



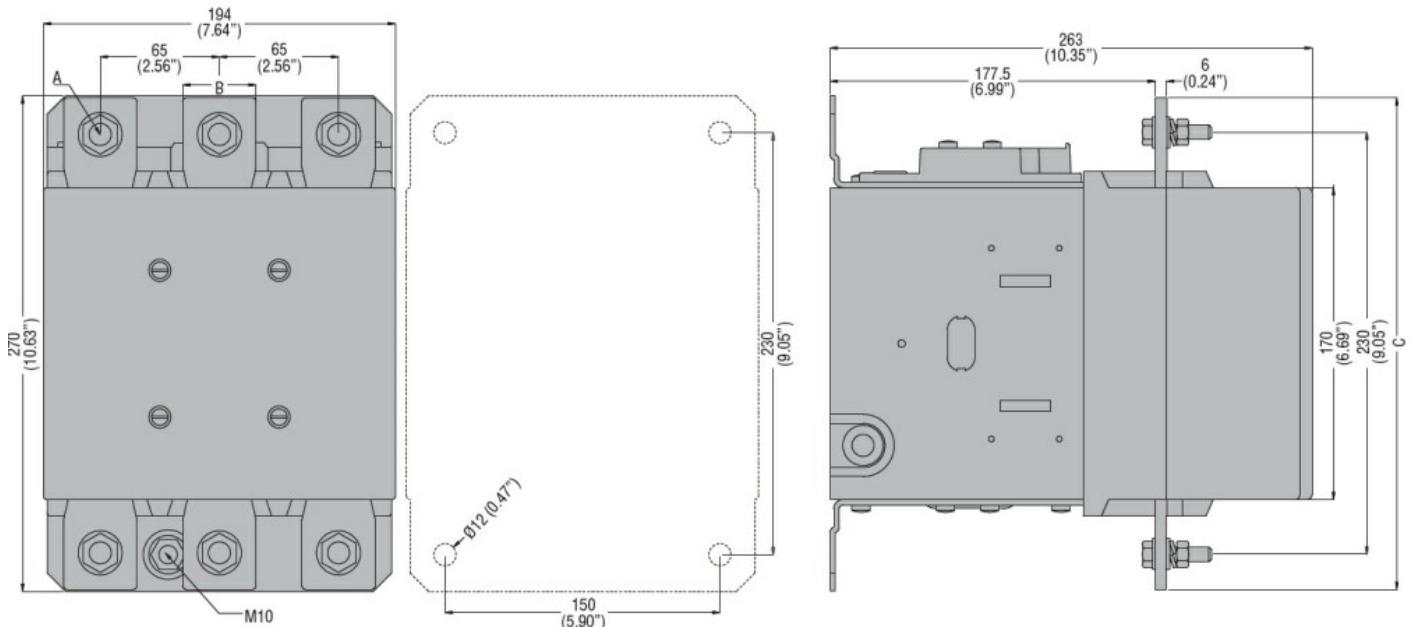
Product designation	Power contactor		
Product type designation	B500		
<b>Contact characteristics</b>			
Number of poles	Nr.	3	
Rated insulation voltage $U_i$ IEC/EN	V	1000	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current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

	330V	A	450
	460V	A	--
IEC max current le 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 le 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 le 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 le 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 le 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 6300
Breaking capacity at voltage			
	440V	A	6300
	500V	A	5600
	690V	A	5000
Resistance per pole (average value)			m? 0.14
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	68.6
	AC3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	lbin	25.8
	max	lbin	25.8
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

	min	Ibin	0.74		
	max	Ibin	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	1834			
Conductor section	AWG/kcmil conductor section				
	max	2x 500 kcmil			
<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 mechanical load	cycles	700000 5000000		
Mirror contacts according to IEC/EN 609474-4-1	yes				
EMC compatibility	yes				
<b>AC coil operating</b>					
Rated AC voltage at 50/60Hz, 60Hz	min max	V V	440 415		
AC operating voltage					
of 50/60Hz coil powered at 50Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 50/60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
AC average coil consumption at 20°C					
of 50/60Hz coil powered at 50Hz					

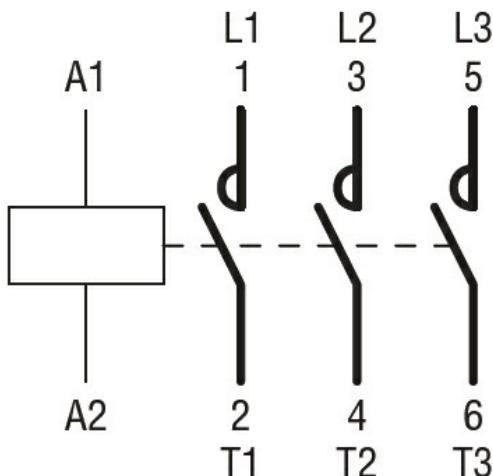
		in-rush	VA	400
		holding	VA	18
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	400
		holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz			W	18
<b>DC coil operating</b>				
DC rated control voltage		min	V	440
		max	V	415
<b>DC operating voltage</b>				
pick-up		min	%Us	80
		max	%Us	110
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>				
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	°C	80
Max altitude	m		3000
Resistance & Protection			
Pollution degree			3
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

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cULus  
EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching