



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 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)			
	I <sub>th</sub>	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	Ibin	0.74
	max	Ibin	0.74
Max number of wires simultaneously connectable	Nr. 2		
Conductor section	AWG/Kcmil		
Power terminal protection according to IEC/EN 60529	max 2x 500 kcmil IP00		
<b>Mechanical features</b>			
Operating position	normal allowable	Vertical plan ±30°	
Fixing	Screw		
Weight	g	1834	
<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 holding	VA VA	400 18
of 50/60Hz coil powered at 60Hz			

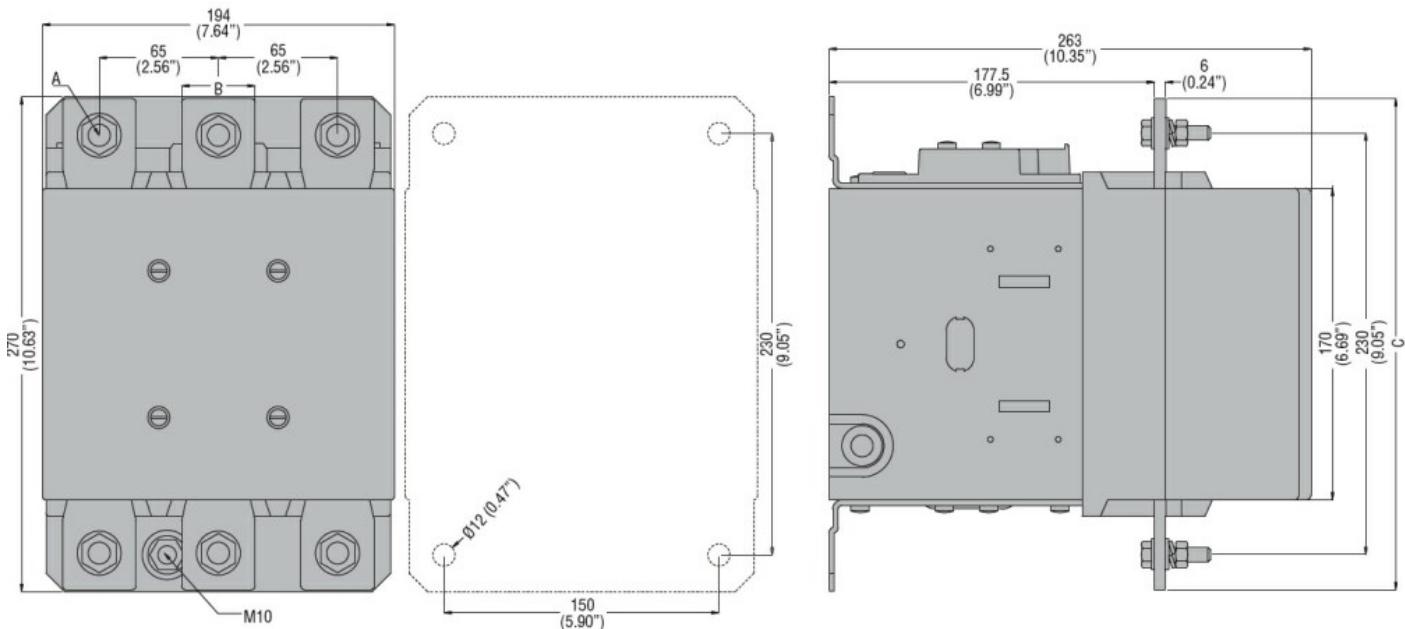
		in-rush	VA	400
		holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W		18
<b>DC coil operating</b>				
DC rated control voltage		min	V	440
		max	V	415
<b>DC operating voltage</b>				
pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$		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>				
Rated operational voltage AC (UL)			V	600
<b>General USE</b>				
Contactor			AC current	A
				700
Short-circuit protection fuse, 600V				
Standard fault			Short circuit current	kA
			Fuse rating	A
			Fuse class	L
<b>Ambient conditions</b>				
Temperature				
Operating temperature		min	°C	-50
		max	°C	70
Storage temperature		min	°C	-60
		max	°C	80
<b>Max altitude</b>				
			m	3000

Resistance & Protection

Pollution degree

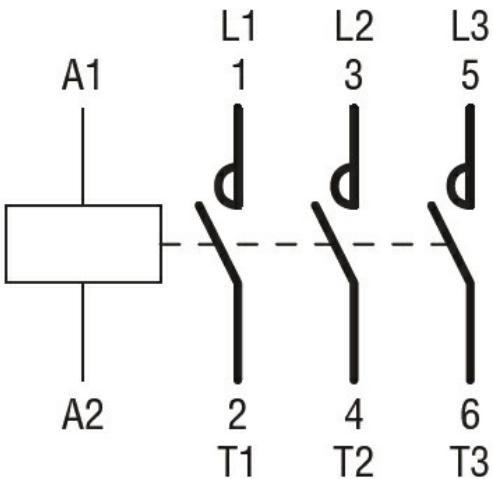
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Dimensions



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