



Product designation				Power contactor
Product type designation				B500
<b>Contact characteristics</b>				
Number of poles	Nr.			3
Rated insulation voltage $U_i$ IEC/EN	V			1000
Rated impulse withstand voltage $U_{imp}$	kV			8
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current $I_{th}$	A			700
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A	700	
	AC-1 ( $\leq 55^\circ\text{C}$ )	A	550	
	AC-1 ( $\leq 70^\circ\text{C}$ )	A	500	
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	520	
	AC-4 (400V)	A	240	
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW	156	
	400V	kW	290	
	415V	kW	306	
	440V	kW	328	
	500V	kW	367	
	690V	kW	416	
	1000V	kW	312	
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	252	
	400V	kW	438	
	500V	kW	575	
	690V	kW	755	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A	650	
	110V	A	320	
	220V	A	--	
	330V	A	--	
	460V	A	--	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A	650	
	110V	A	550	
	220V	A	450	
	330V	A	--	
	460V	A	--	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	75V	A	650	
	110V	A	600	
	220V	A	600	

	330V	A	450
	460V	A	--
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	650
	110V	A	600
	220V	A	600
	330V	A	600
	460V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	550
	110V	A	320
	220V	A	--
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	550
	110V	A	550
	220V	A	450
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	450
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	5000
Breaking capacity at voltage			
	440V	A	5000
	500V	A	4500
	690V	A	4000
Resistance per pole (average value)		mΩ	0.14
Power dissipation per pole (average value)			
	Ith	W	68.6
	AC-3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	Ibin	25.8
	max	Ibin	25.8
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

	min	I <sub>bin</sub>	0.74
	max	I <sub>bin</sub>	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
		AWG/Kcmil	
	max		2x 500 kcmil
Power terminal protection according to IEC/EN 60529			IP00
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	1808
<b>Operations</b>			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	700000
	mechanical load	cycles	5000000
Mirror contacts according to IEC/EN 60947-4-1			Yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	220
	max	V	240
AC operating voltage			
			of 50/60Hz coil powered at 50Hz
			pick-up
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
			drop-out
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
			of 50/60Hz coil powered at 60Hz
			pick-up
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
			drop-out
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
			of 60Hz coil powered at 60Hz
			pick-up
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
			drop-out
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
AC average coil consumption at 20°C			
			of 50/60Hz coil powered at 50Hz
	in-rush	VA	400
	holding	VA	18
			of 50/60Hz coil powered at 60Hz

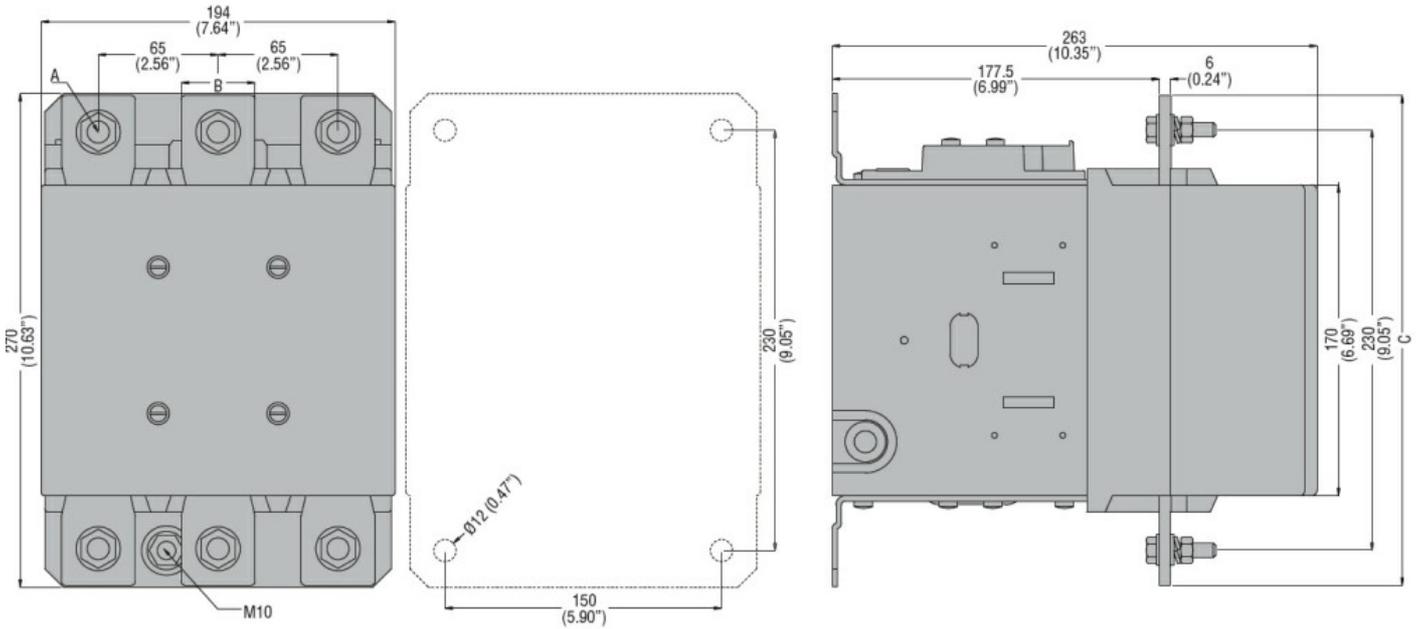
		in-rush	VA	400	
		holding	VA	18	
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz					
			W	18	
<b>DC coil operating</b>					
DC rated control voltage					
		min	V	220	
		max	V	240	
DC operating voltage					
	pick-up				
		min	%Us	80	
		max	%Us	110	
	drop-out				
		min	%Us	20	
		max	%Us	60	
Average coil consumption $\leq 20^{\circ}\text{C}$					
		in-rush	W	400	
		holding	W	18	
<b>Max cycles frequency</b>					
Mechanical operation				cycles/h	1200
<b>Operating times</b>					
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	
<b>UL technical data</b>					
Rated operational voltage AC (UL)			V	600	
General USE					
	Contactor				
		AC current	A	700	
Short-circuit protection fuse, 600V					
	Standard fault				
		Short circuit current	kA	18	
		Fuse rating	A	1200	
		Fuse class	L		
<b>Ambient conditions</b>					
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	

**Resistance & Protection**

Pollution degree

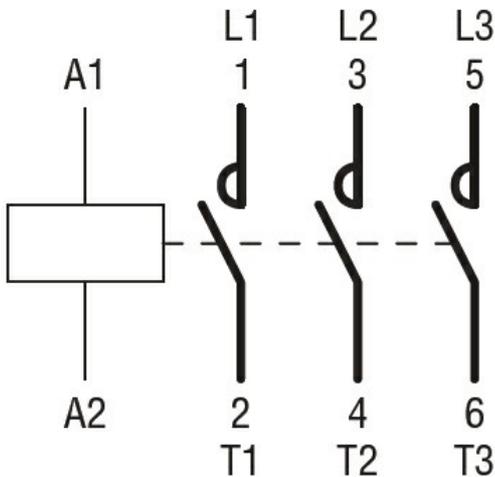
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**Dimensions**



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**

Compliance

- 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

Certificates

- CCC
- cULus
- EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching