



Product designation				Power contactor
Product type designation				B500
<b>Contact characteristics</b>				
Number of poles	Nr.			4
Rated insulation voltage U <sub>i</sub> IEC/EN	V			1000
Rated impulse withstand voltage U <sub>imp</sub>	kV			8
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A			700
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A	700	
	AC-1 (≤55°C)	A	550	
	AC-1 (≤70°C)	A	500	
	AC-3 (≤440V ≤55°C)	A	520	
	AC-4 (400V)	A	240	
Rated operational power AC-1 (T≤40°C)	230V	kW	252	
	400V	kW	438	
	500V	kW	575	
	690V	kW	755	
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	75V	A	650	
	110V	A	320	
	220V	A	--	
	330V	A	--	
	460V	A	--	
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	75V	A	650	
	110V	A	550	
	220V	A	450	
	330V	A	--	
	460V	A	--	
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series	75V	A	650	
	110V	A	600	
	220V	A	600	
	330V	A	450	
	460V	A	--	
IEC max current I <sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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)

I <sub>th</sub>	W	68.6
AC-3	W	35

Tightening torque for terminals

min	Nm	35
max	Nm	35
min	I <sub>bin</sub>	25.8
max	I <sub>bin</sub>	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
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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
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### Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	2155
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
EMC compatibility			yes

**AC coil operating**

Rated AC voltage at 50/60Hz	V	60
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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

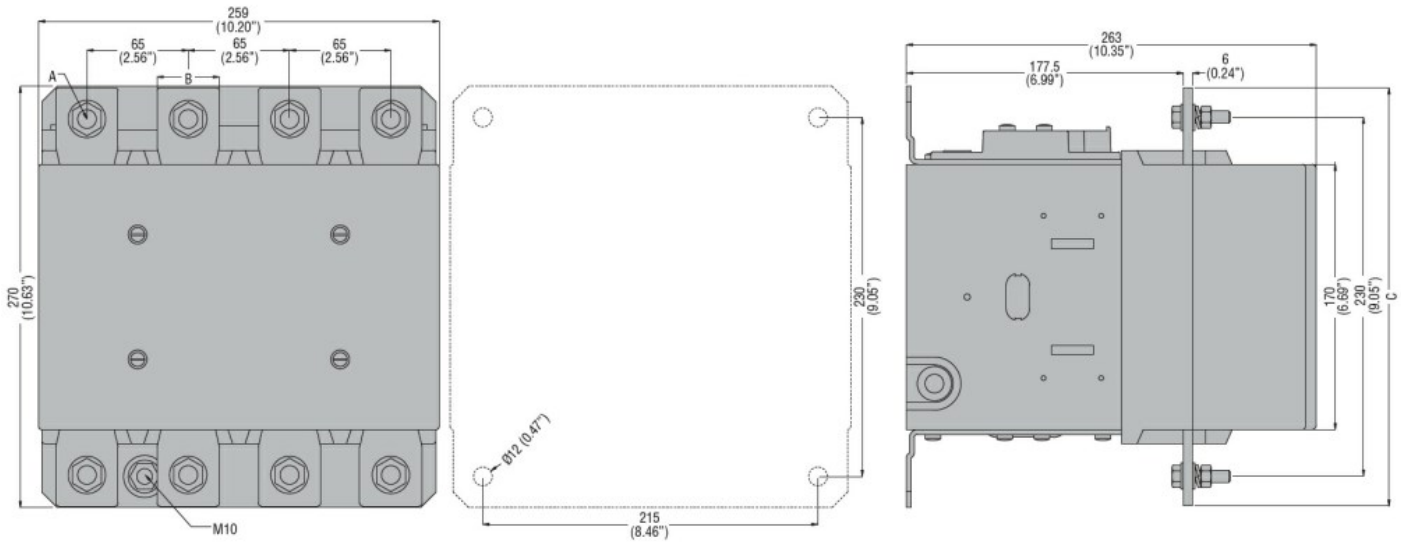
Dissipation at holding ≤20°C 50Hz	W	18
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**DC coil operating**

DC rated control voltage	V	60
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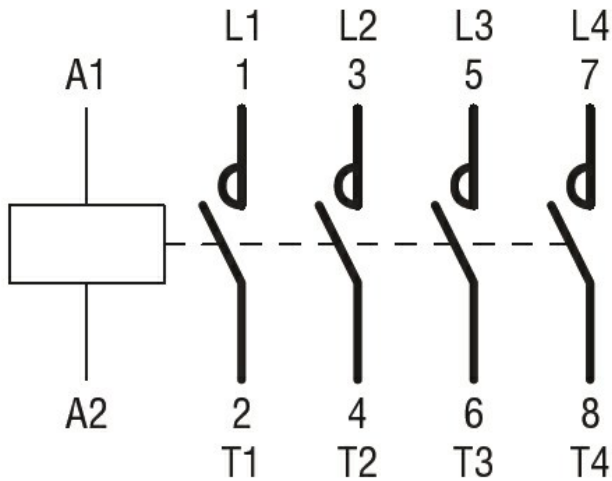
DC operating voltage		
pick-up		

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



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