



Product designation	Power contactor		
Product type designation	B500		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	700
Operational current Ie			
	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-1 ($T \leq 40^{\circ}\text{C}$)			
	230V	kW	252
	400V	kW	438
	500V	kW	575
	690V	kW	755
IEC max current Ie 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 Ie 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 Ie 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 $L/R \leq 1\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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) $\text{m}\Omega$ 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	2163
Operations		
Mechanical life	cycles	5000000
Electrical life	cycles	700000
Safety related data		

Performance level B10d according to EN/ISO 13489-1

	rated load	cycles	700000
	mechanical load	cycles	5000000

Mirror contacts according to IEC/EN 609474-4-1 Yes

EMC compatibility yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

	min	V	440
	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

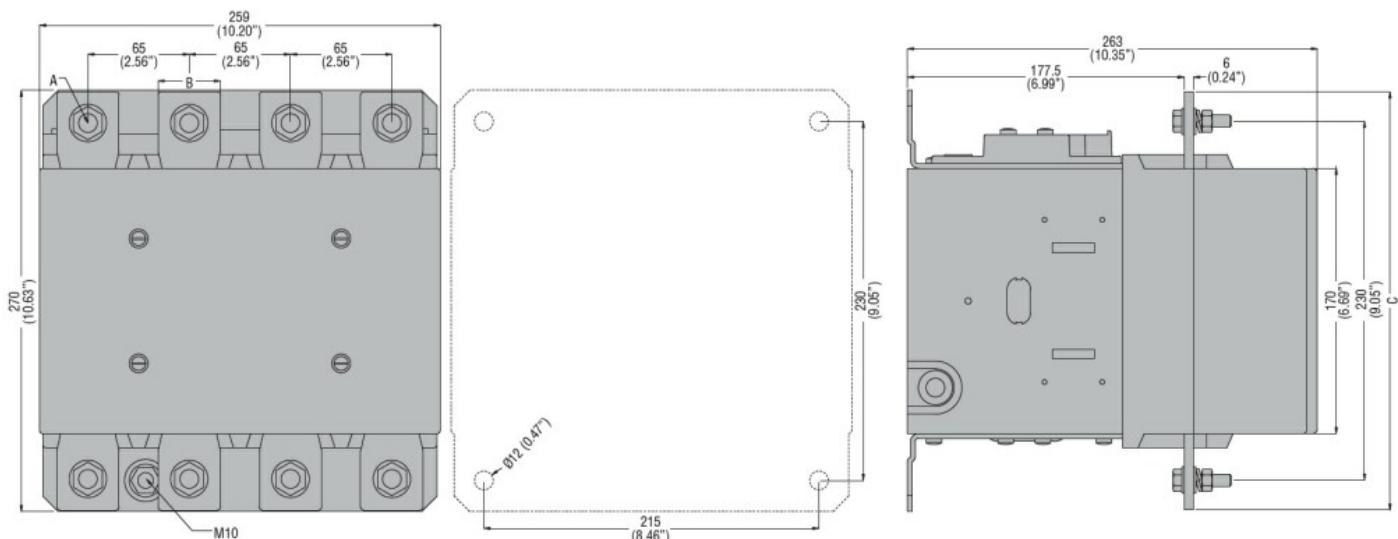
DC coil operating

DC rated control voltage

min	V	440
max	V	415

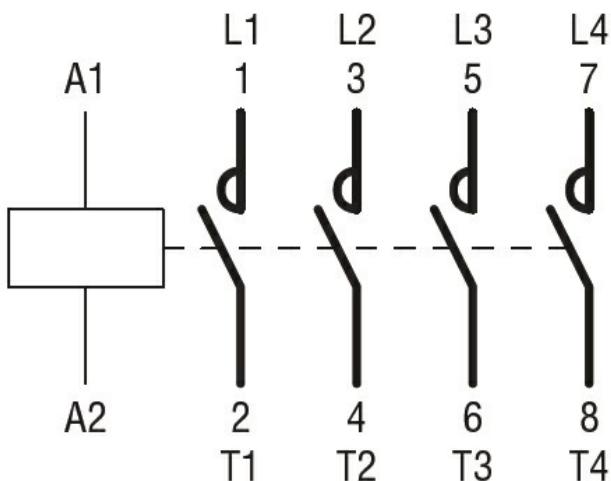
DC operating voltage

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
		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			
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	$^{\circ}\text{C}$
		max	$^{\circ}\text{C}$
	Storage temperature		
		min	$^{\circ}\text{C}$
		max	$^{\circ}\text{C}$
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