



Product designation

Power contactor

Product type designation

B500

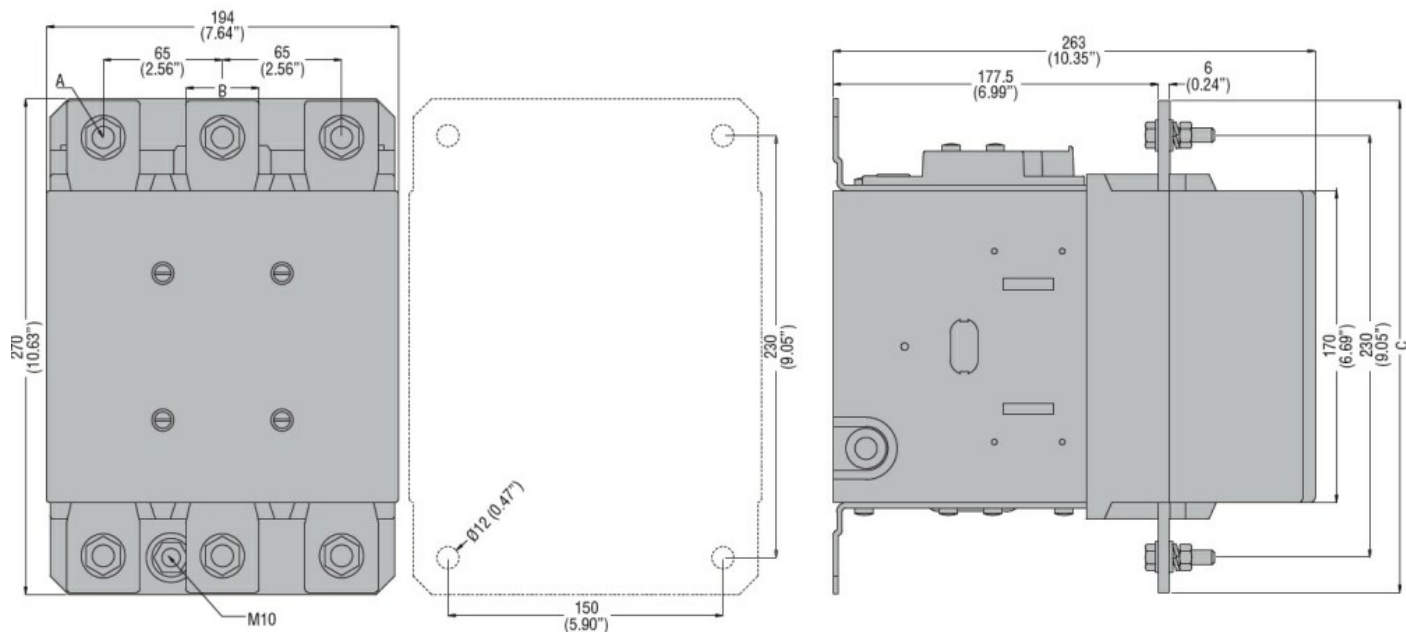
Contact characteristics

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	--
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 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

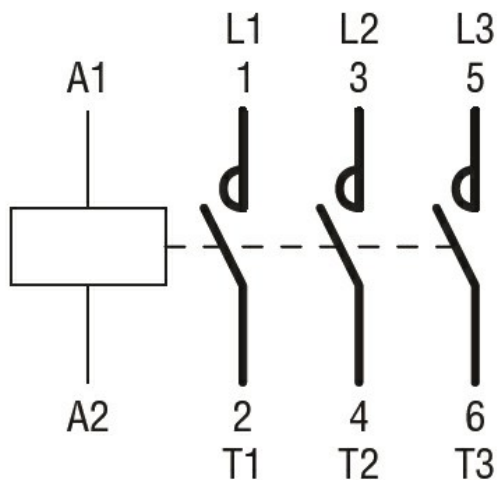
	min	I _{bin}	0.74
	max	I _{bin}	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
	AWG/Kcmil		
	max		2x 500 kcmil
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	1798
Operations			
Mechanical life		cycles	5000000
Electrical life		cycles	700000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	700000
	mechanical load	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	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 ≤20°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 ≤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