



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 ( $\leq 40^\circ C$ )	A 700
	AC-1 ( $\leq 55^\circ C$ )	A 550
	AC-1 ( $\leq 70^\circ C$ )	A 500
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 520
	AC-4 (400V)	A 175
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	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 ( $T \leq 40^\circ C$ )	230V	kW 252
	400V	kW 438
	500V	kW 575
	690V	kW 755
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ with 3 poles in series	75V	A 650
	110V	A 600
	220V	A 600

	330V	A	450
	460V	A	--
IEC max current I <sub>e</sub> 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 I <sub>e</sub> 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 I <sub>e</sub> 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 I <sub>e</sub> 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 I <sub>e</sub> 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	6300
Breaking capacity at voltage			
	440V	A	6300
	500V	A	5600
	690V	A	5000
Resistance per pole (average value)		mΩ	0.14
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	68.6
	AC3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	I <sub>bin</sub>	25.8
	max	I <sub>bin</sub>	25.8
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

Max number of wires simultaneously connectable	Nr.	2
Power terminal protection according to IEC/EN 60529		IP00

### Mechanical features

Operating position	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	1808

### 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 60947-4-1			Yes
EMC compatibility			Yes

### AC coil operating

Rated AC voltage at 50/60Hz, 60Hz	min	V	220
	max	V	240

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 ≤20°C 50Hz	W	18
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### 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 $\leq 20^{\circ}\text{C}$		in-rush	W	400
		holding	W	18

Max cycles frequency				
Mechanical operation			cycles/h	1200

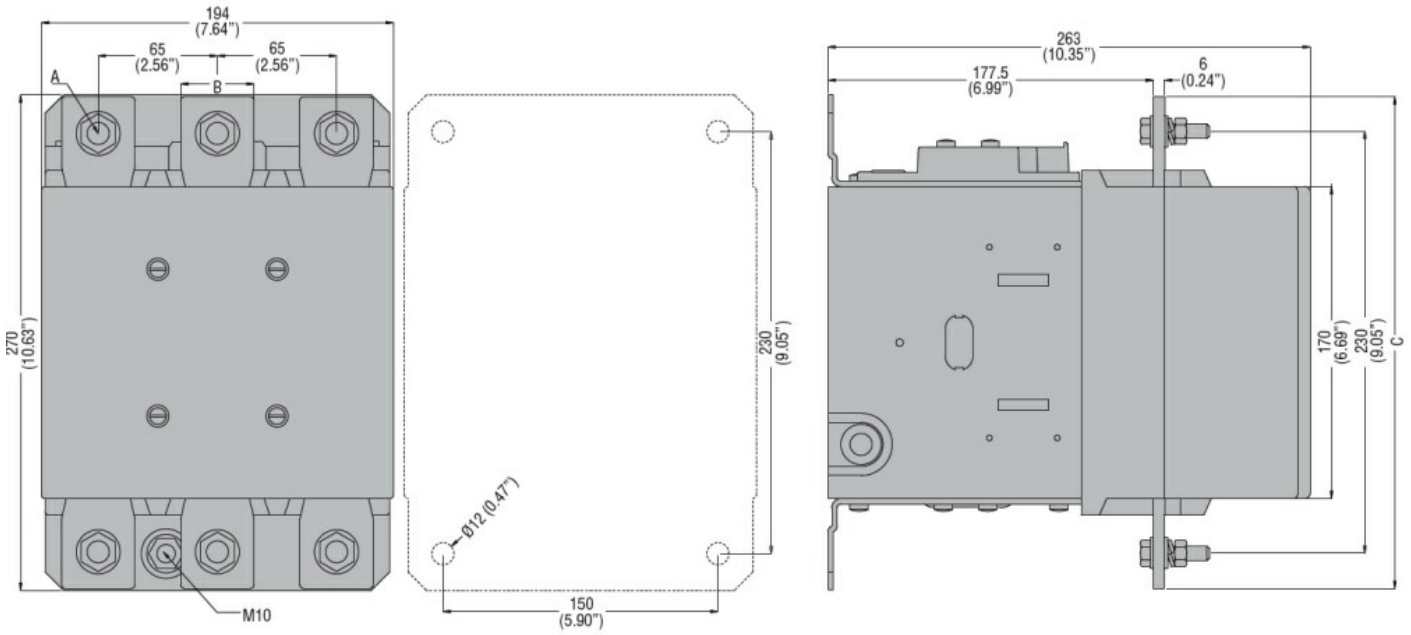
Operating times				
Average time for Us control				
	in AC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms
	in DC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms

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	$^{\circ}\text{C}$	80
Max altitude			m	3000

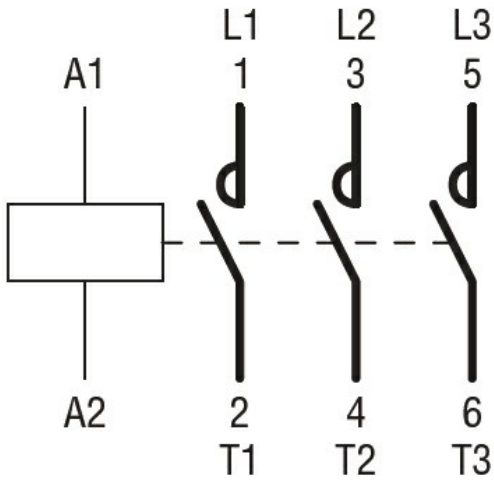
Resistance & Protection				
Pollution degree				3

Dimensions				
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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