



Product designation Power contactor  
Product type designation B500

**Contact characteristics**

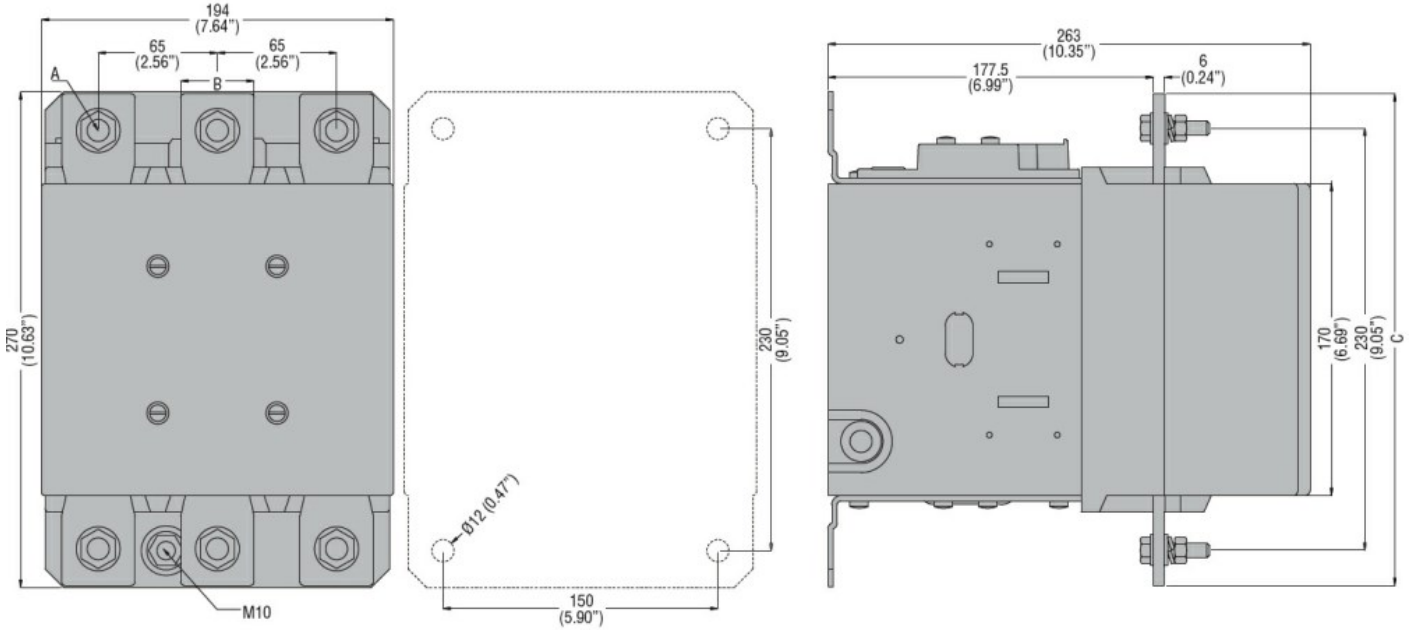
Number of poles	Nr.	3
Rated insulation voltage $U_i$ IEC/EN	V	1000
Rated impulse withstand voltage $U_{imp}$	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current $I_{th}$	A	700
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 700
	AC-1 ( $\leq 55^\circ\text{C}$ )	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 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
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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	--
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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	--
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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	--
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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
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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)			
	Ith	W	68.6
	AC-3	W	35
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Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	Ibin	25.8
	max	Ibin	25.8
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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
Conductor section			
		AWG/Kcmil	
	max		2x 500 kcmil
Power terminal protection according to IEC/EN 60529			IP00
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	1806
Conductor section			
		AWG/kcmil conductor section	
	max		2x 500 kcmil
<b>Operations</b>			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
<b>Safety related data</b>			
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
<b>AC coil operating</b>			
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

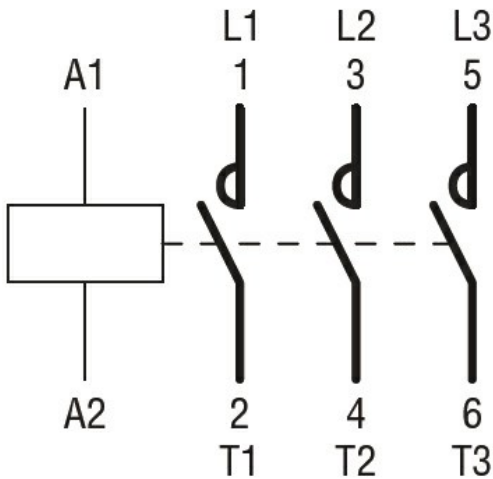
	in-rush	VA	400
	holding	VA	18
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	400
	holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	18
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	110
	max	V	125
DC operating voltage			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$			
	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	°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
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EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching