

Technical Data

General Data

Reference code			CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Compliance with the 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)	690 V					1,000 V				
	UL, CSA	(V)	600 V									
Rated impulse-withstand voltage U_{imp}	IEC/EN 60947-1	(kV)	6 kV									
Frequency limits		(Hz)	25...400									
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			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 sine wave = 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									

Control Circuit - Alternating Current (AC)

Reference code			CWB9...38				CWB40...80			
Rated insulation voltage U_i (pollution degree 3)	IEC/EN 60947-4-1	(V)	690				1,000			
	UL, CSA	(V)	600				600			
Standard voltages at 50/60 Hz		(V)	12...600				24...600			
Coil operating 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 consumption			Operating at 60 Hz		Operating at 50 Hz		Operating at 60 Hz		Operating at 50 Hz	
	Magnetic circuit closed	(VA)	7.5		9		17.2		27	
Coil 50/60 Hz	Power factor switching on	(cos φ)	0.7		0.8		0.55		0.56	
	Power factor switched on		0.27		0.24		0.28		0.25	
	Thermal power dissipation	(W)	5...7		5...7		3.7...6.3		3.7...6.3	
	Closing of the magnetic circuit	(VA)	75		90		185		202	
Operation average time	Closing of the NO contacts	(ms)	15...25				10...15			
	Opening of the NO contacts	(ms)					8...12			

Control Circuit - Direct Current (DC)

Reference code			CWB9...38				CWB40...80			
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			
	Pick up	(xUs)	0.5...0.8				0.5...0.8			
	Drop out	(xUs)	0.1...0.4				0.1...0.4			
Average consumption			1.0 x use the coil cold				1.0 x use the coil cold			
	Magnetic circuit closed	(W)	5.8				14.5			
Operation average time	Closing of the magnetic circuit	(W)	5.8				105			
	Closing of the NO contacts	(ms)	35...45				20...30			
	Opening of the NO contacts	(ms)	8...12				4...8			
Thermal power dissipation		(W)	5...7				12...16			

Note: 1) For altitudes of 3,000...4,000 m ($0.90 \times I_e$ and $0.80 \times U_i$) and of 4,000...5,000 m ($0.80 \times I_e$ and $0.75 \times U_i$).