



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	6300
Breaking capacity at voltage			
	440V	A	6300
	500V	A	5600
	690V	A	5000
Resistance per pole (average value)		m?	0.14
Power dissipation per pole (average value)			
	Ith	W	68.6
	AC3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	lbin	25.8
	max	lbin	25.8
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1
	min	lbin	0.74
	max	lbin	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	1830	
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 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	110 125
AC operating voltage		of 50/60Hz coil powered at 50Hz		
		min max	%Us %Us	80 110
		drop-out		
		min max	%Us %Us	20 60
		of 50/60Hz coil powered at 60Hz		
		min max	%Us %Us	80 110
		drop-out		
		min max	%Us %Us	20 60
		of 60Hz coil powered at 60Hz		
		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	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	$^{\circ}\text{C}$	80

Max altitude

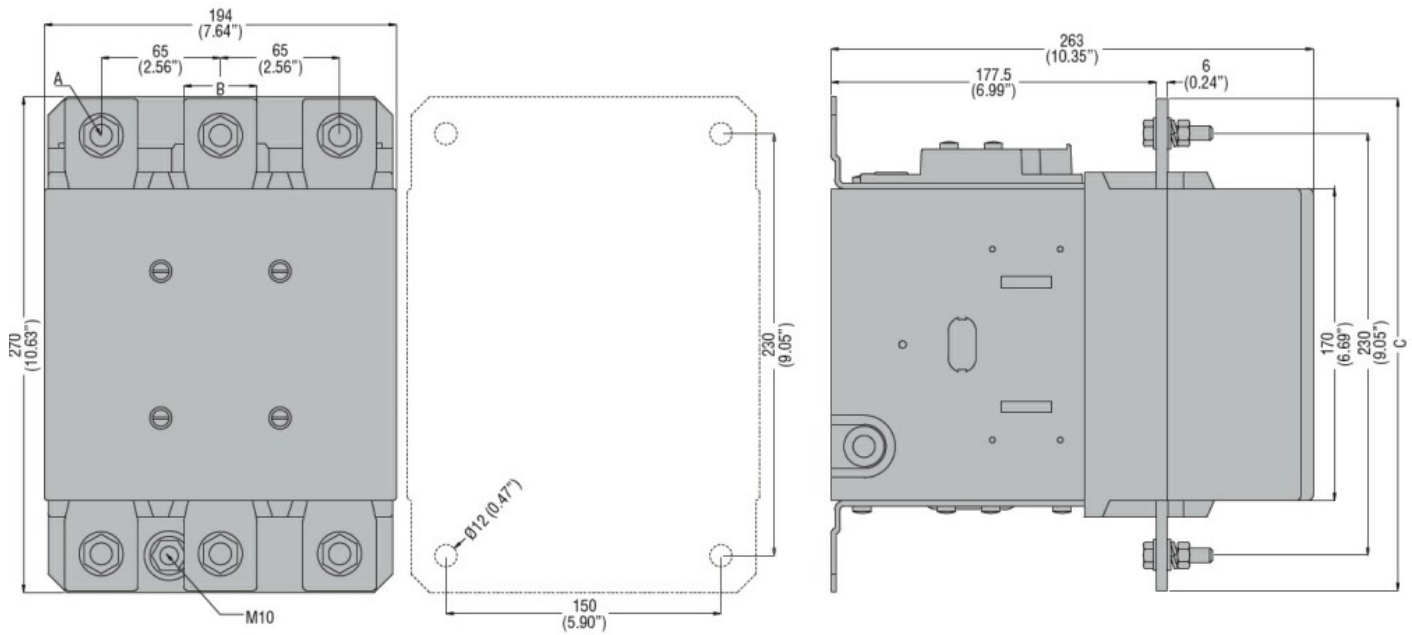
m 3000

Resistance & Protection

Pollution degree

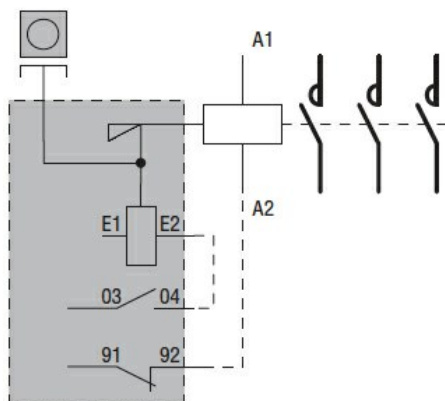
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Dimensions



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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching