



Product designation Power contactor
Product type designation B500

Contact characteristics

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 I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series

75V	A	550
110V	A	320
220V	A	--
330V	A	--
460V	A	--

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series

75V	A	550
110V	A	550
220V	A	450
330V	A	--
460V	A	--

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series

75V	A	550
110V	A	550
220V	A	550
330V	A	450
460V	A	--

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ 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	6300
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Breaking capacity at voltage

440V	A	6300
500V	A	5600
690V	A	5000

Resistance per pole (average value)

m?	0.14
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Power dissipation per pole (average value)

I_{th}	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	lbin	0.74
max	lbin	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	2091

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, 60Hz

min	V	110
max	V	125

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

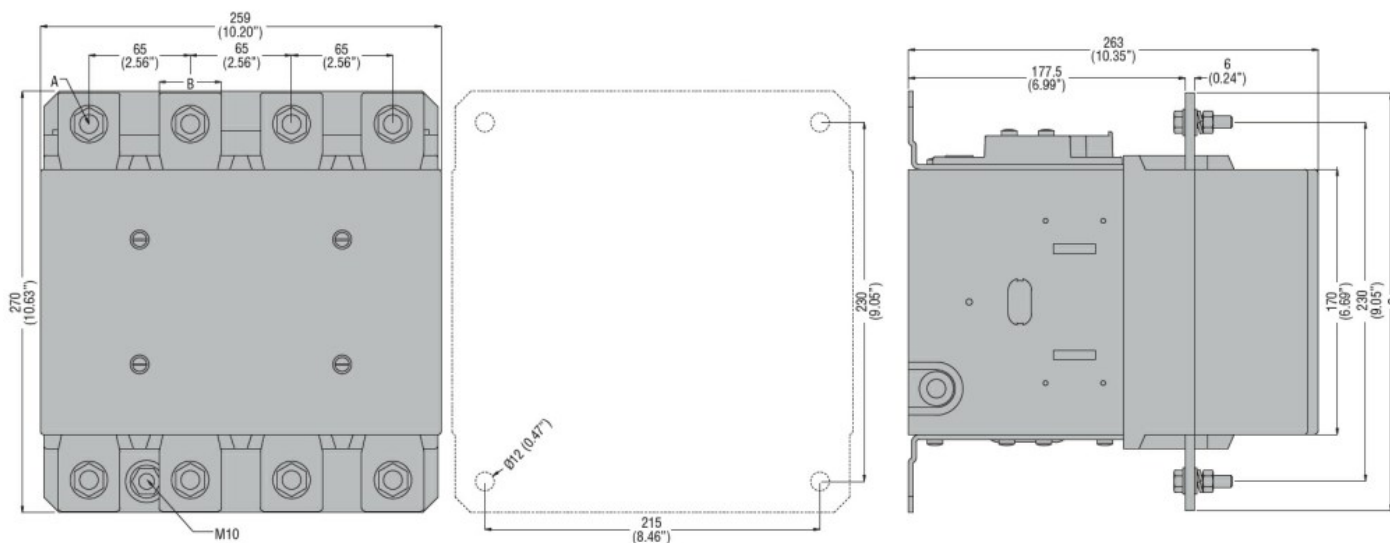
Dissipation at holding ≤20°C 50Hz

W	18
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DC coil operating

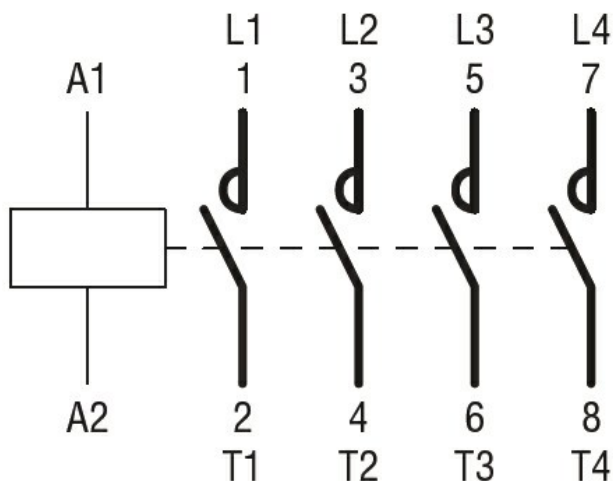
DC rated control voltage

		min	V	110	
		max	V	125	
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	
Max cycles frequency					
Mechanical operation			cycles/h	1200	
Operating times					
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
UL technical data					
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	
Ambient conditions					
Temperature					
Operating temperature		min	°C	-50	
		max	°C	70	
Storage temperature		min	°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
cULus
EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching