



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 I _e 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 _e 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 _e 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 _e 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)			
	I _{th}	W	68.6
	AC-3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	I _{bin}	25.8
	max	I _{bin}	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	1880	
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	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	380
	max	V	415
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

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 $\leq 20^{\circ}\text{C}$

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

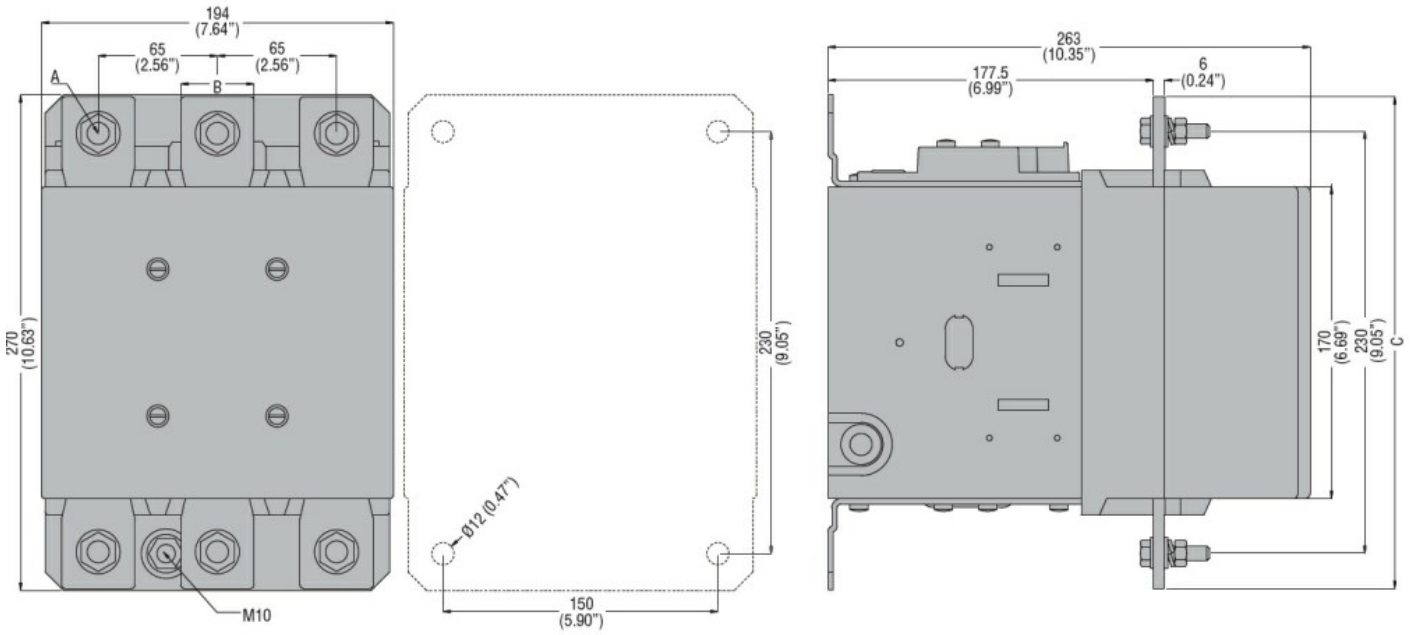
m 3000

Resistance & Protection

Pollution degree

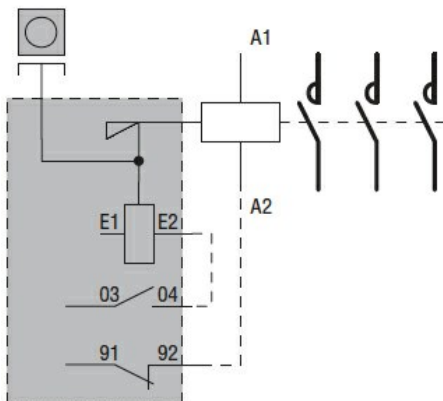
3

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

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching