)
- 3 Compact contactor CWC025 (screw terminal)
- 4 Auxiliary contact block BFC0 - front mounting
- 5 Mechanical interlock block BIC0 or latch block RMC0
- 6 Easy connection busbars
- 7 Surge suppressor blocks RCC0 (RC), VRC0 (varistor), DIC0 (diode), RCAC0 (RC), DIZC0 (diode+zener)
- 8 Electronic timers TEC0, TDC0 and TETC0
- 9 Block module for printed circuit board CICO



Compact Contactors CWC0



Three-Pole CWC0 Compact Contactors - 7 A to 22 A (AC-3)⁴⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V)	Conv. thermal current $I_{th} = I_e$ AC-1	Maximum rated operational power of three-phase motors 50/60 Hz ¹⁾						Built-in auxiliary contacts		Reference code		AC coil	DC coil
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	660 V 690 V	3 4 NO	1 2 NC	Screw terminal	Spring terminal	Weight kg	
A	A	kW /hp	kW /hp	kW /hp	kW /hp	kW /hp	kW /hp						
7	18	1.5 / 2	3 / 4	3 / 4	3.7 / 5	3.7 / 5	3 / 4	1 0	0 1	CWC07-10-30◆ CWC07-01-30◆	CWC07-10-30◆S CWC07-01-30◆S	0.195	0.230
9	20	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	4 / 5	1 0	0 1	CWC09-10-30◆ CWC09-01-30◆	CWC09-10-30◆S CWC09-01-30◆S		
12	22	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	1 0	0 1	CWC012-10-30◆ CWC012-01-30◆	CWC012-10-30◆S CWC012-01-30◆S		
16	22	4 / 5	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	1 0	0 1	CWC016-10-30◆ CWC016-01-30◆	- -		
22	32	5.5 / 7.5	11 / 15	11 / 15	11 / 15	11 / 15	11 / 15	0	0	CWC025-00-30◆	-	0.200	-

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾

AC coil - 50/60 Hz												
Applicable for CWC07...CWC025 models												
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39	
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480	

DC coil - Standard consumption coil					
Applicable for CWC07...CWC016 models					
Coil voltage codes	C03	C06	C07	C12	C15
V dc	24	42	48	110	220

DC coil - Low consumption coil ³⁾					
Applicable for CWC07...CWC016 models					
Coil voltage codes	L03	L06	L07	L12	L15
V dc	24	42	48	110	220

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;

2) Other voltages available;

3) The compact contactor CWC0 with low consumption coil allows only 2 additional auxiliary contacts;

4) For selection of accessories, check page A16.



Compact Contactors for Reversing Starter with Mechanical Interlock CWCIO - 7 A to 16 A (AC-3)⁴⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V)	Conv. thermal current $I_{th} = I_e$ AC-1	Maximum rated operational power of three-phase motors 50/60 Hz ¹⁾						Built-in auxiliary contacts		Reference code		AC coil	DC coil
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	660 V 690 V	3 4 NO	1 2 NC	Screw terminal	Spring terminal	Weight kg	
A	A	kW /hp	kW /hp	kW /hp	kW /hp	kW /hp	kW /hp						
7	18	1.5 / 2	3 / 4	3 / 4	3.7 / 5	3.7 / 5	3 / 4	1 0	0 1	CWCIO7-10-30◆ CWCIO7-01-30◆	CWCIO7-10-30◆S CWCIO7-01-30◆S	0.395	0.480
9	20	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	4 / 5	1 0	0 1	CWCIO9-10-30◆ CWCIO9-01-30◆	CWCIO9-10-30◆S CWCIO9-01-30◆S		
12	22	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	1 0	0 1	CWCIO12-10-30◆ CWCIO12-01-30◆	CWCIO12-10-30◆S CWCIO12-01-30◆S		
16	22	4 / 5	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	1 0	0 1	CWCIO16-10-30◆ CWCIO16-01-30◆	- -		

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾

AC coil - 50/60 Hz												
Applicable for CWC07...CWC025 models												
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39	
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480	

DC coil - Standard consumption coil					
Applicable for CWCIO7...CWCIO16 models					
Coil voltage codes	C03	C06	C07	C12	C15
V dc	24	42	48	110	220

DC coil - Low consumption coil ³⁾					
Applicable for CWCIO7...CWCIO16 models					
Coil voltage codes	L03	L06	L07	L12	L15
V dc	24	42	48	110	220

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;

2) Other voltages available;

3) The compact contactor CWC0 with low consumption coil allows only 2 additional auxiliary contacts;

4) For selection of accessories, check page A16.



Three-Pole Compact Contactors for Printed Circuit Boards CWC0 - 7 A to 16 A (AC-3)⁴⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_{th} = I_e$ AC-1 A	Maximum rated operational power of three-phase motors 50/60 Hz ¹⁾						Built-in auxiliary contacts		Reference code	AC coil	DC coil
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	660 V 690 V	3 4 NO	1 2 NC		Weight kg	
7	18	1.5 / 2	3 / 4	3 / 4	3.7 / 5	3.7 / 5	3 / 4	1 0	0 1	CWC07-10-30♦ CWC07-01-30♦	0.395	0.480
9	20	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	4 / 5	1 0	0 1	CWC09-10-30♦ CWC09-01-30♦		
12	22	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	1 0	0 1	CWC12-10-30♦ CWC12-01-30♦		
16	22	4 / 5	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	1 0	0 1	CWC16-10-30♦ CWC16-01-30♦		

To Complete the Reference Code, Replace “♦” with the Appropriate Coil Voltage Code²⁾

AC coil - 50/60 Hz												
Applicable for CWC07...CWC025 models												
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39	
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480	

DC coil - Standard consumption coil					
Applicable for CWC07...CWC016 models					
Coil voltage codes	C03	C06	C07	C12	C15
V dc	24	42	48	110	220

DC coil - Low consumption coil ³⁾					
Applicable for CWC07...CWC016 models					
Coil voltage codes	L03	L06	L07	L12	L15
V dc	24	42	48	110	220

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;



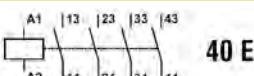
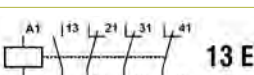
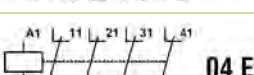
2) Other voltages available;

3) The compact contactor CWC0 with low consumption coil allows only 2 additional auxiliary contacts;

4) For selection of accessories, check page A16.



Control Relay CWCA0³⁾

Rated thermal current I_{th} AC-1 A	Rated current I_n AC-15 A					Circuit diagram	Reference code		AC coil	DC coil
	220 V 230 V kW /hp	380 V 400V kW /hp	415 V 440 V kW /hp	500 V kW /hp	660 V 690 V kW /hp		Screw terminal	Spring terminal	Weight kg	
10	10	6	5	4	2	 22 E	CWCA0-22-00♦	CWCA0-22-00♦S	0.180	0.200
						 31 E	CWCA0-31-00♦	CWCA0-31-00♦S		
						 40 E	CWCA0-40-00♦	CWCA0-40-00♦S		
						 13 E	CWCA0-13-00♦	CWCA0-13-00♦S		
						 04 E	CWCA0-04-00♦	CWCA0-04-00♦S		

To Complete the Reference Code, Replace “♦” with the Appropriate Coil Voltage Code²⁾

AC coil - 50/60 Hz												
Applicable for CWC07...CWC025 models												
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39	
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480	

DC Coil - Standard consumption					
Applicable for CWCA0 models					
Coil voltage codes	C03	C07	C09	C12	C15
V dc	24	48	60	110	220

DC coil - Low consumption coil ³⁾					
Applicable for CWCA0 models					
Coil voltage codes	L03	L06	L07	L12	L15
V dc	24	42	48	110	220

Notes: 1) Other voltages available;

2) The compact contactor CWC0 with low consumption coil allows only 2 additional auxiliary contacts;

3) For selection of accessories, check page A16.



Four-Pole (4P and 2P/2R) Compact Contactors CWC0 up to 22 A (AC-1)³⁾

Conventional thermal current $I_c = I_n$ AC-1 A	Main contacts		Reference code		AC coil	DC coil
	NO	NC	Screw terminal	Spring terminal	Weight kg	
18	4	0	CWC07-00-40◆	CWC07-00-40◆S	0.195	0.230
20			CWC09-00-40◆	CWC09-00-40◆S		
22			CWC012-00-40◆	CWC012-00-40◆S		
22			CWC016-00-40◆	-		
18	2	2	CWC07-00-22◆	CWC07-00-22◆S		
20			CWC09-00-22◆	CWC09-00-22◆S		
22			CWC012-00-22◆	CWC012-00-22◆S		
22			CWC016-00-22◆	-		

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code¹⁾

AC coil - 50/60 Hz											
Applicable for CWC07...CWC025 models											
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480

DC coil - Standard consumption coil					
Applicable for CWC07...CWC016 four-pole (4NO) models					
Coil voltage codes	C03	C07	C09	C12	C15
V dc	24	48	60	110	220

DC coil - Low consumption coil ²⁾					
Applicable for CWC07...CWC016 four-pole (4NO) models					
Coil voltage codes	L03	L06	L07	L12	L15
V dc	24	42	48	110	220

DC Coil (0.75 x U _c)					
Applicable for CWC07...CWC016 four-pole 2P/2R (2NO+2NC) models					
Coil voltage codes	R03	R06	R07	R12	R15
V dc	24	42	48	110	220

Notes: 1) Other voltages available;

2) The compact contactor CWC0 with low consumption coil allows only 2 additional auxiliary contacts;

3) For selection of accessories, check page A16.



Compact Contactors with Latch Block CWCH0 - 5.6 A to 12.8 A (AC-3)³⁾⁴⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_{th} = I_e$ AC-1 A	Maximum rated operational power of three-phase motors 50/60 Hz ¹⁾						Built-in auxiliary contacts		Reference code		AC coil	DC coil
		220 V 230 V kW /hp	380 V kW /hp	400 V 415 V kW /hp	440 V kW /hp	500 V kW /hp	660 V 690 V kW /hp	3 4 NO	1 2 NC	Screw terminal	Spring terminal	Weight kg	
5.6	14.4	1.1 / 1.5	2.2 / 3	2.2 / 3	2.2 / 3	2.2 / 3	3 / 4	1 0	0 1	CWCH7-10-30◆ CWCH7-01-30◆	CWCH7-10-30◆S CWCH7-01-30◆S	0.395	0.480
7.2	16	1.5 / 2	3 / 4	3 / 4	3.7 / 5	3.7 / 5	3.7 / 5	1 0	0 1	CWCH09-10-30◆ CWCH09-01-30◆	CWCH09-10-30◆S CWCH09-01-30◆S		
9.6	17.6	2.2 / 3	4.5 / 6	4.5 / 6	4.5 / 6	5.5 / 7.5	5.5 / 7.5	1 0	0 1	CWCH012-10-30◆ CWCH012-01-30◆	CWCH012-10-30◆S CWCH012-01-30◆S		
12.8	17.6	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	7.5 / 10	7.5 / 10	1 0	0 1	CWCH012-10-30◆ CWCH012-01-30◆	CWCH016-10-30◆S CWCH016-01-30◆S		

Control Relay with Latch Block - CWCHA0

Rated operational current I_e		Number of auxiliary contacts		Reference code		AC coil	DC coil
AC-14 / AC-15 ($U_e \leq 230$ V) A	DC-13 ($U_e \leq 24$ V) A	3 4 NO	1 2 NC	Screw terminal	Spring terminal	Weight kg	
10	6	2	2	CWCHA0-22-00◆	CWCHA0-22-00◆S	0.377	0.444
10	6	3	1	CWCHA0-31-00◆	CWCHA0-31-00◆S		
10	6	4	-	CWCHA0-40-00◆	CWCHA0-40-00◆S		
10	6	1	3	CWCHA0-13-00◆	CWCHA0-13-00◆S		
10	6	-	4	CWCHA0-04-00◆	CWCHA0-04-00◆S		













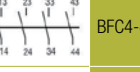

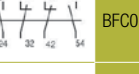
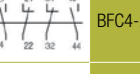
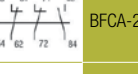
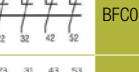
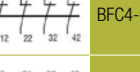











To Complete the Reference Code, Replace “◆” with tw

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change depending on the number of poles and motor design;
2) Other voltages available;
3) For selection of accessories, check page A16;
4) For further information about CWCH0 an its operation, check page A27.




Compact Contactors CWC0 - Accessories

Auxiliary Contact Blocks for CWC07 to CWC025 and CWCA0


Illustrative picture	For use with	Max. no. of contacts/ compact contactor	Auxiliary contacts		For use with CWC0 (3 pole)			For use with CWC0 (4 pole)			For use with CWCA0			Weight kg
			NO	NC	Terminal markings	Reference code		Terminal markings	Reference code		Terminal markings	Reference code		
						Screw terminal	Spring terminal		Screw terminal	Spring terminal		Screw terminal	Spring terminal	
 	CWC07...16 CWCA0	2	2	0		BFC0-20	BFC0-20S		BFC4-20	BFC4-20S		BFCA-20	BFCA-20S	0.03
			1	1		BFC0-11	BFC0-11S		BFC4-11	BFC4-11S		BFCA-11	BFCA-11S	
			0	2		BFC0-02	BFC0-02S		BFC4-02	BFC4-02S		BFCA-02	BFCA-02S	
		4	4	0		BFC0-40 ¹⁾	BFC0-40S ¹⁾		BFC4-40 ¹⁾	BFC4-40S ¹⁾		BFCA-40 ¹⁾	BFCA-40S ¹⁾	
			2	2		BFC0-22 ¹⁾	BFC0-22S ¹⁾		BFC4-22 ¹⁾	BFC4-22S ¹⁾		BFCA-22 ¹⁾	BFCA-22S ¹⁾	
			0	4		BFC0-04 ²⁾	BFC0-04S ²⁾		BFC4-04 ²⁾	BFC4-04S ²⁾		BFCA-04 ²⁾	BFCA-04S ²⁾	
			3	1		BFC0-31 ¹⁾	BFC0-31S ¹⁾		BFC4-31 ¹⁾	BFC4-31S ¹⁾		BFCA-31 ¹⁾	BFCA-31S ¹⁾	
			1	3		BFC0-13 ²⁾	BFC0-13S ²⁾		BFC4-13 ²⁾	BFC4-13S ²⁾		BFCA-13 ²⁾	BFCA-13S ²⁾	
	CWC025	2	2	0		BFC025-20		-	-		-	-	-	
			1	1		BFC025-11		-	-		-	-	-	
			0	2		BFC025-02		-	-		-	-	-	
		4	2	2		BFC025-22		-	-		-	-	-	

1) The compact contactors CWC0 with DC low consumption coils allows only 2 additional auxiliary contacts. For applications that use 4 auxiliary contacts use CWC0 with standard DC coils;
2) Not suitable to be used with CWC0 compact contactors or CWCA0 control relays with DC Low Consumption coils (coil voltage code "L").

Mechanical Interlock for Compact Contactors CWC07 to CWC016 and CWCA0

Illustrative picture	Description	Reference code	Weight kg
	<ul style="list-style-type: none">- Front mounting;- For the mechanical interlock using 2 compact contactors (AC or DC coil);- Can be mounted with the following accessories: auxiliary contact block, surge suppressor and timers.	BICO	0.014


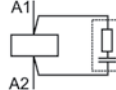
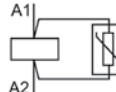
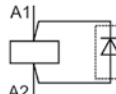
Latch Block for Compact Contactors CWC07 to CWC016 and CWCA0

Illustrative picture	Description	Reference code	Weight kg
	<ul style="list-style-type: none">- Front mounting;- For the mechanical interlock using 2 compact contactors (AC or DC coil);- Can be mounted with the following accessories: auxiliary contact block, surge suppressor and timers.	RMC0	0.014



Surge Suppressors for Compact Contactors CWC07 to CWC025 and CWCA0

- Fast front mounting (clip on)
- Can be mounted with all the accessories

Illustrative picture	For use with	Circuit diagram	Voltages	Reference code	Weight kg	
	CWC07...25 CWCA0		12-24 V 50/60 Hz	RCC0-1 D49	0.008	
			24-48 V 50/60 Hz	RCC0-2 D53		
			50-127 V 50/60 Hz	RCC0-3 D55		
			130-250 V 50/60 Hz	RCC0-4 D63		
			275-380 V 50/60 Hz	RCC0-5 D84		
			400-510 V 50/60 Hz	RCC0-6 D73		
	CWC07...16 CWCA0		180...230 V 50/60 Hz	RCAC0 D871)		
	CWC07...25 CWCA0		12-48 V 50/60 Hz / 12-60 V dc	VRC0-1 E49		
			50-127 V 50/60 Hz / 60-180 V dc	VRC0-2 E34		
			130-250 V 50/60 Hz / 180-300 V dc	VRC0-3 E50		
			277-380 V 50/60 Hz / 300-510 V dc	VRC0-4 E41		
			400-510 V 50/60 Hz	VRC0-5 D73		
	CWC07...16 CWCA0			12-600 V dc		DIC0-1 C33
				12...250 V dc		DIZC0 C26

1) To protect snubbers against overvoltage peaks caused by the switching off of the contactors with AC coils. It is recommended to use in circuits with residual current over than $(U_s/230 \text{ V}) \times 1.4 \text{ mA}$. (U_s = Rated voltage).

Electronic Timing Relay for Compact Contactors CWC07 to CWC025


- Right-side fast mounting
- Up to 30 minutes timing
- LED status indication

Illustrative picture	Function	Timing	Voltages	Reference code	Weight kg
	On-Delay (TECO)	3 - 0.3 to 3 seconds	24-240 V 50/60 Hz - dc	TECO-U003S-E05	0.02
		10 - 1 to 10 seconds		TECO-U010S-E05	
		30 - 3 to 30 seconds		TECO-U030S-E05	
		60 - 6 to 60 seconds		TECO-U060S-E05	
		100 - 10 to 100 seconds		TECO-U100S-E05	
		300 - 30 to 300 seconds		TECO-U300S-E05	
		1.800 - 180 to 1.800 seconds		TECO-U030M-E05	
	Off-Delay (TDCO)	-	24-60 V 50/60 Hz - dc 100-240 V 50/60 Hz - dc	24-60 V ac/dc	
		3 - 0.3 to 3 seconds		TDCO-U010S-E04	
		10 - 1 to 10 seconds		TDCO-U003S-E04	
		30 - 3 to 30 seconds		TDCO-U030S-E04	
		60 - 6 to 60 seconds		TDCO-U060S-E04	
		100 - 10 to 100 seconds		TDCO-U100S-E04	
		300 - 30 to 300 seconds		TDCO-U300S-E04	
	Start-Delta (TETCO)	30 - 3 to 30 seconds	24-28 V 50/60 Hz	TETCO-U030S-D52	
			110-130 V 50/60 Hz	TETCO-U030S-D61	
			220-240 V 50/60 Hz	TETCO-U030S-D66	

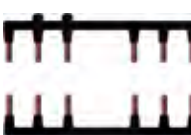
Functions	On-Delay TECO	Off-Delay TDCO	Start-Delta TETCO
Functionals diagrams 			
Diagrams			



Printed Circuit Board Link Module

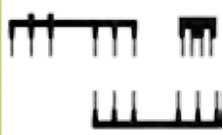
Illustrative picture	For use with	Description	Reference code	Weight kg
	CWC07...16 CWCA0	<ul style="list-style-type: none"> - Direct mounting on the terminals - Allows direct mounting on printed circuit board - Same current capacity (up to 16 A in AC-3 and 22 A in AC-1) 	CIC0	0.130

Reversing Wiring Kits for Compact Contactors CWC07 to CWC016

	Rated operational current I _e AC - 3 (U _e ≤ 440 V) A	Max. rated operational power of three-phase motors 50/60 Hz						Compact contactors	Reference code	Weight kg
		220 V 230 V kW /hp	380 V kW /hp	400 V 415 V kW /hp	440 V kW /hp	500 V kW /hp	660 V 690 V kW /hp	K1 = K2		
	7	1.5 / 2	3 / 4	3 / 4	3.7 / 5	3.7 / 5	3 / 4	CWC07	ECC0-R (with electrical interlock)	0.13
	9	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	4 / 5	CWC09	ECC0-RNI (without electrical interlock)	
	12	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	CWC012		
16	4 / 5	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	7.5 / 10	CWC016			



Star-Delta Wiring Kits for Compact Contactors CWC07 to CWC016

	Rated operational current I_e AC - 3 ($U_e \leq 440$ V) A	Max. rated operational power of three-phase motors 50/60 Hz			Compact contactors		Reference code	Weight kg
		220-230 V kW /hp	400-415 V kW /hp	660-690 V kW /hp	K1 = K2	K3		
	12	3.7 / 5	5.5 / 7.5	5.5 / 7.5	CWC07	CWC07	ECC0-SD	0.13
	18	3.7 / 5	7.5 / 10	9.2 / 12.5	CWC012			
	25	5.5 / 7.5	11 / 15	15 / 20	CWC016			





Compact Contactors CWC0 - Technical Data

Terminal Markings

Circuit diagram	Auxiliary contacts configuration	Auxiliary contacts		Contactor base reference
		NO	NC	
Three-pole compact contactors with built-in auxiliary contact				
	10	1	0	CWC07-10-30 ♦ CWC09-10-30 ♦ CWC012-10-30 ♦ CWC016-10-30 ♦
	01	0	1	CWC07-01-30 ♦ CWC09-01-30 ♦ CWC012-01-30 ♦ CWC016-01-30 ♦
Three-pole compact contactors without built-in auxiliary contact				
	00	0	0	CWC025-00-30 ♦
Control relay				
	40	4	0	CWCA0-40-00 ♦
	31	3	1	CWCA0-31-00 ♦
	22	2	2	CWCA0-40-00 ♦
	13	1	3	CWCA0-13-00 ♦
	04	0	4	CWCA0-04-00 ♦
Control relay with latch block				
	10	1	0	CWCH07-10-30 ♦ CWCH09-10-30 ♦ CWCH012-10-30 ♦ CWCH016-10-30 ♦
	01	0	1	CWCH07-01-30 ♦ CWCH09-01-30 ♦ CWCH012-01-30 ♦ CWCH016-01-30 ♦

Circuit diagram	Main contacts configuration	Main contacts		Contactor base reference
		NO	NC	
Four-pole compact contactors				
	40	4	0	CWC07-00-40◆ CWC09-00-40 CWC012-00-40◆ CWC016-00-40
	22	2	2	CWC09-00-22◆ CWC012-00-22◆ CWC016-00-22◆



Terminal Markings

Auxiliary contacts configuration	Contact auxiliares		For use with (3 poles)		For use with CWC0 (4 poles)		For use with CWCA0	
	NO	NC	Circuit diagram	Reference	Circuit diagram	Reference	Circuit diagram	Reference
Frontal auxiliary contact block								
20	2	0		BFC0-20♦ BFC025-20		BFC4-20♦		BFCA-20♦
11	1	1		BFC0-11♦ BFC025-11		BFC4-11♦		BFCA-11♦
02	0	2		BFC0-02♦ BFC025-02		BFC4-02♦		BFCA-02♦
40	4	0		BFC0-40♦		BFC4-40♦		BFCA-40♦
22	2	2		BFC0-22♦ BFC025-22		BFC4-22♦		BFCA-22♦
04	0	4		BFC0-04♦		BFC4-04♦		BFCA-04♦
31	3	1		BFC0-31♦		BFC4-31♦		BFCA-31♦
13	1	3		BFC0-13♦		BFC4-13♦		BFCA-13♦

Diagram	Components
	CWC07...16 + BICO + ECC0-R
	CWC07...16 + BICO + ECC0-RNI
	CWC07...16 + ECC0-SD



General Data

Reference code			CWCA0	CWC07	CWC09	CWC012	CWC016	CWC025
Standards			IEC 60947 / UL 508					
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660	(V)	690					
	UL, CSA	(V)	600					
Rated impulse withstand voltage U_{imp} (IEC/EN 60947-1)			4					
Rated operational frequency			25...400					
Mechanical lifespan	AC coil Ops x 10^{-6}		10					3
	DC coil Ops x 10^{-6}		12					-
Electrical lifespan	I_e AC-3 Ops x 10^{-6}		-	1.4	1.3	1.2	1.1	0.6
Degree of protection (VDE 0160)	Main circuits		IP20					
	Control circuits and auxiliary contacts		IP20					
Mounting			Screw or DIN rail 35 mm					
Coil terminals			2					
Vibration resistance	Contact open	(g)	2					
	Contact closed	(g)	4					
Mechanical shock resistance (½ sinusoid = 11ms)	Contact open	(g)	6					
	Contact closed	(g)	10					
Ambient temperature	Operation		-25 °C ... +55 °C					
	Storage		-55 °C ... +80 °C					
Normal values			Up to 3,000 m					
Altitude	90% I_e / 80% U_e		3,000 to 4,000 m					
	80% I_e / 75% U_e		4,000 to 5,000 m					

Control Circuit - Alternating Current (AC)

Reference code			CWCA0, CWC07...16		CWC025
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660	(V)	1,000		1,000
	UL, CSA	(V)	600		600
Coils rated voltage 50 Hz			10...550		10...550
Coils rated voltage 60 Hz			12...660		12...660
Coils rated voltage 50/60 Hz			12...660		12...660
Coils rated voltage					
Coil operating limits			0.85...1.1		
Coil 60 Hz	Pick up	(xUs)	0.4...0.76		0.4...0.76
	Drop out	(xUs)	0.25...0.65		0.25...0.65
Coil 50/60 Hz	Pick up	(xUs)	0.5...0.8		0.5...0.8
	Drop out	(xUs)	0.2...0.6		0.2...0.6
Average consumption			1.0 x Us coil cold state		
Coil 60 Hz	Magnetic circuit closed	(VA)	2.5...3.5		10.8...13.2
	Power factor	(cos φ)	0.28		0.32
	Power dissipation per pole	(W)	2.6		-
	Magnetic circuit closing	(VA)	35		72
	Power factor	(cos φ)	0.85		0.93
Coil 50/60 Hz	Magnetic circuit closed	(VA)	2...3		4.56...5.8
	Magnetic circuit closing	(VA)	30		58
Average time	Closing NO contacts	(ms)	8...20		13...16
	Opening NO contacts	(ms)	6...13		13.5...17

Control Circuit - Direct Current (DC)

Reference code			CWCA0, CWC07...16		CWC07...16
Coil type			Conventional	Low consumption	4P (2P/2R)
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660	(V)	1,000		
	UL, CSA	(V)	600		
Standard voltages			12...440		
Coil operating limits			0.85...1.1		
	Pick up	(xUs)	0.4...0.7		
	Drop out	(xUs)	0.15...0.4		
Power consumption			1.0 x Us coil cold state		
	Magnetic circuit closed	(W)	2.6...3.7	1.7...2.7	2.9...4
	Magnetic circuit closing	(W)	2.6...3.7	1.7...2.7	2.9...4
Operation time	Closing NO contacts	(ms)	35...45		
	Opening NO contacts	(ms)	7...12		



Power Circuit

Reference code			CWC07	CWC09	CWC012	CWC016	CWC025
Rated operational current I _e	AC-3 (U _e ≤ 440 V)	(A)	7	9	12	16	22
	AC-4 (U _e ≤ 440 V)	(A)	2.8	3.5	4.5	5	9
	AC-1 (θ ≤ 55 °C, U _e ≤ 690 V)	(A)	18	20	22	22	32
Rated operational voltage U _e	IEC/EN 60947-4-1, VDE 0660	(V)	690				
	UL, CSA1)	(V)	600				
Rated thermal current I _{th} (θ ≤ 55 °C)		(A)	18	20	22	22	32
Making capacity - IEC/EN 60947		(A)	70	90	120	160	250
Breaking capacity IEC/EN 60947	(U _e ≤ 400 V)	(A)	50	72	96	128	200
	(U _e = 500 V)	(A)	50	72	96	128	200
	(U _e = 690 V)	(A)	35	54	72	96	150
Short-time current (no current flowing during recovery time of 10 min and θ ≤ 40 °C)	1 seg	(A)	250	250	250	250	-
	5 seg	(A)	125	125	125	125	-
	10 seg	(A)	95	95	95	95	-
	30 seg	(A)	70	70	70	70	-
	1 min	(A)	50	50	50	50	-
	3 min	(A)	40	40	40	40	-
Protection against short-circuits with fuses (gL/gG)	@600 V - UL/CSA ¹⁾	(kA)	5				
	Coordination type 1	(A)	35	35	35	35	50
	Coordination type 2	(A)	20	20	25	25	35
Average impedance per pole		(mΩ)	6	6	5	5	6
Average power dissipation per pole	AC-1	(W)	1.9	2.4	2.4	2.4	6.1
	AC-3	(W)	0.3	0.5	0.7	1.3	3.8
Utilization category							
Rated operational current I _e (θ ≤ 55 °C)	U _e ≤ 440 V	(A)	7	9	12	16	22
	U _e ≤ 500 V	(A)	6.2	7.5	8.8	13	16
	U _e ≤ 690 V	(A)	4.5	5.5	6.6	10	13
	U _e ≤ 1,000 V	(A)	Not available				
Rated operational power ¹⁾	220 / 230 V	(kW)	1.5	2.2	3	3.7	5.5
		(cv)	2	3	4	5	7.5
	380 / V	(kW)	3	3.7	5.5	7.5	11
		(cv)	4	5	7.5	10	15
	400 / 415 V	(kW)	3	3.7	5.5	7.5	11
		(cv)	4	5	7.5	10	15
	440 V	(kW)	3.7	4.5	5.5	7.5	11
		(cv)	5	6	7.5	10	15
	500 V	(kW)	3.7	4.5	5.5	7.5	11
		(cv)	5	6	7.5	10	15
	660 / 690 V	(kW)	3	3.7	5.5	7.5	11
		(cv)	4	5	7.5	10	15
Max. electrical operational per hour	600 ops./h	(%)	100	100	100	100	100
	1,200 ops./h	(%)	75	75	75	75	75
	3,000 ops./h	(%)	50	50	50	50	50
Utilization category AC-4							
Rated operational current I _e AC-4 (U _e ≤ 440 V)		(A)	2.8	3.5	4.5	5	9
Rated operational power ¹⁾ (200,000 operations)	220 / 230 V	(kW)	0.55	0.75	0.75	1.1	2.2
		(cv)	0.7	1	1	1.5	2.9
	380 / 400 V	(kW)	1.1	1.1	1.8	2.2	4
		(cv)	1.5	1.5	2.4	2.9	5.4
	415 V	(kW)	1.1	1.5	2.2	2.2	4.5
		(cv)	1.5	2	2.9	2.9	6
	440 V	(kW)	1.1	1.5	2.2	2.2	4.5
		(cv)	1.5	2	2.9	2.9	6
	500 V	(kW)	1.1	1.5	2.2	2.2	4.5
		(cv)	1.5	2	2.9	2.9	6
	660 / 690 V	(kW)	1.1	1.5	2.2	2.2	4.5
		(cv)	1.5	2	2.9	2.9	6

Note: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design.



Reference code			CWC07	CWC09	CWC012	CWC016	CWC025
			Utilization category AC-1				
			3P (NO) or 4P (4NO)				3P (NO)
Rated thermal current I_n ($\theta \leq 55^\circ\text{C}$)	(A)		18	20	22	22	32
Maximum operational current (up to 690 V)	$\theta \leq 40^\circ\text{C}$	(A)	18	20	22	22	32
	$\theta \leq 55^\circ\text{C}$	(A)	18	20	22	22	32
	$\theta \leq 70^\circ\text{C}$	(A)	14.4	16	17.6	17.6	25.6
Maximum operational power $\theta \leq 55^\circ\text{C}$ 3-phase resistors	220 / 230 V	(kW)	6.8	7.5	8.3	8.3	12
	380 / 400 V	(kW)	11.5	13	14.5	14.5	21
	415 / 440 V	(kW)	13	14.5	16	16	23
	500 V	(kW)	14.8	16.5	18	18	26
	660 / 690 V	(kW)	20	22	25	25	36
Current values for connection of	2 poles in parallel		$I_n \times 1.7$				
	3 poles in parallel		$I_n \times 2.4$				
	4 poles in parallel		$I_n \times 3.2$				
Percentage of the max. operational current at	600 ops./h	(%)	100				
	1,200 ops./h	(%)					
	3,000 ops./h	(%)					
			2P (NO/NC) or 4P (2NO + 2NC)				2P (NO/NC)
Maximum operational power $\theta \leq 55^\circ\text{C}$ (resistive load)	220 / 230 V	(kW)	3.9	4.4	4.8	4.8	6.6
	380 / 400 V	(kW)	6.8	7.6	8.4	8.4	11.4
	415 / 440 V	(kW)	7.5	8.4	9.2	9.2	12.5
	500 V	(kW)	8.6	9.5	10.5	10.5	14.5
	660 / 690 V	(kW)	11.8	13.1	14.4	14.4	19.5

UL Power Ratings

Reference code		CWC07	CWC09	CWC012	CWC016	CWC025
General purpose current	(600 V) (A)	18	20	22	22	30
1-phase	110 / 120 V (HP)	1/3	1/3	1/2	1	1 1/2
	208 V (HP)	3/4	1/2	1/2	2	3
	220 / 240 V (HP)	3/4	1/2	2	2	3
3-phase	110 / 120 V (HP)	3/4	1	1 1/2	2	3
	200 V (HP)	1 1/2	2	3	3	5
	220 / 240 V (HP)	1 1/2	3	3	5	7 1/2
	440 / 480 V (HP)	5	5	7 1/2	10	15
	550 / 600 V (HP)	5	7 1/2	7 1/2	10	15

Built-In Auxiliary Contacts

Reference code			CWC07...16	CWCA0
Standards			IEC 60947-5-1, IEC 60947-4-1	
Rated insulation voltage U_i (pollution degree 3)	IEC, VDE 0660	(V)	690	
	UL, CSA	(V)	600	
Rated operational voltage U_o	IEC, VDE 0660	(V)	690	
	UL, CSA	(V)	600	
Rated thermal current I_{th} ($\theta \leq 55^\circ\text{C}$)		(A)	10	
Rated operational current I_o				
AC-15 (IEC 60947-5-1)	$U_o \leq 240$ V	(A)	10	
	380-400 V	(A)	6	
	415-440 V	(A)	5	
	500 V	(A)	4	
	660-690 V	(A)	2	
UL, CSA			A600	
DC-13 (IEC 60947-5-1)	24 V	(A)	6	
	48 V	(A)	4	
	110 V	(A)	2	
	220 V	(A)	0.7	
UL, CSA			Q600	
Making capacity (rms)	$U_o \leq 400$ V 50/60 Hz - AC-15	(A)	10 x I_o (AC-15)	
Breaking capacity (rms)	$U_o \leq 400$ V 50/60 Hz - AC-15	(A)	10 x I_o (AC-15)	
Max.fuse class gL-gG without welding (short-circuit protection) gL/gG		(A)	10	
Control circuit reliability		(V / mA)	17 / 5	
Electrical endurance		(millions operations)	1	
Mechanical endurance		(millions operations)	10	



Auxiliary Contacts

Reference code			BFC0 / BFC025
Standards			IEC 60947-5-1, IEC 60947-4-1
Rated insulation voltage U_i (pollution degree 3)	IEC, VDE 0660	(V)	1,000
	UL, CSA1)	(V)	600
Rated operational voltage U_e	IEC, VDE 0660	(V)	690
	UL, CSA1)	(V)	600
Rated thermal current I_{th} ($\theta \leq 55^\circ\text{C}$)			10
Rated operational current I_e			
AC-15 (IEC 60947-5-1)	$U_e \leq 240\text{ V}$	(A)	10
	380-400 V	(A)	6
	415-440 V	(A)	6
	500 V	(A)	4
	660-690 V	(A)	-
UL, CSA ¹⁾			A600
DC-13 (IEC 60947-5-1)	24 V	(A)	1.5
	60 V	(A)	0.5
	110 V	(A)	0.4
	220-240 V	(A)	0.4
UL, CSA ¹⁾			Q600
Making capacity (rms)	$U_e \leq 400\text{ V } 50/60\text{ Hz}$ - AC-15	(A)	30
Breaking capacity (rms)	$U_e \leq 400\text{ V } 50/60\text{ Hz}$ - AC-15	(A)	3
Max.fuse class gL-gG without welding (short-circuit protection)			10
Control circuit reliability	(V / mA)		17 / 5
Electrical endurance	(millions operations)		1
Mechanical endurance	(millions operations)		10
			Timing relay
Rated insulation voltage (U_i)	V		300
Supply voltage (U_e)	1 - 2 terminals		24...240 V dc/ V ac 50/60 Hz (TECO)
			24...60 V dc/ V ac 50/60 Hz (TDCO)
			100...240 V dc/ V ac 50/60 Hz (TDCO)
			220-240 V ac 50/60 Hz (TETCO)
			110-130 V ac 50/60 Hz (TETCO)
Control voltage (U_c) only TDCO - pag A25	2 - B1 terminals		24-28 V ac 50/60 Hz (TETCO)
			24...60 V dc/ V ac 50/60 Hz (TDCO)
Voltage operational limits			100...240 V dc/ V ac 50/60 Hz (TDCO)
			0.85...1.1 x U_c (V ac)
Consumption	mA		0.8...1.25 x U_c (V dc)
			≤ 5
Minimum time for reset (recovery time)	ms		650
Minimum control time (only TDCO)	ms		50
Setting accuracy (% of the full scale value)	%		+/-5
Repeat accuracy	%		+/-1
Changeover time Y - Δ	ms		50



Terminal Capacity and Tightening Torque

Power and Built-In Auxiliary Terminals

Reference code	CWC07...CWC016 / CWCA0			CWC025		
Screw type	M3x 8 Flat / Phillips			M3.5x 9 Flat / Phillips		
Power terminal and built-in auxiliary terminal ¹⁾	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm ²	1x 0.5...2.5 2x 0.5...1.5	1x 0.75...2.5 2x 0.75...2.5	1x 0.5...2.5 2x 0.5...2.5	1x 1...6 2x 1...2.5 2x 2.5...4	1x 1...6 2x 1...2.5 2x 2.5...6	1x 1...6 2x 1...2.5 2x 2.5...6
AWG (UL)	18...12			18...10		
Tightening torque (N.m)	1.1			1.5		
Tightening torque (lb.in) (UL)	10			13		

Note: 1) Built-in auxiliary terminals not available for CWC025.

Coil Terminals

Reference code	CWC07...CWC025 / CWCA0		
Screw type	M3.5x 8 Flat / Phillips		
Coil terminals	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm ²	1x 0.5...2.5 2x 0.5...1.5	1x 0.75...2.5 2x 0.75...2.5	1x 0.5...2.5 2x 0.5...2.5
AWG (UL)	22...12		
Tightening torque (N.m)	1.1		
Tightening torque (lb.in) (UL)	10		

Auxiliary Contact Blocks

Reference code	BFC0 / BFCA / BFC4 / BFC025		
Screw type	M3.5x9 Flat / Phillips		
Auxiliary contact block	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm ²	1x 0.5...2.5 2x 0.5...1.5	1x 0.75...4 2x 0.75...2.5	1x 0.5...4 2x 0.5...2.5
AWG (UL)	22...14		
Tightening torque (N.m)	1.1		
Tightening torque (lb.in) (UL)	10		

Terminal Capacity

Power, Coil and Auxiliary Contact Blocks

Reference code	CWC07_S... CWC012_S / CWCA0_S		BFC0_S / BFCA_S / BFC4_S
Terminal type	Spring terminal		
Power terminal	Finely stranded with end sleeve	Solid	
mm ²	2x 1...1.5	2x 1...1.5	
Auxiliary contact block / built-in auxiliary terminal / or coil terminal	Finely stranded with end sleeve	Solid	Solid or finely stranded with end sleeve
mm ²	2x 0.5...1.5	2x 0.5...1.5	2x 0.5...1.5
AWG	18...12		22...16



Utilization Category DC-1, DC-3 and DC-5

DC-1($L/R \leq 1\text{ms}$)

	Reference	CWC07	CWC09	CWC012	CWC016	CWC025
U_e	Series poles	Rated operational current I_e (A)				
$\leq 24\text{ V}$	1	10	10	16	16	18
	2	15	15	20	20	25
	3	15	15	22	22	25
	4	15	15	22	22	-
$\leq 48\text{ V}$	1	10	10	13	13	16
	2	15	15	20	20	25
	3	15	15	22	22	25
	4	15	15	22	22	-
$\leq 60\text{ V}$	1	8	8	10	10	13
	2	15	15	18	18	25
	3	15	15	22	22	25
	4	15	15	22	22	-
$\leq 125\text{ V}$	1	4	4	5	5	6
	2	8	8	10	10	13
	3	12	12	16	16	18
	4	15	15	19	19	-
$\leq 220\text{ V}$	1	0.6	0.6	0.7	0.7	1
	2	5	5	6	6	8
	3	9	9	10	10	14
	4	12	12	15	15	-
$\leq 440\text{ V}$	1	0.2	0.2	0.3	0.3	0.4
	2	0.6	0.6	0.7	0.7	1.5
	3	3.5	3.5	4	4	5
	4	8	8	9	9	-
$\leq 600\text{ V}$	1	-	-	-	-	-
	2	0.2	0.2	0.3	0.3	0.6
	3	1	1	1.5	1.5	2
	4	2	2	4	4	-

DC-3($L/R \leq 2.5\text{ms}$)

	Reference	CWC07	CWC09	CWC012	CWC016	CWC025
U_e	Series poles	Rated operational current I_e (A)				
$\leq 24\text{ V}$	1	9	9	9	9	10
	2	12	12	12	12	15
	3	15	15	15	15	18
	4	15	15	15	15	-
$\leq 48\text{ V}$	1	8	8	8	8	10
	2	12	12	12	12	15
	3	15	15	15	15	18
	4	15	15	15	15	-
$\leq 60\text{ V}$	1	5	5	5	5	8
	2	10	10	10	10	13
	3	14	14	14	14	18
	4	15	15	15	15	-
$\leq 125\text{ V}$	1	1.5	1.5	1.5	1.5	2
	2	5.5	5.5	5.5	5.5	7
	3	10	10	10	10	13
	4	14	14	14	14	-
$\leq 220\text{ V}$	1	0.4	0.4	0.4	0.4	0.6
	2	1.5	1.5	1.5	1.5	2
	3	7	7	7	7	8
	4	11	11	11	11	-
$\leq 440\text{ V}$	1	-	-	-	-	-
	2	0.2	0.2	0.2	0.2	0.3
	3	1	1	1	1	1.5
	4	3	3	3	3	-
$\leq 600\text{ V}$	1	-	-	-	-	-
	2	-	-	-	-	-
	3	0.6	0.6	0.6	0.6	0.8
	4	1.5	1.5	1.5	1.5	-

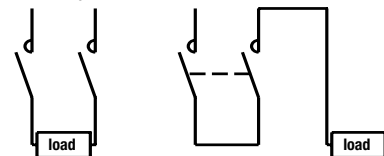
DC-5($L/R \leq 15\text{ms}$)

	Reference	CW07	CWC07	CWC09	CWC012	CWC016	CWC025
U_e	Series poles	Rated operational current I_e (A)					
$\leq 24\text{ V}$	1	1.5	8	8	8	8	10
	2	2.5	12	12	12	12	14
	3	3	15	15	15	15	18
	4	3	15	15	15	15	-
$\leq 48\text{ V}$	1	1.5	8	8	8	8	9
	2	2.5	12	12	12	12	14
	3	3	15	15	15	15	18
	4	3	15	15	15	15	-
$\leq 60\text{ V}$	1	1.2	5	5	5	5	7
	2	2.5	10	10	10	10	12
	3	3	14	14	14	14	18
	4	3	15	15	15	15	-
$\leq 125\text{ V}$	1	0.7	1.5	1.5	1.5	1.5	0.8
	2	1.5	5.5	5.5	5.5	5.5	5
	3	2.5	9	9	9	9	12
	4	3	14	14	14	14	-
$\leq 220\text{ V}$	1	0.1	0.4	0.4	0.4	0.4	-
	2	0.5	0.7	0.7	0.7	0.7	0.8
	3	1.5	2.5	2.5	3	3	3
	4	2.2	9	9	9	9	-
$\leq 440\text{ V}$	1	-	-	-	-	-	-
	2	-	-	-	-	-	-
	3	0.1	0.3	0.3	0.3	0.3	0.5
	4	0.3	0.7	0.7	0.7	0.7	-
$\leq 600\text{ V}$	1	-	-	-	-	-	-
	2	-	-	-	-	-	-
	3	-	-	-	-	-	-
	4	-	0.2	0.2	0.2	0.2	-

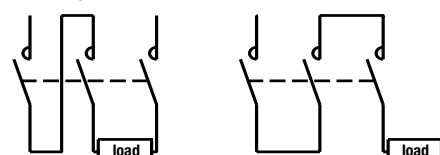
1 serie pole



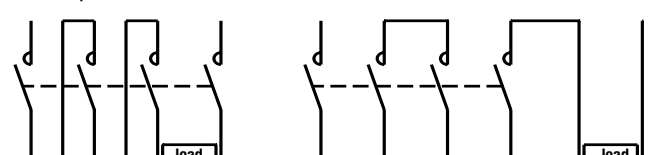
2 serie poles



3 serie poles

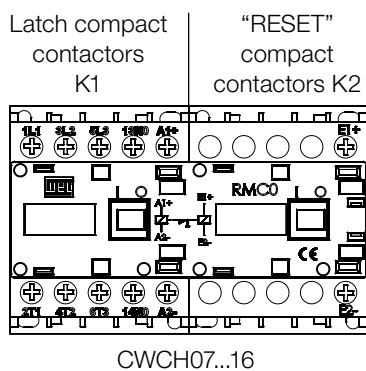


4 serie poles

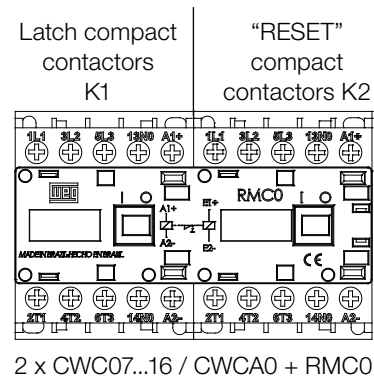


Timing relay		
Rated insulation voltage (U _i)	V	300
Supply voltage (U _e)	1 - 2 terminals	24...240 V dc/ V ac 50/60 Hz (TECO)
		24...60 V dc/ V ac 50/60 Hz (TDCO)
		100...240 V dc/ V ac 50/60 Hz (TDCO)
		220-240 V ac 50/60 Hz (TETCO)
		110-130 V ac 50/60 Hz (TETCO)
		24-28 V ac 50/60 Hz (TETCO)
Control voltage (U _c) only TDC0 - pg A25	2 - B1 terminals	24...60 V dc/ V ac 50/60 Hz (TDCO)
		100...240 V dc/ V ac 50/60 Hz (TDCO)
Voltage operational limits		0.85...1.1 x U _c (V ac)
		0.8...1.25 x U _c (V dc)
Consumption	mA	≤ 5
Minimum time for reset (recovery time)	ms	650
Minimum control time (only TDC0)	ms	50
Setting accuracy (% of the full scale value)	%	+/-5
Repeat accuracy	%	+/-1
Changeover time Y - Δ	ms	50

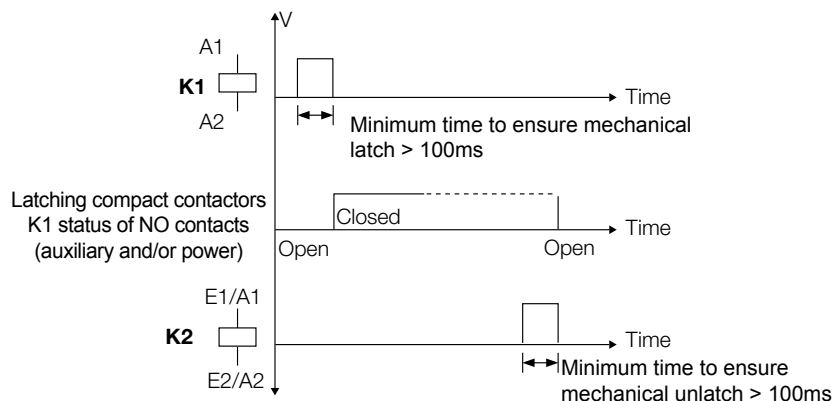
Operation Description of Latch Block RMC0 or Compact Contactors CWCH0



or



Functional Diagram



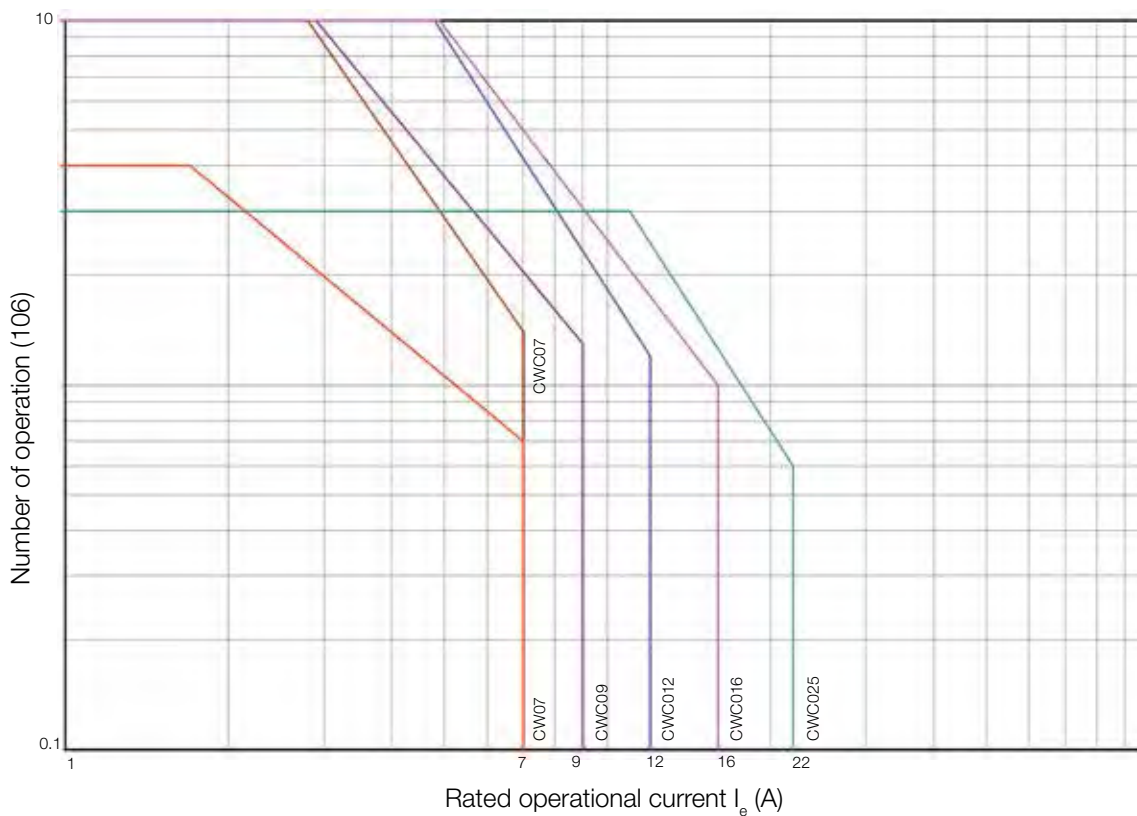
- After a minimum pulse of 100ms on compact contactors coil (K1), the RMC0 will keep K1 contacts switched on;
- The compact contactors K1 will only return to rest position after compact contactors coil (K2) be energized by a releasing pulse;
- The mechanical latch will always and only happen on compact contactors (K1).

Note: If RESET compact contactors coil (K2) remains energized, the latching of compact contactors (K1) is not enabled.

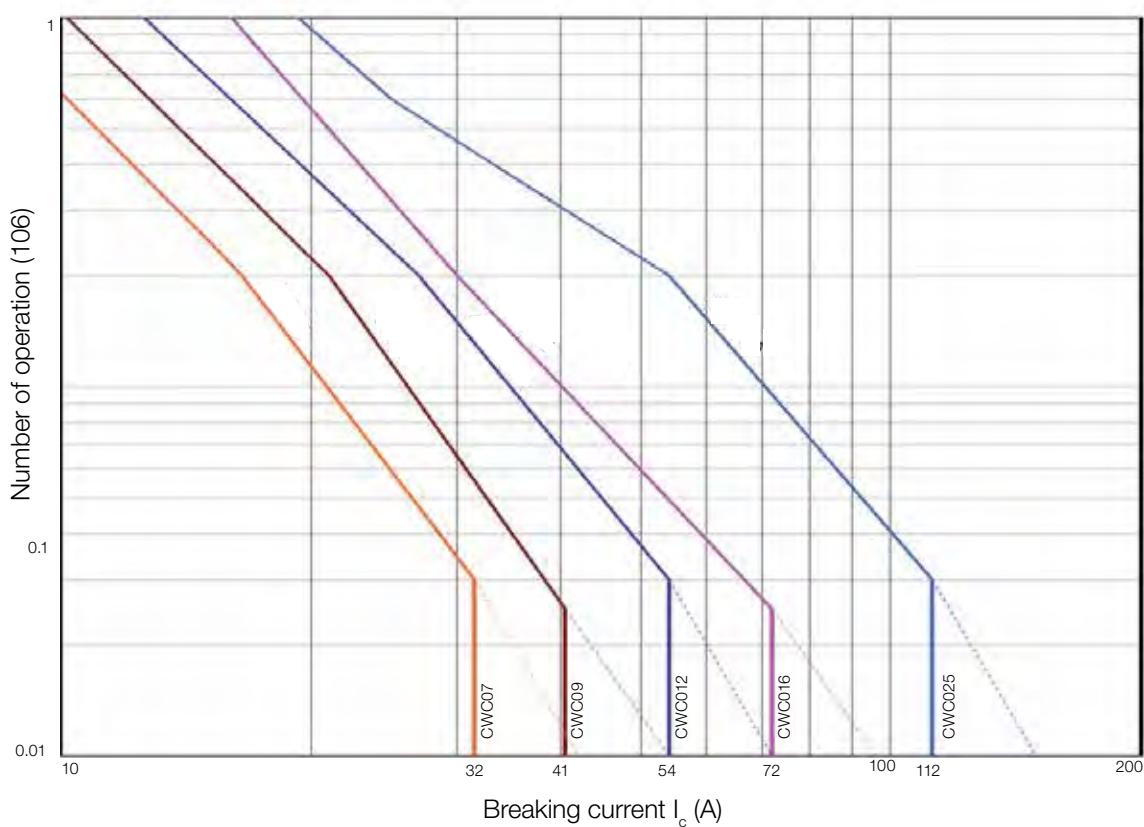


Electrical Lifespan

AC-3 ($U_e \leq 415 \text{ V ac}$ e $U_e \leq 440 \text{ V ac}$)



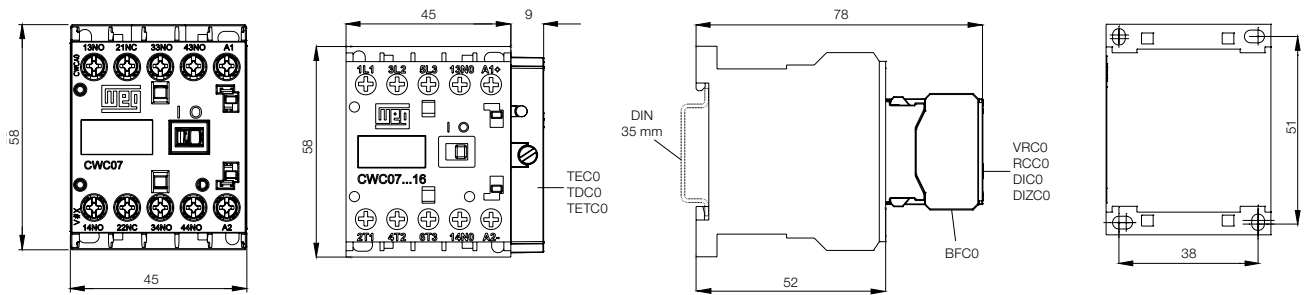
AC-4 ($U_e \leq 440 \text{ V ac}$)



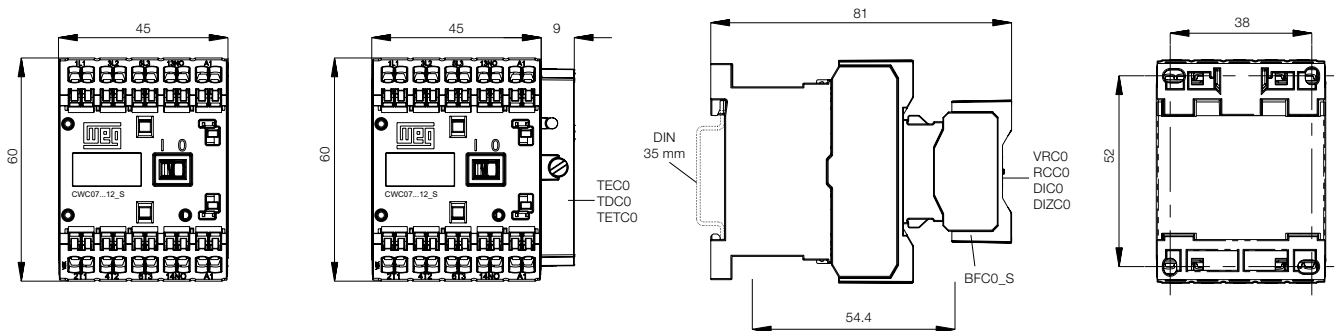


Compact Contactors CWC0 - Dimensions (mm)

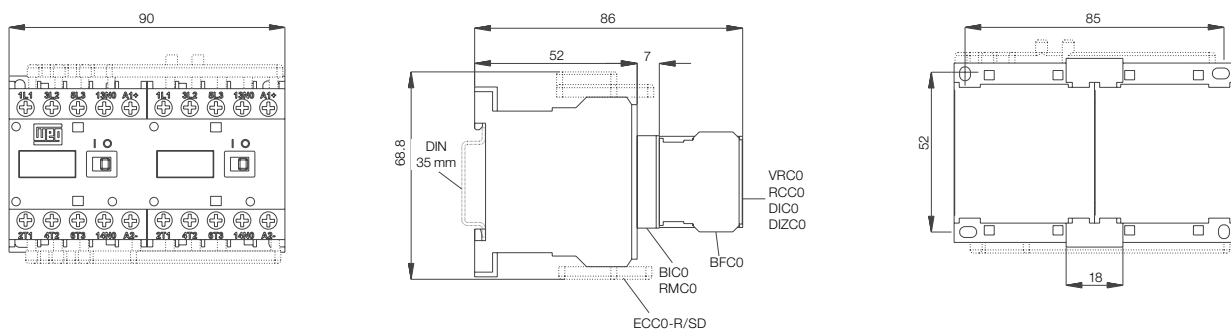
CWC07 up to 16 and CWCA0 - (AC and DC Coil) - Screw Terminal



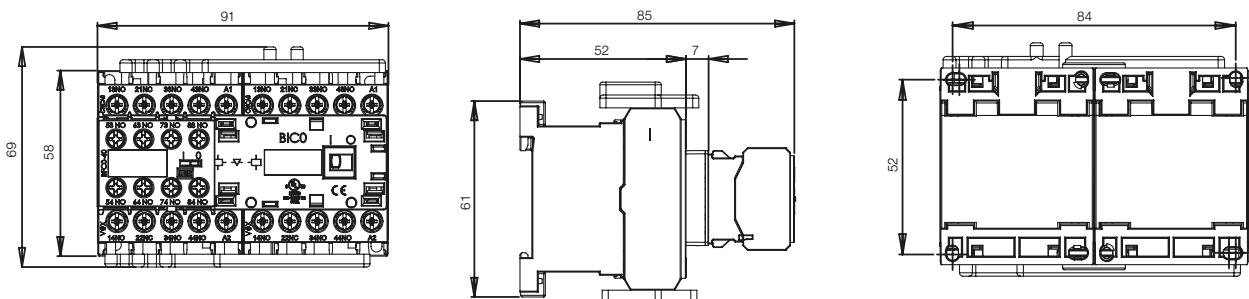
CWC07_S...CWC012_S, and CWCA0_S - (AC and DC Coil) - Screw Terminal



CWCI07...16 or ECC0-R and CWCH07...16 - Screw Terminal

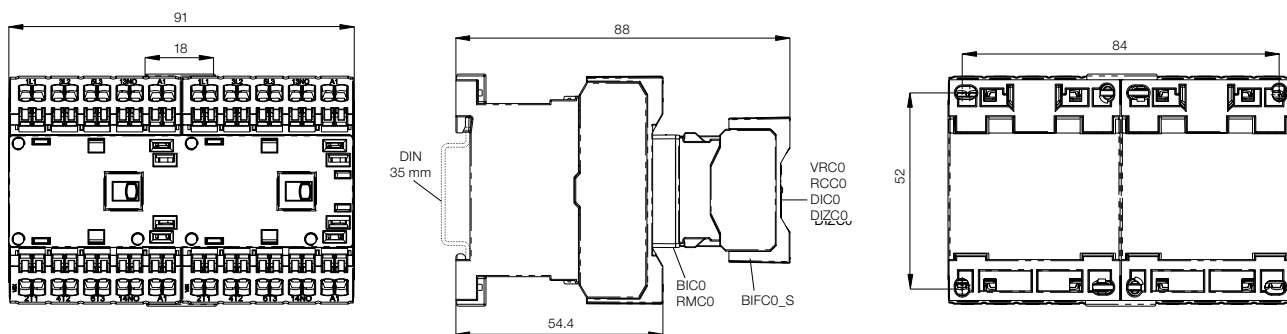


CWCI07...16 + ECC0-R - Screw Terminal

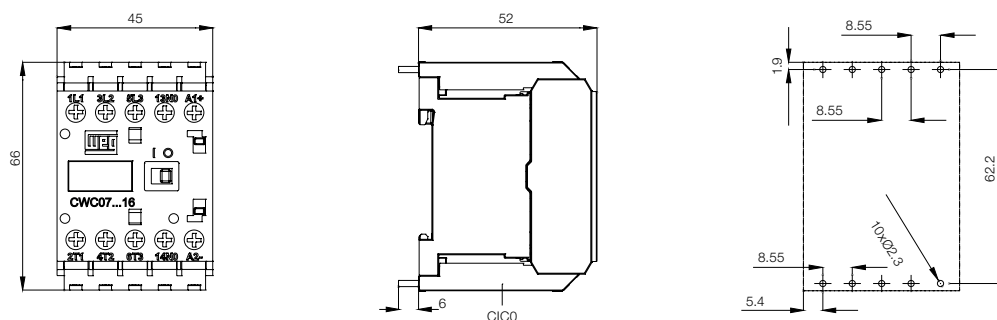




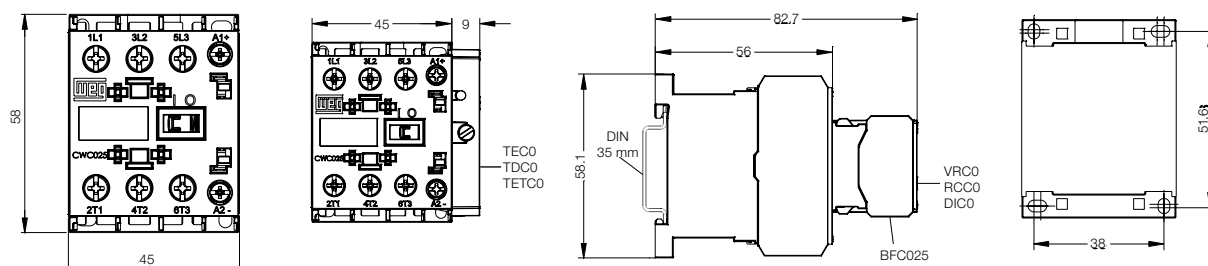
CWCI07...12 or CWCH07...12/CWCHA0 - Spring Terminal



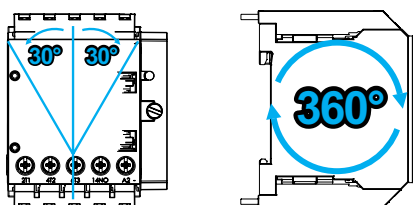
CWC07...16 I 3)



CWC025



Mounting Position of All Compact Contactors





Power Contactors

The CWM general-purpose contactor line has been designed taking into consideration industrial duty and reliability.

Rated for inductive loads up to 800 A or 440 kW @ 380/400 V, WEG can offer the most suitable contactor for your application.

CWM contactors allow total panel space optimization, with only a few compact frame sizes from 4 to 440 kW @ 400/415 V. Reducing inventory is simple with CWM common accessories. For example, side-mounted auxiliary contact blocks are the same from 9 to 300 A (AC-3) @ 440 V.

Designed for extended mechanical and electrical life, dependable switching in even the most heavy-duty applications can be achieved.

No matter how demanding the application, all WEG contactors are tested and approved to be used under Type 1 and Type 2 short circuit coordination.

Ensuring global acceptance, all components conform to UL 508 (USA and Canada), IEC 60947 and CE.

All WEG contactors are manufactured to assure the highest quality manufacturing processes and component materials.

This way, WEG offers reliable solutions for low-voltage applications in electric panel assemblers, OEMs, distributors and end users.

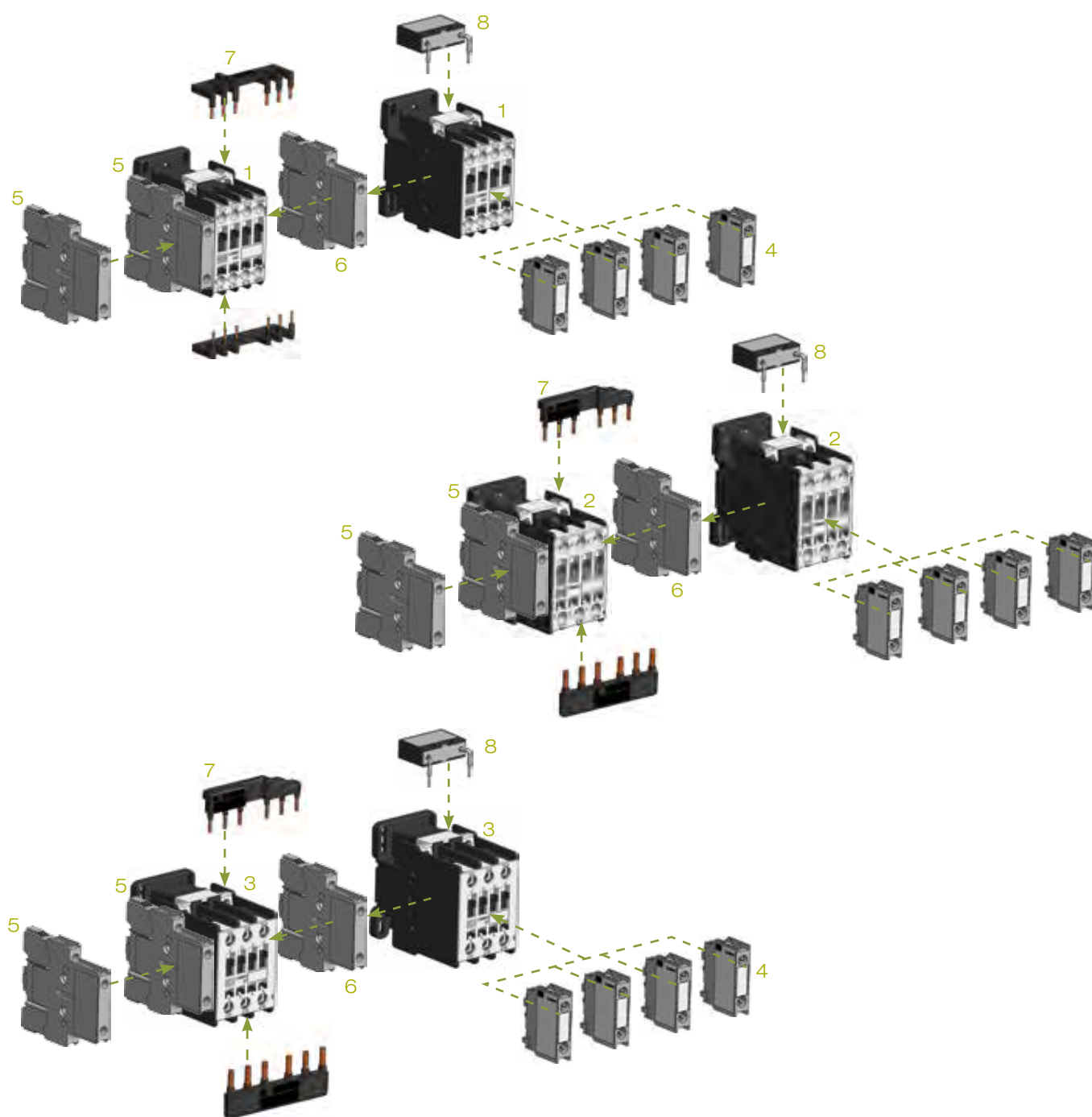


Certifications



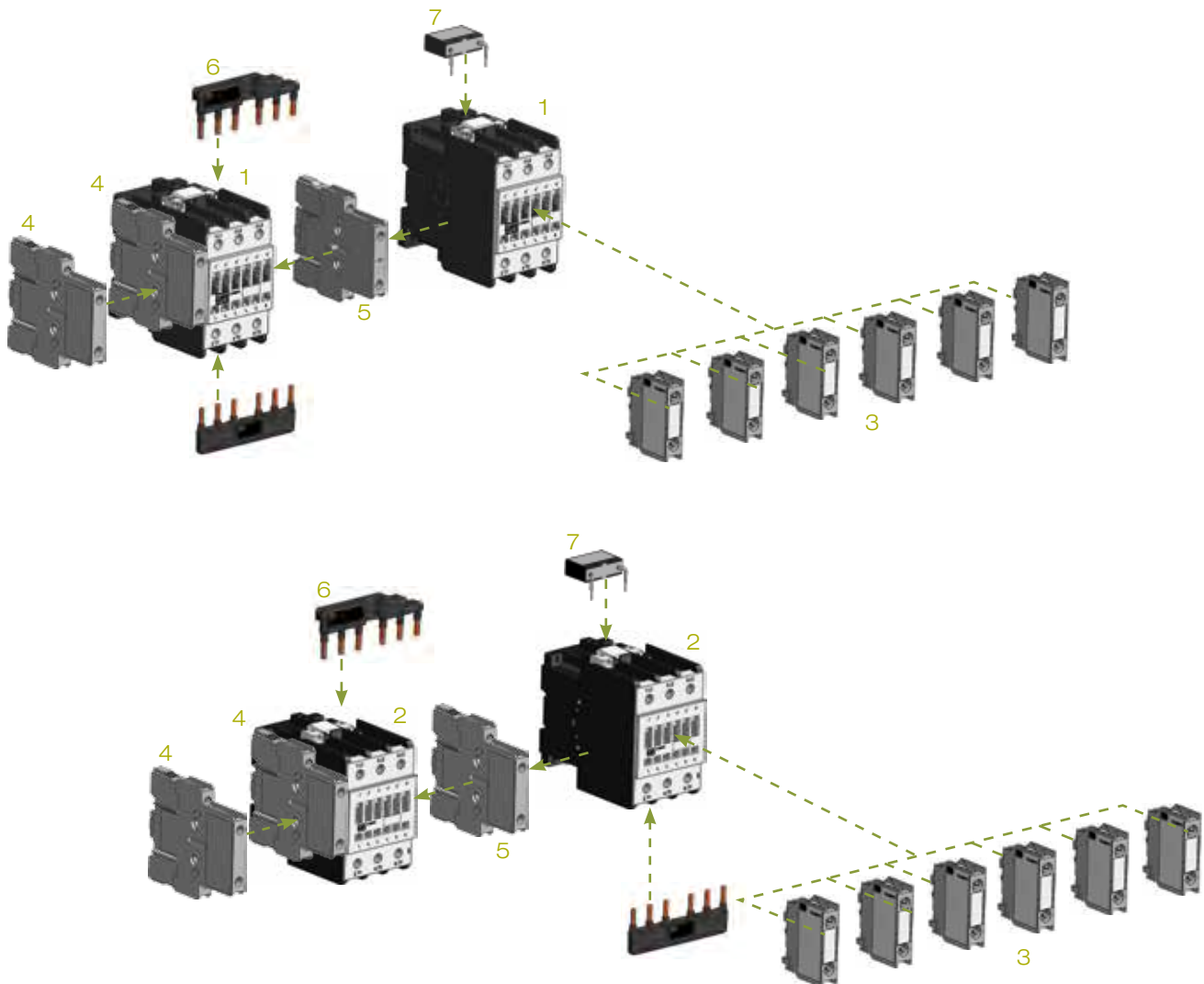


Contactors CWM from 9 up to 40 A (AC-3) - Overview



- 1 Contactors CWM9...18
- 2 Contactors CWM25
- 3 Contactors CWM32/40
- 4 Front mounting auxiliary contact block BCXMF
- 5 Side mounting auxiliary contact block BCXML
- 6 Mechanical interlock block BLIM
- 7 Easy connection busbar
- 8 Surge suppressor blocks BAM

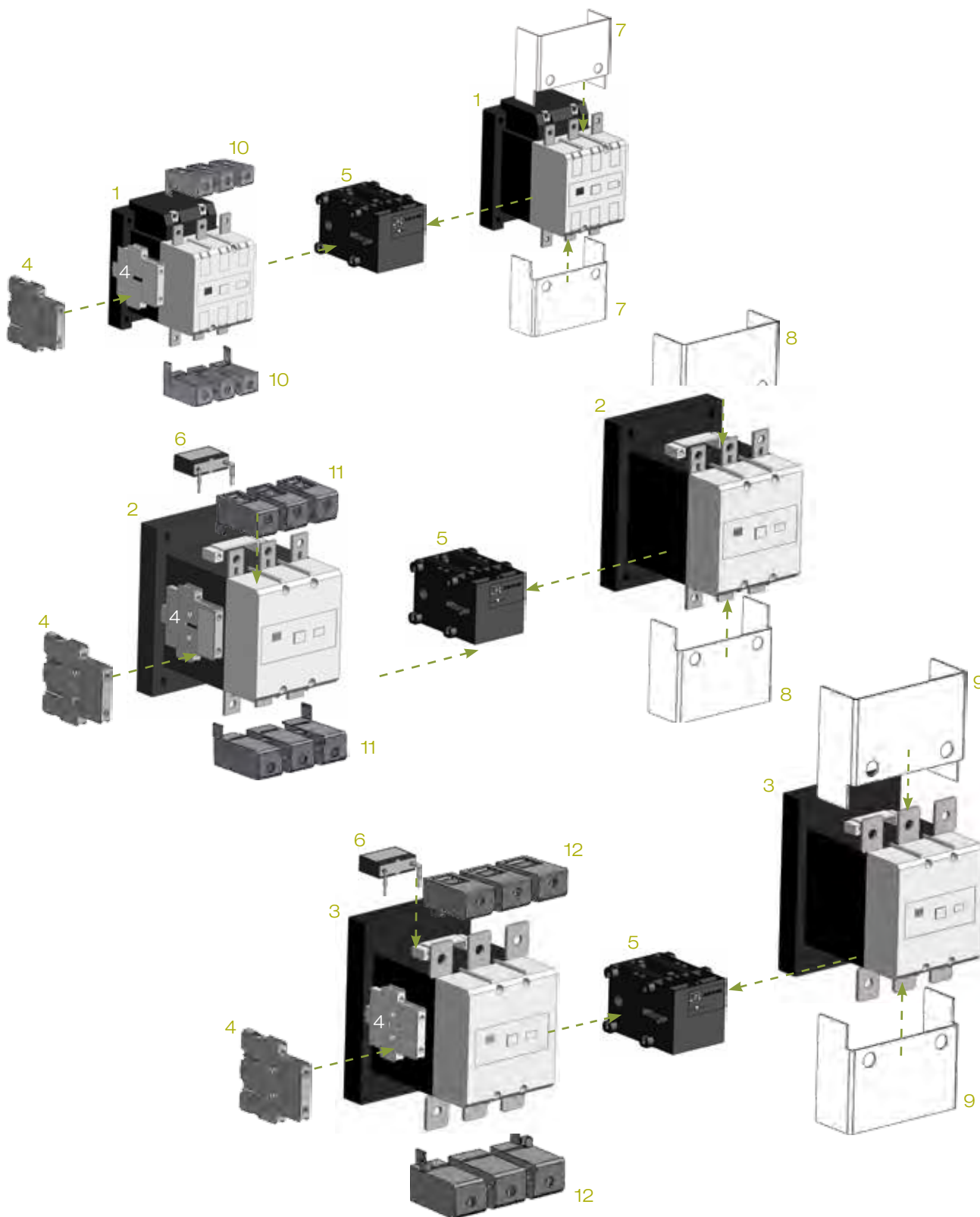
Contactors CWM from 50 up to 105 A (AC-3) - Overview



- 1 Contactors CWM50...80
- 2 Contactors CWM95/105
- 3 Front mounting auxiliary contact block BCXMF
- 4 Side mounting auxiliary contact block BCXML
- 5 Mechanical interlock block BLIM
- 6 Easy connection busbar
- 7 Surge suppressor blocks BAM



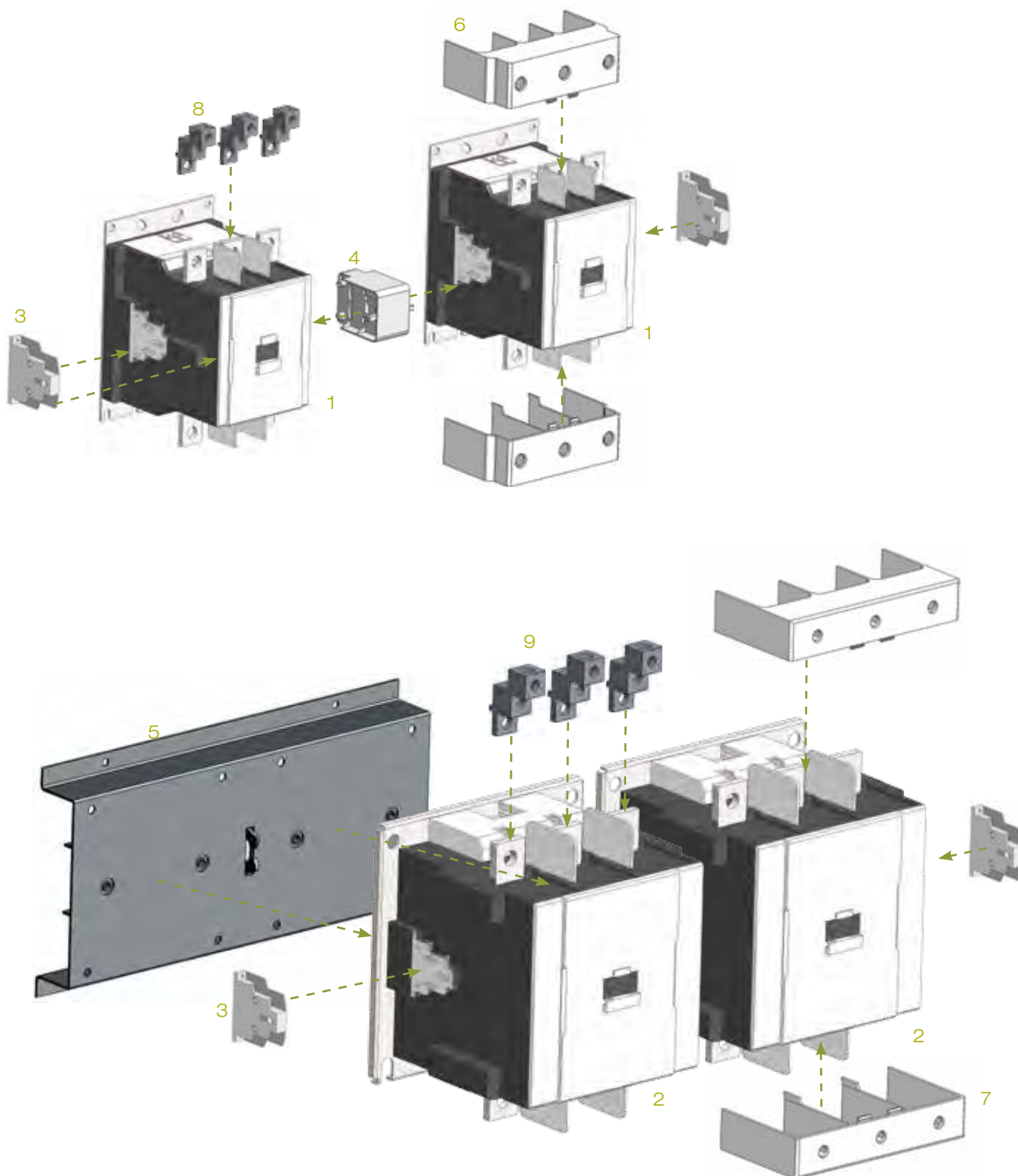
Contactors CWM from 112 up to 300 A (AC-3) - Overview



- 1 Contactors CWM112/150
- 2 Contactors CWM180
- 3 Contactors CWM250/300
- 4 Side mounting auxiliary contact block BCXML
- 5 Mechanical interlock BLIM112-300
- 6 Surge suppressor block BAMV
- 7 Terminal cover BMP CWM150

- 8 Terminal cover BMP CWM180
- 9 Terminal cover BMP CWM300
- 10 TB150 terminal block for CWM112-150
- 11 TB180 terminal block for CWM180
- 12 TB300 terminal block for CWM250-300

Contactors CWM from 400 up to 800 A (AC-3) - Overview



- 1 Contactor CWM400
- 2 Contactors CWM500...800
- 3 Auxiliary contacts block BCXML** CWM800
- 4 Mechanical interlock BLIM CWM400
- 5 Mechanical interlock BLIM CWM800
- 6 Terminal cover BMP CWM400
- 7 Terminal cover BMP CWM800
- 8 Lugs BMJ CWM400
- 9 Lugs BMJ CWM800



Contactors



Three-Pole CWM Contactors from 9 up to 250 A (AC-3) - AC Coil³⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_n = I_e$ AC-1 A	Maximum rated operational power of three-phase motors 50/60 Hz ¹⁾						Auxiliary contacts per contactor		Auxiliary contact blocks separately delivered		Reference code	Weight kg
		220 V 230 V kW /hp	380 V kW /hp	400 V 415 V kW /hp	440 V kW /hp	500 V kW /hp	660 V 690 V kW /hp	3 4 NO NC	1 2 NO NC	BCXMF10 NO	BCXMF01 NC		
9	25	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	5.5 / 7.5	1	0	Built-in	-	CWM9-10-30◆	0.360
								0	1	-	Built-in	CWM9-01-30◆	
								1	1	Built-in	1	CWM9-11-30◆	
								2	2	1	2	CWM9-22-30◆	
12	25	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	7.5 / 10	1	0	Built-in	-	CWM12-10-30◆	0.360
								0	1	-	Built-in	CWM12-01-30◆	
								1	1	Built-in	1	CWM12-11-30◆	
								2	2	1	2	CWM12-22-30◆	
18	32	4.5 / 6	7.5 / 10	7.5 / 10	9.2 / 12.5	9.2 / 12.5	11 / 15	1	0	Built-in	-	CWM18-10-30◆	0.360
								0	1	-	Built-in	CWM18-01-30◆	
								1	1	Built-in	1	CWM18-11-30◆	
								2	2	1	2	CWM18-22-30◆	
25	45	5.5 / 7.5	11 / 15	11 / 15	11 / 15	11 / 15	11 / 15	0	0	-	-	CWM25-00-30◆	0.390
								1	0	1	-	CWM25-10-30◆	
								0	1	-	1	CWM25-01-30◆	
								1	1	1	1	CWM25-11-30◆	
								2	2	2	2	CWM25-55-30◆	
32	60	9.2 / 12.5	15 / 20	15 / 20	15 / 20	15 / 20	18.5 / 25	0	0	-	-	CWM32-00-30◆	0.620
								1	0	1	-	CWM32-10-30◆	
								0	1	-	1	CWM32-01-30◆	
								1	1	1	1	CWM32-11-30◆	
								2	2	2	2	CWM32-22-30◆	
40	60	11 / 15	18.5 / 25	18.5 / 25	22 / 30	22 / 30	22 / 30	0	0	-	-	CWM40-00-30◆	0.650
								1	1	1	1	CWM40-11-30◆	
								2	2	2	2	CWM40-22-30◆	
50	90	15 / 20	22 / 30	22 / 30	30 / 40	30 / 40	30 / 40	0	0	-	-	CWM50-00-30◆	1.205
								1	1	1	1	CWM50-11-30◆	
								2	2	2	2	CWM50-22-30◆	
65	110	18.5 / 25	30 / 40	30 / 40	37 / 50	37 / 50	37 / 50	0	0	-	-	CWM65-00-30◆	1.215
								1	1	1	1	CWM65-11-30◆	
								2	2	2	2	CWM65-22-30◆	
80	110	22 / 30	37 / 50	45 / 60	45 / 60	45 / 60	45 / 60	0	0	-	-	CWM80-00-30◆	1.220
								1	1	1	1	CWM80-11-30◆	
								2	2	2	2	CWM80-22-30◆	
95	140	22 / 30	45 / 60	55 / 75	55 / 75	55 / 75	55 / 75	0	0	-	-	CWM95-00-30◆	1.525
								1	1	1	1	CWM95-11-30◆	
								2	2	2	2	CWM95-22-30◆	
105	140	30 / 40	55 / 75	55 / 75	55 / 75	55 / 75	55 / 75	0	0	-	-	CWM105-00-30◆	1.505
								1	1	1	1	CWM105-11-30◆	
								2	2	2	2	CWM105-22-30◆	
112	180	30 / 40	55 / 75	55 / 75	55 / 75	55 / 75	75 / 100	2	2	-	-	CWM112-22-30◆	3.1
180	225	55 / 75	90 / 125	90 / 125	110 / 150	110 / 150	110 / 150	2	2	-	-	CWM180-22-30◆	51.0
250	350	75 / 100	132 / 175	132 / 175	150 / 200	160 / 220	160 / 220	2	2	-	-	CWM250-22-30◆	6.66

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾

AC coil - 50/60 Hz												
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39	
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480	



Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;

2) Other voltages available;

3) For selection of accessories, check page A41.



Three-Pole CWM Contactors from 9 up to 105 A (AC-3) - DC Coil⁴⁾

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_{th} = I_e$ AC-1 A	Max. rated operational power of three-phase motors 50/60 Hz ¹⁾						Auxiliary contacts per contactor		Auxiliary contact blocks separately delivered		Reference code	Weight kg
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	660 V 690 V			BCXMF10	BCXMF01		
		kW / hp	kW / hp	kW / hp	kW / hp	kW / hp	kW / hp	NO	NC	NO	NC		
9	25	2.2 / 3	4 / 5	4 / 5	4.5 / 6	4.5 / 6	5.5 / 7.5	1	0	Built-in	-	CWM9-10-30◆	0.520
								0	1	-	Built-in	CWM9-01-30◆	
								1	1	Built-in	1	CWM9-11-30◆	
								2	2	1	2	CWM9-22-30◆	
12	25	3 / 4	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	5.5 / 7.5	7.5 / 10	1	0	Built-in	-	CWM12-10-30◆	0.520
								0	1	-	Built-in	CWM12-01-30◆	
								1	1	Built-in	1	CWM12-11-30◆	
								2	2	1	2	CWM12-22-30◆	
18	32	4.5 / 6	7.5 / 10	7.5 / 10	9.2 / 12.5	9.2 / 12.5	11 / 15	1	0	Built-in	-	CWM18-10-30◆	0.520
								0	1	-	Built-in	CWM18-01-30◆	
								1	1	Built-in	1	CWM18-11-30◆	
								2	2	1	2	CWM18-22-30◆	
25	45	5.5 / 7.5	11 / 15	11 / 15	11 / 15	11 / 15	11 / 15	0	0	-	-	CWM25-00-30◆	0.520
								1	0	1	-	CWM25-10-30◆	
								0	1	-	1	CWM25-01-30◆	
								1	1	1	1	CWM25-11-30◆	
								2	2	2	2	CWM25-22-30◆	
32	60	9.2 / 12.5	15 / 20	15 / 20	15 / 20	15 / 20	18.5 / 25	0	0	-	-	CWM32-00-30◆	0.640
								1	0	1	-	CWM32-10-30◆	
								0	1	-	1	CWM32-01-30◆	
								1	1	1	1	CWM32-11-30◆	
								2	2	2	2	CWM32-22-30◆	
40	60	11 / 15	18.5 / 25	18.5 / 25	22 / 30	22 / 30	22 / 30	0	0	-	-	CWM40-00-30◆	0.640
								1	1	1	1	CWM40-11-30◆	
								2	2	2	2	CWM40-22-30◆	
50	90	15 / 20	22 / 30	22 / 30	30 / 40	30 / 40	30 / 40	0	0	-	-	CWM50-00-30◆	1.463
								1	1	1	1	CWM50-11-30◆	
								2	2	2	2	CWM50-22-30◆	
65	110	18.5 / 25	30 / 40	30 / 40	37 / 50	37 / 50	37 / 50	0	0	-	-	CWM65-00-30◆	1.463
								1	1	1	1	CWM65-11-30◆	
								2	2	2	2	CWM65-22-30◆	
80	110	22 / 30	37 / 50	45 / 60	45 / 60	45 / 60	45 / 60	0	0	-	-	CWM80-00-30◆	1.463
								1	1	1	1	CWM80-11-30◆	
								2	2	2	2	CWM80-22-30◆	
95	140	22 / 30	45 / 60	55 / 75	55 / 75	55 / 75	55 / 75	0	0	-	-	CWM95-00-30◆	1.463
								1	1	1	1	CWM95-11-30◆	
								2	2	2	2	CWM95-22-30◆	
105	140	30 / 40	55 / 75	55 / 75	55 / 75	55 / 75	55 / 75	0	0	-	-	CWM105-00-30◆	1.463
								1	1	1	1	CWM105-11-30◆	
								2	2	2	2	CWM105-22-30◆	

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾³⁾

Coil voltage codes (CWM9...25)	C02	C03	C07	C09	C12	C15	Coil voltage codes (CWM32...105)	C34	C37	C40	C44
V dc	12	24	48	60	110	220	V dc	24-28	42-50	110-130	208-240

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;



2) Other voltages available;

3) Contactors CWM32-105 with DC coils do not need surge suppressor blocks;

4) For selection of accessories, check page A41.



Three-Pole CWM Contactors from 112 up to 300 A (AC-3) - Electronic Module AC/DC

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_m = I_e$ AC-1 A	Max. rated operational power of three-phase motors 50/60 Hz ¹⁾						Auxiliary contacts per contactor (BCXML)		Reference code	Weight kg
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	690 V	 NO	 NC		
112	180	30 / 40	55 / 75	55 / 75	55 / 75	55 / 75	75 / 100	2	2	CWM112-22-30◆	3.12
150	225	45 / 60	75 / 100	75 / 100	90 / 125	90 / 125	110 / 150	2	2	CWM150-22-30◆	3.20
180	225	50 / 75	90 / 125	90 / 125	110 / 150	110 / 150	110 / 150	2	2	CWM180-22-30◆	5.01
250	350	75 / 100	132 / 175	132 / 175	150 / 200	160 / 220	160 / 200	2	2	CWM250-22-30◆	6.86
300	410	90 / 125	150 / 200	160 / 220	185 / 250	200 / 270	200 / 270	2	2	CWM300-22-30◆	6.73



To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾

Coil voltage codes	E02	E06	E07	E10	E13	E16	E21
50/60 Hz / DC *	24-28 V	42-50 V	60-72 V	110-130 V	208-250 V	360-415 V	430-500 V

* Surge suppressor is already integrated.



Three-Pole CWM Contactors 400 up to 800 A (AC-3) - Electronic Module AC/DC

Rated operational current I_e AC-3 ($U_e \leq 440$ V) A	Conv. thermal current $I_m = I_e$ AC-1 A	Max. rated operational power of three-phase motors 50/60 Hz ¹⁾						Auxiliary contacts per contactor (BCXML)		Reference code	Weight kg
		220 V 230 V	380 V	400 V 415 V	440 V	500 V	690 V	 NO	 NC		
400	450	125 / 150	220 / 300	220 / 300	220 / 300	220 / 300	250 / 330	2	2	CWM400-22-30◆	9.2
500	580	150 / 200	265 / 355	265 / 355	265 / 355	265 / 355	300 / 400	2	2	CWM500-22-30◆	22.4
630	660	190 / 250	330 / 450	330 / 450	330 / 450	330 / 450	330 / 450	2	2	CWM630-22-30◆	23.2
800	900	220 / 300	440 / 600	440 / 600	440 / 600	500 / 700	500 / 700	2	2	CWM800-22-30◆	23.3

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code²⁾

Coil voltage codes (CWM400)	E36	D80	D81	D82
50/60 Hz / DC *	100-240 V ac / 100-220 V dc	-	-	-
50/60 Hz *	-	265-347 V	380-450 V	440-575 V

Coil voltage codes (CWM500/630/800)	E35	E39	D80	D81	D82
50/60 Hz / DC *	100-127 V ac / 100-110 V dc	200-240 V ac / 200-220 V dc	-	-	-
50/60 Hz *	-	-	265-347 V	380-450 V	440-575 V

* Surge suppressor is already integrated.

Notes: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design;
2) Other voltages available.



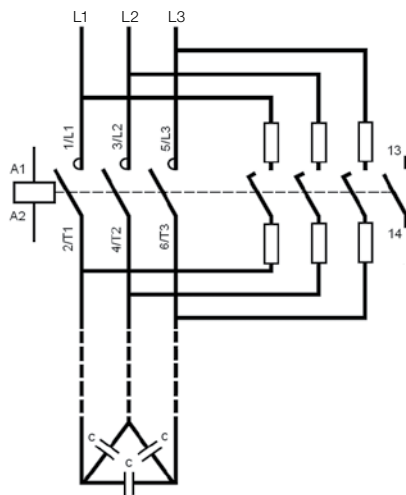
CWMC Contactor for Capacitor Switching (AC-6b)

AC coil		CWMC9	CWMC18	CWMC25	CWMC32	CWMC50	CWMC65	CWMC80	
Reactive power AC-6b @ 55 °C	220 - 230 V	kvar	6	8	11	15	25	30	35
	380 - 415 V		10	15	20	25	40	50	61
	440 V		12	16	23	30	45	60	71
	480 V		12.5	17	25	33	50	65	77
	660 - 690 V		17.5	25	34	45	65	87	106
AC-6b current (I _n)	(55 °C)	A	16	21	30	40	60	77	93
Thermal current (I _{th})	(55 °C)		25	32	45	60	90	110	140
AC-6b current (I _n)	(70 °C)		10	15	22	34	50	62	67
Max fuse (gL/gG)			25	35	50	63	100	125	160
Cable cross section	mm ²	6	6	2 x 10	16 + 16	35 + 35	35 + 35	35	
	AWG	10	10	2 x 7	6 + 6	2 + 2	2 + 2	2	
Tightening torque	N.m	1...1.7		1.6 ... 3	2.5 ... 4	4 ... 6	4 ... 6	5...6.5	
Max. operation per hour	ops/h.	120							
Max. number of auxiliary contacts		1			3	5			
Electrical lifespan	Ops x 10 ³	100							
Coil consumption (AC) Pick-up/Sealing	VA	75/9.3			123/12.5	308/25	308/25	308/25	
Weight	kg	0.619			0.670	1.370	1.389	1.7	

Notes: - One auxiliary contact 1NO included in CWMC contactors;

- Examples of reference code: - CWMC25-10-30♦; - CWMC32-10-30♦; - CWMC50-10-30♦; - CWMC-65-10-30♦.

Diagram



To Complete the Reference Code, Replace “♦” with the Appropriate Coil Voltage Code¹⁾



Coil voltage codes	X06	X18	X32	X37	X42	X47	X50	X56
50 Hz	24 V	110 V	220 V	230-240 V	380 V	400-415 V	440 V	500 V
Coil voltage codes	X04	X15	X26	X28	X30	X41	X42	X47
60 Hz	24 V	110 V	220 V	230 V	240 V	380 V	440 V	480 V

Coil voltage codes (CWM9...25)	C02	C03	C07	C09	C12	C15	Coil voltage codes (CWM32...105)	C34	C37	C40	C44
V dc	12	24	48	60	110	220	V dc	24-28	42-50	110-130	208-240

Note: 1) Other voltages on request.



Four-Pole Contactors CWM from 25 to 32 A (AC-1)



$I_e = I_n$ $(U_e \leq 690 \text{ V})$ $\theta \leq 55^\circ \text{C}$ AC-1 A	Number of poles		Reference code	Weight kg
	 NO	 NC		
25	2	2	CWM9-00-22◆	0.360
	4	-	CWM9-00-40◆	
25	2	2	CWM12-00-22◆	0.360
	4	-	CWM12-00-40◆	
32	2	2	CWM18-00-22◆	0.360
	4	-	CWM18-00-40◆	



To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code¹⁾

AC coil - 50/60 Hz											
Applicable for CWC07...CWC025 models											
Coil voltage codes	D02	D07	D13	D23	D24	D25	D33	D34	D35	D36	D39
V ac - 50/60 Hz	24	48	110	220	230	240	380	400	415	440	480

Four-Pole CWM Contactors from 420 up to 800 A AC-1

Conv. Thermal current I_{th} (55°C)	AC-1 Current A	AC-1 Power				Auxiliary contacts per contactor (BCXML)		Reference code	Weight kg
		220 V 240 V	380 V 400 V	500 V 550 V	690 V	 NO	 NC		
A	A	kW	kW	kW	kW	NO	NC		
500	420	160	300	375	470	2	2	CWM400-22-40◆	9.9
630	630	245	450	560	710	2	2	CWM500-22-40◆	26.3
750	660	255	470	590	740	2	2	CWM630-22 -40◆	26.3
900	800	310	570	710	900	2	2	CWM800-22 -40◆	26.3

To Complete the Reference Code, Replace “◆” with the Appropriate Coil Voltage Code¹⁾

Coil voltage codes (CWM400)	E36	D81
50/60 Hz / DC *	100-240 V ac / 100-220 V dc	-
50/60 Hz *	-	380-450 V
Coil voltage codes CWM500/630/800	E35	E39
50/60 Hz / DC *	100-127 V ac / 100-110 V dc	200-240 V ac / 200-220 V dc
50/60 Hz *	-	-

* Surge suppressor is already integrated.

Note: 1) Other voltages available.



Power Contactors - Accessories and Spare Parts

Auxiliary Contact Blocks for CWM9 to CWM800

- Terminal markings to EN 50 005 and EN 50 012
- Positive driven contacts in accordance with IEC/EN 60947-4-1 resp. IEC/EN60947-5-1

Illustrative picture	For use with	Max. number of contacts / contactor	Auxiliary contacts		Terminal markings	Reference code	Weight kg
			NO	NC			
	CWM9...105	4 / CWM9...25 6 / CWM32...40 8 / CWM50...105 8 / CWM112...300	1	0		BCXMF10	0.015
			0	1		BCXMF01	
			1 ¹⁾	0		BCXMF10	
			0	1 ²⁾		BCXMF01	
	CWM9...300	4 / CWM9...25 6 / CWM32...40 8 / CWM50...105 8 / CWM112...300	2	0		BCXML20	0.050
			1	1		BCXML11	
			2	0		BCXMRL20 ³⁾	
			1	1		BCXMRL11 ³⁾	
	CWM 400...800	8 / CWM400...800	1	1		BCXML11 CWM800	0.045
						BCXML11 CWM800 ³⁾	

Mechanical Interlock for Contactors⁵⁾

Illustrative picture	For use with	Reference code	Weight kg
	CWM9...CWM105	BLIM9-105	0.050
		BLIM.02 ⁴⁾	
	CWM112...CWM300	BLIM112-300	0.150
	CWM400	BLIM CWM400	0.100
	CWM500...800 - 3 poles	BLIM CWM800	15.0
	CWM500...800 - 4 poles	BLIM CWM800-4P	16.0

Notes: 1) Early-make contact;
2) Late-break contact;
3) For combination of more than 2 side-mounted auxiliary contacts;

4) This accessory allows mechanical and electrical interlock;
5) Can only be used with 2 contactors of the same frame.

To Complete the Reference Code, Replace “♦” with the Appropriate Coil Voltage Code¹⁾

Coil voltage codes (CWM400)	E36	D80	D81	D82
50/60 Hz / DC *	100-240 V ac / 100-220 V dc	-	-	-
50/60 Hz *	-	265-347 V	380-450 V	440-575 V

Coil voltage codes CWM500...800)	E35	E39	D80	D81	D82
50/60 Hz / DC *	100-127 V ac / 100-110 V dc	200-240 V ac / 200-220 V dc	-	-	-
50/60 Hz *	-	-	265-347 V	380-450 V	440-575 V

* Surge suppressor is already integrated.

Note: 1) Other voltages available.



Individual Spare Coils

Illustrative picture	Description	For use with	Reference code	Weight kg
	AC coil	CWM9...25. CWMC25	BCA4-25♦	0.065
		CWM32...40. CWMC32	BCA4-40♦	0.110
		CWM50...105. CWMC50...65	BCA-105♦	0.140
		CWM112	BCA-112♦	0.235
		CWM180	BCA-180♦	0.400
		CWM250	BCA-250♦	0.675
	DC coil	CWM9...25	BCC-25♦	0.120
		CWM32...40	BECC4-40♦	0.180
		CWM50...105	BECC-105♦	0.220
	Dual-voltage coils AC/DC (contactors with electronic module)	CWM112...150	BCE-150♦	0.235
		CWM180	BCE-215♦	0.400
		CWM250...300	BCE-300♦	0.675
		CWM400	BCE400♦	1.0
		CWM500...800	BCE800♦	

Electronic Module

Illustrative picture	Control type	For use with	Reference code	Weight kg
	AC/DC	CWM112...300	ME-300♦ *	0.140

* The coil voltage code must be the same of BCE coil voltage code selected.

To Complete the Reference Code, Replace “♦” with the Appropriate Coil Voltage Code¹⁾

Contactors CWM9...300

Coil voltage codes(CWM9...250 and CWMC25...65)	D02	D07	D13	D24	D25	D34	D35
50/60 Hz	24 V	48 V	110 V	230 V	240 V	400 V	415 V
Coil voltage codes (CWM9...25)	C02	C03	C07	C09	C12	C15	
V dc	12	24	48	60	110	220	
Coil voltage codes (CWM32...105)	C34	C37	C40	C44			
V dc	24-28 V	42-50 V	110-130 V	208-240 V			
Coil voltage codes (CWM112...300)	E02	E06	E07	E10	E13	E16	E21
50/60 Hz / DC *	24-28 V	42-50 V	60-72V	110-130 V	208-250 V	360-415 V	430-500 V

* Surge suppressor is already integrated.

Contactors CWMC25...65

Coil voltage codes	X06	X18	X32	X37	X42	X47	X50	X56
50 Hz	24 V	110 V	220 V	230-240 V	380 V	400-415 V	440 V	500 V
Coil voltage codes	X04	X15	X26	X28	X30	X41	X42	X47
60 Hz	24 V	110 V	220 V	230 V	240 V	380 V	440 V	480 V

Contactors CWM400...800

Coil voltage codes (CWM400)	E36	D80	D81	D82	
50/60 Hz / DC *	100-240 V ac / 100-220 V dc	-	-	-	
50/60 Hz *	-	265-347 V	380-450 V	440-575 V	
Coil voltage codes CWM500...800)	E35	E39	D80	D81	D82
50/60 Hz / DC *	100-127 V ac / 100-110 V dc	200-240 V ac / 200-220 V dc	-	-	-
50/60 Hz *	-	-	265-347 V	380-450 V	440-575 V

* Surge suppressor is already integrated.

Note: 1) Other voltages on request.



Surge Suppressors

- Connect directly to coil terminals A1 - A2

Illustrative picture	For use with	Voltage	Circuit diagram	Reference code	Weight kg
	CWM9...40	24 - 48 V 50/60 Hz		BAMRC4 D53	0.014
		50 - 127 V 50/60 Hz		BAMRC5 D55	
		130 - 250 V 50/60 Hz		BAMRC6 D63	
	CWM50...105	24 - 48 V 50/60 Hz		BAMRC7 D53	
		50 - 127 V 50/60 Hz		BAMRC8 D55	
		130 - 250 V 50/60 Hz		BAMRC9 D63	
	CWM112...250	24 - 48 V 50/60 Hz		BAMRC13 D53	
		50 - 250 V 50/60 Hz		BAMRC14 D56	
	CWM9...25	12 - 600 V dc		BAMDI10 C33	
	CWM9...105	270 - 380 V 50/60 Hz		BAMV1 D68	
		400 - 510 V 50/60 Hz		BAMV2 D73	
	CWM112...250	270 - 380 V 50/60 Hz		BAMV3 D68	
		400 - 510 V 50/60 Hz		BAMV4 D73	

Terminal Cover

- Protection against touching in accordance with relating installation rules

Illustrative picture	For use with	Description	Reference code	Weight kg
	CWM112/150	1 kit with 2 parts1)	BMP CWM150	0.10
	CWM180		BMP CWM180	0.15
	CWM250/300		BMP CWM300	0.20
	CWM112/150	1 kit with 1 part1)	BMP1 CWM150	0.05
	CWM180		BMP1 CWM180	0.08
	CWM250/300		BMP1 CWM300	0.10
	CWM400 (3-pole)	1 kit with 2 parts1)	BMP CWM400	0.12
	CWM500...800 (3-pole)		BMP CWM800	0.28
	CWM400 (4-pole)		BMP CWM400-4P	0.16
	CWM500...800 (4-pole)		BMP CWM800-4P	0.37

Terminal Blocks²⁾

Illustrative picture	For use with	Flexible cable	Tightening torque	Description	Reference code	Weight kg
	CWM112/150	25...70 mm ² 3...2/0 AWG	14 N.m	1 unit (3-pole)	TB150	0.29
	CWM180	50...120 mm ² 1/0...250 kcmil AWG	14 N.m		TB180	0.35
	CWM250/300	50...150 mm ² 1/0...300 kcmil AWG	20 N.m		TB300	0.45

Lug Terminals

Illustrative picture	For use with	Description	Reference code	Weight kg
	CWM400	1 kit with 3 pieces	BMJ CWM400	0.495
	CWM500...800	1 kit with 3 pieces	BMJ CWM400	1.0

Notes: 1) Every part is a 3-phase protector.
2) For IP20 protection degree on front.



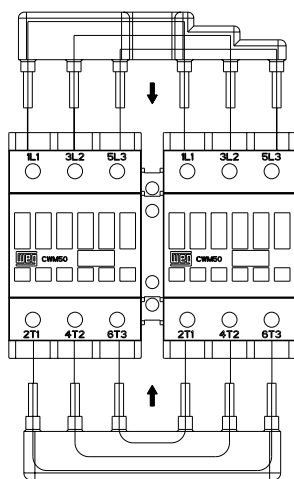
Power Contactors - Wiring Kits for Starters

Reversing Wiring Kits

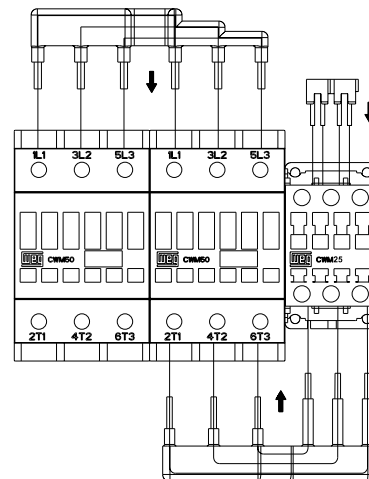
Rated operational current I _e AC - 3 (U _e ≤ 440 V) A	Maximum rated operational power of three-phase motors 50/60 Hz			Contactors	Reference code	Weight kg
	220-230 V kW / hp	400-415 V kW / hp	660-690 V kW / hp	K1 = K2		
9	2.2 / 3	4 / 5	5.5 / 7.5	CWM9	EC-R-7.5	0.033
12	3 / 4	5.5 / 7.5	7.5 / 10	CWM12		
18	4.5 / 6	7.5 / 10	11 / 15	CWM18		
25	5.5 / 7.5	11 / 15	11 / 15	CWM25	EC-RC-11	0.5
32	9.2 / 12.5	15 / 20	18.5 / 25	CWM32	EC-RC-18.5	
40	11 / 15	18.5 / 25	22 / 30	CWM40		
50	15 / 20	22 / 30	30 / 40	CWM50	EC-RC-37	
65	18.5 / 25	30 / 40	37 / 50	CWM65		
80	22 / 30	45 / 60	45 / 60	CWM80		

Star-Delta Wiring Kits

Rated operational current I _e AC - 3 (U _e ≤ 440 V) A	Maximum rated operational power of three-phase motors 50/60 Hz			Contactors		Reference code	Weight kg
	220-230 V kW / hp	400-415 V kW / hp	660-690 V kW / hp	K1 = K2	K3		
25	5.5 / 7.5	11 / 15	18.5 / 25	CWM18	CWM9	EC-SD-15	0.051
32	7.5 / 10	15 / 20	18.5 / 25	CWM18	CWM12		
40	7.5 / 10	18.5 / 25	22 / 30	CWM25	CWM18	EC-SD-22	0.5
50	11 / 15	22 / 30	22 / 30	CWM25	CWM18		
54	15 / 20	22 / 30	30 / 40	CWM32	CWM18	EC-SD-25	
60	15 / 20	30 / 40	37 / 50	CWM40	CWM25	EC-SD-30	
80	18.5 / 25	37 / 50	45 / 60	CWM50	CWM25	EC-SD-37	
85	22 / 30	45 / 60	55 / 75	CWM50	CWM32	EC-SD-55	
105	30 / 40	55 / 75	55 / 75	CWM65	CWM40		
138	37 / 50	75 / 100	75 / 100	CWM80	CWM50	EC-SD-75	
140	37 / 50	75 / 100	90 / 125	CWM95	CWM50	EC-SD-90	
175	45 / 60	90 / 125	110 / 150	CWM105	CWM65		



Wiring kit for reversing starters



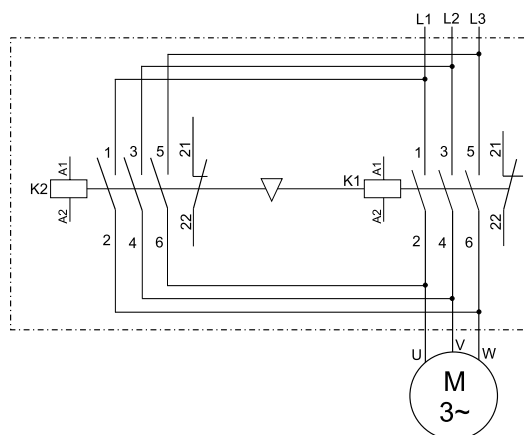
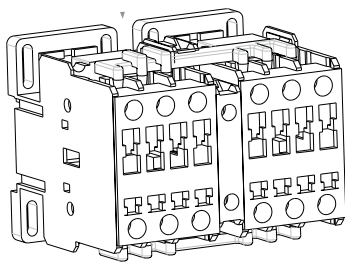
Wiring kit for star-delta starters



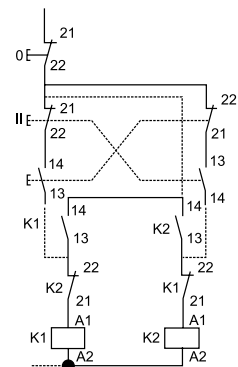
Power Contactors - Reversing Starters

Individual Components for Reversing Starters

Maximum rated operational power of three-phase motors 50/60 Hz				Individual components for reversing starters					
220-230 V kW / hp	400-415 V kW / hp	500 V kW / hp	660-690 V kW / hp	Contactor K1	Contactor K2	Spare auxiliary contacts		Mechanical interlock	Wiring kit
				Type	Type	K1	K2		
2.2 / 3	4 / 5	4.5 / 6	5.5 / 7.5	CWM9-11	CWM9-11	-	-	BLIM9-105	EC-SD
3 / 4	5.5 / 7.5	5.5 / 7.5	7.5 / 10	CWM12-11	CWM12-11	-	-		
4.5 / 6	7.5 / 10	9.2 / 12.5	11 / 15	CWM18-11	CWM18-11	-	-		
5.5 / 7.5	11 / 15	11 / 15	11 / 15	CWM25-11	CWM25-11	-	-		
9.2 / 12.5	15 / 20	15 / 20	18.5 / 25	CWM32-11	CWM32-11	-	-		
11 / 15	18.5 / 25	22 / 30	22 / 30	CWM40-11	CWM40-11	-	-		
15 / 20	22 / 30	30 / 40	30 / 40	CWM50-11	CWM50-11	-	-		
18.5 / 25	30 / 40	37 / 50	37 / 50	CWM65-11	CWM65-11	-	-		
22 / 30	45 / 60	45 / 60	45 / 60	CWM80-11	CWM80-11	-	-		
22 / 30	55 / 75	55 / 75	55 / 75	CWM95-11	CWM95-11	-	-		
30 / 40	55 / 75	55 / 75	55 / 75	CWM105-11	CWM105-11	-	-	BLIM112-300	-
30 / 40	55 / 75	55 / 75	75 / 100	CWM112-22	CWM112-22	1NO/1NC	1NO/1NC		
45 / 60	75 / 100	90 / 125	110 / 150	CWM150-22	CWM150-22	1NO/1NC	1NO/1NC		
55 / 75	90 / 125	110 / 150	110 / 150	CWM180-22	CWM180-22	1NO/1NC	1NO/1NC		
75 / 100	132 / 175	160 / 220	160 / 220	CWM250-22	CWM250-22	1NO/1NC	1NO/1NC		
90 / 125	160 / 220	200 / 270	200 / 270	CWM300-22	CWM300-22	1NO/1NC	1NO/1NC		



Reversing starters



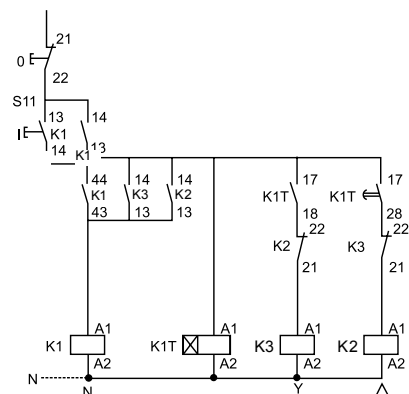
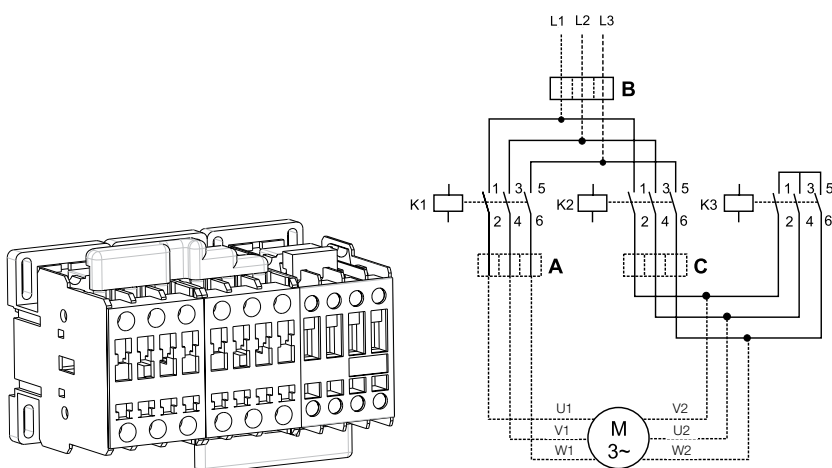


Power Contactors - Star-Delta Starters

Individual Components for Star-Delta Starters

Maximum rated operational power of three-phase motors 50/60 Hz				Individual components for Star-Delta Starters							
				Main contactor K1	Delta contactor K2	Star contactor K3	Timer	Spare auxiliary contacts			Wiring kit
								Type	Type	Type	
220-230 V kW / hp	400-415 V kW / hp	500 V kW / hp	660-690 V kW / hp	CWM18-10 + BCXMF10	CWM18-11	CWM9-11	RTW-ET...	-	-	-	EC-SD...
7.5 / 10	15 / 20	15 / 20	18.5 / 25	CWM18-10 + BCXMF10	CWM18-11	CWM12-11		-	-	-	
7.5 / 10	18.5 / 25	22 / 30	22 / 30	CWM25-00 + 2 x BCXMF10	CWM25-11	CWM18-11		-	-	-	
11 / 15	22 / 30	22 / 30	22 / 30	CWM25-00 + 2 x BCXMF10	CWM25-11	CWM18-11		-	-	-	
15 / 20	30 / 40	37 / 50	37 / 50	CWM40-00 + 2 x BCXMF10	CWM40-11	CWM25-11		-	-	-	
18.5 / 25	37 / 50	37 / 50	45 / 60	CWM50-00 + 2 x BCXMF10	CWM50-11	CWM25-11		-	-	-	
22 / 30	45 / 60	45 / 60	55 / 75	CWM50-00 + 2 x BCXMF10	CWM50-11	CWM32-11		-	-	-	
30 / 40	55 / 75	55 / 75	55 / 75	CWM65-00 + 2 x BCXMF10	CWM65-11	CWM40-11		-	-	-	
37 / 50	75 / 100	75 / 100	90 / 125	CWM95-00 + 2 x BCXMF10	CWM95-11	CWM50-11		-	-	-	
45 / 60	90 / 125	110 / 150	110 / 150	CWM105-00 + 2 x BCXMF10	CWM105-11	CWM65-11		-	-	-	
55 / 75	110 / 150	110 / 150	132 / 175	CWM150-22	CWM150-22	CWM65-11		2NC	1NO/NC	-	
75 / 100	132 / 175	132 / 175	132 / 175	CWM180-22	CWM180-22	CWM80-11		2NC	1NO/NC	-	
90 / 125	160 / 220	160 / 220	200 / 300	CWM250-22	CWM250-22	CWM105-11		2NC	1NO/NC	-	
110 / 150	200 / 270	250 / 330	-	CWM300-22	CWM300-22	CWM150-22		2NC	1NO/NC	1NO/NC	

Star-Delta Starters



A: $0.58 \times I_r$, motor protection at star and delta position
 B: $1 \times I_r$, only partial motor protection at star position
 C: $0.58 \times I_r$, motor not protected at star position



Contactors - Technical Data

General Data for CWM9...CWM300

Reference code	CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300
Standards	IEC 60947 / UL 508															
Rated insulation voltage U _i IEC 60947 UL / CSA	1.000 V 600 V															
Rated impulse withstand voltage U _{imp}	6 kV						8 kV									
Rated operational frequency	25 - 400 Hz															
Degree of protection	Protection against direct contact from the front when operated by a perpendicular test finger (IEC 536)															
Main circuits	IP20			IP10									IP00			
Control circuits and auxiliary contacts	IP20															
Ambient temperature	-25 °C to +55 °C -55 °C to +80 °C															
Operating temperature																
Storage temperature																
Altitude	Up to 3,000 m 3,000 to 4,000 m 4,000 to 5,000 m															
Normal values																
90% I _e / 80% U _e																
80% I _e / 75% U _e																
Overvoltage category / Pollution degree	III / 3															
Climatic proofing	Acc. IEC 60680-2															
Pole numbers of main circuits	3															
Rated operation voltage U _e	690 V						1,000 V									
Mechanical lifespan	Ops x 10 ⁶ 10															
Electrical lifespan (AC - 3)	Ops x 10 ⁶ 1.5 1.2 1.1 1.0															
Mounting	Screw or 35 mm DIN Rail												Screw			

Control Circuit for CWM9...CWM300

Reference code		CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300	
Rated insulation voltage U _i	IEC	1,000 V																
	UL, CSA	600 V																
Rated voltages (standard coil) U _s 50/60 Hz		12...660 V										12...550 V	-	24...690				
Rated voltages (electronic module) U _s 50/60 Hz		-										24...500 V						
Rated voltages U _s dc		12...440 V				24...240 V						24...500 V						
Operation time ¹⁾	Closing/Opening (AC) ms	8...20 / 6...13				10...19 / 5...25		15...30 / 9...15			60...70 / 13...17							
	Closing/Opening (DC) ms	35...45 / 7...12				50...60 / 55...60						60...70 / 13...17			60...70 / 15...25			
Power consumption of the AC coil 50/60 Hz ¹⁾																		
Pick-up	(VA)	69.5				98		255			213		214		229			
	cos φ	0.85				0.69		0.32			0.71		0.68		0.73			
Sealing	(VA)	4...7.2				6.6...12.3		13.1...19.1			14.8		14.1		14.1			
	cos φ	0.28				0.34		0.54			0.26		0.27		0.26			
Power consumption of the coil - DC coils ¹⁾																		
Pick-up	(W)	3.8...7.5				240		340			166		154		171			
Sealing	(W)	3.8...7.5				6		6.5			2.4		2.4		2.5			
Number of terminals	AC coil	4				4		3			2							
	DC coil	3				4		3			2							
Coil operation limits 50/60 Hz ¹⁾		0.85...1.1 x U _s										0.65...1.1 x U _s						
Bifrequency coils ¹⁾	Pick-up	0.5...0.8				0.5...0.8		0.5...0.8			0.7...0.85		0.7...0.85		0.7...0.85			
	Sealing	0.2...0.6				0.2...0.6		0.25...0.6			0.4...0.6		0.4...0.6		0.4...0.6			

Note: 1) Values applicable for contactors CWM112...300 with electronic module. For contactors with standard coil only on request;



Main Contacts for CWM9...CWM300

Reference code			CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300
Rated operational current I _e	AC-3 (U _e ≤ 440 V)	(A)	9	12	18	25	32	40	50	65	80	95	105	112	150	180	250	300
	AC-4 (U _e ≤ 440 V)	(A)	5	7	8	12	16	18.5	23	30	37	44	50	63	69	73	110	145
	AC-1 (θ ≤ 55 °C, U _e ≤ 690 V)	(A)	25	25	32	45	60	60	90	110	110	140	140	180	225	225	350	410
Rated operational voltage U _e	IEC/EN 60947-4-1, VDE 0660	(V)	690						1,000									
	UL, CSA	(V)	600															
Rated thermal current I _{th} (θ ≤ 55 °C)		(A)	25	25	32	45	60	60	90	110	110	140	140	180	225	225	350	410
Making capacity - IEC/EN 60947		(A)	300	300	300	450	550	550	1,000	1,000	1,000	1,280	1,280	1,430	1,820	2,100	2,600	3,000
Breaking capacity IEC/EN 60947	(U _e ≤ 400 V)	(A)	250	250	250	350	450	450	920	920	920	1,050	1,050	1,290	1,350	1,400	2,000	-
	(U _e = 500 V)	(A)	250	250	250	320	450	450	920	920	920	1,050	1,050	1,290	1,350	1,400	2,000	-
	(U _e = 690 V)	(A)	130	130	130	170	205	205	780	780	780	950	950	-	-	-	-	-
Short-time current No current flowing during recovery time	1 sec	(A)	455	455	570	630	1,010	1,265	1,580	2,530	2,530	3,300	3,300	3,165	3,763	4,649	4,427	-
	5 sec	(A)	205	205	254	280	450	450	710	1,130	1,130	1,485	1,485	1,820	2,164	2,673	2,546	-
	10 sec	(A)	144	144	180	200	320	400	500	800	800	1,050	1,050	1,430	1,700	2,100	2,000	-
	30 sec	(A)	85	85	104	115	185	230	290	460	460	600	600	826	980	1,212	1,155	-
	1 min	(A)	60	60	74	80	130	165	205	325	325	430	430	584	694	857	816	-
	3 min	(A)	35	35	46	50	90	100	120	185	185	250	250	337	401	495	471	-
Protection against short-circuits with fuses(gL/gG)	@600 V - UL/CSA	(kA)	5						10								18	
	Coordination type 1	(A)	50	50	63	63	100	125	200	200	200	250	250	-	355	355	500	630
	Coordination type 2	(A)	25	35	35	50	63	80	100	125	125	160	200	224	250	250	400	500
Impedance per pole		(mΩ)	2.4	2.4	2.4	1.7	1.3	1.0	0.9	0.9	0.9	0.8	0.8	0.5	0.5	0.45	0.3	0.3
Power dissipation per pole	AC-1	(W)	1.5	1.5	2.5	3.3	4.6	3.4	6.7	10.4	10.4	14.9	14.9	16	25	21.6	35	45.7
	AC-3	(W)	0.2	0.3	0.8	1.0	1.3	1.5	2.1	3.6	5.5	6.9	8.4	6.2	11.1	13.8	17.9	25.7
Utilization category AC-3																		
Rated operational current I _e (θ ≤ 55 °C)	U _e ≤ 440 V	(A)	9	12	18	25	32	40	50	65	80	95	105	112	150	180	250	300
	U _e ≤ 500 V	(A)	7.5	10.5	14	19	24	32	38	55	63	79	85	95	130	155	220	265
	U _e ≤ 690 V	(A)	7	9	13	15	22	25	34	44	48	60	67	82	110	135	185	220
	U _e ≤ 1,000 V	(A)	Not available						19	25	30	37	40	42	48	68	103	126
Rated operational power	220 / 230 V	(kW)	2.2	3	4.5	5.5	9.2	11	15	18.5	22	22	30	30	45	55	75	90
		(hp)	3	4	6	7.5	12.5	15	20	25	30	30	40	40	60	75	100	125
	380 / V	(kW)	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	55	75	90	132	150
		(hp)	5	7.5	10	15	20	25	30	40	50	60	75	75	100	125	175	200
	400 / 415 V	(kW)	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	55	75	110	132	150
		(hp)	5	7.5	10	15	20	25	30	40	50	60	75	75	100	150	175	200
	440 V	(kW)	4.5	5.5	9.2	11	15	22	30	37	45	55	55	55	90	110	150	185
		(hp)	6	7.5	12.5	15	20	30	40	50	60	75	75	75	125	150	200	250
	500 V	(kW)	4.5	5.5	9.2	11	15	22	30	37	45	55	55	55	90	110	150	185
		(hp)	6	7.5	12.5	15	20	30	40	50	60	75	75	75	125	150	200	250
	660 / 690 V	(kW)	5.5	7.5	11	11	18.5	22	30	37	45	55	55	75	110	110	150	185
		(hp)	7.5	10	15	15	25	30	40	50	60	75	75	100	150	150	200	250
Percentage of the maximum operational current at	600 ops./h	(%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	1,200 ops./h	(%)	100	100	100	100	100	100	100	100	100	75	75	75	75	75	75	75
	3,000 ops./h	(%)	35	35	35	35	35	35	35	35	35	25	25	25	25	25	25	25
Utilization category AC-4																		
Rated operational current I _e AC-4 (U _e ≤ 690 V)		(A)	5	7	8	12	16	18.5	23	30	37	44	50	50	55	58	88	116
Rated operational power	220 / 230 V	(kW)	1.1	1.5	1.5	3	3.7	4.5	55	7.5	9.2	11	11	18.5	18.5	22	37	45
		(hp)	1.5	2	2	4	5	6	7.5	10	12.5	15	15	25	25	30	50	60
	380 / 400 V	(kW)	2.2	3	3.7	5.5	7.5	9.2	11	15	18.5	22	22	30	30	37	55	75
		(hp)	3	4	5	7.5	10	12.5	15	20	25	30	30	40	40	50	75	100
	415 V	(kW)	2.2	3.7	4.5	5.5	9.2	11	11	15	22	22	30	37	37	45	55	75
		(hp)	3	5	6	7.5	12.5	15	15	20	30	30	40	50	50	60	75	100
	440 V	(kW)	2.2	3.7	4.5	5.5	9.2	11	11	15	22	22	30	37	37	45	55	75
		(hp)	3	5	6	7.5	125	15	15	20	30	30	40	50	50	60	75	100
	500 V	(kW)	3	3.7	5.5	7.5	9.2	11	15	18.5	22	22	30	37	45	45	75	90
		(cv)	4	5	7.5	10	12.5	15	20	25	30	30	40	50	60	60	100	125
	660 / 690 V	(kW)	3	4.5	5.5	7.5	11	11	15	18.5	22	30	30	45	45	55	90	90
		(cv)	4	6	7.5	10	15	15	20	25	30	40	40	60	60	75	125	125



Main Contacts for CWM9...CWM300

Reference code			CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM300	
Utilization category AC-1																		
			3P (NO) or 4P (4NO)			3P (NO)								3P (NO)				
Rated thermal current I _n (θ ≤ 55 °C)			(A)	25	25	32	45	60	60	90	110	110	140	140	180	225	225	410
Max. operational current at ambient temperature of (up to 690 V)	θ ≤ 55 °C	(A)	25	25	32	45	60	60	90	110	110	140	140	160	190	200	350	
	θ ≤ 70 °C	(A)	20	20	25	32	48	48	72	88	88	110	110	120	145	145	250	
	θ ≤ 75 °C	(A)	17	17	22	26	42	42	63	77	77	95	95	101	124	120	206	
Max. operational power θ ≤ 55 °C (Three-phase resistors)	220 / 230 V	(kW)	9.5	9.5	12	17	22.5	22.5	34	42	42	53	53	68	85	85	156	
	380 / 400 V	(kW)	16.5	16.5	21	29.5	39.5	39.5	59	72.5	72.5	92	92	118	145	145	270	
	415 / 440 V	(kW)	19	19	24	34	45.5	45.5	68.5	84	84	106.5	106.5	130	160	160	295	
	500 V	(kW)	21.5	21.5	27.5	39	52	52	77	95	95	121	121	155	190	190	355	
	575 / 600 V	(kW)	24.1	24.1	30.9	43.4	57.9	57.9	86.8	106.1	106.1	135.1	135.1	180	225	225	400	
	660 / 690 V	(kW)	28.5	28.5	38	51	68.5	68.5	100	125	125	160	160	205	255	255	470	
Cable size			(mm ²)	4	4	6	10	16	16	35	35	35	50	50	120	120	120	2x150
Current values for connection of	2 poles in parallel		I _e x 1.7															
	3 poles in parallel		I _e x 2.4															
	4 poles in parallel		I _e x 3.2															
Percentage of the maximum operational current at	600 ops./h	(%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	1,200 ops./h	(%)	100	100	100	100	100	100	100	100	100	80	80	80	80	80	80	
	3,000 ops./h	(%)	50	50	50	50	50	50	50	50	50	40	40	40	40	40	40	
			2P (NO/NC) 4P (2NO+2NC)				2P (NO/NC)											
Max. operational power θ ≤ 55 °C (Resistive loads)	220 / 230 V	(kW)	5.5	5.5	7.04	9.9	13.2	14.9	22.2	27.5	27.5	34.1	34.1	-	-	-	-	
	380 / 400 V	(kW)	9.5	9.5	12.1	17.1	22.8	25.8	38.6	47.5	47.5	58.9	58.9	-	-	-	-	
	415 / 440 V	(kW)	10.3	10.3	13.2	18.6	24.9	28.2	42.3	51.8	51.8	64.3	64.3	-	-	-	-	
	500 V	(kW)	12.5	12.5	16	22.5	30	34	50.6	62.5	62.5	77.5	77.5	-	-	-	-	
	660 / 690 V	(kW)	16.5	16.5	21.1	29.7	39.6	44.8	66	82.5	82.5	102.3	102.3	-	-	-	-	

UL Power Ratings for CWM9...CWM300

Reference code			CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300
General purpose current	(600 V)	(A)	25	25	32	32	60	60	90	110	110	140	140	170	200	200	300	400
1-phase	110 / 120 V	(HP)	0,75	0,75	1	2	3	3	5	5	7,5	7,5	10	-	-	-	-	-
	220 / 240 V	(HP)	1,5	2	3	5	5	5	7,5	10	15	15	20	-	-	-	-	-
3-phase	200 V	(HP)	3	3	5	7,5	10	10	15	20	20	25	30	40	50	60	75	100
	220 / 240 V	(HP)	3	3	5	7,5	10	15	15	20	25	30	40	50	60	75	100	125
	440 / 480 V	(HP)	5	7,5	10	15	20	30	40	50	50	60	75	100	125	150	200	250
	550 / 600 V	(HP)	7,5	10	15	15	25	25	40	50	60	75	75	100	150	200	250	350



General Data and Main Contacts for CWM400...CWM800

Reference code	CWM400	CWM500	CWM630	CWM800
Standards	IEC 60947 / UL 508			
Rated insulation voltage U_i IEC 60947 UL / CSA	1,000 V 600 V			
Rated impulse withstand voltage U_{imp}	6 kV			
Rated operational frequency	25 - 400 Hz			
Degree of protection Main circuits Control circuits and auxiliary contacts	IP00 IP20			
Ambient temperature Operating temperature Storage temperature	-25 °C to + 55 °C -55 °C to + 80 °C			
Altitude Normal values 90% I_n / 80% U_n 80% I_n / 75% U_n	Up to 3,000 m 3,000 to 4,000 m 4,000 to 5,000 m			
Overvoltage category / Pollution degree	III / 3			
Climatic proofing	Acc. to IEC 60680-2			
Pole numbers of main circuits	3			
Rated operation voltage U_n	690 V			
Conv. thermal current I_{th} at < 55 °C rated operational current I_n /AC-1 (A)	450	580	660	900
Rated operational current I_n AC-4 ($U_n \leq 440$ V) (A)	300	350	400	630
AC-3 utilization category Rated operational power				
220-230 V (kW)	125	150	190	220
400-415 V (kW)	220	265	330	440
440 V (kW)	220	265	330	440
500 V (kW)	225	265	330	500
690 V (kW)	250	300	330	500
Short circuit rating max. fuse gL-gG ⁽¹⁾ (A)	630	800	800	1,000
Max. electrical operational per hour				
AC-1 Ops/h	300	300	300	300
AC-3 Ops/h	1,200	1,200	1,200	1,200
AC-4 Ops/h	150	150	150	150
No load Ops/h	1,200	1,200	1,200	1,200
Mechanical lifespan Ops x 10 ⁶	5			
Electrical lifespan (AC - 3) Ops x 10 ⁶	0.5			0.6

Note: 1) Type 2 coordination.

UL Power Ratings for CWM400...CWM800

Reference code	CWM400	CWM500	CWM630	CWM800
General purpose current (600 V) (A)	450	580	660	900
3-phase	200 V (HP)	125	150	200
	220 / 240 V (HP)	150	200	300
	440 / 480 V (HP)	300	400	600
	550 / 600 V (HP)	300	400	600


Control Circuit for CWM400...CWM800

Reference code (3 pole and 4 pole contactors)		CWM400	CWM500	CWM630	CWM800
Coil operation limit		0.85...1.1 x U _s			
Pick-up	(xUs)	0.78	0.75		
Drop-out	(xUs)	0.30...0.60	0.30...0.60		
Coil consumption	Closing	(VA)	571	1,000	
	Closed	(VA)	14	29	
	Dissipation	(W)	5	7.8	
Number of terminals		2			




Terminal Capacity and Tightening Torque

Power Terminals

Reference code		CWM9 / CWM12 / CWM18			CWM25		
Screw type		M3.5x 9 Flat / Phillips			M4x 12 Flat / Phillips		
Power terminal capacity ¹⁾		Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm²		1x 0.5...4 2x 0.5...2.5	1x 1...6 2x 1...2.5 2x 2.5...6	1x 0.5...6 2x 0.5...2.5 2x 2.5...6	1x 1...10 2x 1...2.5 2x 2.5...6	1x 2.5...10 2x 2.5...10	1x 1...10 2x 1...2.5 2x 2.5...10
AWG (UL)		14...10			14...8		
Tightening torque (N.m)		1...1.5			1.6...2.5		
Tightening torque (lb.in) (UL)		15			16		

Note: 1) This information is also valid for built-in auxiliary terminals for CWM9 to CWM18.

Reference code		CWM32 / CWM40			CWM50 / CWM65 / CWM80			CWM95 / CWM105		
Screw type		M4x 16.5 Flat / Phillips			M8 Allen 4mm			M10 Allen 4mm		
Power terminal capacity		Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
One conductor on bottom										
mm²		1...16	1.5...16	1...16	2.5...35	6...35	2.5...35	4...35	6...35	4...35
AWG (UL)		14...8			14...1/0			10...1/0		
One conductor on top										
mm²		0.75...16	1...16	0.75...16	1...35	1.5...35	1...35	1.5...50	2.5...50	1.5...50
AWG (UL)		14...8			14...1/0			10...1/0		
Two conductors at the same time - bottom conductor										
mm²		1...16	1.5...16	1...16	2.5...25	6...35	2.5...35	4...35	6...35	4...35
AWG (UL)		14...8			14...1/0			10...1/0		
Two conductors at the same time - top conductor										
mm²		0.75...16	1...16	0.75...16	1...25	1.5...35	1...35	1.5...50	2.5...50	1.5...50
AWG (UL)		14...8			14...1/0			10...1/0		
Tightening torque (N.m)		2...2.5			4...6			5...6.5		
Tightening torque (lb.in) (UL)		22			40			60		

Reference code		CWM112 / CWM150		CWM180		CWM250 / CWM300		CWM400		CWM500 / CWM630		CWM800	
Screw type		M6 Hexagon Head		M8 Hexagon Head		M10 Hexagon Head		M12 Hexagon Head		M16 Hexagon Head		M16 Hexagon Head	
Main terminal capacity		Solid and stranded with end sleeve	Busbars	Solid and stranded with end sleeve	Busbars	Solid and stranded with end sleeve	Busbars	Solid and stranded with end sleeve	Busbars	Solid and stranded with end sleeve	Busbars	Solid and stranded with end sleeve	Busbars
mm²		2x 25...70	2 x (15 x 3)	2x 50...120	2 x (20 x 3)	2x 50...150	2 x (30 x 5)	2x 120...185	2x (30x5)	2x 185...300	2x(50x5)	2x 185...300	2x (60x5)
AWG (UL)		2x 2...3/0	-	2x 1/0...250	-	2x 1/0...300	-	2x 250...400	-	2x 400...600	-	2x 400...600	-
Tightening Torque (N.m)		5.4...6		14...16		23...26		23...26		54...60			



Terminal Capacity and Tightening Torque

Coil Terminals

Reference code	CWM9...105			CWM112...300		
Screw type	M3.5x 10 Flat / Phillips			M3.5x 10 Flat / Phillips		
Coil terminal	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm²	1x 0.5...4 2x 0.5...1.5 2x 1...2.5	1x 1...4 2x 1...2.5	1x 0.5...4 2x 0.5...1.5 2x 1...2.5	1x 0.5...4 2x 0.5...1.5 2x 1...2.5	1x 1...4 2x 1...2.5	1x 0.5...4 2x 0.5...1.5 2x 1...2.5
AWG (UL)	1x 20...10 2x 20...14 2x 16...12	1x 16...10 2x 16...12	1x 20...10 2x 20...14 2x 16...12	1x 20...10 2x 20...14 2x 16...12	1x 16...10 2x 16...12	1x 20...10 2x 20...14 2x 16...12
Tightening torque (N.m)	0.8...1.1			0.8...1.1		
Tightening torque (lb.in) (UL)	10			10		

Reference code	CWM400...CWM800		
Screw type	M4 Flat / Phillips		
Coil terminal	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm²	1x 1.25...5.5 or 2x 1.25...5.5		
AWG (UL)	16...10		
Tightening torque (N.m)	2...2.3		
Tightening torque (lb.in) (UL)	17.7...20.3		

Auxiliary Contact Blocks

Reference code	BCXMF BCXML		
Screw type	M3.5x9 Fenda / Phillips		
Auxiliary contact block	Finely stranded with end sleeve	Stranded and finely stranded without end sleeve	Solid
mm²	1x 0.5...4 2x 0.5...2.5	1x 0.75...2.5 2x 0.75...2.5	1x 0.5...4 2x 0.5...2.5
AWG (UL)	22...12		
Tightening torque (N.m)	0.8...1.1		
Tightening torque (lb.in) (UL)	10		



Auxiliary Contacts

Contactors CWM

Reference code	Built-in auxiliary contacts of contactors			Auxiliary contact blocks	
	CWM9	CWM12	CWM18	BCXMF...	BCXML...
Rated insulation voltage U_i IEC/EN 60 947 UL/CSA	(V) (V)	1.000 600		1.000 600	
Rated operational voltage U_e	(V)	690		690	
Conv. thermal current I_{th}	(A)	16		10	
Rated operational current I_e AC-15 UL/CSA	220 - 240 V (A) 380 - 400 V (A) 415 V (A) 500 V (A)	10 6 5 4 A600		6 4 3.5 2.5 A600	
DC-13 UL/CSA	24 V (A) 48 V (A) 110 V (A) 220 V (A)	6 4 2 0.7 P600		6 4 2 0.7 Q600	
Making capacity I_m AC-15/AC-11 AC-13/DC-11	$U_e \leq 400$ V 50/60 Hz (A) $U_e \leq 220$ V dc (A)	250 250		90 90	
Breaking capacity I_c AC-15/AC-11 AC-13/DC-11	$U_e \leq 400$ V 50/60 Hz (A) $U_e \leq 220$ V dc (A)	250 2		60 0.95	
Short circuit protection max. fuse gL/gG	(A)	10		10	
Control circuit reliability		$I_e \text{ min} = 5 \text{ mA}$, $U_e \text{ min} = 17 \text{ V}$			
Electrical lifespan	Ops	10^6			
Mechanical lifespan	Ops	15×10^6			

Auxiliary Contact Blocks BCXML11 CWM800 and BCXMRL11 CWM800

Reference code			BCXML11 CWM800 / BCXMRL11 CWM800	
Conv. thermal current I _{th} (A)			16	
Rated operational current I _e AC category (A600)			AC-15	AC-12
110 V	(A)		6	10
220 V	(A)		5	10
440 V	(A)		3	5
600 V	(A)		3	5
DC category (P600)			DC-13	DC-12
24 V	(A)		6	5
48 V	(A)		3	3
110 V	(A)		1.2	1.3
220 V	(A)		0.2	0.25
Mechanical lifespan		Ops x 10 ⁶	10	
Electrical lifespan	AC-15		0.5	
Operations x 10 ⁶	AC-12		0.25	
	DC-13 / DC-12		0.5	
Max. electrical operational per hour			1.800	



Contactors for Lighting Circuits

Lamp type	Maximum number of lamps per phase at 220 V													
	W	A	μF	CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105
Incandescent	60	0.27	-	62	62	70	77	85	122	156	191	222	264	284
	100	0.45	-	40	40	50	60	66	73	95	116	133	160	170
	200	0.91	-	20	20	25	30	33	36	47	58	66	79	84
	300	1.36	-	13	13	17	20	22	24	31	38	44	53	56
	500	2.27	-	8	8	10	12	12	14	19	23	26	31	33
	1,000	4.50	-	4	4	5	6	6	7	9	11	13	16	16
	2,000	9.1	-	1	1	2	3	3	3	4	5	6	8	8
	AC-5b ¹⁾		(A)	18	18	23	27	30	33	43	52	60	73	77
Fluorescent Single arrangement Without compensation	15	0.23	-	88	98	126	155	224	237	355	390	434	496	553
	20	0.37	-	57	61	78	110	139	147	221	243	270	309	344
	40	0.44	-	48	51	66	93	118	124	186	204	227	260	289
	65	0.7	-	30	32	41	58	74	78	116	127	142	163	181
	100	1.5	-	14	16	19	27	34	36	54	59	66	76	85
Fluorescent Single arrangement With compensation	15	0.23	3.5	61	77	94	111	134	149	191	232	273	312	347
	20	0.25	4.5	48	61	74	87	103	115	148	180	212	243	270
	40	0.3	4.5	48	61	74	87	103	115	148	180	212	243	270
	65	0.45	7	31	39	47	56	66	74	95	115	136	155	173
	100	0.7	18	11	14	17	21	23	29	37	45	53	60	67
High pressure Mercury vapour Without compensation	250	2.13	-	6	8	10	12	15	18	27	30	33	36	42
	400	3.25	-	4	5	6	8	10	12	18	20	22	24	28
	700	5.4	-	2	3	4	5	6	7	11	12	13	14	17
	1,000	7.5	-	2	2	3	3	4	5	8	9	9	10	12
High pressure Mercury vapour With compensation	250	1.3	20	11	14	18	22	27	33	49	55	60	66	77
	400	2.1	25	7	9	11	14	17	20	31	34	37	41	48
	700	3.6	40	4	5	6	8	10	12	18	20	22	24	28
	1,000	5.3	60	3	3	4	5	7	8	12	13	15	16	19
High pressure Sodium vapour Without compensation	250	3	-	4	5	7	9	11	13	19	21	24	26	30
	400	4.4	-	3	4	5	6	7	9	13	15	16	18	20
	1,000	10.3	-	1	2	2	2	3	4	6	6	7	7	9
High pressure Sodium vapour With compensation	250	1.45	40	10	12	16	20	25	30	44	49	54	59	69
	400	2.5	45	6	7	9	11	14	17	26	29	31	34	40
	1,000	5.5	100	3	3	4	5	6	8	12	13	14	16	18
Metal Iodide Without compensation	250	2.17	-	4	5	7	9	12	12	19	21	23	25	29
	400	3.48	-	3	3	4	6	8	8	12	13	14	16	18
	700	6.09	-	1	2	2	3	4	4	7	7	8	9	10
	1,000	8.7	-	1	1	2	2	3	3	5	5	6	6	7
	2,000	17.39	-	1	1	1	1	2	2	2	3	3	3	4
Metal Iodide With compensation	250	1.4	32	7	9	11	16	21	21	32	36	39	43	50
	400	2	45	5	6	8	11	15	15	23	25	28	30	35
	700	3.6	65	3	3	4	6	8	8	13	14	15	17	19
	1,000	5.3	85	2	2	3	4	6	6	8	9	10	11	13
	2,000	10.6	100	1	1	2	2	3	3	4	5	5	6	7

Note: 1) Indicative values - It's highly recommended to take into consideration the values of making capacity and rated AC-1 current when dimensioning the contactor for AC-5b utilization category. (AC-5b - Switching of incandescent lamps).



Lamp type	W	A	μF	Maximum number of lamps per phase at 220 V				
				CWM112	CWM150	CWM180	CWM250	CWM300
Incandescent	60	0.27	-	318	404	467	578	667
	100	0.45	-	193	245	283	350	404
	200	0.91	-	95	121	140	173	200
	300	1.36	-	64	81	93	116	133
	500	2.27	-	38	49	56	69	80
	1,000	4.50	-	19	24	28	35	40
	2,000	9.1	-	10	12	14	17	20
	AC-5b ¹⁾ (A)			87	110	127	158	182
Fluorescent Single arrangement Without compensation	15	0.23	-	652	815	978	1,522	1,783
	20	0.37	-	405	507	608	946	1,108
	40	0.44	-	341	426	511	795	932
	65	0.7	-	214	268	321	500	586
	100	1.5	-	100	125	150	233	273
Fluorescent Single arrangement With compensation	15	0.23	3.5	409	520	600	743	857
	20	0.25	4.5	318	404	467	578	667
	40	0.3	4.5	318	404	467	578	667
	65	0.45	7	204	260	300	371	429
	100	0.7	18	79	101	117	144	167
High pressure Mercury vapour Without compensation	250	2.13	-	54	62	68	106	124
	400	3.25	-	36	40	45	69	81
	700	5.4	-	21	24	27	42	49
	1,000	7.5	-	15	18	19	30	35
High pressure Mercury vapour With compensation	250	1.3	20	79	100	116	143	165
	400	2.1	25	63	80	92	114	132
	700	3.6	40	39	50	58	72	83
	1,000	5.30	60	26	33	39	48	55
High pressure Sodium vapour Without compensation	250	3.0	-	39	44	48	75	88
	400	4.4	-	26	30	33	51	60
	1,000	10.3	-	11	13	14	22	26
High pressure Sodium vapour With compensation	250	1.45	40	45	57	66	81	94
	400	2.5	45	40	51	58	72	83
	1,000	5.5	100	18	23	26	33	38
Metal Iodide Without compensation	250	2.17	-	37	42	47	73	85
	400	3.48	-	23	26	29	45	53
	700	6.09	-	13	15	17	26	30
	1,000	8.7	-	9	11	12	18	21
	2,000	17.39	-	5	5	6	9	11
Metal Iodide With compensation	250	1.4	32	56	71	82	102	117
	400	2	45	40	51	58	72	83
	700	3.6	65	28	35	40	50	58
	1,000	5.3	85	21	27	31	38	44
	2,000	10.6	100	18	23	26	33	38

Note: 1) Indicative values - It's highly recommended to take into consideration the values of making capacity and rated AC-1 current when dimensioning the contactor for AC-5b utilization category (AC-5b - Switching of incandescent lamps).



DC - Utilization Category for CWM9-105 Contactors

Utilization Category DC-1 (L/R ≤ 1ms)

Reference code		CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105
U _e	Poles in series	Maximum operational current I _o (A)										
≤ 24 V	1	18	18	18	25	32	40	50	65	65	80	80
	2	25	25	32	45	60	60	90	110	110	140	140
	3	25	25	32	45	60	60	90	110	110	140	140
	4	25	25	32	-							
≤ 48 V	1	15	15	15	20	25	35	45	55	55	70	70
	2	25	25	32	45	60	60	90	110	110	140	140
	3	25	25	32	45	60	60	90	110	110	140	140
	4	25	25	32	-							
≤ 60 V	1	12	12	12	18	18	32	40	50	50	65	65
	2	25	25	32	45	60	60	90	110	110	140	140
	3	25	25	32	45	60	60	90	110	110	140	140
	4	25	25	32	-							
≤ 125 V	1	6	6	6	8	8	8	16	16	16	16	16
	2	18	18	18	25	45	45	80	90	90	110	110
	3	25	25	25	32	60	60	90	110	110	140	140
	4	25	25	32	-							
≤ 220 V	1	0.8	0.8	0.8	0.8	1	1	2	2	2	2	2
	2	7.5	7.5	7.5	8	8	8	20	20	20	20	20
	3	25	25	25	32	50	50	90	110	110	140	140
	4	25	25	32	-							
≤ 440 V	1	0.4	0.4	0.4	0.4	0.5	0.5	0.8	0.8	0.8	0.8	0.8
	2	0.8	0.8	0.8	0.8	1	1	2	2	2	2	2
	3	8	8	8	10	10	10	15	15	15	15	15
	4	15	15	15	-							
≤ 600 V	1	-	-	-	-	-	-	-	-	-	-	-
	2	0.4	0.4	0.4	0.4	0.5	0.5	1	1	1	1	1
	3	4	4	4	5	5	5	7.5	7.5	7.5	7.5	7.5
	4	8	8	10	-							

Utilization Category DC-3 (L/R ≤ 2.5ms)

Reference code		CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105
U _e	Poles in series	Maximum operational current I _o (A)										
≤ 24 V	1	12	12	12	18	25	32	40	50	50	65	65
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
≤ 48 V	1	9	9	9	12	18	20	30	35	35	45	45
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
≤ 60 V	1	7.5	7.5	7.5	10	15	15	25	30	30	35	35
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
≤ 125 V	1	2	2	2	2	3	3	3	3	3	3	3
	2	10	10	12	18	25	32	50	60	60	85	85
	3	15	15	18	25	32	40	65	80	80	105	105
	4	15	15	18	-							
≤ 220 V	1	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8
	2	2	2	2	2	2	2	7	7	7	7	7
	3	12	12	12	18	25	32	50	65	65	95	95
	4	12	15	18	-							
≤ 440 V	1	-	-	-	-	-	-	-	-	-	-	-
	2	0.3	0.3	0.3	0.3	0.5	0.5	1	1	1	1	1
	3	1.5	1.5	1.5	1.5	3	3	3	3	3	3	3
	4	1.5	6	6	-							
≤ 600 V	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	0.8	0.8	0.8	0.8	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	4	1	2.5	2.5	-							



Utilization Category DC-5 ($L/R \leq 15\text{ms}$)

Reference code		CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105
U_e	Poles in series	Maximum operational current I_e (A)										
$\leq 24\text{ V}$	1	12	12	12	18	25	32	40	50	50	65	65
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
$\leq 48\text{ V}$	1	9	9	9	12	18	20	30	35	35	45	45
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
$\leq 60\text{ V}$	1	7.5	7.5	7.5	10	15	15	25	30	30	35	35
	2	18	18	18	25	40	40	65	80	80	105	105
	3	18	18	18	25	40	40	65	80	80	105	105
	4	18	18	18	-							
$\leq 125\text{ V}$	1	0.8	0.8	0.8	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	2	5	5	5	5	5	5	50	60	60	80	80
	3	15	15	15	20	25	32	60	70	70	95	95
	4	15	15	18	-							
$\leq 220\text{ V}$	1	-	-	-	-	-	-	0.5	0.5	0.5	0.5	0.5
	2	0.8	0.8	0.8	0.8	0.8	0.8	3	3	3	4	4
	3	3	3	3	3	3	3	7	7	7	7	7
	4	10	10	10	-							
$\leq 440\text{ V}$	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	0.4	0.5	0.5	0.5	0.7	0.7	1	1	1	1	1
	4	1.5	2	2	-							
$\leq 600\text{ V}$	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	0.5	0.75	0.75	-							

Utilization Category DC-1 ($L/R \leq 1\text{ms}$)

Reference code		CWM112	CWM150	CWM180	CWM250	CWM300
U_e	Poles in series	Maximum operational current I_e (A)				
$\leq 24\text{ V}$	1	160	160	200	300	300
	2	180	225	225	350	410
	3	180	225	225	350	410
$\leq 110\text{ V}$	1	18	18	18	33	33
	2	112	150	170	250	280
	3	180	225	225	350	410
$\leq 220\text{ V}$	1	-	-	-	-	-
	2	90	120	140	200	220
	3	180	225	225	350	410
$\leq 440\text{ V}$	1	-	-	-	-	-
	2	-	-	-	-	-
	3	85	105	105	165	195



Utilization Category DC-3 / DC-5 ($L/R \leq 15\text{ms}$)

Reference code		CWM112	CWM150	CWM180	CWM250	CWM300
U_e	Poles in series	Maximum operational current I_a (A)				
$\leq 24\text{ V}$	1	112	112	180	250	250
	2	112	150	180	250	300
	3	112	150	180	250	300
$\leq 110\text{ V}$	1	18	18	18	33	33
	2	80	95	105	185	205
	3	112	150	180	250	300
$\leq 220\text{ V}$	1	-	-	-	-	-
	2	55	55	65	70	80
	3	80	120	150	200	200
$\leq 440\text{ V}$	1	-	-	-	-	-
	2	-	-	-	-	-
	3	27	40	50	67	67

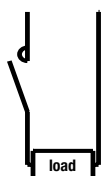
Utilization Category DC-1 ($L/R \leq 1\text{ms}$)

Reference code		CWM400	CWM500	CWM630	CWM800
U_e	Poles in series	Maximum operational current I_a (A)			
$\leq 24\text{ V}$	2	400	580	630	800
	3	400	580	630	800
$\leq 48\text{ V}$	2	240	580	630	800
	3	400	580	630	800
$\leq 110\text{ V}$	2	200	520	630	630
	3	400	580	630	800
$\leq 220\text{ V}$	2	200	450	630	630
	3	300	580	630	800

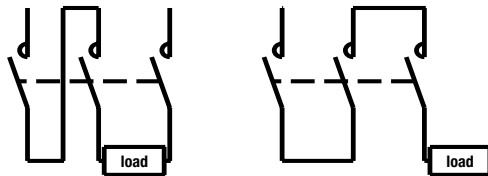
Utilization Category DC-2 / DC-4 ($L/R \leq 15\text{ms}$)

Utilisation category		CWM400	CWM500	CWM630	CWM800
U_e	Poles in series	Maximum operational current I_a (A)			
$\leq 24\text{ V}$	2	400	580	630	800
	3	400	580	630	800
$\leq 48\text{ V}$	2	200	580	630	630
	3	280	580	630	630
$\leq 110\text{ V}$	2	150	500	630	630
	3	200	550	630	630
$\leq 220\text{ V}$	2	90	480	630	630
	3	150	500	630	630

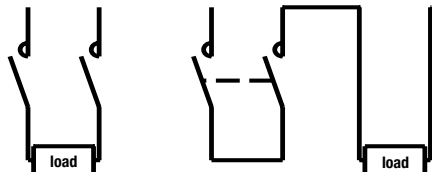
1 poles in series



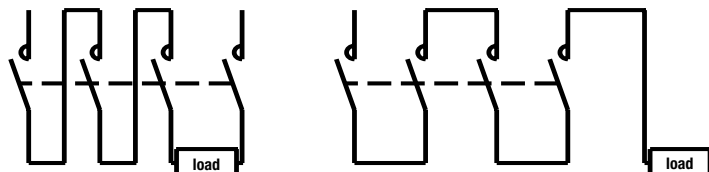
3 poles in series



2 poles in series



4 poles in series





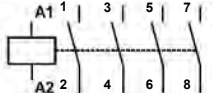
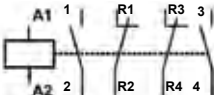
Terminal Markings to EN 50012

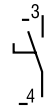
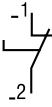


	Distinctive number and version of combination	NO	NC	Reference code	Additional auxiliary contact blocks
Without auxiliary contact blocks					
	10E	1	0	CWM9-10 CWM12-10 CWM18-10	-
	01E	0	1	CWM9-01 CWM12-01 CWM18-01	-
Front mounting auxiliary contact blocks BCXMF10 or BCXMF01					
	11E	1	1	CWM9-10 CWM12-10 CWM18-10	+ BCXMF01
	21E	2	1	CWM9-10 CWM12-10 CWM18-10	+ BCXMF10 + BCXMF01
	12E	1	2	CWM9-10 CWM12-10 CWM18-10	+ 2 BCXMF01
	31E	3	1	CWM9-10 CWM12-10 CWM18-10	+ 2 BCXMF10 + BCXMF01
	41E	4	1	CWM9-10 CWM12-10 CWM18-10	+ 3 BCXMF10 + BCXMF01
Front mounting auxiliary contact blocks BCXMF10 or BCXMF01					
	22E	2	2	CWM9-10 CWM12-10 CWM18-10	+ 2 BCXMF01 + BCXMF10
	32E	3	2	CWM9-10 CWM12-10 CWM18-10	+ 2 BCXMF01 + 2 BCXMF10
	13E	1	3	CWM9-10 CWM12-10 CWM18-10	+ 3 BCXMF01
	23E	2	3	CWM9-10 CWM12-10 CWM18-10	+ 3 BCXMF01 + BCXMF10
Side mounting auxiliary contact blocks each with two contacts					
	11E	1	1	CWM25-00 to CWM105-00	+ BCXML11
	31E	3	1	CWM25-00 to CWM105-00	+ BCXML11 + BCXML20
	22E	2	2	CWM25-00 to CWM105-00	+ 1 BCXML11 + 1 BCXML11



	Distinctive number and version of combination	NO	NC	Reference code	Additional auxiliary contact blocks
Without auxiliary contact blocks					
	-	0	0	CWM25-00 to CWM105-00	-
Front mounting auxiliary contact blocks BCXMF10 or BCXMF01					
	10E	1	0	CWM25-00 to CWM105-00	+ BCXMF10
	01E	0	1	CWM25-00 to CWM105-00	+ BCXMF01
Front mounting auxiliary contact blocks BCXMF10 or BCXMF01					
	11E	1	1	CWM25-00 to CWM105-00	+ BCXMF10 + BCXMF01
	21E	2	1	CWM25-00 to CWM105-00	+ 2 BCXMF10 + BCXMF01
	12E	1	2	CWM25-00 to CWM105-00	+ BCXMF10 + 2 BCXMF01
	31E	3	1	CWM25-00 to CWM105-00	+ 3 BCXMF10 + BCXMF01
	41E	4	1	CWM50-00 to CWM105-00	+ 4 BCXMF10 + BCXMF01
	22E	2	2	CWM25-00 to CWM105-00	+ 2 BCXMF01 + 2 BCXMF10
	32E	3	2	CWM50-00 to CWM105-00	+ 2 BCXMF01 + 3 BCXMF10
	13E	1	3	CWM25-00 to CWM105-00	+ BCXMF10 + 3 BCXMF01
	23E	2	3	CWM50-00 to CWM105-00	+ 3 BCXMF01 + 2 BCXMF10
Contactors without auxiliary contact blocks + Side mounting auxiliary contact blocks each with two contacts					
	22	2	2	CWM112 to CWM800	+ 2 BCXML11
	44	4	4	CWM112 to CWM800	+ 2 BCXML11 + 2 BCXMR11



	Configuration	Power contacts		Reference code
		NO	NC	
4 pole contactors				
	-	4	0	CWM9-00-40♦ CWM12-00-40♦ CWM18-00-40♦
	-	2	2	CWM9-00-22♦ CWM12-00-22♦ CWM18-00-22♦

	Configuration	Auxiliary contacts		Reference code
		NO	NC	
Front mounting auxiliary contact blocks BCXMF10 or BCXMF01				
	10	1	0	BCXMF10
	01	0	1	BCXMF01
	10	1	0	BCXMF10
	01	0	1	BCXMF01

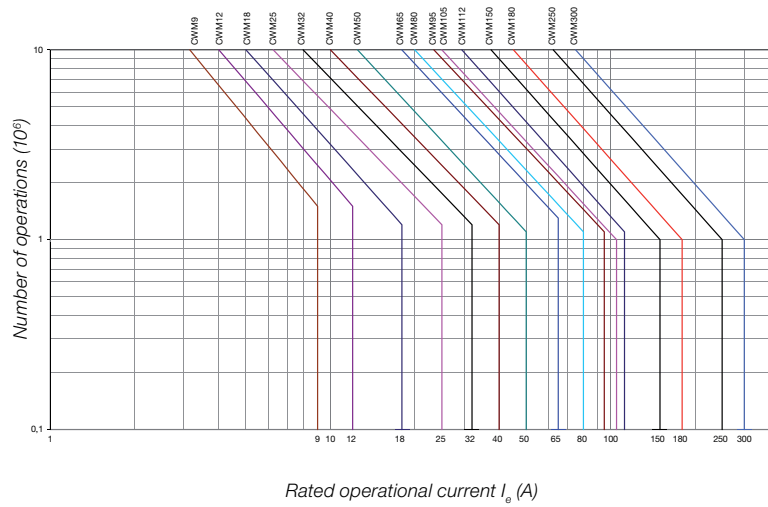
Side mounting auxiliary contact blocks each with two contacts				
	20	2	0	BCXML20
	11	1	1	BCXML11
	20	2	0	BCXMR120
	11	1	1	BCXMR11
	11	1	1	BCXML11 CWM800
	11	1	1	BCXMR11 CWM800

Electrical and mechanical interlock for contactors				
	02	0	2	BLIM.02

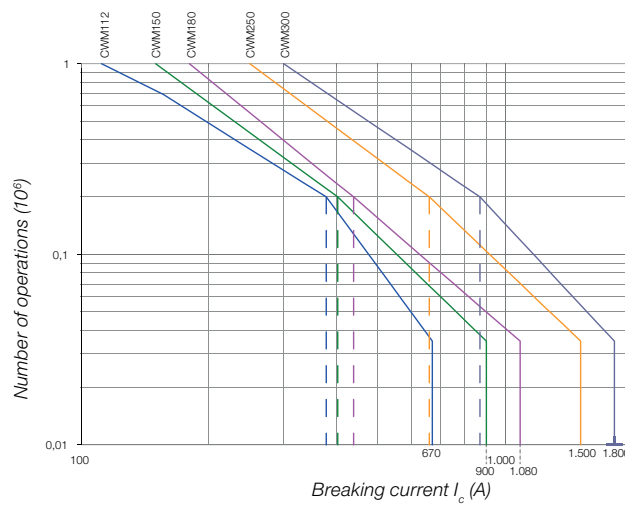
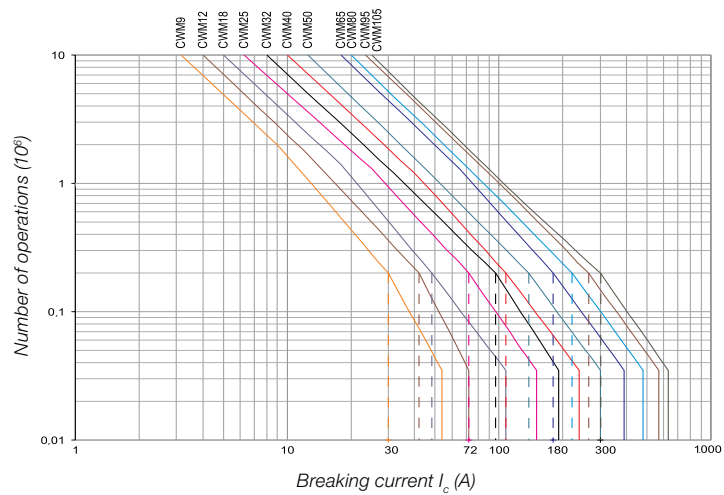


Electrical Lifespan

AC-3 ($U_e \leq 440 \text{ V ac}$)

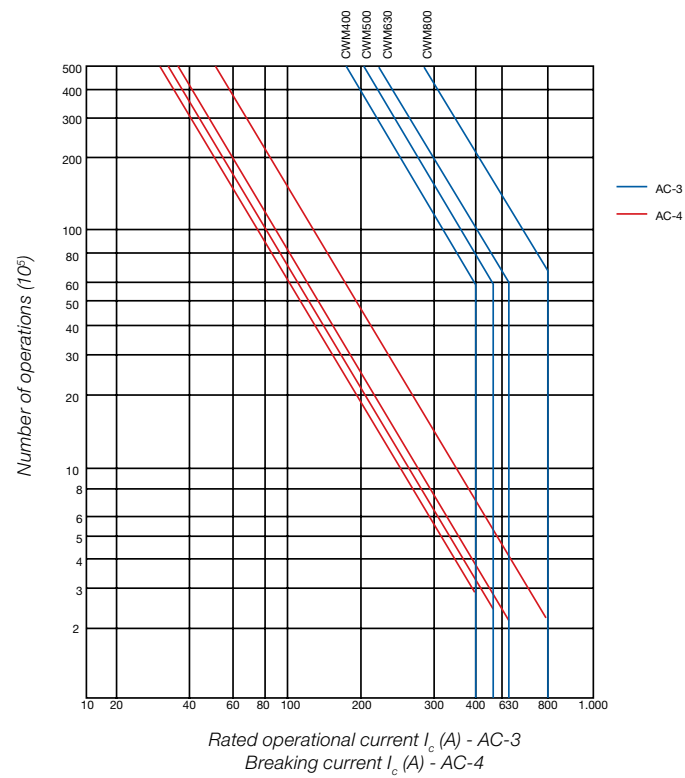


AC-4 ($U_e \leq 440 \text{ V ac}$)

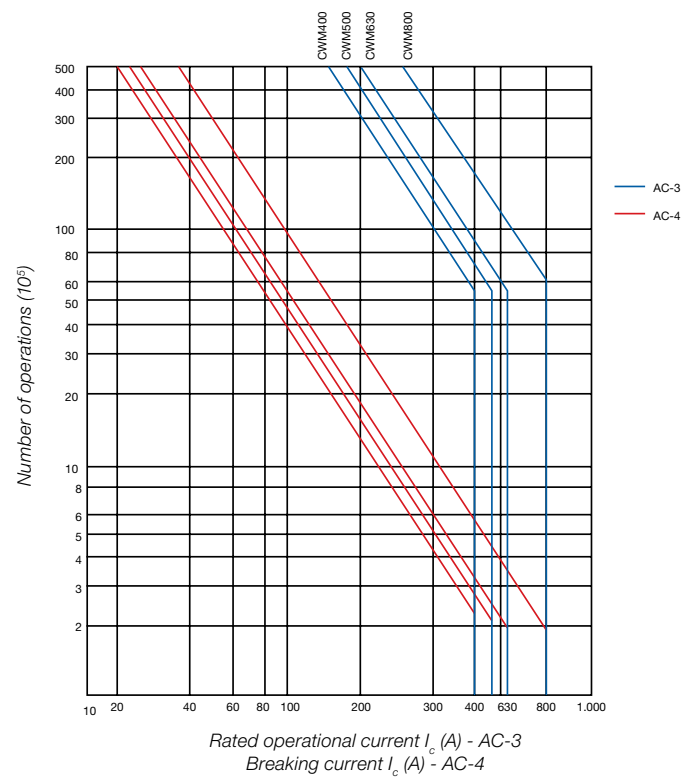




$U_e \leq 220-240 \text{ V ac}$



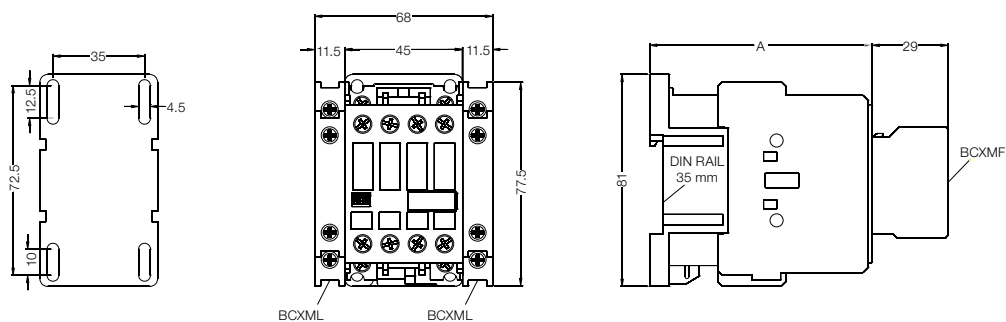
$U_e \leq 380-440 \text{ V ac}$





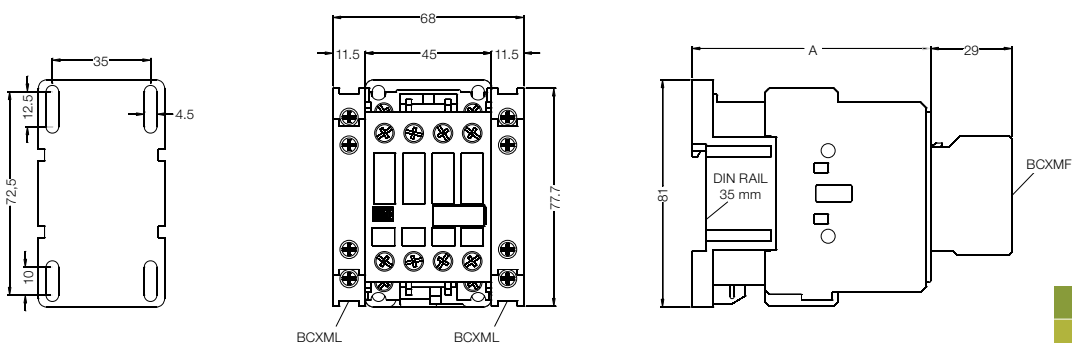
Power Contactors - Dimensions (mm)

CWM9, CWM12 and CWM18



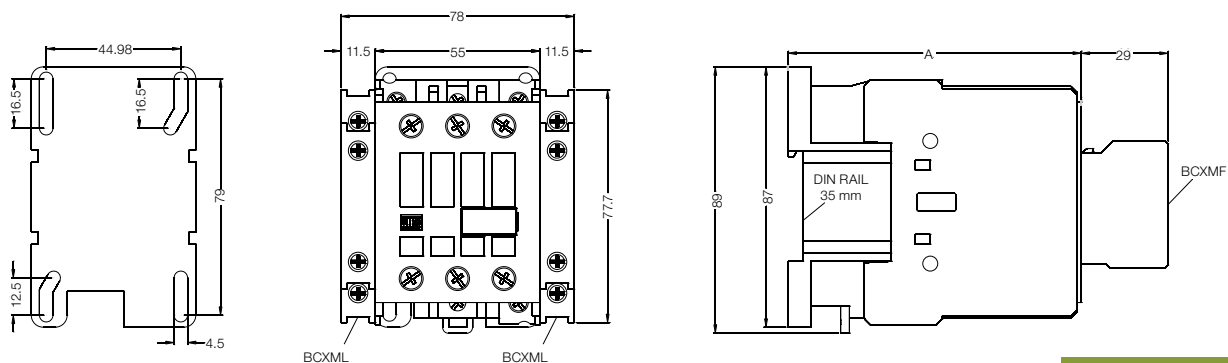
Coil	
AC	DC
A = 87	A = 115

CWM25



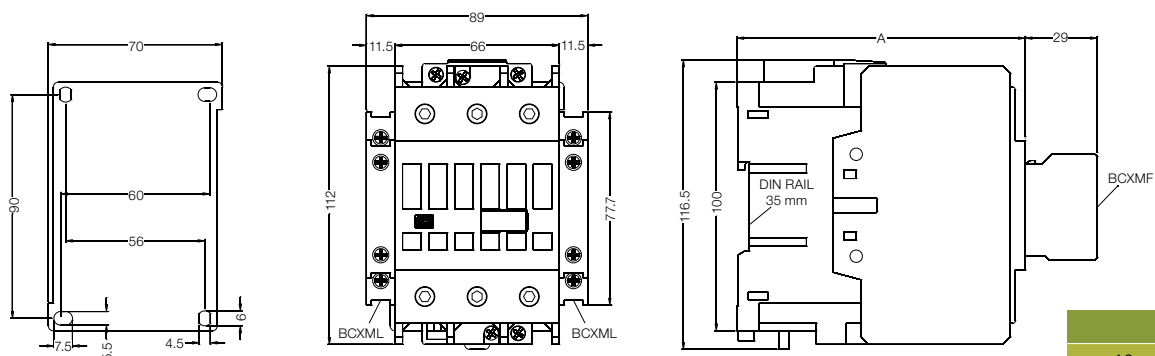
Coil	
AC	DC
A = 87	A = 117

CWM32 and CWM40



Coil	
AC	DC
A = 98	A = 118

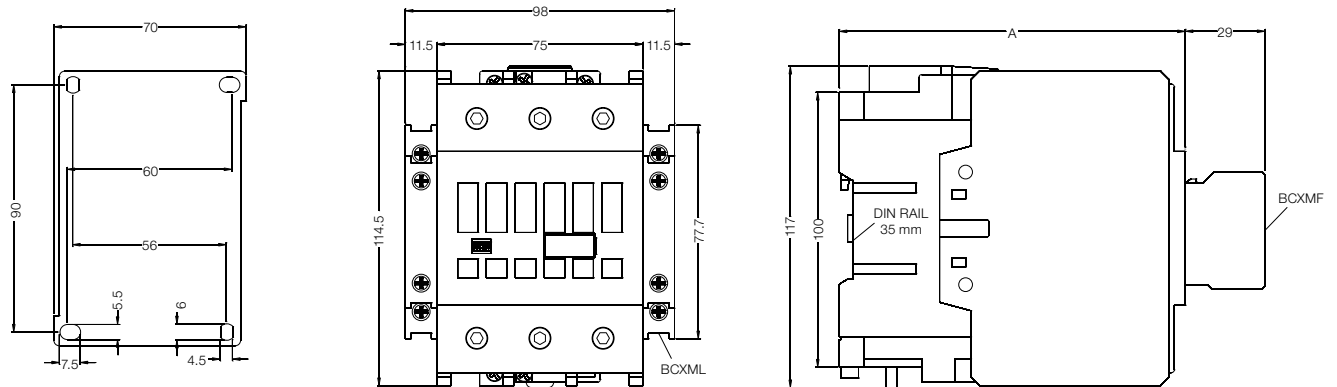
CWM50, CWM65 and CWM80



Coil	
AC	DC
A = 116	A = 116

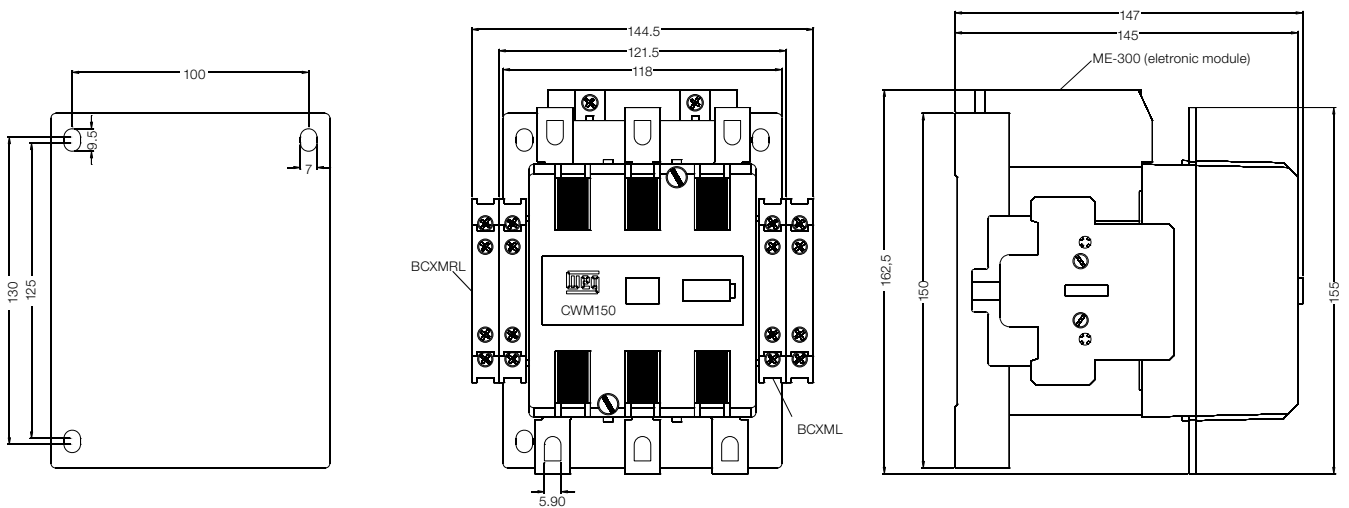


CWM95 and CWM105

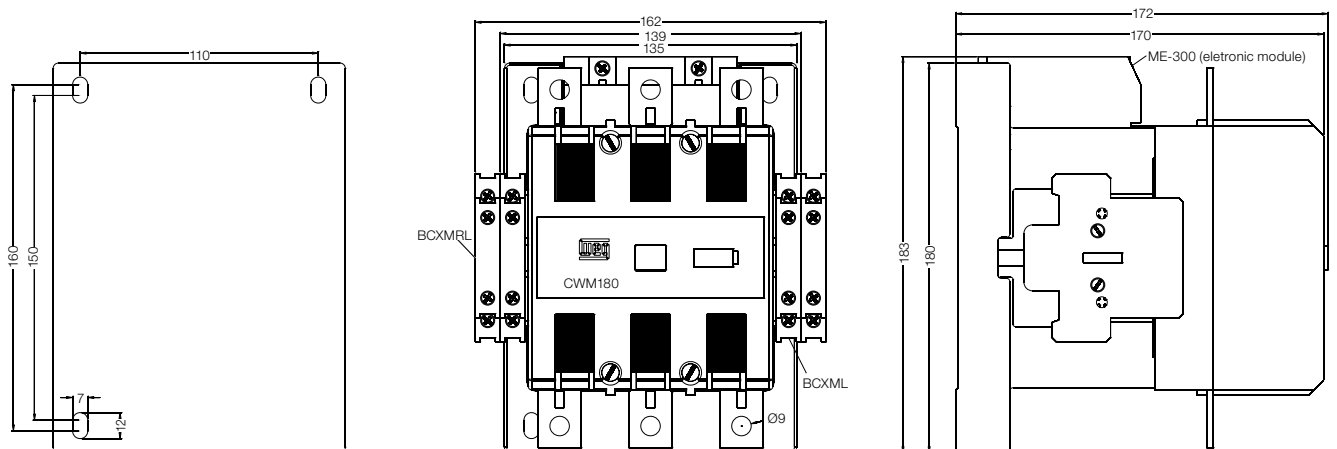


Coil	
AC	DC
A = 126	A = 126

CWM112 and CWM150

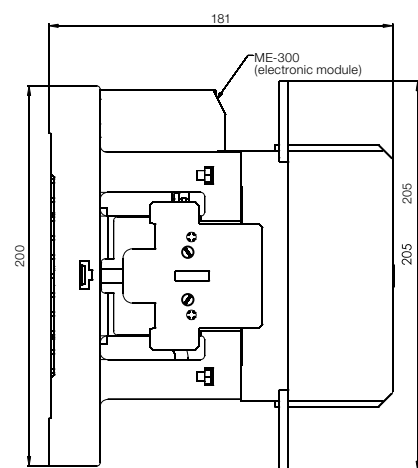
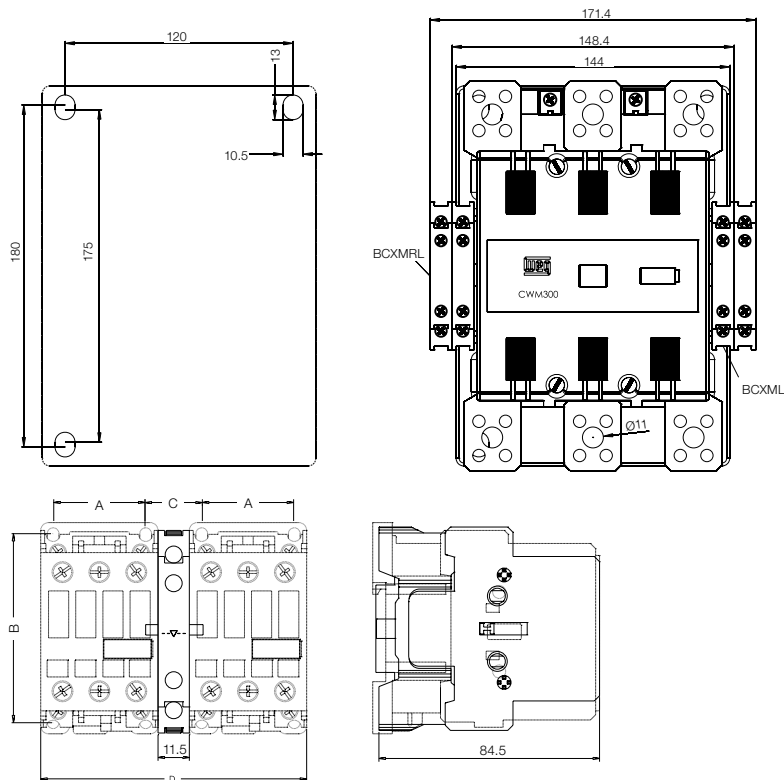


CWM180



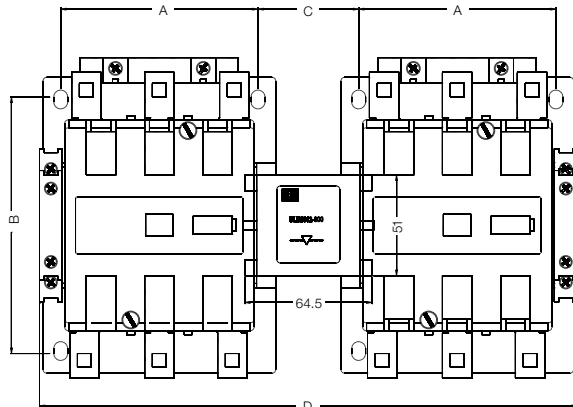


CWM250 and CWM300



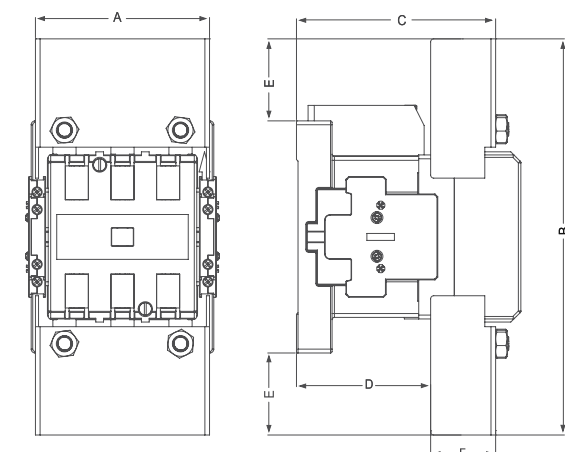
Models	A	B	C	D
CWM9...25	35	72.5	22	102
CWM32...40	45	79	22	122
CWM50...80	57	90	21	144
CWM95...105	57	90	29.8	153

BLIM112-300



Models	A	B	C	D
CWM112...150	100	130	51	272.5
CWM180	110	160	58.5	303.5
CWM250...300	120	180	57	325.4

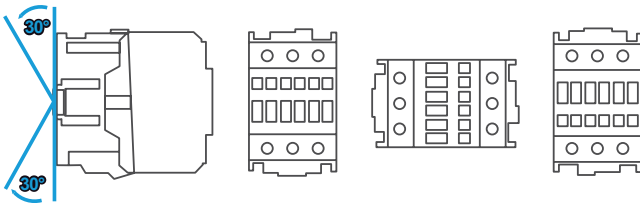
BMP CWM112...300



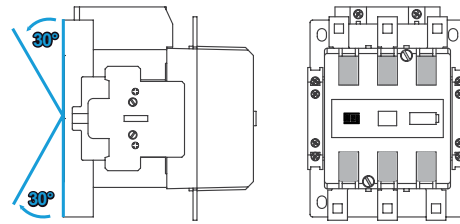
	BMP CWM150 + CWM112/150	BMP CWM180 + CWM180	BMP CWM300 + CWM250/300
A	112.5	127.5	148.5
B	256	290.4	320.8
C	128	137.7	146
D	86	90.7	84
E	53	55.2	60.5
F	42	47	62

Mounting Position

CWM9...105

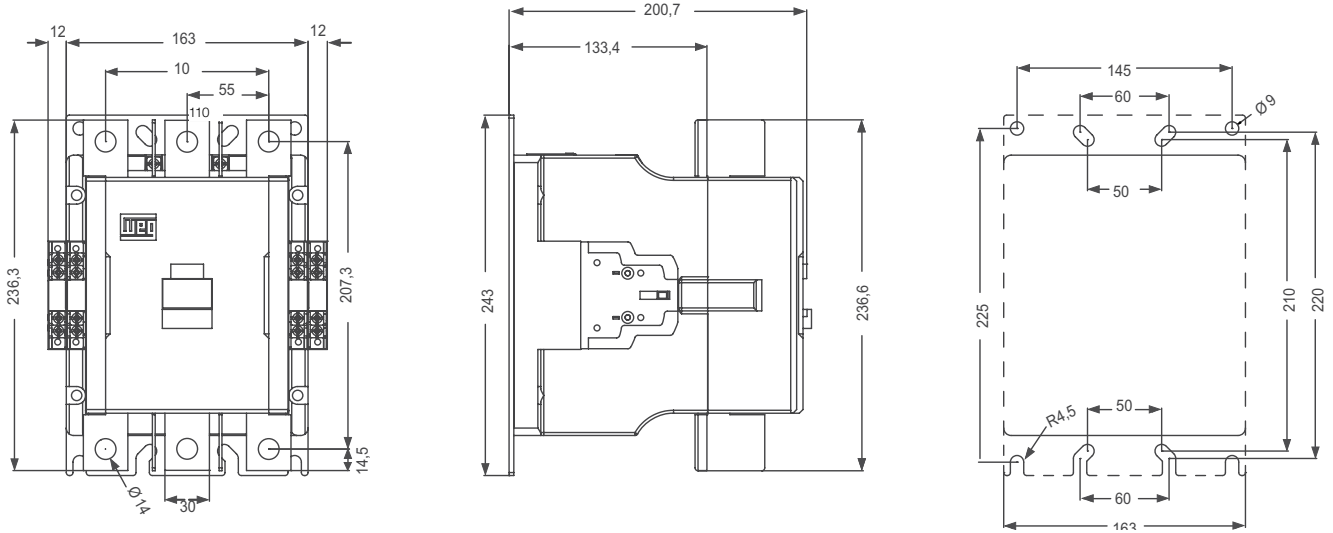


CWM112...300

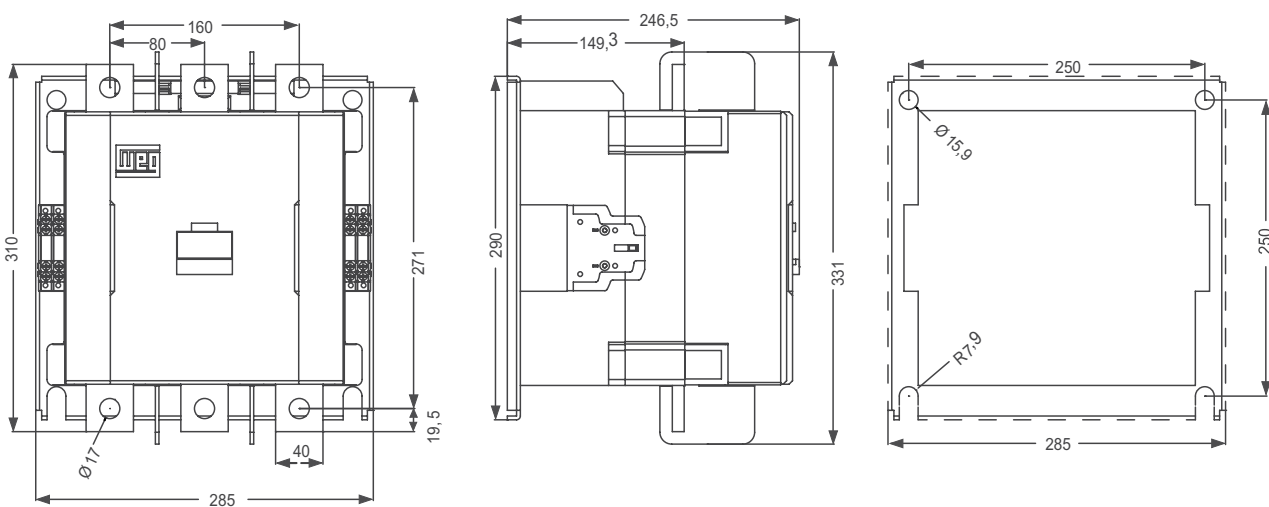


Contactors - Dimensions (mm)

CWM400¹⁾



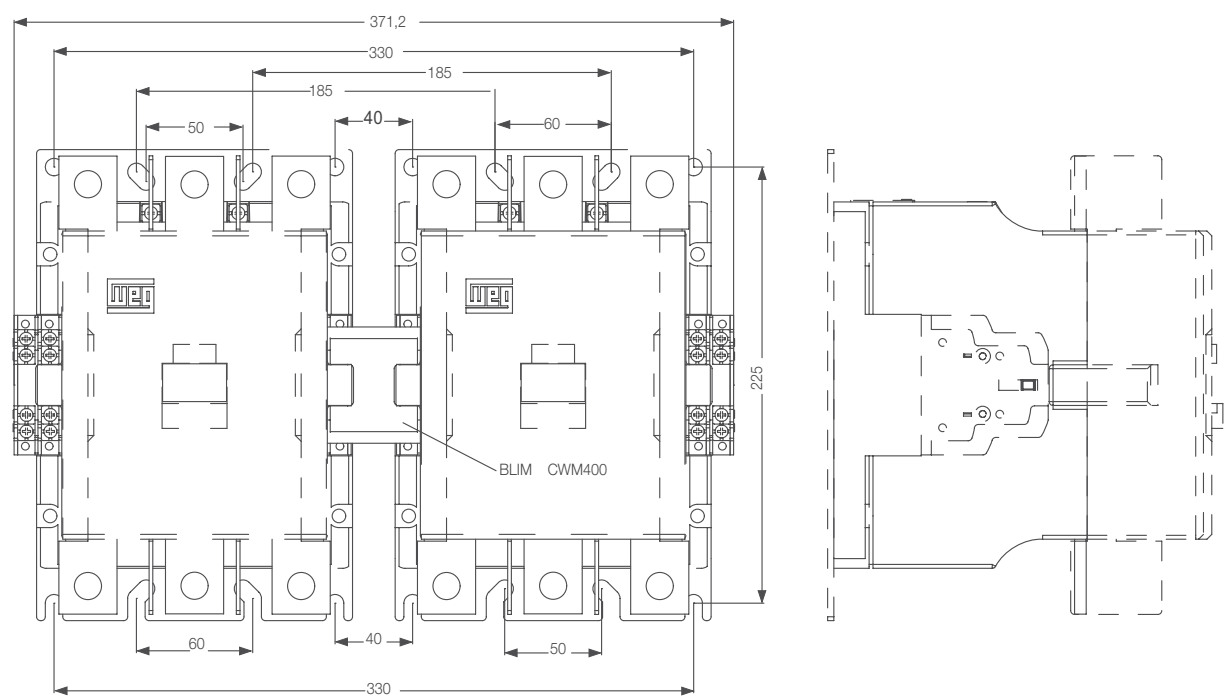
CWM500, CWM630 and CWM800¹⁾



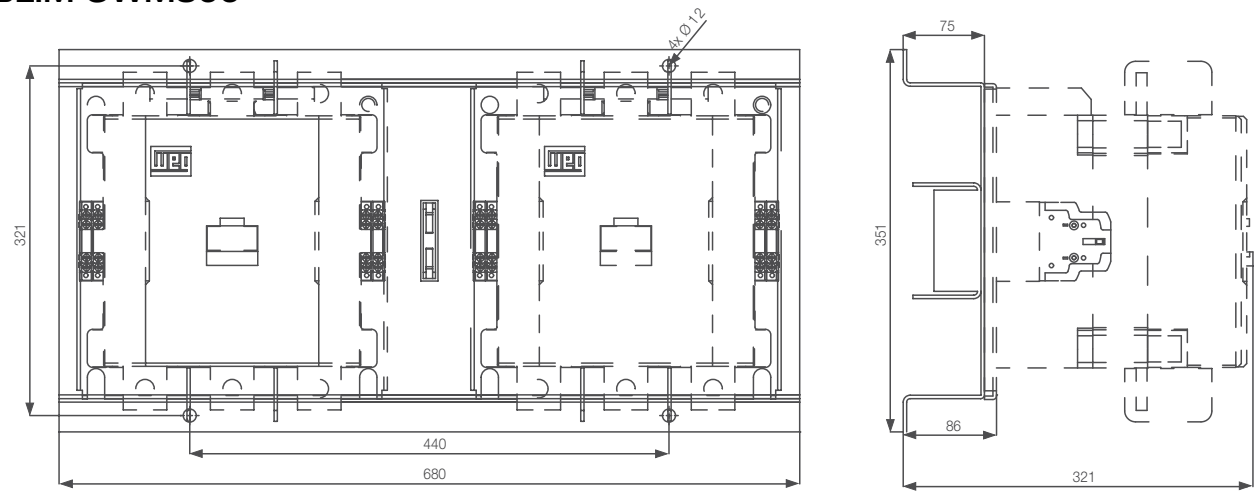
Note: 1) Dimensions for CWM400 to CWM800 4-pole versions on request.



BLIM CWM400



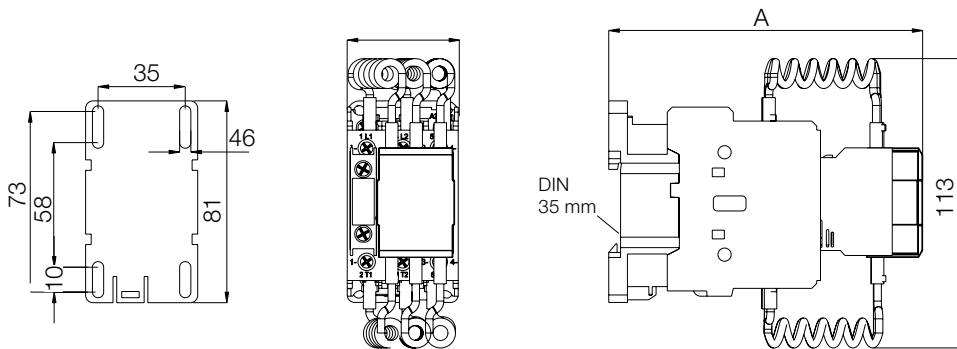
BLIM CWM800



Contactors for Switching of Capacitors

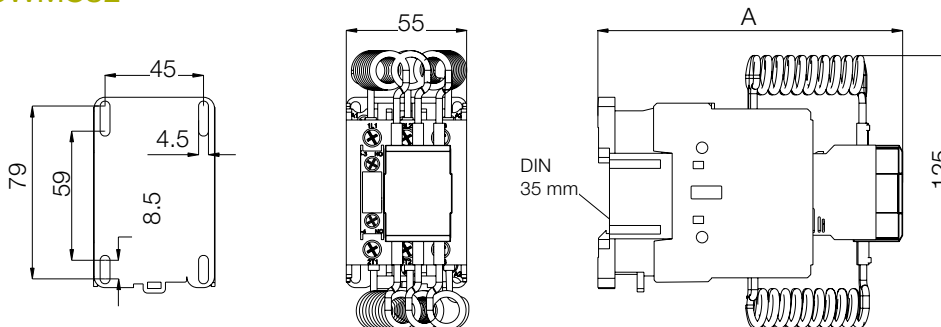
Contactors - Dimensions (mm)

CWMC9 to CWMC25



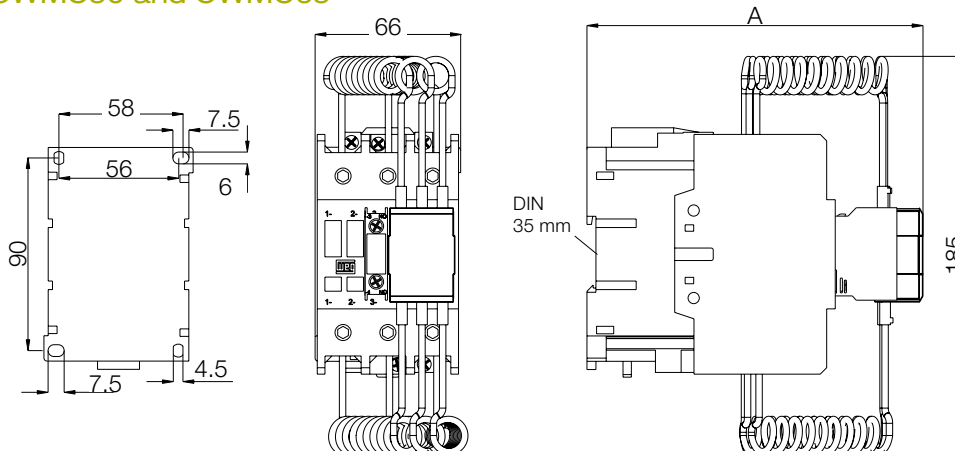
Coil	
AC	DC
A = 129	A = 159

CWMC32



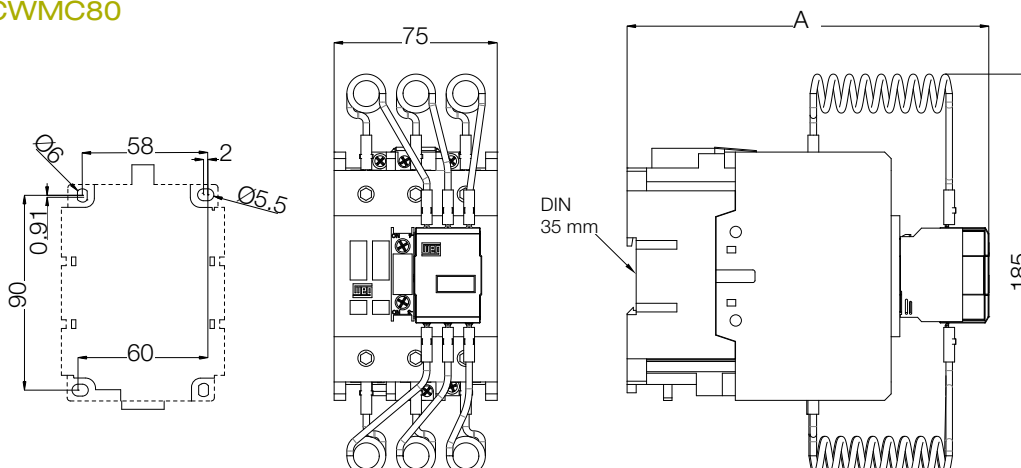
Coil	
AC	DC
A = 140	A = 160

CWMC50 and CWMC65



Coil	
AC	DC
A = 158	A = 158

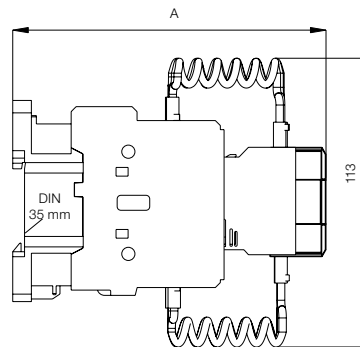
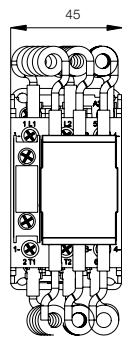
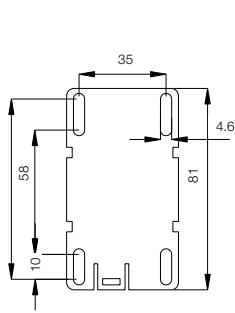
CWMC80



Coil	
AC	DC
A = 167	A = 167

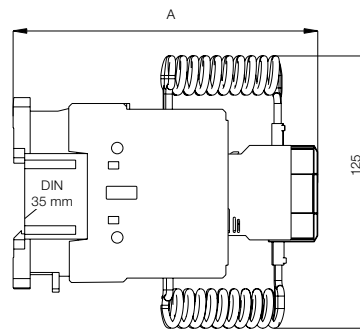
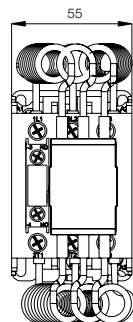
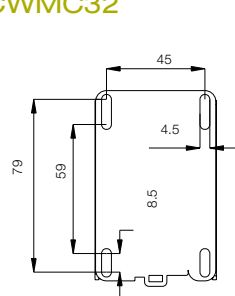


CWMC25



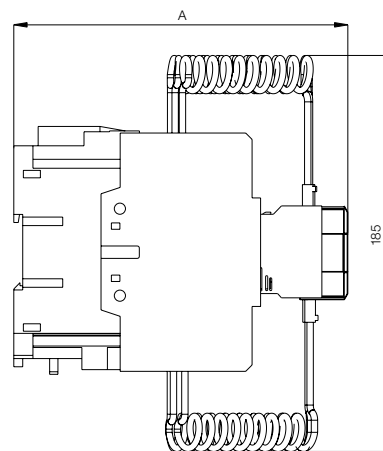
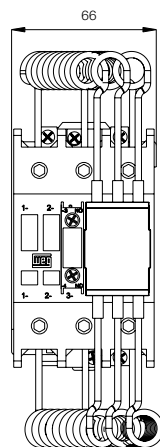
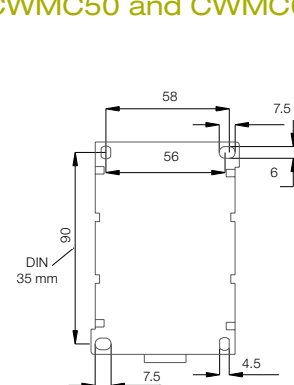
Coil	
AC	DC
A = 129	A = 159

CWMC32



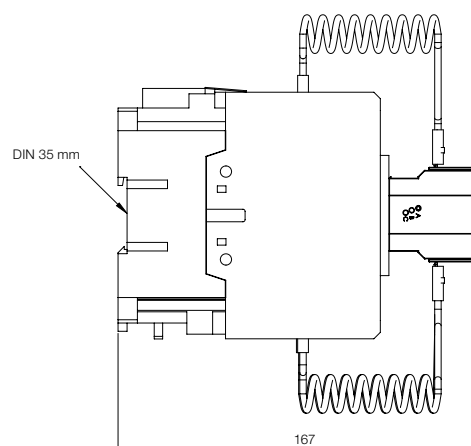
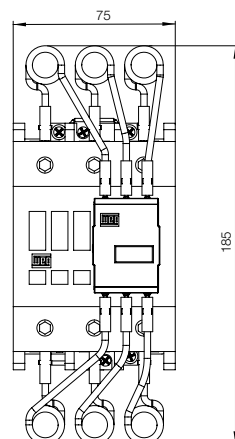
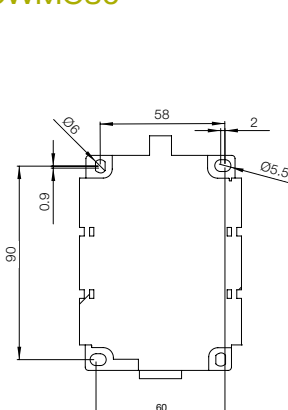
Coil	
AC	DC
A = 140	A = 160

CWMC50 and CWMC65



Coil	
AC	DC
A = 158	A = 158

CWMC80







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