



Product designation				Power contactor
Product type designation				B500
Contact characteristics				
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 ($\leq 40^\circ\text{C}$)	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-3 ($T \leq 55^\circ\text{C}$)	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 ($T \leq 40^\circ\text{C}$)	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	--
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IEC max current I _e 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
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	550
	110V	A	320
	220V	A	--
	330V	A	--
	460V	A	--
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IEC max current I _e 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	--
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IEC max current I _e 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	--
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IEC max current I _e 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
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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
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Making capacity (RMS value)		A	5000
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Breaking capacity at voltage			
	440V	A	5000
	500V	A	4500
	690V	A	4000
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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
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Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	I _{bin}	25.8
	max	I _{bin}	25.8
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Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

	min	I _{bin}	0.74
	max	I _{bin}	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
		AWG/Kcmil	
	max		2x 500 kcmil
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position		normal allowable	Vertical plan ±30°
Fixing			Screw
Weight		g	1798
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 609474-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	60
AC operating voltage			
		of 50/60Hz coil powered at 50Hz	
		pick-up	
	min	%U _s	80
	max	%U _s	110
		drop-out	
	min	%U _s	20
	max	%U _s	60
		of 50/60Hz coil powered at 60Hz	
		pick-up	
	min	%U _s	80
	max	%U _s	110
		drop-out	
	min	%U _s	20
	max	%U _s	60
		of 60Hz coil powered at 60Hz	
		pick-up	
	min	%U _s	80
	max	%U _s	110
		drop-out	
	min	%U _s	20
	max	%U _s	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 $\leq 20^{\circ}\text{C}$ 50Hz		W	18
DC coil operating			
DC rated control voltage		V	60
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

Max cycles frequency

Mechanical operation	cycles/h	1200
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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
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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	$^{\circ}\text{C}$	-50
max	$^{\circ}\text{C}$	70

Storage temperature

min	$^{\circ}\text{C}$	-60
max	$^{\circ}\text{C}$	80

Max altitude

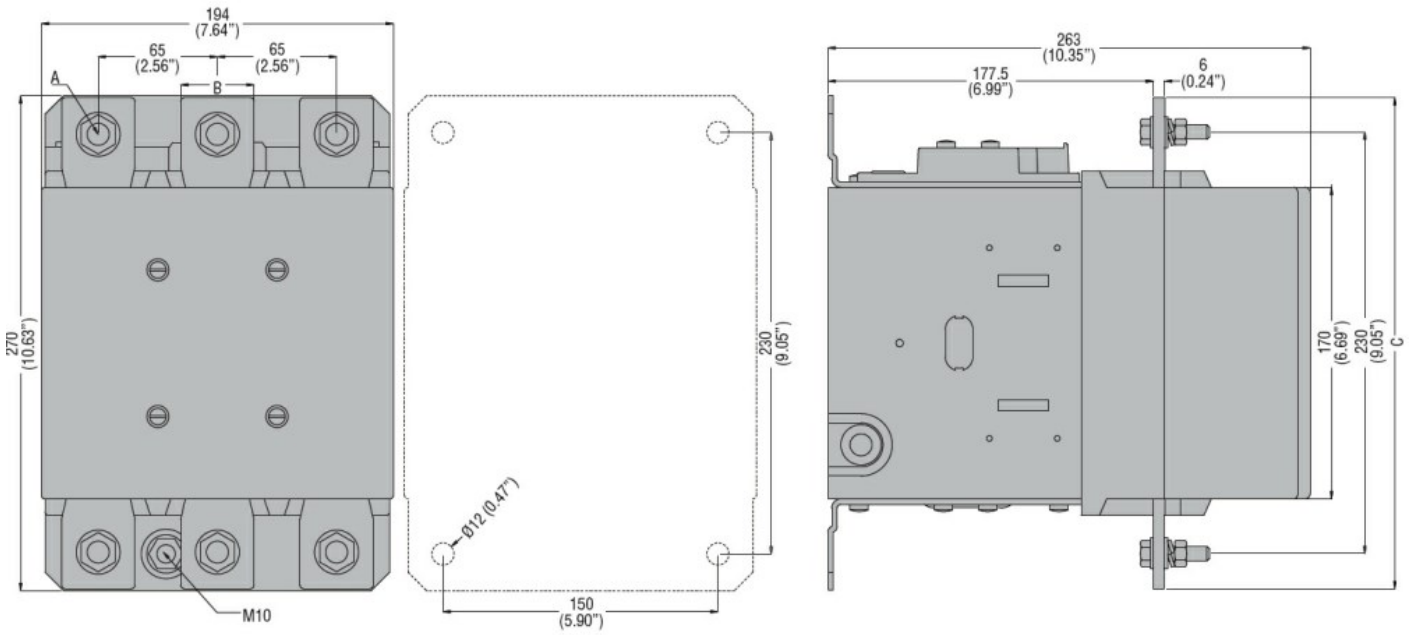
m	3000
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Resistance & Protection

Pollution degree

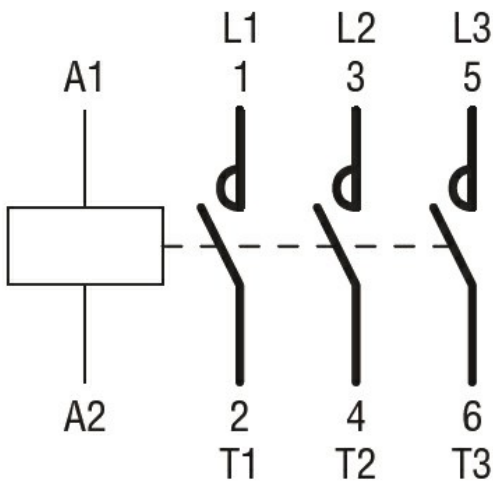
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Dimensions



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