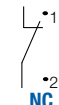


Selection Table

CWB Series Contactors

Three-Pole CWB Contactors from 9 A to 125 A (AC-3)

le máx. (Ue ≤440 V)	Maximum UL Horsepower						Built-in auxiliary contacts per contactor		Catalog Number	List Price AC Coil	List Price DC Coil	Multiplier New (Old)
AC-3 A	Single Phase		Three Phase									
	115V	230V	200V	230V	480V	575V						
9	3/4	1.5	3	3	5	7 1/2	1	1	CWB9-11-30*	\$84.50	\$88	Z1B (Z1)
12	3/4	2	3	3	7 1/2	10	1	1	CWB12-11-30*	\$89	\$103	
18	1	3	5	5	10	15	1	1	CWB18-11-30*	\$103	\$123.50	
25	2	5	7 1/2	7 1/2	15	15	1	1	CWB25-11-30*	\$118	\$128	
32	3	5	10	10	20	25	1	1	CWB32-11-30*	\$140	\$180	
38	3	7.5	10	10	25	25	1	1	CWB38-11-30*	\$164	\$198	
40	3	7 1/2	10	15	30	30	1	1	CWB40-11-30*	\$164	\$215	
50	3	10	15	15	40	40	1	1	CWB50-11-30*	\$225	\$310	
65	5	10	20	20	50	50	1	1	CWB65-11-30*	\$255	\$350	
80	7 1/2	15	20	25	50	60	1	1	CWB80-11-30*	\$270	\$417	
95	7 1/2	20	30	30	75	75	1	1	CWB95-11-30*	\$365	-	
									CWB95-11-30#	\$450	\$450	
110	10	25	30	40	75	100	1	1	CWB110-11-30*	\$420	-	
									CWB110-11-30#	\$550	\$550	
125	10	25	40	40	100	125	1	1	CWB125-11-30#	\$750	\$750	

Three-Pole CWB NEMA Rated Sizes 00 - 3

NEMA Size	Maximum UL Horsepower						Built-in auxiliary contacts per contactor		Catalog Number	List Price AC Coil	List Price DC Coil	Multiplier New (Old)
	Single Phase		Three Phase									
	115V	230V	200V	230V	480V	575V						
00	1/3	1	1.5	1.5	2	2	1	1	CWBN00-11-30*	\$103	\$150	Z1B (Z1)
0	1	2	3	3	5	5	1	1	CWBN0-11-30*	\$118	\$177	
1	2	3	7 1/2	7 1/2	10	10	1	1	CWBN1-11-30*	\$164	\$220	
2	3	7.5	10	15	25	25	1	1	CWBN2-11-30*	\$233	\$330	
3	7.5	15	25	30	50	50	1	1	CWBN3-11-30*#	\$420 ¹⁾	\$550 ²⁾	

Replace "*" with the appropriate coil voltage code. ³

Alternating Current (for contactor CWB9...110 and CWBN00...3)

Code	D02	D15	V24	D24	D39	D45	D77	D98
V (50/60 Hz)	24	120	180-208V 50Hz 208-240V 60Hz	230	480	600	208	277

Direct Current (for contactor CWB9...80 and CWBN00...2)

Code	C03	C07	C13
V dc	24	48	125

Replace "#" with the appropriate coil voltage code. ³

Alternating Current / Direct Current with Electronic Module (for contactor CWB95...125 and CWBN3)

Code	E04	E65
VAC (50/60 Hz) and VDC	24 - 60	110 - 255

Notes:

1) For AC coil only

2) For AC/DC coil with Electronic module

3) Other coil voltages available on request

Contactors

CWB Series Contactors

Accessories and Spare Parts

Front Mounted Auxiliary Contact Blocks⁴⁾



.063 kg

For use with	Max. n° of additional contacts / contactor	Auxiliary contacts		Catalog Number	List Price	Multiplier New(Old)
		NO	NC			
CWB9...125 CWBNO0...3	4 / CWB9...125 4 / CWBNO0...3	1	1	BFB-11¹⁾	\$20	Z1B (Z1)
		2	0	BFB-20	\$20	
		0	2	BFB-02¹⁾	\$20	
		2	2	BFB-22¹⁾	\$32	
		2	2	BFB-22 EL³⁾	\$32	
		4	0	BFB-40	\$32	
		0	4	BFB-04¹⁾	\$32	
		3	1	BFB-31¹⁾	\$32	
		1	3	BFB-13¹⁾	\$32	

Side Mounted Auxiliary Contact Blocks⁴⁾



.034 kg

For use with	Max. n° of additional contacts / contactor	Auxiliary contacts		Catalog Number	List Price	Multiplier New(Old)
		NO	NC			
CWB9...125 CWBNO0...3	4 / CWB9...125 4 / CWBNO0...3	1	1	BLB-11¹⁾	\$22	Z1B (Z1)
		2	0	BLB-20		
		0	2	BLB-02¹⁾		
		1	1	BLRB-11¹⁾²⁾		
		2	0	BLRB-20²⁾		
		0	2	BLRB-02¹⁾²⁾		

Plug-In Surge Suppressors



.008 kg

For use with	Voltage	Diagram	Catalog Number	List Price	Multiplier New(Old)
CWB9...110 CWBNO0...3	24...48 V 50/60 Hz		RCB D53⁵⁾	\$30	Z1B (Z1)
	50...127 V 50/60 Hz		RCB D55⁵⁾		
	130...250 V 50/60 Hz		RCB D63⁵⁾		
	12-48VAC / 12-60VDC		VRB E49		
	50-127VAC / 60-180VDC		VRB E34		
	130-250VAC / 180-300VDC		VRB E50		
	277-380VAC / 300-510VDC		VRB E41		
	400...510 V 50/60 Hz		VRB D73		
	12...600 V dc		DIB C33⁶⁾		
	12...250 V dc		DIZB C26⁷⁾		

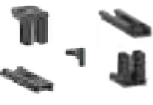
Notes:

- 1) The arrangement of the contacts meets IEC 60947-4-1 Annex F (Mirror Contact) and IEC 60947-5-1 Annex L (Mechanically Linked Contact) requirements.
- 2) Wiring numbers from BLB contact block for a combination of 2 side-mounted auxiliary contact blocks on the same side of the contactor.
- 3) BFB-22 EL contact block includes 1NO, 1NC, 1NO (early make), and 1NC (late break) contacts.
- 4) The maximum number of auxiliary contacts allowed on the contactor is 4.
- 5) Cannot be used with additional contact blocks (front mount or side mount). It can be used with CWB contactor containing built-in auxiliary contacts.
- 6) Contactors CWB9...110 with DC coils assembled with surge suppressor DIB will increase the opening time by 6 times. The surge suppressor cannot be used with BLB or BFB auxiliary contact blocks that contain NC contacts.
- 7) Contactors assembled with surge suppressor DIZB will increase the opening time by 4 times.

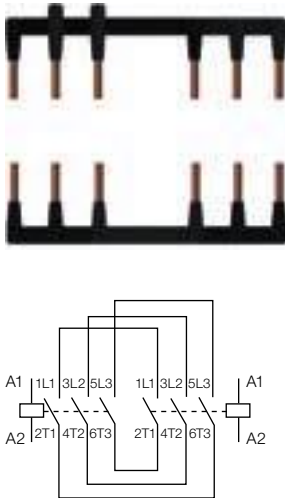
Accessories and Spare Parts

CWB Series Contactors

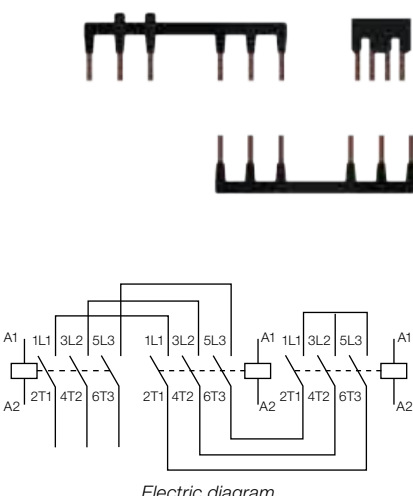
Mechanical Interlock

Image	For use with	Description	Catalog Number	List Price	Multiplier New (Old)
	CWB9...38 CWBN00...1	Mounting set for interlocking two contactors with the same frame type. Fitting through snaps without tools.	IM1	\$12	Z1B (Z1)
	CWB40...125 CWBN2...3		IM2	\$15	

Easy-Connection Setting of the Power Terminals for Reversing Starters

Image	For use with	Orientative rated operational power for reversing starters (AC-4 duty) for three-phase 4-pole motors - 60 Hz - 1,800 rpm		Catalog Number	List Price	Multiplier New (Old)
	K1=K2	230 V kW / HP	400 V kW / HP			
 Electric diagram	CWB9/CWBN00	1.5 / 2.0	2.2 / 2.9	EC-R1	\$60	Z1B (Z1)
	CWB12	1.5 / 2.0	3.7 / 5.0			
	CWB18/CWBN0	2.2 / 2.9	4 / 5.4			
	CWB25/CWBN1	3 / 4.0	5.5 / 7.4			
	CWB32	4 / 5.4	7.5 / 10.1			
	CWB38	4 / 5.4	7.5 / 10.1			
	CWB40	4.5 / 6.0	9.2 / 12.3	EC-R2	\$75	
	CWB50/CWBN2	5.5 / 7.4	11 / 14.7			
	CWB65	7.5 / 10.1	15 / 20.1			
	CWB80	11 / 14.7	18.5 / 24.8			
	CWB95	11 / 15	30 / 40	EC-R3	\$100	
	CWB110	15 / 20	30 / 40			
	CWB125	18.5 / 25	37 / 50			
						

Power Terminal Easy-Connection Set for Star-Delta Starters

Image	For use with		Orientative rated operational power in AC-3 Three-phase motor - IV poles - 1,800 rpm		Catalog Number	List Price	Multiplier New (Old)	
	K1=K2	K3	230 V kW / hp	400 V kW / hp				
 Electric diagram	CWB9	CWB9	4 / 5.4	7.5 / 10	EC-SD1	\$75	Z1B (Z1)	
	CWB12	CWB9	5.5 / 7.5	11 / 15				
	CWB18	CWB12	9.2 / 12.5	15 / 20				
	CWB25	CWB18	11 / 15	22 / 30				
	CWB32	CWB18	15 / 20	-				
	CWB38	CWB25	18.5 / 25	30 / 40	EC-SD2	\$90		
	CWB50	CWB40	22 / 30	45 / 61				
	CWB65	CWB40	30 / 40	55 / 75				
	CWB80	CWB50	45 / 61	75 / 102				
	CWB95	CWB95	45 / 60	90 / 125	EC-SD3	\$135		
	CWB110	CWB95	55 / 75	110 / 150				
	CWB125	CWB95	55 / 75	132 / 175				
								

CWB Series Contactors

Accessories and Spare Parts

Spare Coils for Contactors¹⁾

Image	For use with	Control type	Catalog Number to fill in with the control voltage	List Price	Multiplier New (Old)
	CWB9...38 CWBNO0...1	AC	BRB-38 ♦	\$22	Z1B (Z1)
	CWB40...80 CWBNO2	AC	BRB-80 ♦	\$40	
	CWB40...80 CWBNO2	DC	BRB-80 ♦	\$110	
	CWB95/110 CWBNO3	AC	BRB-110 ♦	\$55	
	CWB95...125 CWBNO3	AC/DC ¹⁾	BRB-125#	\$250	

¹⁾ Supply with built-in electronic module.

To complete the Part Number, replace "♦" with the appropriate coil voltage code.

Alternating Current (for contactor CWB9...110 and CWBNO0...3)

Coil voltage code	D02	D15	V24	D24	D39	D45	D77	D98
V (50/60 Hz)	24	120	180-208V 50Hz / 208-240V 60Hz	230	480	600	208	277

Note: other coil voltages available upon request.

Direct Current (for contactor CWB40...80 and CWBNO0...2)

Code	C03	C13
V dc	24	125

To complete the Part Number, replace "#" with the appropriate coil voltage code.

Alternating Current / Direct Current with Electronic Module (for contactor CWB95...125 and CWBNO3)

Code	E04	E65
VAC (50/60 Hz) and VDC	24 - 60	110 - 255

Technical Data

Terminal Markings According to IEC/EN 60947

Diagram	Configuration	Auxiliary contacts		Catalog Number
		NO	NC	
3-poles contactors with built-in auxiliary contacts				
	11	1	1	CWB9...125 CWBNO0...3
Front mounted auxiliary contact blocks				
	20	2	0	BFB-20
	11	1	1	BFB-11
	02	0	2	BFB-02
	40	4	0	BFB-40
	22	2	2	BFB-22
	22	2	2	BFB-22 EL
	04	0	4	BFB-04
	31	3	1	BFB-31
	13	1	3	BFB-13
Side mounted auxiliary contact blocks				
	11	1	1	BLB11
	20	2	0	BLB20
	02	0	2	BLB02
	11	1	1	BLRB11
	20	2	0	BLRB20
	02	0	2	BLRB02

General
Information

Circuit
Protection

Disconnect
Switches

Motor
Protectors

Contactors

Overloads

Enclosed
Starters

Electronic
Relays

Pushbuttons
and Pilot
Lights

Terminal
Blocks

Power
Factor
Correction

Appendix
A

Appendix
B

Appendix
C

CWB Series Contactors

Technical Data

Terminal Markings According to EN 50012

Diagram	Configuration	Auxiliary contacts		Catalog Number
		NO	NC	
Front mounting auxiliary contact blocks				
	20	2	0	BFB-20 EN
	11	1	1	BFB-11 EN
	02	0	2	BFB-02 EN
	40	4	0	BFB-40 EN
	22	2	2	BFB-22 EN
	04	0	4	BFB-04 EN
	31	3	1	BFB-31EN
	13	1	3	BFB-13 EN

Technical Data

Basic Data

Models			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38
Compliance with the standards			IEC/EN 60947-1					
			IEC/EN 60947-4-1					
			IEC/EN 60947-5-1					
			UL 60947					
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)	690					
	UL, CSA	(V)	600					
Rated impulse-withstand voltage Uimp	IEC/EN 60947-1	(kV)	6					
Frequency limits		(Hz)	25...400					
Mechanical lifespan	AC coil (million cycles)		10					
	DC coil (million cycles)		10					
Electrical lifespan	1e AC-3 (million cycles)		2	2	1.8	1.6	1.6	1.2
Degree of protection (IEC/EN 60529)	Main terminals		IP10 (front)					
	Coil and auxiliary contacts		IP20 (front)					
Mounting			By screws or DIN 35 mm rail (EN 50022)					
Coil connection points	Contactors with AC coil		2					
	Contactors with DC coil		2					
Vibration resistance (IEC/EN 60068-2-6)	Open contactor	(g)	4					
	Closed contactor	(g)	4					
Resistance to mechanical shocks (½ senoide = 11ms - IEC/EN 60068-2-27)	Open contactor	(g)	10					
	Closed contactor	(g)	15					
Ambient temperature	Operating		-25 °C...+55 °C					
	Storage		-55 °C...+80 °C					
Maximum operation altitude without modification in the rated values ¹			3,000 m					

Models			CWB40	CWB50	CWB65	CWB80	CWB95	CWB110	CWB125
Compliance with the standards			IEC/EN 60947-1						
			IEC/EN 60947-4-1						
			IEC/EN 60947-5-1						
			UL 60947						
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)	1,000						
	UL, CSA	(V)	600						
Rated impulse-withstand voltage Uimp	IEC/EN 60947-1	(kV)	6						
Frequency limits		(Hz)	25...400						
Mechanical lifespan	AC coil (million cycles)		6						
	DC coil (million cycles)		6						
Electrical lifespan	1e AC-3 (million cycles)		1.6	1.6	1.6	1.2	1.1	1	
Degree of protection (IEC/EN 60529)	Main terminals		IP10 (front)						
	Coil and auxiliary contacts		IP20 (front)						
Mounting			By screws or DIN 35 mm rail (EN 50022)						
Coil connection points	Contactors with AC coil		2						
	Contactors with DC coil		2						
Vibration resistance (IEC/EN 60068-2-6)	Open contactor	(g)	4						
	Closed contactor	(g)	4						
Resistance to mechanical shocks (½ senoide = 11ms - IEC/EN 60068-2-27)	Open contactor	(g)	10						
	Closed contactor	(g)	15						
Ambient temperature	Operating		-25 °C...+55 °C						
	Storage		-55 °C...+80 °C						
Maximum operation altitude without modification in the rated values ¹)			3,000 m						

Note: 1) For altitudes of 3,000...4,000 m (0.90xIe and 0.80xUi) and of 4,000...5,000 m (0.80xIe and 0.75xUi).

CWB Series Contactors

Technical Data

Control Circuit - Alternating Current (AC)

Models			CWB9...38	CWB40...80	CWB95/110
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1	(V)	690	1,000	1,000
	UL, CSA	(V)	600	600	600
Standard voltages at 50/60 Hz		(V)	12...500	24...500	24...500
Coil operating limits	At 50 Hz	(xUs)	0.8...1.1	0.8...1.1	0.8...1.1
	At 60 Hz	(xUs)	0.8...1.1	0.8...1.1	0.8...1.1
Average consumption Coil 50/60 Hz (60 Hz operation)	Magnetic circuit closed	(VA)	7.5	17.5	25
	Power factor switched on	(cos ϕ)	0.27	0.28	0.4
	Thermal power dissipation	(W)	1.5...2.5	4...5.5	9...11
	Closing of the magnetic circuit	(VA)	75	185	410
	Power factor switching on	(cos ϕ)	0.7	0.55	0.48
Average consumption Coil 50/60 Hz (50 Hz operation)	Magnetic circuit closed	(VA)	9	27	27
	Power factor switched on	(cos ϕ)	0.24	0.25	0.4
	Thermal power dissipation	(W)	1.5...2.5	5.5...7.8	11...13.4
	Closing of the magnetic circuit	(VA)	90	202	426
	Power factor switching on	(cos ϕ)	0.8	0.56	0.5
Average operating time	Closing of the NO contacts	(ms)	15...25	10...15	8...12.5
	Opening of the NO contacts	(ms)	8...12	8...12	4...8

Control Circuit - Direct Current (DC)

Models			CWB9...38	CWB40...80	CWB95...125
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1	(V)	690	1,000	-
	UL, CSA	(V)	600	600	-
Standard voltages		(V)	12...500	12...500	-
Coil operating limits		(xUs)	0.8...1.1	0.8...1.1	-
Average consumption DC coil	Magnetic circuit closed	(W)	5.8	10.6	-
	Closing of the magnetic circuit	(W)	5.8	105.5	-
Average operating time	Closing of the NO contacts	(ms)	35...45	20...30	-
	Opening of the NO contacts	(ms)	8...12	4...8	-

Control Circuit - Electronic Coils (AC/DC)

Models			CWB9...38	CWB40...80	CWB95...125
Rated insulation voltage U_i (pollution degree 3)	IEC 60947-4-1, VDE 0660	(V)	-	-	1,000
	UL, CSA	(V)	-	-	600
Standard voltages		(V)	-	-	24...500
Coil operating limits	VDC	(xUs)	-	-	0.8...1.1
	at 50 Hz	(xUs)	-	-	0.8...1.1
	at 60 Hz	(xUs)	-	-	0.8...1.1
Average consumption			-	-	1.0 x Us and cold coil
AC power supply (60 Hz)	Magnetic circuit closed	(VA)	-	-	10.8
	Power factor	(cos ϕ)	-	-	0.47
	Thermal power dissipation	(W)	-	-	5.1
	Closing of the magnetic circuit	t (VA)	-	-	217
	Power factor	(cos ϕ)	-	-	0.88
DC power supply	Magnetic circuit closed	(W)	-	-	2...5
	Closing of the magnetic circuit	(W)	-	-	180...220
Average operating time	Closing of the NO contacts	(ms)	-	-	32...48
	Opening of the NO contacts	(ms)	-	-	30...55

Technical Data

Main Contacts

Models			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80	CWB95	CWB110	CWB125	
Rated operational current Ie	AC-3 (Ue ≤440 V)	(A)	9	12	18	25	32	38	40	50	65	80	95	110	125	
	AC-4 (Ue ≤440 V)	(A)	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32	52	58	65	
	AC-1 (Θ ≤55 °C, Ue ≤690V)	(A)	25	25	32	40	50	50	60	90	110	110	140	150	175	
Rated operational voltage Ue	IEC/EN 60947-4-1	(V)	690						1,000							
	UL, CSA	(V)	600													
Conventional thermal current Ith (Θ ≤55 °C)			(A)	25	25	32	40	50	50	60	90	110	110	140	150	175
Making capacity - IEC/EN 60947			(A)	250	250	300	450	550	550	550	1,000	1,000	1,000	1,100	1,200	1,375
Breaking capacity IEC/ EN 60947	(Ue ≤400 V)	(A)	250	250	300	450	550	550	550	1,000	1,000	1,000	1,100	1,200	1,375	
	(Ue =500 V)	(A)	220	220	250	350	450	450	480	880	880	880	970	1,000	1,200	
	(Ue =690 V)	(A)	150	150	180	250	350	350	350	640	640	640	700	765	870	
Acceptable short-time current (no current flowing during recovery time of 15min and Θ ≤40 °C)	1s	(A)	210	210	240	380	400	430	720	820	900	900	1,200	1,350	1,430	
	10s	(A)	105	105	145	240	260	310	320	400	520	640	720	780	860	
	1min	(A)	60	60	80	120	130	150	165	230	340	360	410	470	515	
	10min	(A)	30	30	40	50	60	60	85	110	130	130	140	150	175	
Short circuit protection of the main contacts	at 600 V - UL/CSA	(kA)	5										-			
	Coordination type 1	(A)	25	40	50	63	63	63	80	100	125	160	-			
Fuse (g/LgG)	Coordination type 2	(A)	20	20	25	35	50	50	63	80	100	125	-			
Impedance per pole		(mΩ)	2.5	2.5	2.5	2	2	2	1.6	1.6	1.6	1.6	0.7	0.7	0.7	
Average power dissipation per pole	AC-1	(W)	1.5	1.5	2.5	3.2	5	5	6	13	19	19	15	17	21	
	AC-3	(W)	0.2	0.4	0.8	1.2	2	3	3	4	7	10	7	9	11	
Minimum switching capacity ¹⁾	(V/mA)		50/100													
Utilization category AC-3																
Rated operational current Ie (Θ ≤55 °C)	Ue ≤440 V	(A)	9	12	18	25	32	38	40	50	65	80	95	110	125	
	Ue ≤500 V	(A)	9	12	15.8	23	28.5	28.5	35	45	55	75	84	97	110	
	Ue ≤690 V	(A)	7	9	12.8	16.5	21	21	32	35	40	50	61	70	80	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm	220/240 V	(kW)	2.2	3	4.5	6.5	7.5	9.2	11	15	18.5	22	22	30	37	
		(HP)	3	4	6	8.7	10	12.5	15	20	25	29	30	40	50	
	380/400 V	(kW)	4	5.5	7.5	12.5	15	18.5	18.5	22	30	37	45	55	55	
		(HP)	5.5	7.5	10	16.8	20	25	25	29	40	50	60	75	75	
	415/440 V	(kW)	4.5	6.5	9.2	12.5	15	18.5	22	30	37	45	55	55	75	
		(HP)	6	8.7	12.5	16.8	20	25	29	40	50	60	75	75	100	
	500 V	(kW)	5.5	7.5	10	15	18.5	18.5	22	30	37	55	55	55	75	
		(HP)	7.5	10	13.4	20	25	25	29	40	50	74	75	75	100	
	660/690 V	(kW)	5.5	7.5	11	15	18.5	18.5	30	33	37	45	55	55	75	
		(HP)	7.5	10	15	20	25	25	40	44	50	60	75	75	100	
Maximum percentage	600 ops./h	(%)	100	100	100	100	100	100	100	100	100	100	100	100	100	
Utilization category AC-4																
Rated operational current Ie	(Ue ≤440 V)	(A)	4.4	5.8	8.5	10.4	14	14	18.5	21	27	40	52	58	65	
	(Ue ≤500 V)	(A)	3.9	5.1	8	12	13.5	13.5	17.5	17.6	23	33	46	51	57	
	(Ue ≤690 V)	(A)	2.8	3.7	5.4	12	12.8	12.8	14	17	22	26	33	37	41	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm (200,000 operations)	220/240 V	(kW)	1.5	1.5	2.2	3	4	4	4.5	5.5	7.5	11	15	16.5	18.5	
		(HP)	2	2	3	4	5.4	5.4	6	7.4	10	14.7	20	22	25	
	380/400 V	(kW)	2.2	3.7	4	5.5	7.5	7.5	9.2	11	15	18.5	22	28	30	
		(HP)	3	5	5.4	7.4	10	10	12.3	14.7	20.1	24.8	30	38	40	
	415/440 V	(kW)	2.2	3	3.7	5.5	7.5	7.5	11	11	15	22	30	33	37	
		(HP)	3	4	5	7.4	10	10	14.7	14.7	20.1	30	40	44	50	
	500 V	(kW)	2.2	3	5	7.5	9	9	11	15	18.5	22	30	30	37	
		(HP)	3	4	6.7	10	12	12	14.7	20.1	25	30	40	40	50	
	660/690 V	(kW)	2.2	3	5	10	11	11	12.5	15	20	25	30	30	45	
		(HP)	3	4	6.7	13.4	14.7	14.7	16.8	20.1	26.8	33.5	40	40	60	

Note: 1) In order to achieve acceptable reliability for application and/or continuity test on the power contacts, a minimum voltage and current of 50 V and 100 mA, respectively, must be used. For lower values, the auxiliary contacts must be used.

CWB Series Contactors

Technical Data

Main Contacts

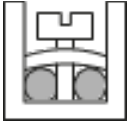
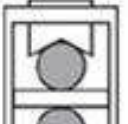
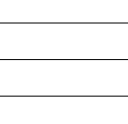
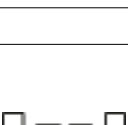
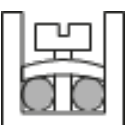
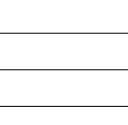
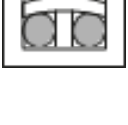
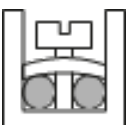
		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80	CWB95	CWB110	CWB125
Models		Utilization category AC-1												
		3P (NO)												
Conventional thermal current I _{th}	Θ ≤ 55 °C (A)	25	25	32	40	50	50	60	90	110	110	140	150	175
	Θ ≤ 65 °C (A)	20	20	26	32	40	40	48	72	88	88	112	121	140
	Θ ≤ 75 °C (A)	18	18	22	28	35	35	42	63	77	77	98	106	123
Maximum orientative operational current according to the ambient temperature	Θ ≤ 60 °C (U _e ≤ 690 V) (A)	25	25	32	40	50	50	60	90	110	110	140	150	175
Max. operational power Θ ≤ 55 °C (three-phase resistors)	240 V (kW)	10.4	10.4	13.3	16.6	20.8	20.8	24.9	37.4	45.7	45.7	58.2	62.4	72.7
	400 V (kW)	17.3	17.3	22.2	27.7	34.6	34.6	41.6	62.4	76.2	76.2	97	103.9	121.2
	440 V (kW)	19.1	19.1	24.4	30.5	38.1	38.1	45.7	68.6	83.8	83.8	106.7	114.3	133.4
	500 V (kW)	21.7	21.7	27.7	34.6	43.3	43.3	52	77.9	95.3	95.3	121.2	129.9	151.6
	690 V (kW)	29.9	29.9	38.2	47.8	59.8	59.8	71.7	107.6	131.5	131.5	167.3	179.3	209.1
Current values for connection	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 maximum operational current	600 ops./h (%)	100	100	100	100	100	100	100	100	100	100	100	100	100

Auxiliary Contacts

Models		CWB9...125 (built-in)	BFB (front mounted)	BLB (side mounted)
Compliance with the standards		IEC/EN 60947-5-1		
Rated insulation voltage U _i (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660 (V)	690		
	UL, CSA (V)	600		
Rated operational voltage U _e	IEC/EN 60947-4-1, VDE 0660 (V)	690		
	UL, CSA (V)	600		
Conventional thermal current I _{th} (Θ ≤ 55 °C) (A)		10		
Rated operational current I _e				
AC-15 (IEC/EN 60947-5-1)	220/230 V (A)	10		
	380/440 V (A)	4		
	500 V (A)	2.5		
	660/690 V (A)	1.5		
DC-13 (IEC/EN 60947-5-1)	24 V (A)	4		
	48 V (A)	2		
	110 V (A)	0.7		
	220 V (A)	0.3		
	440 V (A)	0.15		
	600 V (A)	0.1		
Making capacity		U _e ≤ 690 V 50/60 Hz - AC-15 (A)	10 x I _e	
Breaking capacity		U _e ≤ 400 V 50/60 Hz - AC-15 (A)	1 x I _e	
Short circuit protection with fuse (gG/gG)		(A)	10	
Control circuit reliability		(V / mA)	17 / 5	
Electrical lifespan		(million cycles)	1	
Mechanical lifespan		(million cycles)	10	
Non-overlapping time between NO and NC contacts		(ms)	1.5	
Impedance of the contacts		(mΩ)	2.5	

Technical Data

Terminal Capacity and Tightening Torques

			Conductor cross-section			
Power circuit						
Model			CWB9...18	CWB25...38	CWB40...80	CWB95...125
Mounting system screw type			Phillips number 2	Phillips number 2	ALLEN 4 mm	ALLEN 4 mm
Flexible conductor without terminal	(mm²)		1 x 1...6	1 x 2.5...10	-	-
			2 x 1...6	2 x 2.5...10		
Flexible conductor with terminal	(mm²)		1 x 1...6	1 x 1.5...10	-	-
			2 x 1...4	2 x 1.5...6		
Solid wire	(mm²)		1 x 1...6	1 x 2.5...10	-	-
			2 x 1...6	2 x 2.5...10		
Tightening torque	(Nm)		1.7	2.5	-	-
Flexible conductor without terminal	(mm²)		-	-	1 x 2.5...35	1 x 2.5...70
					2 x 2.5...35	2 x 2.5...70
Flexible conductor with terminal	(mm²)		-	-	1 x 2.5...35	1 x 2.5...70
					2 x 2.5...35	2 x 2.5...70
Solid wire	(mm²)		-	-	1 x 2.5...35	1 x 2.5...70
					2 x 2.5...35	2 x 2.5...70
Tightening torque	(Nm)		-	-	5	6
Control and auxiliary circuit						
Models			CWB9...125			
Mounting system screw type			Phillips number 2			
Flexible conductor without terminal	(mm²)		1 x 1...4			
			2 x 1...4			
Flexible conductor with terminal	(mm²)		1 x 1...4			
			2 x 1...2.5			
Solid wire	(mm²)		1 x 1...4			
			2 x 1...4			
Tightening torque	(Nm)		1			
Auxiliary contact blocks						
Models			BFB (front)		BLB (side)	
Mounting system screw type			Phillips number 2			
Conductor cross-section						
Flexible conductor without terminal	(mm²)		1 x 1...2.5			
			2 x 1...2.5			
Flexible conductor with terminal	(mm²)		1 x 1...2.5			
			2 x 1...2.5			
Solid wire	(mm²)		1 x 1...2.5			
			2 x 1...2.5			
Tightening torque	(Nm)		1			

CWBN Series - NEMA Rated Contactors

Technical Data

Basic Data

Models

		CWBN00	CWBN0	CWBN1
Compliance with the standards		IEC/EN 60947-1		
		IEC/EN 60947-4-1		
		IEC/EN 60947-5-1		
		UL 60947		
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)		
	UL, CSA	(V)		
Rated impulse-withstand voltage Uimp	IEC/EN 60947-1	(kV)		
Frequency limits		(Hz)		
Mechanical lifespan	AC coil (million cycles)	10		
	DC coil (million cycles)	10		
Electrical lifespan	1e AC-3 (million cycles)	2	1.8	1.6
Degree of protection (IEC/EN 60529)	Main terminals	IP10 (front)		
	Coil and auxiliary contacts	IP20 (front)		
Mounting		By screws or DIN 35 mm rail (EN 50022)		
Coil connection points	Contactors with AC coil	2		
	Contactors with DC coil	2		
Vibration resistance (IEC/EN 60068-2-6)	Open contactor	(g)		
	Closed contactor	(g)		
Resistance to mechanical shocks (½ senoid = 11 ms - IEC/EN 60068-2-27)	Open contactor	(g)		
	Closed contactor	(g)		
Ambient temperature	Operating	-25 °C...+55 °C		
	Storage	-55 °C...+80 °C		
Maximum operation altitude without modification in the rated values ¹⁾		3,000 m		

Models

		CWBN2	CWBN3
Compliance with the standards		IEC/EN 60947-1	
		IEC/EN 60947-4-1	
		IEC/EN 60947-5-1	
		UL 60947	
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)	
	UL, CSA	(V)	
Rated impulse-withstand voltage Uimp	IEC/EN 60947-1	(kV)	
Frequency limits		(Hz)	
Mechanical lifespan	AC coil (million cycles)	6	
	DC coil (million cycles)	6	
Electrical lifespan	1e AC-3 (million cycles)	1.6	1.1
Degree of protection (IEC/EN 60529)	Main terminals	IP10 (front)	
	Coil and auxiliary contacts	IP20 (front)	
Mounting		By screws or DIN 35 mm rail (EN 50022)	
Coil connection points	Contactors with AC coil	2	
	Contactors with DC coil	2	
Vibration resistance (IEC/EN 60068-2-6)	Open contactor	(g)	
	Closed contactor	(g)	
Resistance to mechanical shocks (½ senoid = 11 ms - IEC/EN 60068-2-27)	Open contactor	(g)	
	Closed contactor	(g)	
Ambient temperature	Operating	-25 °C...+55 °C	
	Storage	-55 °C...+80 °C	
Maximum operation altitude without modification in the rated values ¹⁾		3,000 m	

Note: 1) For altitudes of 3,000...4,000 m (0.90xle and 0.80xUi) and of 4,000...5,000 m (0.80xle and 0.75xUi).

Technical Data

Control Circuit - Alternating Current (AC)

Models			CWB00/0/1	CWB2	CWB3
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)	690	1,000	1,000
	UL, CSA	(V)	600	600	600
Standard voltages at 50/60 Hz			12...500	24...500	24...500
Coil operating limits	At 50 Hz	(xUs)	0.8...1.1	0.8...1.1	0.8...1.1
	At 60 Hz	(xUs)	0.8...1.1	0.8...1.1	0.8...1.1
Average consumption Coil 50/60 Hz (60 Hz operation)	Magnetic circuit closed	(VA)	7.5	17.5	25
	Power factor switched on	(cos Θ)	0.27	0.28	0.4
	Thermal power dissipation	(W)	1.5...2.5	4...5.5	9...11
	Closing of the magnetic circuit	(VA)	75	185	410
	Power factor switching on	(cos Θ)	0.7	0.55	0.48
Average consumption Coil 50/60 Hz (50 Hz operation)	Magnetic circuit closed	(VA)	9	27	27
	Power factor switched on	(cos Θ)	0.24	0.25	0.4
	Thermal power dissipation	(W)	1.5...2.5	5.5...7.8	11...13.4
	Closing of the magnetic circuit	(VA)	90	202	426
	Power factor switching on	(cos Θ)	0.8	0.56	0.5
Average operating time	Closing of the NO contacts	(ms)	15...25	10...15	8...12.5
	Opening of the NO contacts	(ms)	8...12	8...12	4...8

Control Circuit - Direct Current (DC)

Models			CWB00/0/1	CWB2	CWB3
Rated insulation voltage Ui (pollution degree 3)	IEC/EN 60947-4-1	(V)	690	1,000	-
	UL, CSA	(V)	600	600	-
Standard voltages			12...500	12...500	-
Coil operating limits			0.8...1.1	0.8...1.1	-
Average consumption DC coil	Magnetic circuit closed	(W)	5.8	10.6	-
	Closing of the magnetic circuit	(W)	5.8	105.5	-
Average operating time	Closing of the NO contacts	(ms)	35...45	20...30	-
	Opening of the NO contacts	(ms)	8...12	4...8	-

Control Circuit - Electronic Coils (AC/DC)

Models			CWB00/0/1	CWB2	CWB3
Rated insulation voltage Ui (pollution degree 3)	IEC 60947-4-1, VDE 0660	(V)	-	-	1,000
	UL, CSA	(V)	-	-	600
Standard voltages			-	-	24...500
Coil operating limits	at V dc	(xUs)	-	-	0.8...1.1
	at 50 Hz	(xUs)	-	-	0.8...1.1
	at 60 Hz	(xUs)	-	-	0.8...1.1
Average consumption			-	-	1.0 x Us and cold coil
AC power supply (60 Hz)	Magnetic circuit closed	(VA)	-	-	10.8
	Power factor	(cos Θ)	-	-	0.47
	Thermal power dissipation	(W)	-	-	5.1
	Closing of the magnetic circuit	t (VA)	-	-	217
	Power factor	(cos Θ)	-	-	0.88
DC power supply	Magnetic circuit closed	(W)	-	-	2...5
	Closing of the magnetic circuit	(W)	-	-	180...220
Average operating time	Closing of the NO contacts	(ms)	-	-	32...48
	Opening of the NO contacts	(ms)	-	-	30...55

General
InformationCircuit
ProtectionDisconnect
SwitchesMotor
Protectors

Contactors

Overloads

Enclosed
StartersElectronic
RelaysPushbuttons
and Pilot
LightsTerminal
BlocksPower
Factor
CorrectionAppendix
AAppendix
BAppendix
C

CWBN Series - NEMA Rated Contactors

Technical Data

Main Contacts

Main Contacts				CWBN00	CWBN0	CWBN1	CWBN2	CWBN3
Rated operational current Ie	AC-3 (Ue ≤440 V)	(A)	9	18	25	50	95	
	AC-4 (Ue ≤440 V)	(A)	4.4	8.5	10.4	21	52	
	AC-1 (ϑ ≤55 °C, Ue ≤690 V)	(A)	25	32	40	90	140	
Rated operational voltage Ue	IEC/EN 60947-4-1	(V)	690			1,000		
	UL, CSA	(V)	600					
Conventional thermal current Ith (ϑ ≤55 °C)			(A)	25	32	40	90	140
Making capacity - IEC/EN 60947			(A)	250	300	450	1,000	1,100
Breaking capacity IEC/EN 60947	(Ue ≤400 V)	(A)	250	300	450	1,000	1,100	
	(Ue =500 V)	(A)	220	250	350	880	970	
	(Ue =690 V)	(A)	150	180	250	640	700	
Acceptable short-time current (no current flowing during recovery time of 15min and q ≤40 °C)	1s	(A)	210	240	380	820	1,200	
	10s	(A)	105	145	240	400	720	
	1min	(A)	60	80	120	230	410	
	10min	(A)	30	40	50	110	140	
Short circuit protection of the main contacts	At 600 V - UL/CSA	(kA)	5					10
	Coordination type 1	(A)	25	50	63	100	-	
Fuse (gL/gG)	Coordination type 2	(A)	20	25	35	80	-	
Impedance per pole			(mΩ)	2.5	2.5	2	1.6	0.7
Average power dissipation per pole	AC-1	(W)	1.5	2.5	3.2	13	15	
	AC-3	(W)	0.2	0.8	1.2	4	7	
Minimum switching capacity ¹⁾			(V/mA)	50/100				
Utilization category AC-3								
Rated operational current Ie (ϑ ≤55°C)	Ue ≤440 V	(A)	9	18	25	50	95	
	Ue ≤500 V	(A)	9	15.8	23	45	84	
	Ue ≤690 V	(A)	7	12.8	16.5	35	61	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm	220/240 V	(kW)	2.2	4.5	6.5	15	22	
		(hp)	3	6	8.7	20	30	
	380/400 V	(kW)	4	7.5	12.5	22	45	
		(hp)	5.5	10	16.8	29	60	
	415/440 V	(kW)	4.5	9.2	12.5	30	55	
		(hp)	6	12.5	16.8	40	75	
	500 V	(kW)	5.5	10	15	30	55	
		(hp)	7.5	13.4	20	40	75	
	660/690 V	(kW)	5.5	11	15	33	55	
		(hp)	7.5	15	20	44	75	
Maximum percentage	600 ops./h	(%)	100	100	100	100	100	
Utilization category AC-4								
Rated operational current Ie	(Ue ≤440 V)	(A)	4.4	8.5	10.4	21	52	
	(Ue ≤500 V)	(A)	3.9	8	12	17.6	46	
	(Ue ≤690 V)	(A)	2.8	5.4	12	17	33	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm (200,000 operations)	220/240 V	(kW)	1.5	2.2	3	5.5	15	
		(hp)	2	3	4	7.4	20	
	380/400 V	(kW)	2.2	4	5.5	11	22	
		(hp)	3	5.4	7.4	14.7	30	
	415/440 V	(kW)	2.2	3.7	5.5	11	30	
		(hp)	3	5	7.4	14.7	40	
	500 V	(kW)	2.2	5	7.5	15	30	
		(hp)	3	6.7	10	20.1	40	
	660/690 V	(kW)	2.2	5	10	15	30	
		(hp)	3	6.7	13.4	20.1	40	

Note: 1) In order to achieve acceptable reliability for application and/or continuity test on the power contacts, a minimum voltage and current of 50 V and 100 mA, respectively, must be used. For lower values, the auxiliary contacts must be used.

Technical Data

Main Contacts

Models			CWBN00	CWBN0	CWBN1	CWBN2	CWBN3
			Utilization category AC-1				
			3P (NO)				
Conventional thermal current I _{th}	$\Theta \leq 55^{\circ}\text{C}$	(A)	25	32	40	90	140
	$\Theta \leq 65^{\circ}\text{C}$	(A)	20	26	32	72	112
	$\Theta \leq 75^{\circ}\text{C}$	(A)	18	22	28	63	98
Maximum orientative operational current according to the ambient temperature	$\Theta \leq 60^{\circ}\text{C}$ (U _e $\leq$ 690 V)	(A)	25	32	40	90	140
Max. operational power $\Theta \leq 55^{\circ}\text{C}$ (three-phase resistors)	240 V	(kW)	10.4	13.3	16.6	37.4	58.2
	400 V	(kW)	17.3	22.2	27.7	62.4	97
	440 V	(kW)	19.1	24.4	30.5	68.6	106.7
	500 V	(kW)	21.7	27.7	34.6	77.9	121.2
	690 V	(kW)	29.9	38.2	47.8	107.6	167.3
Current values for connection	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 maximum operational current	600 ops./h	(%)	100	100	100	100	100

Auxiliary Contacts

Models			CWBN00...3 (built-in)	BFB (front mounted)	BLB (side mounted)
Compliance with the standards			IEC/EN 60947-5-1		
Rated insulation voltage U _i (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660	(V)	690		
	UL, CSA	(V)	600		
Rated operational voltage U _e	IEC/EN 60947-4-1, VDE 0660	(V)	690		
	UL, CSA	(V)	600		
Conventional thermal current I _{th} ($\Theta \leq 55^{\circ}\text{C}$)			10		
Rated operational current I _e					
AC-15 (IEC/EN 60947-5-1)	220/230 V	(A)	10		
	380/440 V	(A)	4		
	500 V	(A)	2.5		
	660/690 V	(A)	1.5		
DC-13 (IEC/EN 60947-5-1)	24 V	(A)	4		
	48 V	(A)	2		
	110 V	(A)	0.7		
	220 V	(A)	0.3		
	440 V	(A)	0.15		
	600 V	(A)	0.1		
Making capacity	U _e $\leq$ 690 V 50/60 Hz - AC-15	(A)	10 x I _e		
Breaking capacity	U _e $\leq$ 400 V 50/60 Hz - AC-15	(A)	1 x I _e		
Short circuit protection with fuse (gL/gG)			10		
Control circuit reliability	(V / mA)		17 / 5		
Electrical lifespan	(million cycles)		1		
Mechanical lifespan	(million cycles)		10		
Non-overlapping time between NO and NC contacts			(ms)		
Impedance of the contacts			(m Ω)		

General
InformationCircuit
ProtectionDisconnect
SwitchesMotor
Protectors

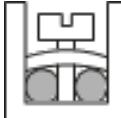
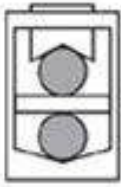
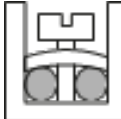
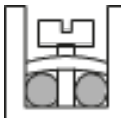
Contactors

Overloads

Enclosed
StartersElectronic
RelaysPushbuttons
and Pilot
LightsTerminal
BlocksPower
Factor
CorrectionAppendix
AAppendix
BAppendix
C

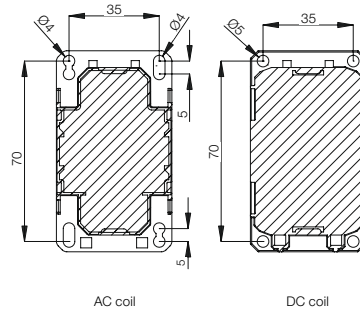
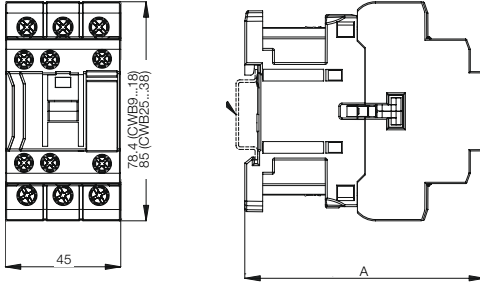
Technical Data

Terminal Capacity and Tightening Torques

				Conductor cross-section			
Power circuit							
Model			CWBN00/0	CWBN1	CWBN2	CWBN3	
Mounting system screw type			Phillips number 2	Phillips number 2	ALLEN 4 mm	ALLEN 4 mm	
Flexible conductor without terminal	(mm²)		1 x 1...6	1 x 2.5...10	-	-	
			2 x 1...6	2 x 2.5...10			
Flexible conductor with terminal	(mm²)		1 x 1...6	1 x 1.5...10	-	-	
			2 x 1...4	2 x 1.5...6			
Solid wire	(mm²)		1 x 1...6	1 x 2.5...10	-	-	
			2 x 1...6	2 x 2.5...10			
Tightening torque	(Nm)		1.7	2.5	-	-	
Flexible conductor without terminal	(mm²)			-	-	1 x 2.5...35	1 x 2.5...70
				-	-	2 x 2.5...35	2 x 2.5...70
Flexible conductor with terminal	(mm²)			-	-	1 x 2.5...35	1 x 2.5...70
		-		-	2 x 2.5...35	2 x 2.5...70	
Solid wire	(mm²)	-		-	1 x 2.5...35	1 x 2.5...70	
		-		-	2 x 2.5...35	2 x 2.5...70	
Tightening torque	(Nm)	-		-	5	6	
Control and auxiliary circuit							
Models				CWBN00...3			
Mounting system screw type				Phillips number 2			
Flexible conductor without terminal	(mm²)		1 x 1...4				
			2 x 1...4				
Flexible conductor with terminal	(mm²)		1 x 1...4				
			2 x 1...2.5				
Solid wire	(mm²)		1 x 1...4				
			2 x 1...4				
Tightening torque (Nm)	(Nm)		1				
Auxiliary contact blocks							
Models			BFB (front)		BLB (side)		
Mounting system screw type			Phillips number 2				
Conductor cross-section							
Flexible conductor without terminal	(mm²)		1 x 1...2.5				
			2 x 1...2.5				
Flexible conductor with terminal	(mm²)		1 x 1...2.5				
			2 x 1...2.5				
Solid wire	(mm²)		1 x 1...2.5				
			2 x 1...2.5				
Tightening torque	(Nm)		1				

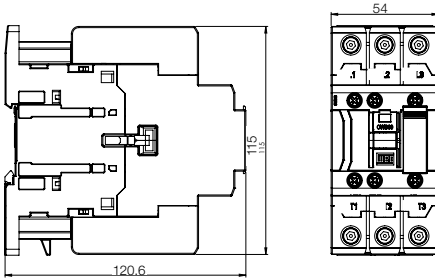
Dimensions (mm)

CWB9...38, CWBN00...1



Models	A	
	AC coil	DC coil
CWB9...18 CWBN00...0	89.5	98.5
CWB25...38 CWBN1	93	102.2

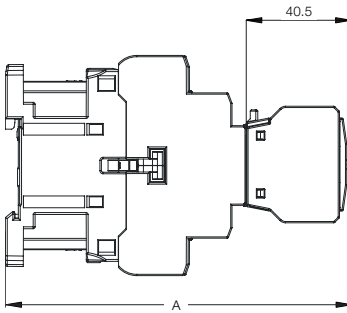
CWB40...80, CWBN2



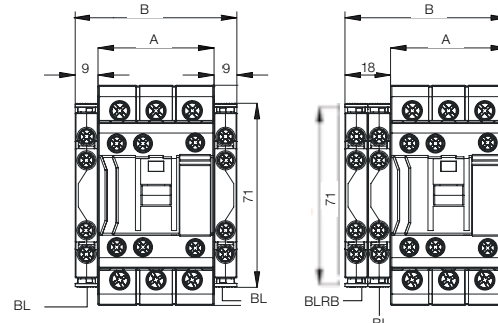
CWB95...125, CWBN3



CWB9...125, CWBN00...3 + BFB (Front Mounted Auxiliary Contact Block)



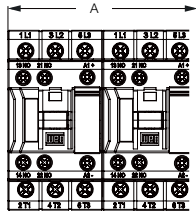
CWB9...125, CWBN00...3 + BLB / BLRB (Side Mounted Auxiliary Contact Block)



Models	A	
	AC coil	DC coil
CWB9...18, CWBN00 / 0	130	139.2
CWB25...38, CWBN1	133.4	142.6
CWB40...80, CWBN2	161.1	161.1
CWB95...125, CWBN3	184.5	184.5

Models	A	B
CWB9...18, CWBN00...1	45	63
CWB40...80, CWBN2	54	72
CWB95...125, CWBN3	72	90

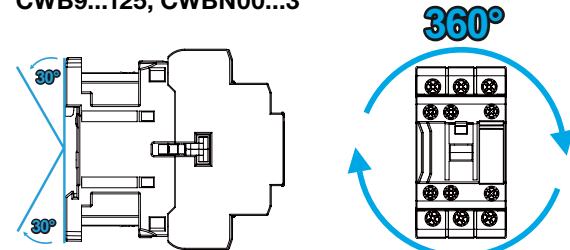
2 x CWB9...125 + IM (Mechanical Interlock) 2 x CWBN00...3 + IM (Mechanical Interlock)



Models	Interlock	A
CWB9...18, CWBN00...1	IM1	90
CWB40...80, CWBN2	IM2	108
CWB95...125, CWBN3		144

Mounting Position

CWB9...125, CWBN00...3



General
Information

Circuit
Protection

Disconnect
Switches

Motor
Protectors

Contactor's

Overloads

Enclosed
Starters

Electronic
Relays

Pushbuttons
and Pilot
Lights

Terminal
Blocks

Power
Factor
Correction

Appendix
A

Appendix
B

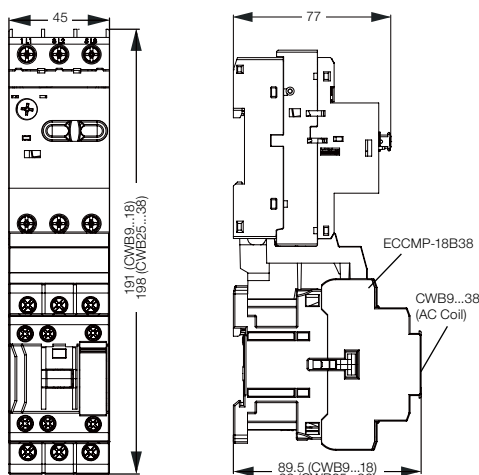
Appendix
C

Contactors

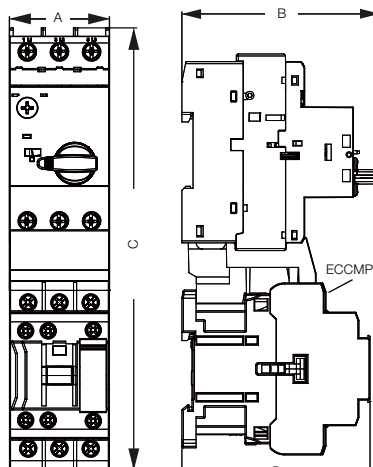
CWB Series Contactors

Dimensions (mm)

CWB9...38 + MPW18



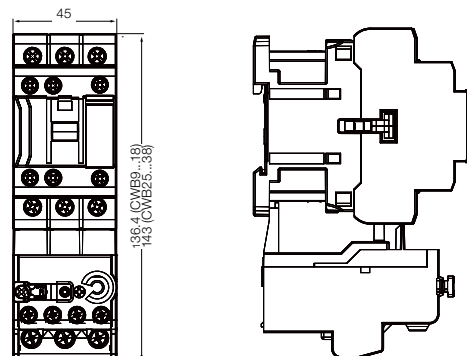
CWB9...38 + MPW40 CWB40...80 + MPW80



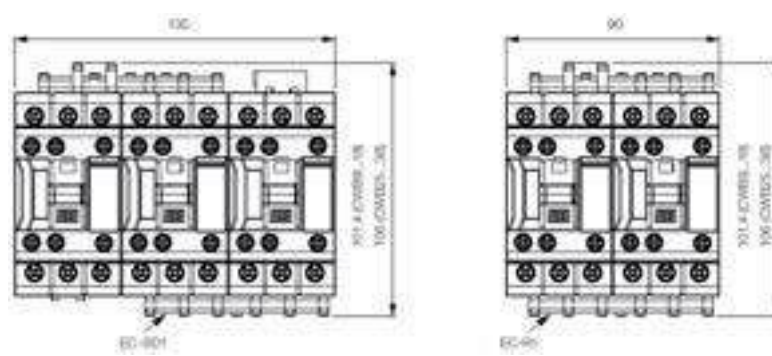
Mounting with MPW40				
A	45			
B	98			
C	AC coil contactor		DC coil contactor	
	CWB9...18	CWB25...38	CWB9...18	CWB25...38
C	191.4	198	191.4	198
D	89.5	93	98.5	102.2
*	ECCMP-40B38		ECCMP-40B38DC	

Mounting with MPW80				
A	54			
B	156.6			
C	AC coil contactor		DC coil contactor	
	CWB40...80	CWB40...80	CWB40...80	CWB40...80
C	263			
D	120.6			
*	ECCMP-80B80			

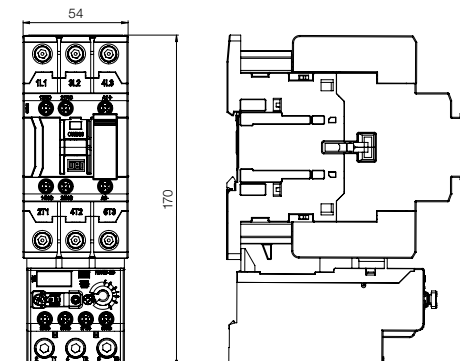
CWB9...38 + RW27-2D



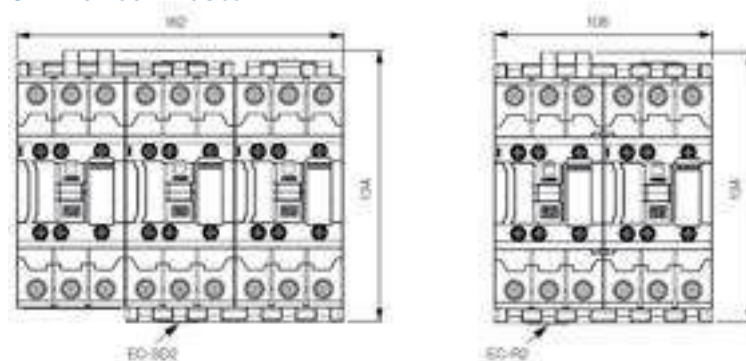
CWB9...38 + Busbar



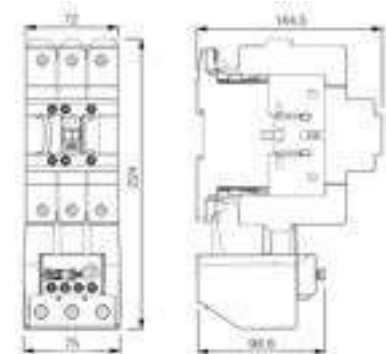
CWB40...80 + RW67-5D



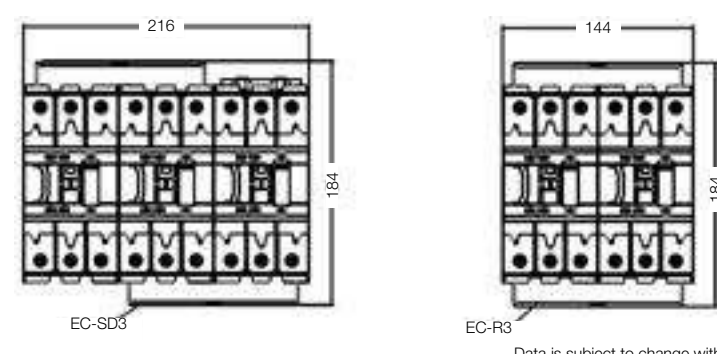
CWB40...80 + Busbar



CWB95...125 + RW117-3D



CWB95...125 + Busbar



Data is subject to change without notice.