



Product designation				Power contactor
Product type designation				B500
<b>Contact characteristics</b>				
Number of poles	Nr.			4
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-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 $I_e$ in DC1 with $L/R \leq 1\text{ms}$ 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
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Protection fuse

gG (IEC)	A	800
aM (IEC)	A	500

Making capacity (RMS value)

A	5000
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Breaking capacity at voltage

440V	A	5000
500V	A	4500
690V	A	4000

Resistance per pole (average value)

mΩ	0.14
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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	Ibin	0.74
max	Ibin	0.74

Max number of wires simultaneously connectable

Nr.	2
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Conductor section

AWG/Kcmil

max	2x 500 kcmil
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Power terminal protection according to IEC/EN 60529

IP00

**Mechanical features**

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	2140
Conductor section	AWG/kcmil conductor section	
	max	2x 500 kcmil

**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	cycles	700000
		cycles	5000000

Mirror contacts according to IEC/EN 60947-4-1

	yes
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EMC compatibility

	yes
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**AC coil operating**

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	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	60

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	60

of 60Hz coil powered at 60Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	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 ≤20°C 50Hz

W	18
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**DC coil operating**

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 ≤20°C				
		in-rush	W	400
		holding	W	18

<b>Max cycles frequency</b>					
Mechanical operation				cycles/h	1200

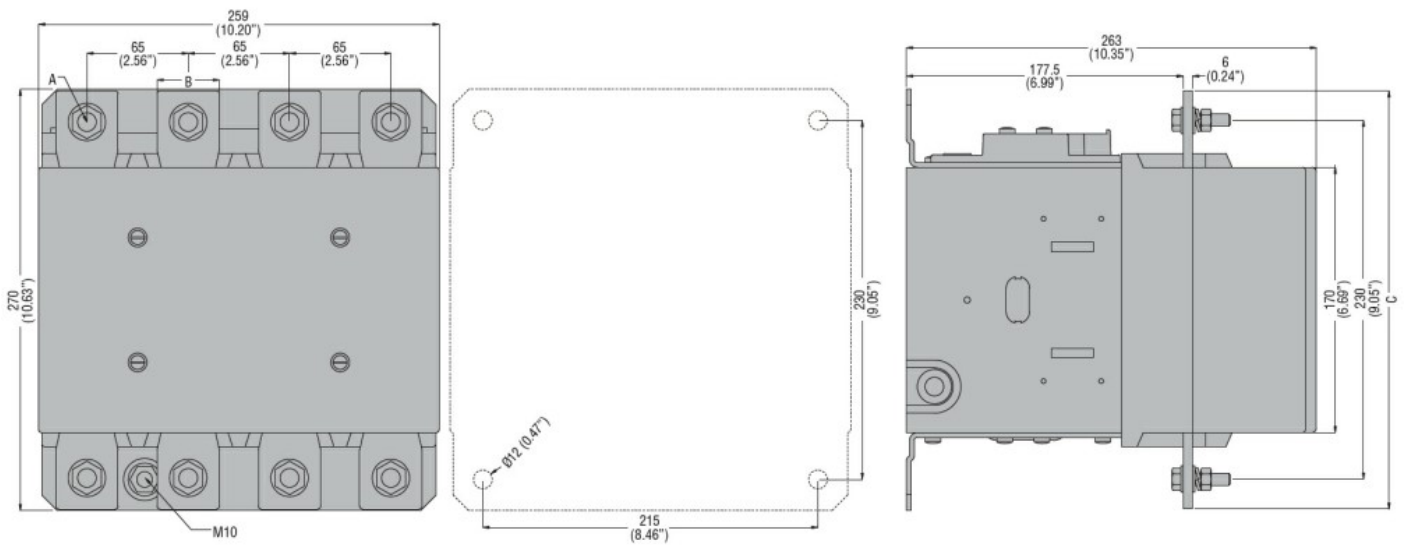
<b>Operating times</b>					
Average time for Us control					
	in AC				
		Closing NO	min	ms	110
			max	ms	180
		Opening NO	min	ms	60
			max	ms	100
	in DC				
		Closing NO	min	ms	110
			max	ms	180
		Opening NO	min	ms	60
			max	ms	100

<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	°C	-50	
		max	°C	70	
	Storage temperature	min	°C	-60	
		max	°C	80	
Max altitude				m	3000

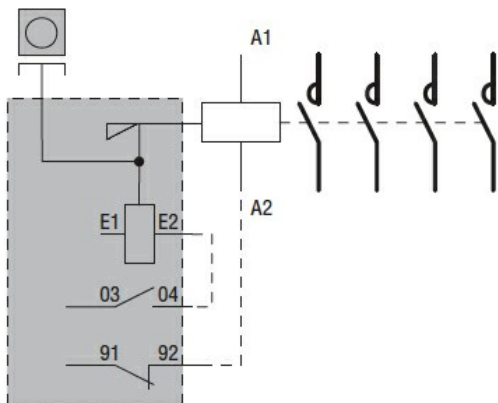
<b>Resistance &amp; Protection</b>				
Pollution degree				3

<b>Dimensions</b>				
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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**

cULus

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching