CWB Series Contactors

Overview

Developed according to IEC 60947 and UL 508 international standards, the new WEG CWB line of contactors meets the requirements of a wide range of industrial applications. The CWBs are designed with the visual pattern and identity of WEG, a brand recognized worldwide for its quality.

Features

- "Zero-width" mechanical interlock
- Simple and compact mounting of surge suppressor blocks
- Available with AC or DC coils
- Simple and organized control circuits
- Additional contact blocks
- Easy access power and control terminals

CWB9-11-30D15

CWB25-11-30D15

CWB80-11-30D15

UL File No. E202315

CWB9-11-30C03

CWB25-11-30C03

CWB80-11-30C03

CWB Contactor Catalog Number Sequence

CWB	12	-	11	-	30	D15

Contactor Series

CWB-IEC

Current Rating (IEC)

9: 9A
12: 12A
18: 18A
25: 25A
32: 32A
38: 38A
40: 40A
50: 50A
65: 65A
80: 80A

Auxiliary Contacts

11: 1NO+1NC

Power Poles

30: 3 NO Power Poles

Voltage Code

AC Voltage	*DC Voltage*
D15: 120V	C03: 24V
V24: 208-240V	
D39: 480V	

Table intended as reference only and not to create part numbers.

CWB Series Contactors

CWB Series Three-Pole Contactors – AC and AC/DC Coil – Selection Guide

Part Number	Price	Coil Voltage	Ie Max (Ue≤440V)	Maximum UL Horsepower						Built-In Auxiliary Contacts Per Contactor		Drawing
				Single-Phase		Three-Phase						
			AC-3 (A)	115V	230V	200V	230V	480V	575V	N.O.	N.C.	
AC Coil												
CWB9-11-30D15	$29.50	120VAC	9	0.75	1.5	3	3	5	7.5	1	1	PDF
CWB9-11-30V24	$29.50	208-240 VAC										PDF
CWB9-11-30D39	$29.50	480VAC										PDF
CWB12-11-30D15	$33.00	120VAC	12	0.75	2	3	3	7.5	10	1	1	PDF
CWB12-11-30V24	$33.00	208-240 VAC										PDF
CWB12-11-30D39	$33.00	480VAC										PDF
CWB18-11-30D15	$40.50	120VAC	18	1	3	5	5	10	15	1	1	PDF
CWB18-11-30V24	$40.50	208-240 VAC										PDF
CWB18-11-30D39	$40.50	480VAC										PDF
CWB25-11-30D15	$47.00	120VAC	25	2	5	7.5	7.5	15	15	1	1	PDF
CWB25-11-30V24	$47.00	208-240 VAC										PDF
CWB25-11-30D39	$47.00	480VAC										PDF
CWB32-11-30D15	$56.00	120VAC	32	3	5	10	10	20	25	1	1	PDF
CWB32-11-30V24	$56.00	208-240 VAC										PDF
CWB32-11-30D39	$56.00	480VAC										PDF
CWB38-11-30D15	$65.00	120VAC	38	3	7.5	10	10	25	25	1	1	PDF
CWB38-11-30V24	$64.00	208-240 VAC										PDF
CWB38-11-30D39	$65.00	480VAC										PDF
CWB40-11-30D15	$66.00	120VAC	40	3	7.5	10	15	30	30	1	1	PDF
CWB40-11-30V24	$66.00	208-240 VAC										PDF
CWB40-11-30D39	$66.00	480VAC										PDF
CWB50-11-30D15	$88.00	120VAC	50	3	10	15	15	40	40	1	1	PDF
CWB50-11-30V24	$88.00	208-240 VAC										PDF
CWB50-11-30D39	$88.00	480VAC										PDF
CWB65-11-30D15	$101.00	120VAC	65	5	10	20	20	50	50	1	1	PDF
CWB65-11-30V24	$101.00	208-240 VAC										PDF
CWB65-11-30D39	$101.00	480VAC										PDF
CWB80-11-30D15	$107.00	120VAC	80	7.5	15	20	25	50	60	1	1	PDF
CWB80-11-30V24	$107.00	208-240 VAC										PDF
CWB80-11-30D39	$107.00	480VAC										PDF
CWB95-11-30D02	$139.00	24VAC	95	7.5	20	30	30	75	75	1	1	PDF
CWB95-11-30D15	$139.00	120VAC										PDF
CWB95-11-30D24	$139.00	230VAC										PDF
CWB95-11-30D39	$139.00	480VAC										PDF
CWB95-11-30D77	$139.00	208VAC										PDF
CWB110-11-30D02	$160.00	24VAC	110	10	25	30	40	75	100	1	1	PDF
CWB110-11-30D15	$160.00	120VAC										PDF
CWB110-11-30D24	$160.00	230VAC										PDF
CWB110-11-30D39	$160.00	480VAC										PDF
CWB110-11-30D77	$160.00	208VAC										PDF
AC/DC Coil With Electronic Module												
CWB95-11-30E04	$172.00	24-60 VAC/DC	95	7.5	20	30	30	75	75	1	1	PDF
CWB95-11-30E65	$172.00	110-255 VAC/DC										PDF
CWB110-11-30E04	$210.00	24-60 VAC/DC	125	10	25	40	40	100	125	1	1	PDF
CWB110-11-30E65	$210.00	110-255 VAC/DC										PDF
CWB125-11-30E04	$286.00	24-60 VAC/DC										PDF
CWB125-11-30E65	$286.00	110-255 VAC/DC										PDF

CWB9-11-30D15

CWB80-11-30D39

CWB125-11-30E65

CWB Series Contactors

CWB Series Three-Pole Contactors – DC Coil – Selection Guide														
Part Number	Price	Coil Voltage (VDC)	Ie Max (Ue ≤ 440V)	Maximum UL Horsepower						Built-In Auxiliary Contacts Per Contactor				Drawing
			AC-3 (A)	Single-Phase		Three-Phase				N.O.	3 4	N.C.	1 2	
				115V	230V	200V	230V	480V	575V					
CWB9-11-30C03	$35.00	24	9	0.75	1.5	3	3	5	7.5	1		1		PDF
CWB12-11-30C03	$41.00		12	0.75	2	3	3	7.5	10	1		1		PDF
CWB18-11-30C03	$49.00		18	1	3	5	5	10	15	1		1		PDF
CWB25-11-30C03	$50.00		25	2	5	7.5	7.5	15	15	1		1		PDF
CWB32-11-30C03	$71.00		32	3	5	10	10	20	25	1		1		PDF
CWB38-11-30C03	$79.00		38	3	7.5	10	10	25	25	1		1		PDF
CWB40-11-30C03	$85.00		40	3	7.5	10	15	30	30	1		1		PDF
CWB50-11-30C03	$121.00		50	3	10	15	15	40	40	1		1		PDF
CWB65-11-30C03	$139.00		65	5	10	20	20	50	50	1		1		PDF
CWB80-11-30C03	$165.00		80	7.5	15	20	25	50	60	1		1		PDF

CWB9-11-30C03

CWB80-11-30C03

CWB Series Contactors Accessories

BFB-11

BLB-11

BFB-20

BFB-22

BFB-40

BFB-04

WEG CWB Series Contactors Accessories – Front Mounted Auxiliary Contact Blocks Selection Guide

Part Number	Price	For Use With	Max. number of additional contacts/contactor	Auxiliary contacts		Weight g [oz]	Dimensional Drawing
				NO	NC		
BFB-11	$8.00	CWB9 through CWB80	4	1	1	63 [2.22]	PDF
BFB-20	$8.25			2	0	63 [2.22]	PDF
BFB-22	$12.50			2	2	63 [2.22]	PDF
BFB-40	$12.50			4	0	63 [2.22]	PDF
BFB-04	$12.50			0	4	63 [2.22]	PDF

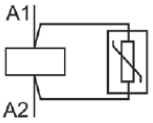
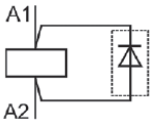
NOTES: The maximum number of auxiliary contacts assembled on the contactor is 4.

WEG CWB Series Contactors Accessories – Side Mounted Auxiliary Contact Blocks Selection Guide

Part Number	Price	For Use With	Max. Number of Additional Contacts/Contactor	Auxiliary Contacts		Weight g [oz]	Dimensional Drawing
				NO	NC		
BLB-11	$8.75	CWB9 through CWB80	4	1	1	34 [1.20]	PDF

NOTE: The maximum number of auxiliary contacts assembled on the contactor is 4.

WEG CWB Series Contactors Accessories – Plug-In Surge Suppressors Selection Guide

Part Number	Price	For Use With	Voltage	Diagram	Weight g [oz]	Dimensional Drawing
VRB-E34	$12.50	CWB9 through CWB80	50-127 VAC 50/60 Hz 60-180 VDC		8 [0.28]	PDF
VRB-E50	$12.50		130-250 VAC 50/60 Hz 180-300 VDC		8 [0.28]	PDF
VRB-D73	$12.50		400-510 VAC 50/60 Hz		8 [0.28]	PDF
DIB-C33	$12.50		12-600 VDC		8 [0.28]	PDF

DIB-C33

VRB-E34

CWB Series Contactors Accessories and Spare Parts

IM1

WEG CWB Series Contactors Accessories – Mechanical Interlock Selection Guide

Part Number	Price	For Use With	Description	Dimensional Drawing
IM1	$5.25	CWB9 through CWB 38	Mounting set for interlocking two contactors with the same frame type. Fitting through snaps without tools.	PDF
IM2	$6.50	CWB40 through CWB80		PDF

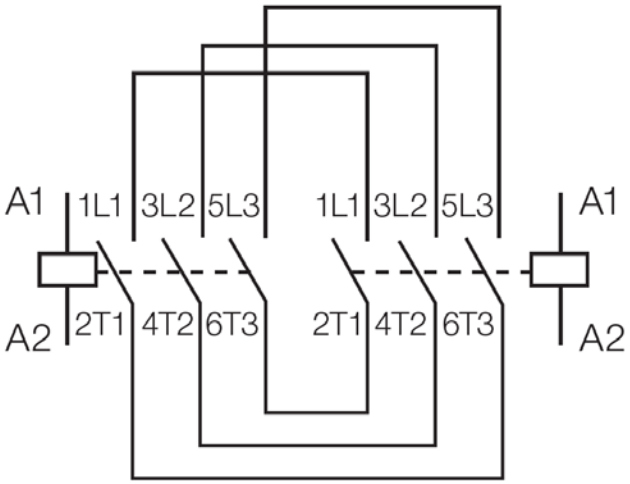
IM2

EC-R1

EC-R2

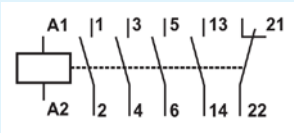
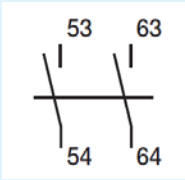
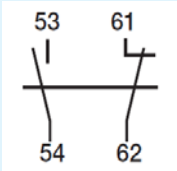
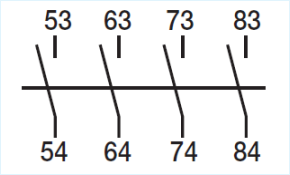
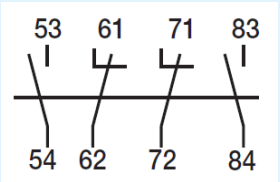
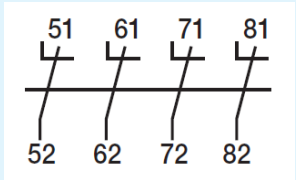
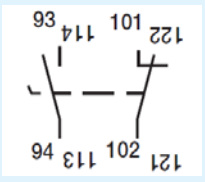
WEG CWB Series Contactors Accessories Easy-Connection Reversing Bar Connection Kit for Reversing Starters – Selection Guide

Part Number	Price	For Use With	Hp Values Declared on Direct and Reversing Starters Per UL 60947-4-1, Test Cycles. Three-Phase Voltage (V)		Weight g [oz]	Dimensional Drawing
		K1=K2	220-240 V (hp)	440-480 V (hp)		
EC-R1	$24.00	CWB9	3	5	2.83 [0.10]	PDF
		CWB12	3	7.5		PDF
		CWB18	5	10		PDF
		CWB25	7.5	15		PDF
		CWB32	10	20		PDF
		CWB38	10	25		PDF
EC-R2	$29.50	CWB40	15	30	7.09 [0.25]	PDF
		CWB50	15	40		PDF
		CWB65	20	50		PDF
		CWB80	25	50		PDF



Electric Diagram

CWB Series Contactors

Terminal Markings According to IEC/EN 60947				
Diagram	*Configuration*	*Auxiliary Contacts*		*Reference Code*
		NO	*NC*	
3-Pole Contactors With Built-In Auxiliary Contacts				
	11	1	1	CWB9-11-30 CWB12-11-30 CWB18-11-30 CWB25-11-30 CWB32-11-30 CWB38-11-30 CWB40-11-30 CWB50-11-30 CWB65-11-30 CWB80-11-30
Front Mounted Auxiliary Contact Blocks				
	20	2	0	BFB-20
	11	1	1	BFB-11
	40	4	0	BFB-40
	22	2	2	BFB-22
	04	0	4	BFB-04
Side Mounted Auxiliary Contact Block				
	11	1	1	BLB-11

CWB Series Contactors

WEG CWB Series Contactors Specifications – General Specifications

		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Compliance		IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1, UL 508									
Rated Insulation Voltage U (Pollution Degree 3)	IEC/EN 60947-4-1	690V						1000V			
	UL, CSA	600V									
Rated Impulse-Withstand Voltage U_{imp}	IEC/EN 60947-1	6kV									
Frequency Limits		25-400 Hz									
Mechanical Lifespan	AC Coil (million cycles)	10						6			
	DC Coil (million cycles)	10						6			
Electrical Lifespan	I_e AC-3 (million cycles)	2.0	2.0	1.8	1.6	1.6	1.2	1.6	1.6	1.6	1.2
Degree of protection (IEC/EN 60529)	Main Terminals	IP10 (front)									
	Coil and Auxiliary Contacts	IP20 (front)									
Mounting		With screws or DIN 35mm 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	4g									
	Closed Contactor	4g									
Resistance to mechanical shocks (½ sine wave=11ms - IEC/EN 60068-2-27)	Open Contactor	10g									
	Closed Contactor	15g									
Ambient Temperature	Operating	-25ºC to +55ºC [-13ºF to +131ºF]									
	Storage	-55ºC to +80ºC [-67ºF to +176ºF]									
Maximum Operation Altitude Without Modification of Rated Values[1]		3000m [9843ft]									

[1] For altitudes of 3000-4000 m [9843-13123 ft] (0.90 x Ie and 0.80 x Ui) and 4000-5000 m [13123-16404 ft] (0.80 x Ie and 0.75 x Ui).

WEG CWB Series Contactors Specifications – Control Circuit (AC)

		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Compliance		IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1, UL 508									
Rated Insulation Voltage U (Pollution Degree 3)	IEC/EN 60947-4-1	690V						1000V			
	UL, CSA	600V						600V			
Standard Voltages at 50/60 Hz		12 to 600 V						24 to 600 V			
Coil Operating Limits		0.8 to 1.1 xUs						0.8 to 1.1 xUs			
Coil 50/60 Hz	Pick Up	0.5 to 0.8 xUs						0.5 to 0.8 xUs			
	Drop Out	0.2 to 0.6 xUs						0.2 to 0.6 xUs			
Average Consumption (50Hz/60Hz)	Magnetic Circuit Closed	9 / 7.5 VA						27 / 17.2 VA			
	Power Factor Switching On (cos φ)	0.8 / 0.7						0.56 / 0.55			
	Power Factor Switched On (cos φ)	0.24 / 0.27						0.25 / 0.28			
	Thermal Power Dissipation	5-7 / 5-7 W						3.7-6.3 / 3.7-6.3 W			
	Closing the Magnetic Circuit	90 / 75 VA						202 / 185 VA			
Operation Average Time of NO Contacts (Closing/Opening)		15 to 25 ms / 8 to 12 ms						10 to 15 ms / 8 to 12 ms			

WEG CWB Series Contactors Specifications – Control Circuit (DC)

		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Compliance		IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1, UL 508									
Rated Insulation Voltage U (Pollution Degree 3)	IEC/EN 60947-4-1	690V						1000V			
	UL, CSA	600V						600V			
Standard Voltages		12 to 500 V						12 to 500 V			
Coil Operating Limits		0.8 to 1.1 xUs						0.8 to 1.1 xUs			
	Pick Up	0.5 to 0.8 xUs						0.5 to 0.8 xUs			
	Drop Out	0.1 to 0.4 xUs						0.1 to 0.4 xUs			
Average Consumption (50Hz/60Hz)		1.0x use the coil cold						1.0x use the coil cold			
	Magnetic Circuit Closed	5.8 W						14.5 W			
	Closing the Magnetic Circuit	5.8 W						105W			
Operation Average Time of NO Contacts (Closing/Opening)		35 to 45 ms / 8 to 12 ms						20 to 30 ms / 4 to 8 ms			
Thermal Power Dissipation		5 to 7 W						12 to 16 W			

CWB Series Contactors

WEG CWB Series Contactors Specifications – Main Contacts

			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Rated operational current I_e	AC-3 (U_e ≤440 V)	A	9	12	18	25	32	38	40	50	65	80
	AC-4 (U_e ≤440 V)	A	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32
	AC-1 θ≤55 °C, U_e ≤690 V)	A	25	25	32	40	50	50	60	90	110	110
Rated operational voltage U_e	IEC/EN 60947-4-1	V	690V							1000V		
	UL, CSA	V	600V									
Conventional thermal current I_{th} (θ≤55 °C)		A	25	25	32	40	50	50	60	90	110	110
Making capacity – IEC/EN 60947		A	250	250	300	450	550	550	550	1000	1000	1000
Breaking capacity – IEC/EN 60947	U_e ≤400 V)	A	250	250	300	450	550	550	550	1000	1000	1000
	U_e = 500 V)	A	220	220	250	350	450	450	480	880	880	880
	U_e = 690 V)	A	150	150	180	250	350	350	350	640	640	640
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
	10s	A	105	105	145	240	260	310	320	400	520	640
	1min	A	60	60	80	120	130	150	165	230	340	360
	10min	A	30	30	40	50	60	60	85	110	130	130
Short circuit protection of the main contacts Fuse (RK5)	@600 V - UL/CSA	kA	5									
	Coordination type 1	A	25	40	50	63	63	63	80	100	125	160
	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
Average power dissipation per pole	AC-1	W	1.5	1.5	2.5	3.2	5	5	6	13	19	19
	AC-3	W	0.2	0.4	0.8	1.2	2	3	3	4	7	10
Utilization category AC-3												
Rated operational current I_e (θ≤55 °C)	U_e ≤440 V	A	9	12	18	25	32	38	40	50	65	80
	U_e ≤500 V	A	9	12	15.8	23	28.5	28.5	35	45	55	75
	U_e ≤690 V	A	7	9	12.8	16.5	21	21	32	35	40	50
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
		hp	3	4	6	8.7	10	12.5	15	20	25	29
	380/400 V	kW	4	5.5	7.5	12.5	15	18.5	18.5	22	30	37
		hp	5.5	7.5	10	16.8	20	25	25	29	40	50
	415/440 V	kW	4.5	6.5	9.2	12.5	15	18.5	22	30	37	45
		hp	6	8.7	12.5	16.8	20	25	29	40	50	60
	500V	kW	5.5	7.5	10	15	18.5	18.5	22	30	37	55
		hp	7.5	10	13.4	20	25	25	29	40	50	74
	660/690 V	kW	5.5	7.5	11	15	18.5	18.5	30	33	37	45
		hp	7.5	10	15	20	25	25	40	44	50	60
Maximum percentage	600 ops/h	%	100	100	100	100	100	100	100	100	100	100
Utilization category AC-4												
Rated operational current I_e	(U_e ≤440 V)	A	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32
	(U_e ≤500 V)	A	3.9	5.1	7.5	12	13.9	13.9	17.5	23.5	28.5	33
	(U_e ≤690 V)	A	2.8	3.7	5.4	12	12.8	12.8	14	18	22	26
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
		hp	2.0	2.0	2.9	4.0	5.4	5.4	6.0	7.4	10.1	14.7
	380/400 V	kW	2.2	3.7	4	5.5	7.5	7.5	9.2	11	15	18.5
		hp	2.9	5.0	5.4	7.4	10.1	10.1	12.3	14.7	20.1	24.8
	415/440 V	kW	2.2	3	3.7	5.5	7.5	7.5	11	11	15	22
		hp	2.9	4.0	5.0	7.4	10.1	10.1	14.7	14.7	20.1	29.5
	500V	kW	2.2	3	5	7.5	9	9	11	15	18.5	22
		hp	2.9	4.0	6.7	10.1	12.1	12.1	14.7	20.1	24.8	29.5
	660/690 V	kW	2.2	3	5	10	11	11	12.5	15	20	25
		hp	2.9	4.0	6.7	13.4	14.7	14.7	16.8	20.1	26.8	33.5

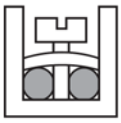
CWB Series Contactors

WEG CWB Series Contactors Specifications – Main Contacts											
			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
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
Maximum orientative operational current according to ambient temperature	θ≤60°C U_e≤690V)	A	25	25	32	40	50	50	60	90	110	110
Max Operational Power θ≤55°C (Three-Phase Resistors)	220/230 V	kW	9.5	9.5	12	15	19	19	22.5	34	42	42
	380/400 V	kW	16.5	16.5	21	26	33	33	39.5	59	72.5	72.5
	415/440 V	kW	19	19	24.5	30.5	38	38	45.5	68.5	84	84
	500V	kW	21.5	21.5	27.5	34.5	43	43	52	77	95	95
	660/690 V	kW	28.5	28.5	36.5	45.5	57	57	66	100	125	125
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		–									
Percentage of maximum operational current	600 ops/h	%	100	100	100	100	100	100	100	100	100	100

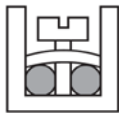
WEG CWB Series Contactors Specifications – Auxiliary Contacts											
		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Utilization category AC-1 (3P NO)											
Compliance	60947-5-1	IEC/EN									
Rated Insulation Voltage U_i (Pollution Degree 3)	IEC/EN 60947-4-1, VDE 0660	V	690								
	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								
	380/400 V	A	4								
	500V	A	2.5								
	660/690 V	A	1.5								
DC-13 (IEC/EN 60947-5-1)	24V	A	4								
	48V	A	2								
	110V	A	0.7								
	220V	A	0.3								
	440V	A	0.15								
Making Capacity	U_e≤690V 50/60 Hz – AC-15	A	10 x Ie								
Breaking Capacity	U_e≤400V 50/60 Hz – AC-15	A	1 x Ie								
Short Circuit Protection With Fuse (RK5)		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 Contacts		mΩ	2.5								

CWB Series Contactors

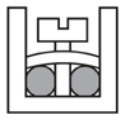
WEG CWB Series Contactors Specifications – Terminal Capacity and Tightening Torque

			Power Circuit											
			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80	CWB95	CWB110	CWB125
Mounting System Screw Type			Phillips Number 2			Phillips Number 2			Allen (4mm)				Allen (4mm)		
Flexible Conductor Without Terminal	AWG		1 x 16-10 2 x 16-10			1 x 16-10 2 x 16-10			1 x 14-3 2 x 14-3				1 x 2.5-70 2 x 2.5-70		
Flexible Conductor With Terminal	AWG		1 x 16-10 2 x 16-12			1 x 16-8 2 x 16-10			1 x 14-3 2 x 14-3				1 x 2.5-70 2 x 2.5-70		
Solid Wire	AWG		1 x 16-10 2 x 16-10			1 x 14-18 2 x 14-18			1 x 14-3 2 x 14-3				1 x 2.5-70 2 x 2.5-70		
Tightening Torque	N•m [lb•ft]		1.7 [1.25]			2.5 [1.84]			5.0 [3.69]				6.0 [4.43]		

Control and Auxiliary Circuit – Terminal Capacity and Tightening Torque

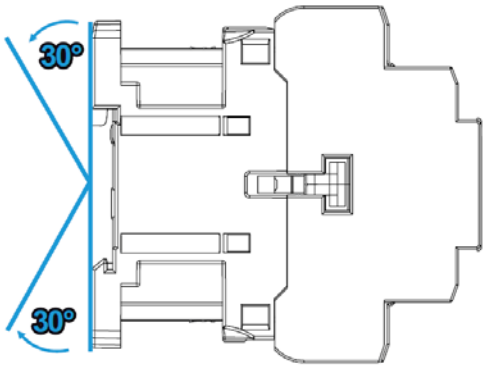
			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80	CWB95	CWB110	CWB125
Mounting System Screw Type			Phillips Number 2						Phillips Number 2				Philips Number 2		
Flexible Conductor Without Terminal	AWG		1 x 16-12 2 x 16-12						1 x 16-12 2 x 16-12				1 x 1-4 2 x 1-4		
Flexible Conductor With Terminal	AWG		1 x 16-12 2 x 16-14						1 x 16-12 2 x 16-14				1 x 1-4 2 x 1-2.5		
Solid Wire	AWG		1 x 16-12 2 x 16-12						1 x 16-12 2 x 16-12				1 x 1-4 2 x 1-4		
Tightening Torque	N•m [lb•ft]		1.0 [0.74]						1.0 [0.74]				1.0 [0.74]		

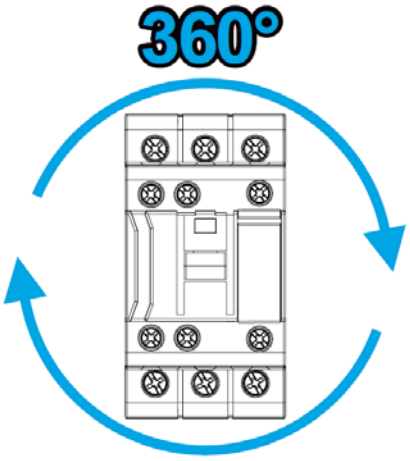
Auxiliary Contact Blocks – Terminal Capacity and Tightening Torque

			BFB (Front)	BLB (Side)
Mounting System Screw Type			Phillips Number 2	
Flexible Conductor Without Terminal	AWG		1 x 16-14 2 x 16-14	
Flexible Conductor With Terminal	AWG		1 x 16-14 2 x 16-14	
Solid Wire	AWG		1 x 16-14 2 x 16-14	
Tightening Torque	N•m [lb•ft]		1.0 [0.74]	

CWB Series Contactors

Mounting Position (CWB9 through CWB80)





CWB Series Contactors

CWB Technical Specifications			
	CWB95	***CWB110***	***CWB125***
Compliance With Standards	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947		
Rated Insulation Voltage U_i (Pollution Degree 3)	IEC/EN 60947-4-1: 1000V UL, CSA: 600V		
Rated Impuse-Withstand Voltage U_{imp} IEC/EN 60947-1	6kV		
Frequency Limits	25-400 Hz		
Mechanical Lifespan	AC coil: 6 million cycles DC coil: 6 million cycles		
Electrical Lifespan, I_e AC-3	1.1 million cycles	1.0 million cycles	1.0 million cycles
Degree of Protectopm (IEC/EN 60529)	Main terminals: IP10 (front) Coil and auxiliary contacts: IP20 (front)		
Mounting	By screws or DIN 35mm 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: 4g Closed contactor: 4g		
Resistance to Mechanical Shocks (½ senoide = 11ms - IEC/EN 60068-2-27)	Open contactor: 10g Closed contactor: 15g		
Ambient Temperature	Operating: -25°C to 55°C [-13°F to 131°F] Storage: -55°C to 80° [-67°F to 176°F]		
Maximum operation altitude without modification in the rated values[1]	3000m [9842.5 ft]		

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).

Control Circuit – Alternating Current (AC) Technical Specifications		
		CWB95/110
Rated Insulation Voltage U_i (Pollution Degree 3)		IEC/EN 60947-4-1: 1000V UL, CSA: 600V
Standard Voltages at 50/60 Hz		24-500 V
Coil Operating Limits		At 50Hz: 0.8 - 1.1 xUs At 60Hz: 0.8 - 1.1 xUs
Average Consumption Coil 50/60 Hz (60Hz Operation)	Magnetic circuit closed	25VA
	Power factor switched on	0.40 (cos Φ)
	Thermal power dissipation	9 - 11 W
	Closing of the magnetic circuit	410VA
	Power factor switching on	0.48 (cos Φ)
Average Consumption Coil 50/60 Hz (60Hz Operation)	Magnetic circuit closed	27VA
	Power factor switched on	0.4 (cos Φ)
	Thermal power dissipation	11 - 13.4 W
	Closing of the magnetic circuit	426VA
	Power factor switching on	0.5 (cos Φ)
Average Operating Time	Closing of the NO contacts	8 - 12.5 ms
	Opening of the NO contacts	4 - 8 ms

CWB Series Contactors

Control Circuit – Electronic Coils (AC/DC) Technical Specifications		
		CWB95/110
Rated Insulation Voltage U_i (Pollution Degree 3)		IEC 60947-4-1, VDE 0660: 1000V UL, CSA: 600V
Standard Voltages		24-500 V
Coil Operating Limits		At V DC: 0.8 - 1.1 xUs At 50Hz: 0.8 - 1.1 xUs At 60Hz: 0.8 - 1.1 xUs
Average Consumption		1.0 x Us and cold coil
AC Power Supply (60Hz)	Magnetic circuit closed	10.8 VA
	Power factor	0.47 (cos Φ)
	Thermal power dissipation	5.1 W
	Closing of the magnetic circuit	217VA
	Power factor	0.88 (cos Φ)
DC Power Supply	Magnetic circuit closed	2 - 5 W
	Closing of the magnetic circuit	180 - 220 W
Average Operating Time	Closing of the NO contacts	32 - 48 ms
	Opening of the NO contacts	30 - 55 ms

CWB Series Contactors

Main Contacts Technical Specifications

			CWB95	CWB110	CWB125
Rated operational current I_e	AC-3 (Ue ≤440 V)	(A)	95	110	125
	AC-4 (Ue ≤440 V)	(A)	52	58	65
	AC-1 (θ ≤55 °C, Ue ≤690 V)	(A)	140	150	175
Rated operational voltage U_e	IEC/EN 60947-4-1	V	1000		
	UL, CSA	V	600		
Conventional thermal current I_{th} (θ ≤55 °C)		(A)	140	150	175
Making capacity - IEC/EN 60947		(A)	1100	1200	1375
Breaking capacity IEC/EN 60947	(Ue ≤400 V)	(A)	1100	1200	1375
	(Ue =500 V)	(A)	970	1000	1200
	(Ue =690 V)	(A)	700	765	870
Acceptable short-time current (no current flowing during recovery time of 15min and θ ≤40 °C)	1s	(A)	1200	1350	1430
	10s	(A)	720	780	860
	1min	(A)	410	470	515
	10min	(A)	140	150	175
Short circuit protection of the main contacts Fuse (gL/gG)	@600 V - UL/CSA	kA	5	5	10
	Coordination type 1	(A)	–	–	–
	Coordination type 2	(A)	–	–	–
Impedance Per Pole		(mΩ)	0.7	0.7	0.7
Average power dissipation per pole	AC-1	(W)	15	17	21
	AC-3	(W)	7	9	11
Minimum switching capacity[1]		(V/mA)	50/100		
Utilization Category AC-3					
Rated Operational Current I_e (θ ≤55 °C)	(Ue ≤440 V)	(A)	95	110	125
	(Ue =500 V)	(A)	84	97	110
	(Ue =690 V)	(A)	61	70	80
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1800 rpm	220/240 V	(kW)	22	30	37
		(cv)	30	40	50
	380/400 V	(kW)	45	55	55
		(cv)	60	75	75
	415/440 V	(kW)	55	55	75
		(cv)	75	75	100
	500 V	(kW)	55	55	75
		(cv)	75	75	100
	660/690 V	(kW)	55	55	75
		(cv)	75	75	100
Maximum percentage	600 ops/hr	(%)	100	100	100
Utilization Category AC-4					
Rated operational current I_e	(Ue ≤440 V)	(A)	52	58	65
	(Ue =500 V)	(A)	46	51	57
	(Ue =690 V)	(A)	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)	15	16.5	18.5
		(cv)	20	22	25
	380/400 V	(kW)	22	28	30
		(cv)	30	38	40
	415/440 V	(kW)	30	33	37
		(cv)	40	44	50
	500 V	(kW)	30	30	37
		(cv)	40	40	50
	660/690 V	(kW)	30	30	45
		(cv)	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 50V and 100mA, respectively, must be used. For lower values, the auxiliary contacts must be used.

CWB Series Contactors

Auxiliary Contacts Technical Specifications Utilization Category AC-1 3P and 4P (NO)					
			CWB9 - 125, (built-in)	***BFB (front mounted)***	***BLB (side mounted***
Compliance With 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		
	500V	(A)	2.5		
	660/690 V	(A)	1.5		
DC-13 (IEC/EN 60947-5-1)	24V	(A)	4		
	48V	(A)	2		
	110V	(A)	0.7		
	220V	(A)	0.3		
	440V	(A)	0.15		
	600V	(A)	0.1		
Making Capacity	Ue ≤690 V 50/60 Hz - AC-15	(A)	10 x I_e		
Breaking Capacity	Ue ≤400 V 50/60 Hz - AC-15	(A)	1 x I_e		
Short Circuit Protection With Fuse (gL/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		
Contact Impedance		(mΩ)	2.5		

CWB Series Contactors Accessories

BFB-11

BLB-11

BFB-20

BFB-22

BFB-40

BFB-04

WEG CWB Series Contactors Accessories – Front Mounted Auxiliary Contact Blocks Selection Guide

Part Number	Price	For Use With	Max. number of additional contacts/contactor	Auxiliary contacts		Weight g [oz]	Drawing
				NO	NC		
BFB-11	$8.00	CWB9 through CWB80	4	1	1	63 [2.22]	PDF
BFB-20	$8.25			2	0	63 [2.22]	PDF
BFB-22	$12.50			2	2	63 [2.22]	PDF
BFB-40	$12.50			4	0	63 [2.22]	PDF
BFB-04	$12.50			0	4	63 [2.22]	PDF

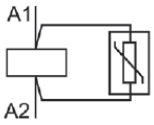
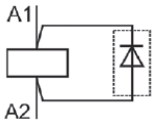
NOTES: The maximum number of auxiliary contacts assembled on the contactor is 4.

WEG CWB Series Contactors Accessories – Side Mounted Auxiliary Contact Blocks Selection Guide

Part Number	Price	For Use With	Max. Number of Additional Contacts/Contactor	Auxiliary Contacts		Weight g [oz]	Drawing
				NO	NC		
BLB-11	$8.75	CWB9 through CWB80	4	1	1	34 [1.20]	PDF

NOTE: The maximum number of auxiliary contacts assembled on the contactor is 4.

WEG CWB Series Contactors Accessories – Plug-In Surge Suppressors Selection Guide

Part Number	Price	For Use With	Voltage	Diagram	Weight g [oz]	Drawing
VRB-E34	$12.50	CWB9 through CWB80 CWBS9 through CWBS80	50-127 VAC 50/60 Hz 60-180 VDC		8 [0.28]	PDF
VRB-E50	$12.50		130-250 VAC 50/60 Hz 180-300 VDC		8 [0.28]	PDF
VRB-D73	$12.50		400-510 VAC 50/60 Hz		8 [0.28]	PDF
DIB-C33*	$12.50		12-600 VDC		8 [0.28]	PDF

**** 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 N.C. contacts.***

DIB-C33

VRB-E34

CWB Series Contactors Accessories and Spare Parts

IM1

WEG CWB Series Contactors Accessories – Mechanical Interlock Selection Guide

Part Number	Price	For Use With	Description	Drawing
IM1	$5.25	CWB9 through CWB38 CWBS9 through CWBS38	Mounting set for interlocking two contactors with the same frame type. Fitting through snaps without tools.	PDF
IM2	$6.50	CWB40 through CWB125 CWBS40 through CWBS80		PDF

IM2

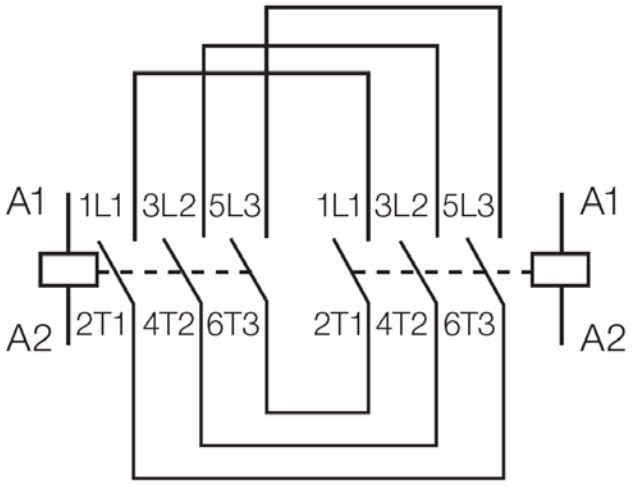
EC-R1

WEG CWB Series Contactors Accessories
Easy-Connection Reversing Bar Connection Kit for Reversing Starters – Selection Guide

Part Number	Price	For Use With	Hp Values Declared on Direct and Reversing Starters Per UL 60947-4-1, Test Cycles. Three-Phase Voltage (V)		Weight g [oz]	Drawing
		K1=K2	220-240 V (hp)	440-480 V (hp)		
EC-R1	$24.00	CWB9	3	5	2.83 [0.10]	PDF
		CWB12	3	7.5		PDF
		CWB18	5	10		PDF
		CWB25	7.5	15		PDF
		CWB32	10	20		PDF
		CWB38	10	25		PDF
EC-R2	$29.50	CWB40	15	30	7.09 [0.25]	PDF
		CWB50	15	40		PDF
		CWB65	20	50		PDF
		CWB80	25	50		PDF
EC-R3	$38.50	Reversing connection kit, for use with CWB95 to CWB125 series contactors. Line and loadside connection bars included.				PDF

EC-R2

EC-R3



Reversing Bar Connection Kit Electrical Wiring Diagram

CWBS Series Contactors For Safety Applications

Safety Assurance for Operators and Equipment

WEG's new CWBS line of contactors for safety applications (from 9A to 80A in AC-3) was developed in compliance with IEC and UL standards.

These contactors feature mechanically-linked contacts (IEC/EN 60947-5-1) and mirror contacts (IEC/EN 60947-4-1), which provide proper operation of safety circuits of machines and equipment that must operate in compliance with international safety standards, including the Brazilian machine safety standard (NR12).

Characteristics

CWBS Power Contactors

- TÜV certification for mechanically linked contacts (IEC 60947-5-1 - Annex L) and mirror contacts (IEC 60947-4-1 - Annex F)
- 45mm wide up to 38A and 54mm wide in models from 40 to 80A, with six built-in auxiliary contacts (3 NO + 3 NC)
- Choice of up to six auxiliary contacts
- Compact starters can be assembled with MPW40 and MPW80 manual motor protectors and with RW27-2D and RW67-5D thermal relays.

CWBS Series Contactors For Safety Applications

CWBS40-33-30C03

Features

- Mechanically linked contacts (IEC 60947-5-1 - Annex L) and mirror contacts (IEC 60947-4-1 - Annex F)
- Available in versions up to 80A (AC-3)
- Includes 3NO/3NC mechanically linked/mirror contacts
- Compact starters can be assembled with MPW40 and MPW80 manual motor protectors and RW27-2D, RW67-5D overload relays

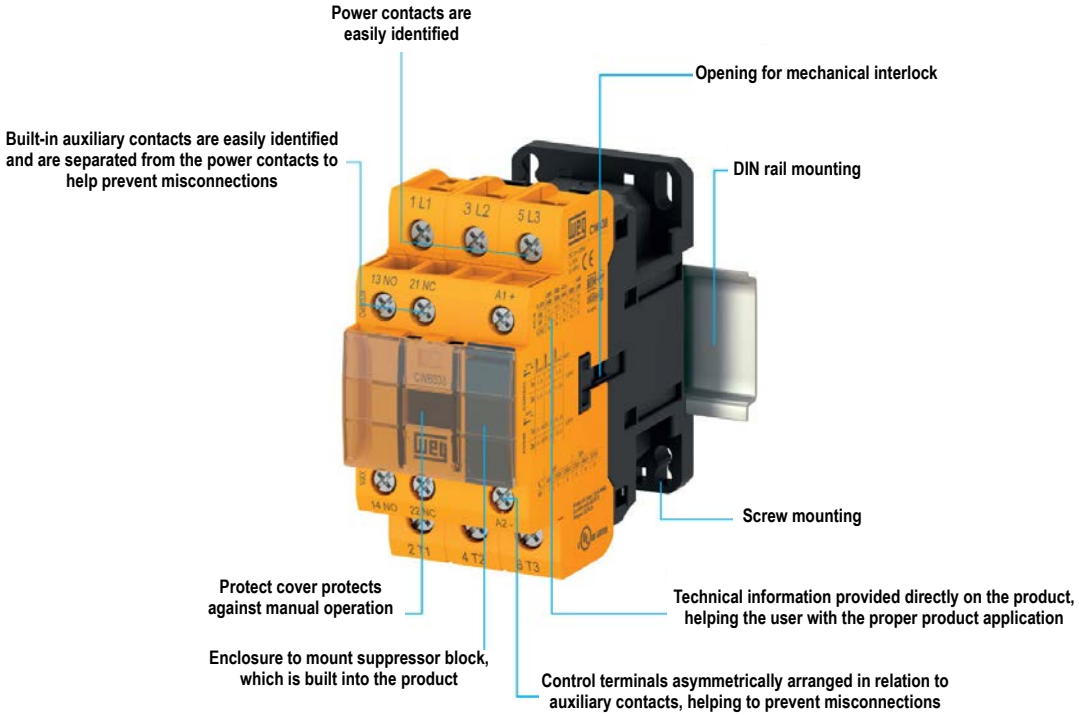
Benefits

- Protection against inadvertent operation
- Protection for operators and equipment
- Machine safety applications
- Certificate for worldwide use
- Fast mounting on DIN rail 35 mm or with screws
- Auxiliary contact block assembled and tested at the factory
- Specific color that enables easy identification on panels and equipment

Certifications

CE UKCA cULus

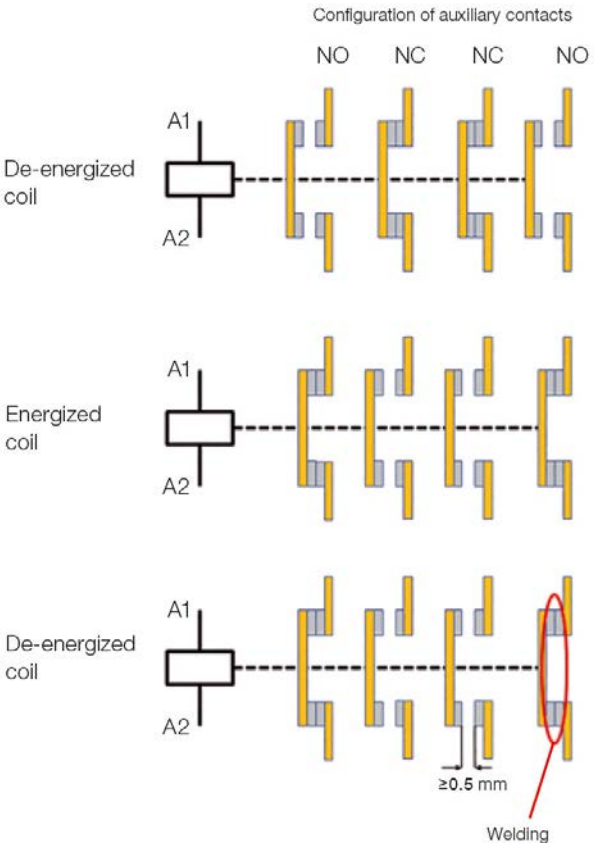
UL file # E202315



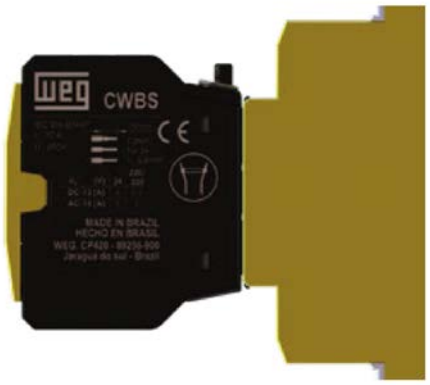
CWBS Series Contactors For Safety Applications

Mechanically Linked Contacts (IEC/EN 60947-5-1 – Annex L)

Applicable to the auxiliary contacts used in auxiliary control circuits those contacts can be built into the contactor or blocks of external auxiliary contacts mounted on the contactors. According to IEC/EN 60947-5-1 - Annex L, open contacts and closed contacts cannot be simultaneously closed. In case welding occurs on the NO contacts, the NC contacts must remain open, and in case welding occurs on the NC contacts, the NO auxiliary contacts must remain open. The example given here shows that characteristic.



Mechanically linked contact elements have previously been referred to in technical documents as forced contacts, positively activated contacts, linked contacts and positively guided contacts. Contactors with that characteristic are often used in self-monitoring circuits combined with safety interfaces (e.g., safety relays) used in the automation and safety of machinery and equipment. Contactors which do not meet that requirement may damage the equipment or harm the operator.



Side view showing the symbols which identify mechanically linked contacts.

Mirror Contact (IEC/EN 60947-4-1 – Annex F)

Applicable to auxiliary contacts mechanically linked to the power contacts. When the contactor coil is energized, the power contacts will be closed and at the same time the NC auxiliary contacts will be open. Those auxiliary contacts are called mirror contacts.

NOTE 1: A typical application of mirror contacts is to have, in the machine control circuit, a highly reliable monitoring of the status of the contactor. However, mirror contacts should not be relied upon exclusively as a means to ensure safety.

NOTE 2: Mirror contacts have previously been referred to as positively safety contacts, forced contacts, linked contacts, or positively driven contacts.

CWBS Series Contactors For Safety Applications

WEG CWBS Series Three-Pole Contactors for Safety Applications Selection Guide

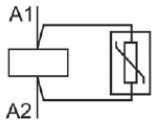
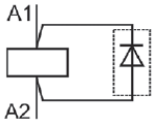
Part Number	Price	Coil Voltage	Ie Max (Ue≤440V)	Maximum UL Horsepower						Built-In Auxiliary Contacts Per Contactor		Drawing
				Single-Phase		Three-Phase						
			AC-3 (A)	115V	230V	200V	230V	480V	575V	N.O.	N.C.	
AC Coil												
CWBS9-33-30D02	$78.00	24VAC	9	0.75	1.5	3	3	5	7.5	3	3	PDF
CWBS9-33-30D15	$78.00	120VAC										PDF
CWBS12-33-30D02	$87.00	24VAC	12	0.75	2	3	3	7.5	10	3	3	PDF
CWBS12-33-30D15	$87.00	120VAC										PDF
CWBS18-33-30D02	$99.00	24VAC	18	1	3	5	5	10	15	3	3	PDF
CWBS18-33-30D15	$99.00	120VAC										PDF
CWBS25-33-30D02	$111.00	24VAC	25	2	5	7.5	7.5	15	15	3	3	PDF
CWBS25-33-30D15	$111.00	120VAC										PDF
CWBS32-33-30D02	$129.00	24VAC	32	3	5	10	10	20	25	3	3	PDF
CWBS32-33-30D15	$129.00	120VAC										PDF
CWBS38-33-30D02	$144.00	24VAC	38	3	7.5	10	10	25	25	3	3	PDF
CWBS38-33-30D15	$144.00	120VAC										PDF
CWBS40-33-30D02	$162.00	24VAC	40	3	7.5	10	15	30	30	3	3	PDF
CWBS40-33-30D15	$162.00	120VAC										PDF
CWBS50-33-30D02	$182.00	24VAC	50	3	10	15	15	40	40	3	3	PDF
CWBS50-33-30D15	$182.00	120VAC										PDF
CWBS65-33-30D02	$220.00	24VAC	65	5	10	20	20	50	50	3	3	PDF
CWBS65-33-30D15	$220.00	120VAC										PDF
CWBS80-33-30D02	$248.00	24VAC	80	7.5	15	20	25	50	60	3	3	PDF
CWBS80-33-30D15	$248.00	120VAC										PDF
DC Coil												
CWBS9-33-30C03	$89.00	24VDC	9	0.75	1.5	3	3	5	7.5	3	3	PDF
CWBS12-33-30C03	$99.00		12	0.75	2	3	3	7.5	10	3	3	PDF
CWBS18-33-30C03	$113.00		18	1	3	5	5	10	15	3	3	PDF
CWBS25-33-30C03	$126.00		25	2	5	7.5	7.5	15	15	3	3	PDF
CWBS32-33-30C03	$148.00		32	3	5	10	10	20	25	3	3	PDF
CWBS38-33-30C03	$165.00		38	3	7.5	10	10	25	25	3	3	PDF
CWBS40-33-30C03	$193.00		40	3	7.5	10	15	30	30	3	3	PDF
CWBS50-33-30C03	$210.00		50	3	10	15	15	40	40	3	3	PDF
CWBS65-33-30C03	$244.00		65	5	10	20	20	50	50	3	3	PDF
CWBS80-33-30C03	$271.00		80	7.5	15	20	25	50	60	3	3	PDF

CWBS9-33-30D02

CWBS80-33-30D15

CWBS Series Contactors Accessories and Spare Parts

WEG CWBS Series Contactors Accessories – Plug-In Surge Suppressors Selection Guide

Part Number	Price	For Use With	Voltage	Diagram	Weight g [oz]	Drawing
VRB-E34	$12.50	CWBS9 through CWBS80	50-127 VAC 50/60 Hz 60-180 VDC		8 [0.28]	PDF
DIB-C33*	$12.50		12-600 VDC		8 [0.28]	PDF

**** 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 N.C. contacts.***

DIB-C33

VRB-E34

WEG CWBS Series Contactors Accessories – Mechanical Interlock Selection Guide

Part Number	Price	For Use With	Description	Drawing
IM1	$5.25	CWBS9 through CWBS38	Mounting set for interlocking two contactors with the same frame type. Fitting through snaps without tools.	PDF
IM2	$6.50	CWBS40 through CWBS80		PDF

IM1

IM2

CWBS Series Contactors Specifications

Technical Specifications												
			CWBS9	CWBS12	CWBS18	CWBS25	CWBS32	CWBS38	CWBS40	CWBS50	CWBS65	CWBS80
Compliance With Standards			IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1, UL 508									
Rated Insulation Voltage U_i (Pollution Degree 3)	IEC/EN 60947-4-1	(V)	690V						1000V			
	UL, CSA	(V)	600V									
Rated Impulse Withstand Voltage U_{imp}	IEC/EN 60947-4-1	(kV)	6kV									
Frequency Limits		(Hz)	25 - 400									
Mechanical Life	AC coil (millions of operations)		10						6			
	DC coil (millions of operations)		10						6			
Electrical Life	I_e AC-3 (millions of operations)		2.0	2.0	1.8	1.6	1.6	1.2	1.6	1.6	1.6	1.2
Degree of Protection (IEC 60529)ΦΦ	Main terminals		IP10 (front)									
	Coil and auxiliary contacts		IP20 (front)									
Mounting			Screws or DIN rail 35 mm (EN 50022)									
Coil Connection Points	Contactors with AC coil		2									
	Contactors with DC coil		2									
Resistance to Vibrations (IEC 60068-2-6)	Open contactor	(g)	4									
	Closed contactor	(g)	4									
Resistance to mechanical shocks (½ sine wave = 11ms - IEC 60068-2-27)	Open contactor	(g)	10									
	Closed contactor	(g)	15									
Ambient Temperature	Operation		-25°C to 55°C [-13°F to 131°F]									
	Storage		-55°C to 80° [-67°F to 176°F]									
Maximum operation altitude without modification in the rated values[1]			3000m [9842.5 ft]									

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).

Control Circuit – Alternating Current (AC) Technical Specifications				
			CWBS9 - 38	CWBS40 - 80
Rated Insulation Voltage U_i (Pollution Degree 3)	IEC/EN 60947-4-1	(V)	690	1000
	UL, CSA	(V)	600	600
Standard Voltages at 50/60 Hz		(V)	12 - 600	24 - 600
Coil Operation Limits		(xUs)	0.8 - 1.1	0.8 - 1.1
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 coil consumption 50/60 Hz	Closed magnetic circuit	(VA)	7.5	17.5
	Power factor switched on	(cos Φ)	0.27	0.28
	Thermal power dissipation	(W)	1.5 - 2.5	4 - 5.5
	Closing of the magnetic circuit	(VA)	75	185
	Power factor	(cos Φ)	0.7	0.55
Average Commute Time	Closing of the NO contacts	(ms)	15 - 25	10 - 15
	Opening of the NO contacts	(ms)	8 - 12	8 - 12

CWBS Series Contactors Specifications

Control Circuit – Direct Current (DC) Technical Specifications				
			CWBS9 - 38	***CWBS40 - 80***
Rated Insulation Voltage U_i (Pollution Degree 3)	IEC/EN 60947-4-1	(V)	690	1000
	UL, CSA	(V)	600	600
Standard Voltages		(V)	12 - 600	12 - 500
Coil Operation Limits		(xUs)	0.8 - 1.1	0.8 - 1.1
	Pick up	(xUs)	0.5 - 0.8	0.5 - 0.8
	Drop out	(xUs)	0.1 - 0.4	0.1 - 0.4
Average DC Coil Consumption	Closed magnetic circuit	(W)	5.8	10.6
	Closing of the magnetic circuit	(W)	5.8	105.5
Average Commute Time	Closing of the NO contacts	(ms)	35 - 45	20 - 30
	Opening of the NO contacts	(ms)	8 - 12	4 - 8

CWBS Series Contactors Specifications

Main Contacts Technical Specifications

			CWBS9	CWBS12	CWBS18	CWBS25	CWBS32	CWBS38	CWBS40	CWBS50	CWBS65	CWBS80
Rated operational current I_e	AC-3 (Ue ≤440 V)	(A)	100	12	18	25	32	38	40	50	65	80
	AC-4 (Ue ≤440 V)	(A)	4.4	5.8	8.5	10.4	13.7	13.1	18.5	18.5	26	32
	AC-1 (θ ≤55 °C, Ue ≤690 V)	(A)	25	25	32	40	50	50	60	90	110	110
Rated operational voltage U_e	IEC/EN 60947-4-1	V	690						1000			
	UL, CSA	V	600									
Conventional thermal current I_{th} (θ ≤55 °C)		(A)	25	25	32	40	50	50	60	90	110	110
Making capacity - IEC/EN 60947		(A)	250	250	300	450	550	550	550	1000	1000	1000
Breaking capacity IEC/EN 60947	(Ue ≤400 V)	(A)	250	250	300	450	550	550	550	1000	1000	1000
	(Ue =500 V)	(A)	220	220	250	350	450	450	480	880	880	880
	(Ue =690 V)	(A)	150	150	180	250	350	350	350	640	640	640
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
	10s	(A)	105	105	145	240	260	310	320	400	520	640
	1min	(A)	61	61	84	120	138	150	165	230	340	360
	10min	(A)	30	30	40	50	60	60	85	110	130	130
Short circuit protection of the main contacts Fuse (gL/gG)	@600 V - UL/CSA	kA	5									
	Coordination type 1	(A)	25	40	50	63	63	63	80	100	125	160
	Coordination type 2	(A)	20	25	35	40	63	63	63	80	100	125
Average Impedance Per Pole		(mΩ)	2.5	2.5	2.5	2	2	2	1.6	1.6	1.6	1.6
Average Power Dissipation Per Pole	AC-1	(W)	1.5	1.5	2.5	3.2	5	5	6	13	19	19
	AC-3	(W)	0.2	0.4	0.8	1.2	2	3	3	4	7	10
Reliability[1]		(V/mA)	50/100									
Utilization Category AC-3												
Rated Operational Current I_e (θ ≤55 °C)	(Ue ≤440 V)	(A)	100	12	18	25	32	38	40	50	65	80
	(Ue =500 V)	(A)	9	12	45.8	23	28.5	28.5	35	45	55	75
	(Ue =690 V)	(A)	7	9	12.8	16.5	21	21	32	35	40	50
Orientative Rated Operational Power Three-phase induction motors (50/60 Hz) IV poles - 1800 rpm	220/240 V	(kW)	2.2	3	4.5	6.5	7.5	9.2	11	15	18.5	22
		(cv)	3	4	6	8.7	10	12.5	15	20	25	29
	380/400 V	(kW)	4	5.5	7.5	12.5	15	18.5	18.5	22	30	37
		(cv)	5.5	7.5	10	16.8	20	25	25	29	40	50
	415/440 V	(kW)	4.5	6.5	9.2	12.5	15	18.5	22	30	37	45
		(cv)	6	8.7	12.5	16.8	20	25	29	40	50	60
	500 V	(kW)	5.5	7.5	10	15	18.5	18.5	22	30	37	55
		(cv)	7.5	10	13.4	20	25	25	29	40	50	74
	660/690 V	(kW)	5.5	7.5	11	15	18.5	18.5	30	33	37	45
		(cv)	7.5	10	15	20	25	25	40	44	50	60
Maximum percentage	600 ops/hr	(%)	100	100	100	100	100	100	100	100	100	100
Utilization Category AC-4												
Rated Operational Current I_e	(Ue ≤440 V)	(A)	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32
	(Ue =500 V)	(A)	3.9	5.1	7.5	12	13.9	13.9	17.5	23.5	28.5	33
	(Ue =690 V)	(A)	2.8	3.7	5.4	12	12.8	12.8	14	18	22	28
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
		(cv)	2.0	2.0	2.9	4.0	5.4	5.4	6.0	7.4	10.1	14.7
	380/400 V	(kW)	2.2	3.7	4	5.5	7.5	7.5	9.2	11	15	18.5
		(cv)	2.9	5.0	5.4	7.4	10.1	10.1	12.3	14.7	20.1	24.8
	415/440 V	(kW)	2.2	3	3.7	5.5	7.5	7.5	11	11	15	22
		(cv)	2.9	4.0	5.0	7.4	10.1	10.1	14.7	14.7	20.1	29.5
	500 V	(kW)	2.2	3	5	7.5	9	9	11	15	18.5	22
		(cv)	2.9	4.0	6.7	10.1	12.1	12.1	14.7	20.1	24.8	29.5
	660/690 V	(kW)	2.2	3	5	10	11	11	12.5	15	20	25
		(cv)	2.9	4.0	6.7	13.4	14.7	14.7	16.8	20.1	26.8	33.5

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

CWBS Series Contactors Specifications

Main Contacts Technical Specifications
Utilization Category AC-1
3P (NO)

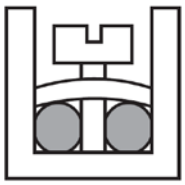
			CWBS9	CWBS12	CWBS18	CWBS25	CWBS32	CWBS38	CWBS40	CWBS50	CWBS65	CWBS80
Conventional thermal current I_{th} (θ ≤55 °C)		(A)	25	25	32	40	50	50	60	90	110	110
Maximum orientative operational current according to the ambient temperature	θ ≤60 °C (Ue ≤690 V)	(A)	25	25	32	40	50	50	60	90	110	110
Maximum operational power θ ≤55 °C (three-phase resistors)	220/230 V	(kW)	9.5	9.5	12	15	19	19	22.5	34	42	42
	380/400 V	(kW)	16.5	16.5	21	26	33	33	39.5	59	72.5	72.5
	415/440 V	(kW)	19	19	24.5	30.5	38	38	45.5	68.5	84	84
	500 V	(kW)	21.5	21.5	27.5	34.5	43	43	52	77	95	95
	660/690 V	(kW)	28.5	28.5	36.5	45.5	57	57	66	100	125	125
Actual values for connections	2 poles in parallel		Ie x 1.7									
	3 poles in parallel		Ie x 2.4									
Percentage of maximum operational current	600 ops/h	(%)	100	100	100	100	100	100	100	100	100	100

Auxiliary Contacts Technical Specifications

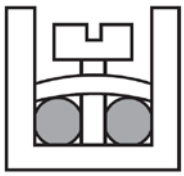
			CWBS9 - 80 (built in)	BFBS (front mounted blocks)
Compliance with the standards			IEC 60947-5-1	IEC 60947-5-1
Rated insulation voltage Ui (pollution degree 3)		(V)	690	690
		(V)	600	600
Rated operational voltage U_e		(V)	690	690
		(V)	600	600
Conventional thermal current I_{th} (θ ≤55 °C)		(A)	10	10
Rated operational current I_e				
AC-15 (IEC/EN 60947-5-1)	220/230 V	(A)	10	10
	380/440 V	(A)	4	4
	500V	(A)	2.5	2.5
	660/690 V	(A)	1.5	1.5
DC-13 (IEC/EN 60947-5-1)	24 V	(A)	4	4
	48 V	(A)	2	2
	110 V	(A)	0.7	0.7
	220 V	(A)	0.3	0.3
	440 V	(A)	0.15	0.15
Making capacity	U_e ≤690 V 50/60 Hz - AC-15	(A)	10 x I_e	10 x I_e
Breaking capacity	U_e ≤400 V 50/60 Hz - AC-15	(A)	1 x I_e	1 x I_e
Short circuit protection with fuse (gL/gG)		(A)	10	10
Control circuit reliability		(V/ma)	17 / 5	17 / 5
Electrical life		(millions of operations)	1	1
Mechanical life		(millions of operations)	10	10
Non-overlapping time between NO and NC contacts		(ms)	1.5	1.5
Impedance of the contacts		(mΩ)	2.5	2.5

CWBS Series Contactors Specifications

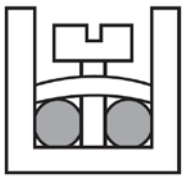
WEG CWBx Series Contactors Specifications – Terminal Capacity and Tightening Torque

			Power Circuit									
			CWBx9	CWBx12	CWBx18	CWBx25	CWBx32	CWBx38	CWBx40	CWBx50	CWBx65	CWBx80
Mounting System Screw Type			Phillips Number 2			Phillips Number 2			Allen (4mm)			
Flexible Conductor Without Terminal/Ferrules	AWG		1 x 16-10 2 x 16-10			1 x 16-10 2 x 16-10			1 x 14-3 2 x 14-3			
Flexible Conductor With Terminal/Ferrules	AWG		1 x 16-10 2 x 16-12			1 x 16-8 2 x 16-10			1 x 14-3 2 x 14-3			
Solid Wire	AWG		1 x 16-10 2 x 16-10			1 x 14-18 2 x 14-18			1 x 14-3 2 x 14-3			
Tightening Torque	N•m [lb•ft]		1.7 [1.25]			2.5 [1.84]			5.0 [3.69]			

Control and Auxiliary Circuit – Terminal Capacity and Tightening Torque

			CWBx9	CWBx12	CWBx18	CWBx25	CWBx32	CWBx38	CWBx40	CWBx50	CWBx65	CWBx80
Mounting System Screw Type			Phillips Number 2						Phillips Number 2			
Flexible Conductor Without Terminal/Ferrules	AWG		1 x 16-12 2 x 16-12						1 x 16-12 2 x 16-12			
Flexible Conductor With Terminal/Ferrules	AWG		1 x 16-12 2 x 16-14						1 x 16-12 2 x 16-14			
Solid Wire	AWG		1 x 16-12 2 x 16-12						1 x 16-12 2 x 16-12			
Tightening Torque	N•m [lb•ft]		1.0 [0.74]						1.0 [0.74]			

Auxiliary Contact Blocks – Terminal Capacity and Tightening Torque

			BFB (Front)	BLB (Side)
Mounting System Screw Type			Phillips Number 2	
Flexible Conductor Without Terminal/Ferrules	AWG		1 x 16-14 2 x 16-14	
Flexible Conductor With Terminal/Ferrules	AWG		1 x 16-14 2 x 16-14	
Solid Wire	AWG		1 x 16-14 2 x 16-14	
Tightening Torque	N•m [lb•ft]		1.0 [0.74]	