



Product designation		Power contactor	
Product type designation		B500	
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	700	
Operational current Ie	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 Ie 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 Ie 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 Ie 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 Ie 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_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	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_{th}	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	2155

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	48
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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	48
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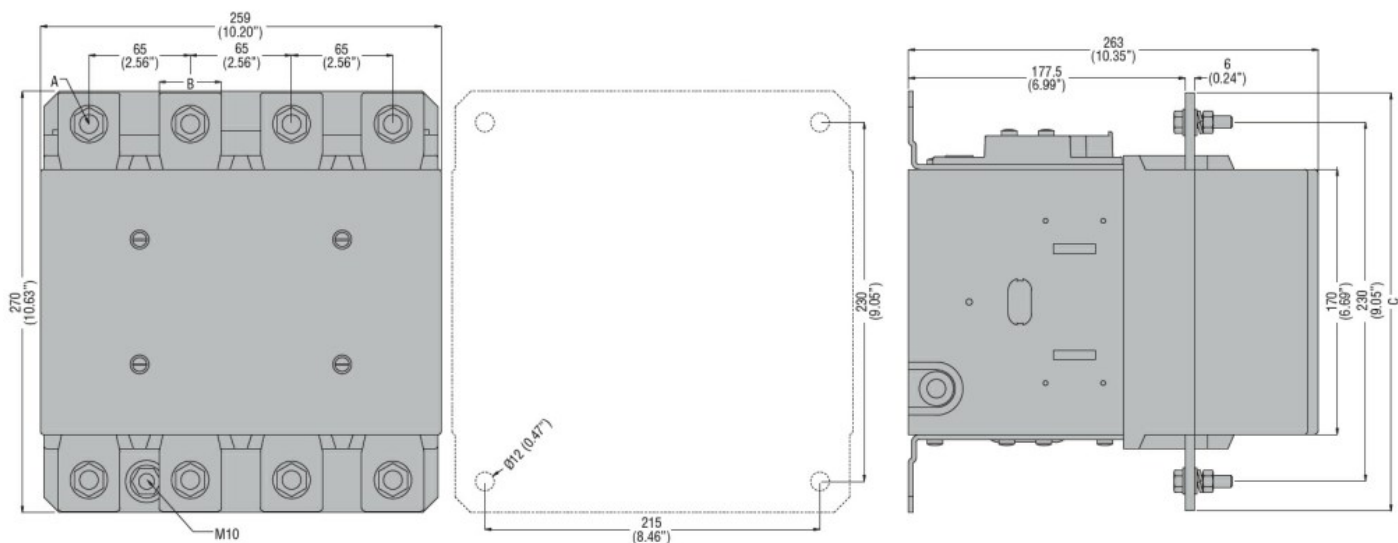
DC operating voltage

pick-up

min	%Us	80
max	%Us	110

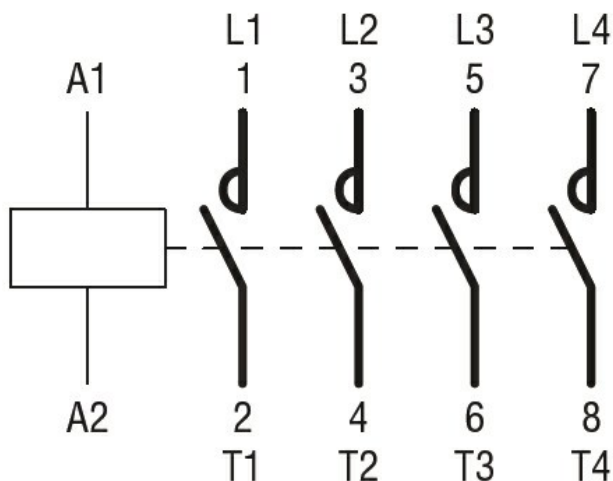
drop-out

		min	%Us	20
		max	%Us	60
Average coil consumption ≤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				
Rated operational voltage AC (UL)			V	600
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