



Product designation

Power contactor

Product type designation

B500

Contact characteristics

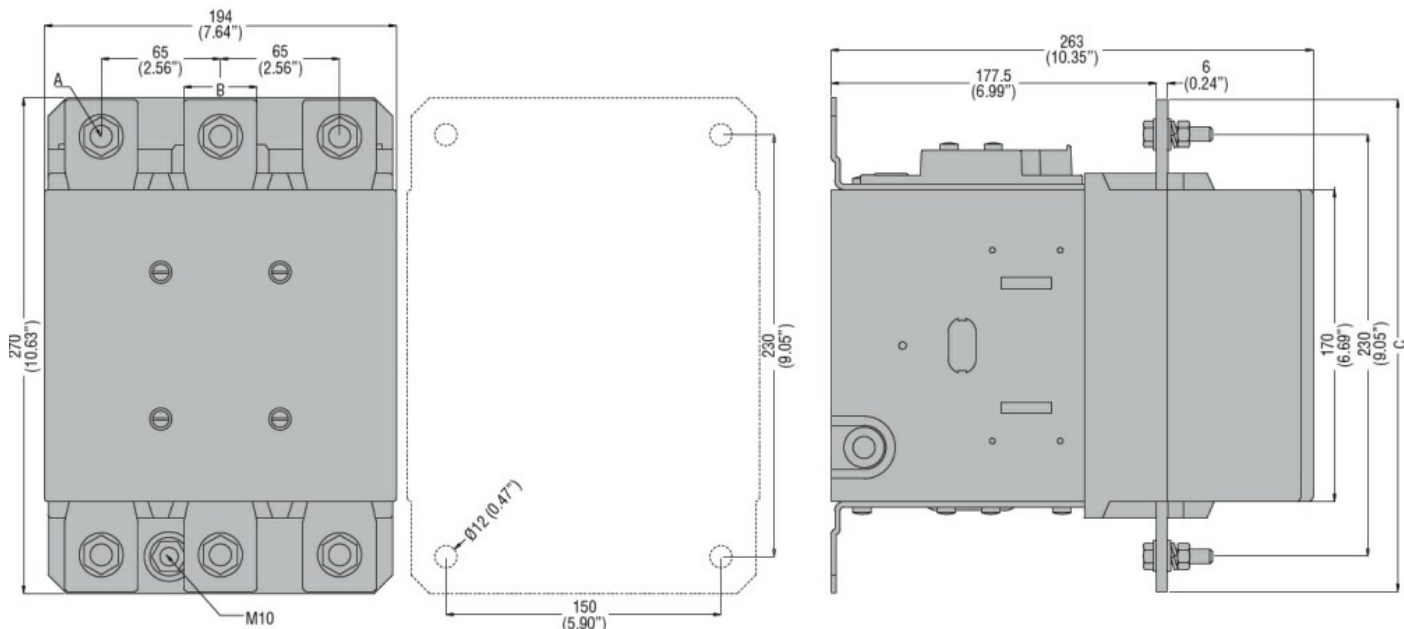
Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	700
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 700
	AC-1 ($\leq 55^\circ\text{C}$)	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	1806
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 cycles	700000 5000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
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	%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		

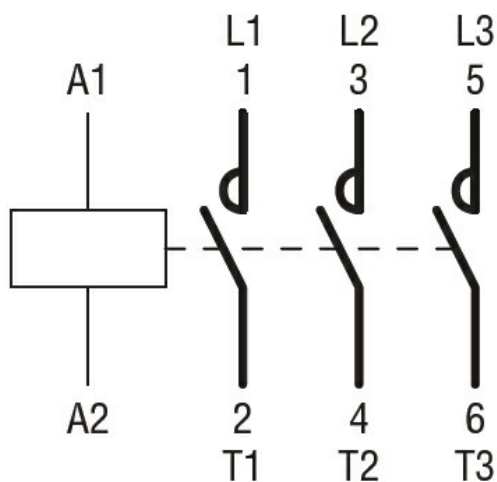
		in-rush	VA	400
		holding	VA	18
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	400
		holding	VA	18
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W		18
DC coil operating				
DC rated control voltage				
		min	V	110
		max	V	125
DC operating voltage				
pick-up		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$				
		in-rush	W	400
		holding	W	18
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				
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	$^{\circ}\text{C}$	-50
		max	$^{\circ}\text{C}$	70
Storage temperature				
		min	$^{\circ}\text{C}$	-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