



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 <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	1850
<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	cycles	700000
	mechanical load	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	380
	max	V	415
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
of 50/60Hz coil powered at 60Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
of 60Hz coil powered at 60Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	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			

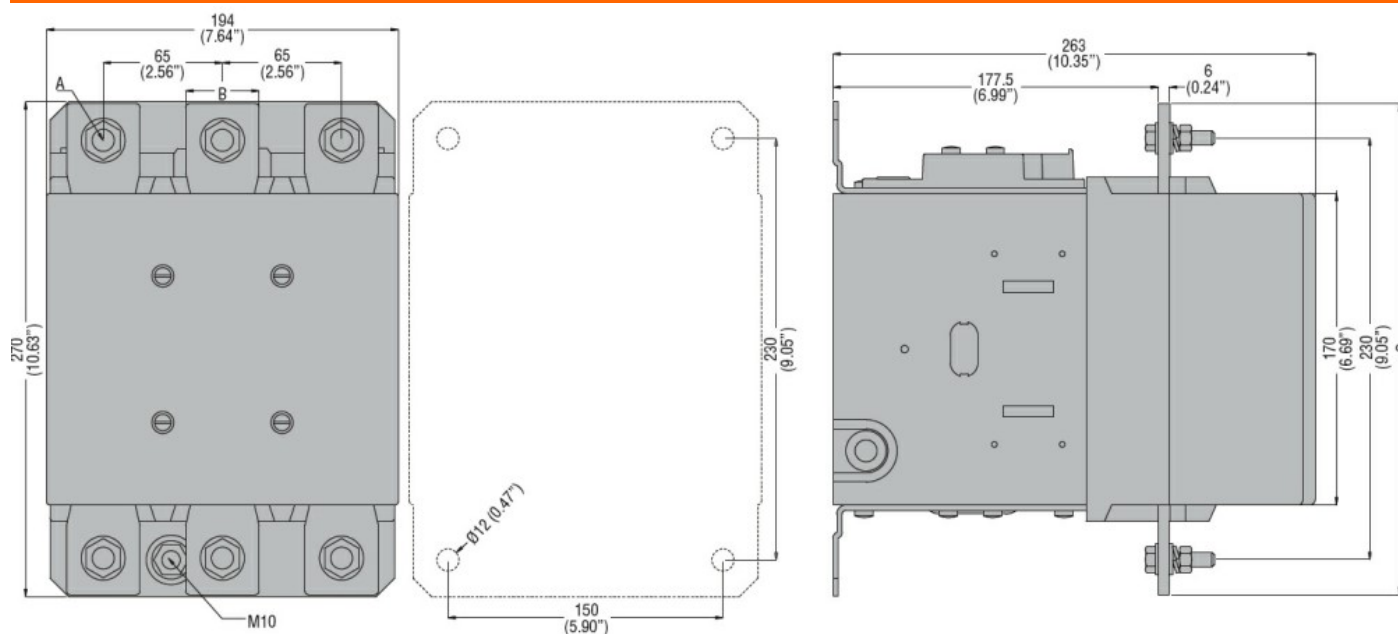
		in-rush holding	VA	400
			VA	18
Dissipation at holding ≤20°C 50Hz			W	18
DC coil operating				
DC rated control voltage		min	V	380
		max	V	415
DC operating voltage				
pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
Average coil consumption ≤20°C		in-rush holding	W	400
			W	18
Max 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

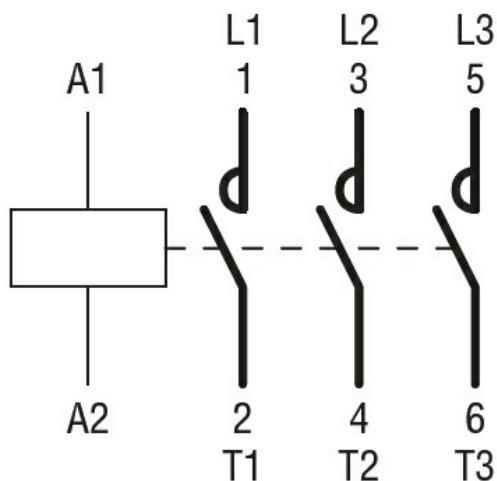
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## Dimensions



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

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching