



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 ($T \leq 55^\circ\text{C}$)	400V	kW 290
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 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	--
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	--
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	--
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
Short-time allowable current for 10s (IEC/EN60947-1)		A	4050
Protection fuse			
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	5000
Breaking capacity at voltage			
	440V	A	5000
	500V	A	4500
	690V	A	4000
Resistance per pole (average value)		mΩ	0.14
Power dissipation per pole (average value)			
	Ith	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
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	1856
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 cycles 700000 5000000
Mirror contats according to IEC/EN 609474-4-1			Yes	
EMC compatibility			yes	
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz			min max	V V 220 240
AC operating voltage				
of 50/60Hz coil powered at 50Hz pick-up			min max	%Us %Us 80 110
drop-out			min max	%Us %Us 20 60
of 50/60Hz coil powered at 60Hz pick-up			min max	%Us %Us 80 110
drop-out			min max	%Us %Us 20 60
of 60Hz coil powered at 60Hz pick-up			min max	%Us %Us 80 110
drop-out			min max	%Us %Us 20 60
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz			in-rush holding	VA VA 400 18
of 50/60Hz coil powered at 60Hz			in-rush holding	VA VA 400 18
Dissipation at holding ≤20°C 50Hz			W	18
DC coil operating				
DC rated control voltage			min	V 220

		max	V	240
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
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Operating times

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
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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

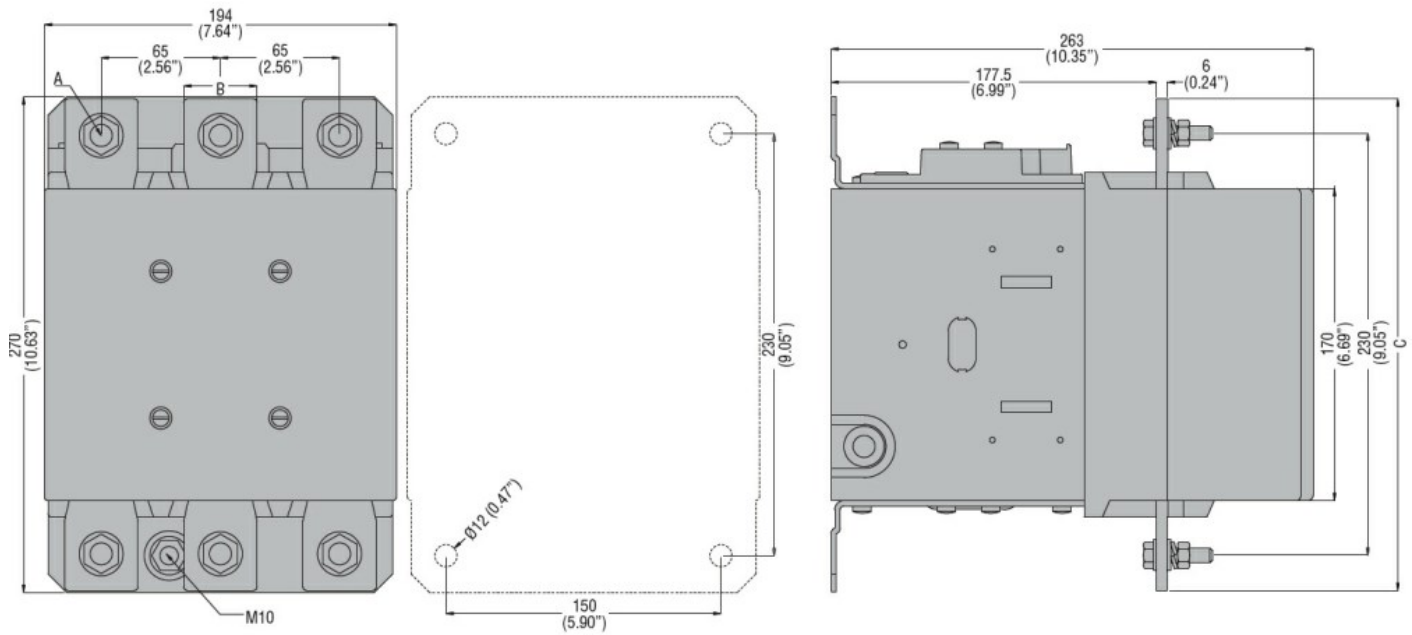
Ambient conditions

Temperature				
Operating temperature		min	°C	-50
		max	°C	70
Storage temperature				
		min	°C	-60
		max	°C	80
Max altitude			m	3000

Resistance & Protection

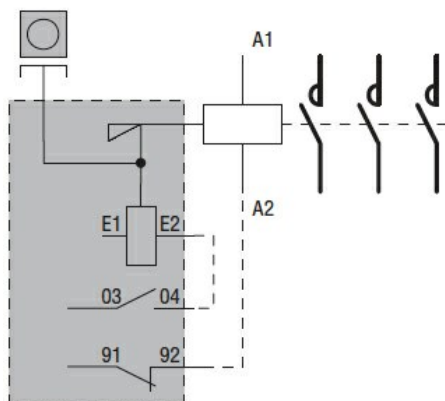
Pollution degree	3
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Dimensions



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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching