



Product designation				Power contactor
Product type designation				B500
Contact characteristics				
Number of poles	nr.			4
Rated insulation voltage U_i	V			1000
Rated impulse withstand voltage U_{imp}	kV			8
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
			A	700
Conventional free air thermal current I_{th}				700
Operating current	Operational current AC1 ($\leq 40^\circ\text{C}$)	A	700	
	Operational current AC3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	520	
	Operational current AC4 (400V)	A	175	
Rated operational power AC1 ($T \leq 40^\circ\text{C}$)	230V	kW	252	
	400V	kW	438	
	500V	kW	575	
	690V	kW	755	
Rated operational power AC3 ($T \leq 55^\circ\text{C}$)	230V	kW	156	
	400V	kW	290	
	415V	kW	306	
	440V	kW	328	
	500V	kW	367	
	690V	kW	416	
1000V	kW	312		
Short-time allowable current for 10s (IEC/EN60947-1)				A 4050
Protection fuse	gG (IEC)	A	800	
	aM (IEC)	A	500	
Making capacity (RMS value)				A 6300
Breaking capacity at voltage	Breaking capacity 440V	A	6300	
	Breaking capacity 500V	A	5600	
	Breaking capacity 690V	A	5000	
Resistance per pole (average value)				m Ω 0.14
Power dissipation per pole (average value)	Power dissipation pole (average value) I_{th}	W	68.6	
	AC3	W	35	
Tightening torque for terminals	min	Nm	35	
	max	Nm	35	
	min	lbft	25.8	
	max	lbft	25.8	

max number of wires simultaneously connectable		nr.	2
Conductor section	AWG		
		max	2x 500 kcmil
Power terminal protection according to IEC/EN 60529			IP00
Auxiliary contact characteristics			
Operational current AC1 ($\leq 40^{\circ}\text{C}$)		A	700
Operating current DC13		110V	A Screw
Ambient conditions			
Temperature	Operating temperature		
		min	$^{\circ}\text{C}$ -50
		max	$^{\circ}\text{C}$ 70
	Storage temperature		
		min	$^{\circ}\text{C}$ -60
		max	$^{\circ}\text{C}$ 80
Max altitude		m	3000
Operating position		normal allowable	Vertical plan $\pm 30^{\circ}$
Mounting			Screw
Weight		g	21.42
Operations			
Mechanical life		Cycles	5000000
Electrical life		Cycles	700000
Safety related data			
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	Cicli 700000 Cicli 5000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
AC operating voltage	of 50/60Hz coil powered at 50Hz		
	pick-up	min	%Us 0.8
		max	%Us 1.1
	drop-out	min	%Us 0.2
		max	%Us 0.6
	of 50/60Hz coil powered at 60Hz		
	pick-up	min	%Us 0.8
		max	%Us 1.1
	drop-out	min	%Us 0.2
		max	%Us 0.6
AC operating voltage	of 50/60Hz coil powered at 50Hz		
		in-rush holding	VA 400 VA 18
	of 50/60Hz coil powered at 60Hz		

	in-rush	VA	400
	holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	18

DC coil operating

DC rated control voltage	min	V	24
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DC operating voltage

pick-up	min	%Us	0.8
	max	%Us	1.10

drop-out	min	%Us	0.2
	max	%Us	0.60

Average coil consumption $\leq 20^{\circ}\text{C}$

in-rush	W	400
holding	W	18

Max cycles frequency

Mechanical operations	Cycles/h	1200
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Operating times

Average time for Us control

in AC	Closing NO	min	ms	110
		max	ms	180
	Opening NO	min	ms	60
		max	ms	100

in DC	Closing NO	min	ms	110
		max	ms	180
	Opening NO	min	ms	60
		max	ms	100

UL technical data

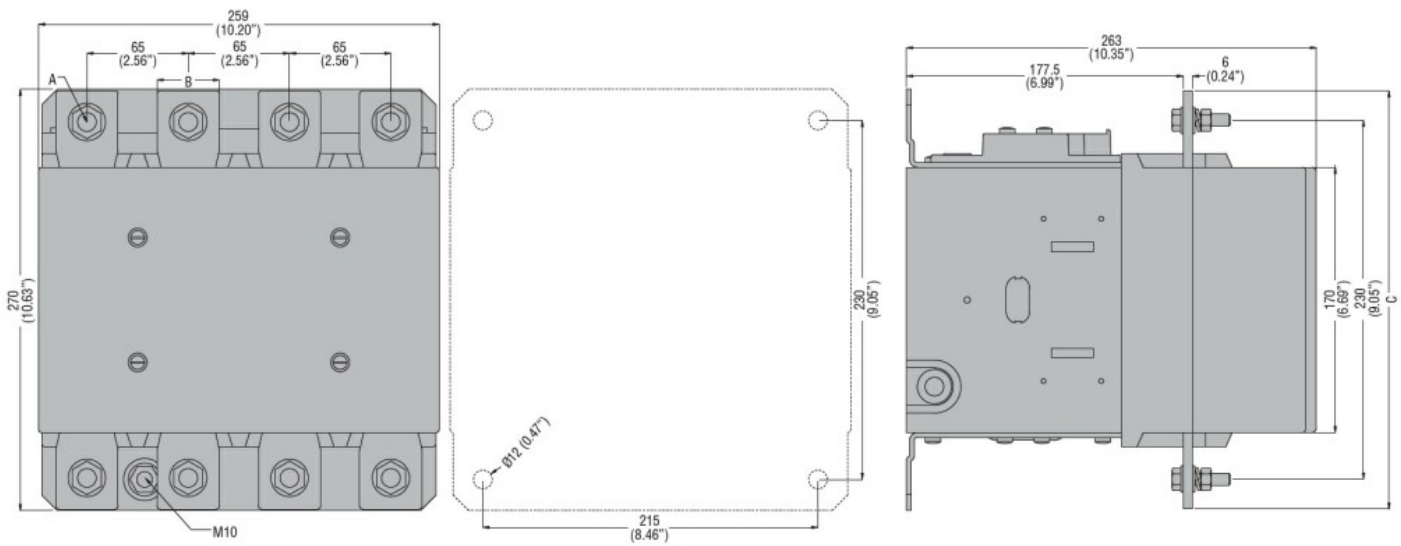
General USE

Contactor	AC current	A	700
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Other features

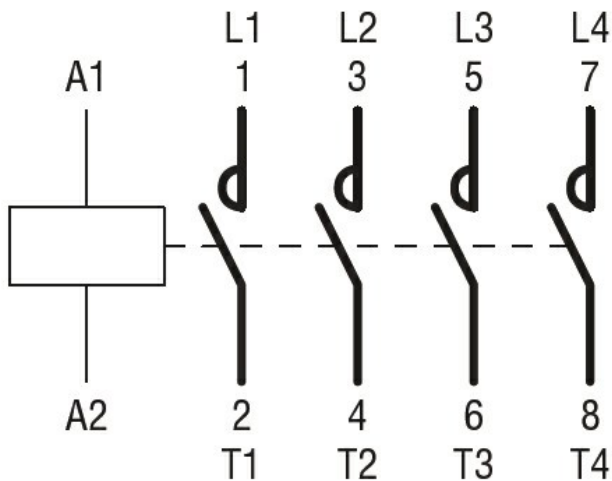
Pollution degree	3
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Dimensions



CONTACTOR TYPE	A	B	C
B500	M10	35 (1.38")	265 (10.43")
B630	M12	40 (1.57")	270 (10.63")

Wiring diagrams



Certifications and compliance

Certifications

- CSA C22.2 n° 60947-1
- CSA C22.2 n° 60947-4-1
- IEC/EN 60947-1
- IEC/EN 60947-4-1
- UL 60947-1
- UL 60947-4-1

Compliance

- CCC
- cULus
- EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching