



Product designation Power contactor
Product type designation B500

Contact characteristics

Number of poles	Nr.	4
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 (≤40°C)	A 700
	AC-1 (≤55°C)	A 550
	AC-1 (≤70°C)	A 500
	AC-3 (≤440V ≤55°C)	A 520
	AC-4 (400V)	A 240
Rated operational power AC-1 (T≤40°C)	230V	kW 252
	400V	kW 438
	500V	kW 575
	690V	kW 755
IEC max current I _e in DC1 with L/R ≤ 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 ≤ 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 ≤ 1ms 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 ≤ 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 _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	2163
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 contats 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			
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		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

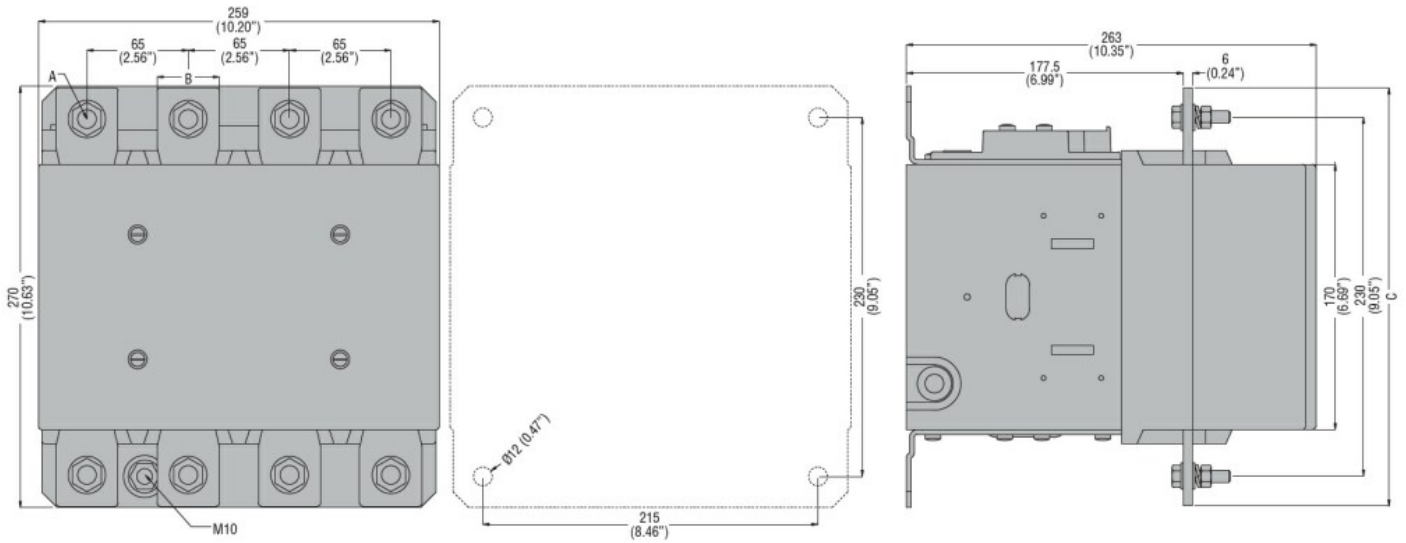
Operating times				
Average time for Us control				
	in AC			
		Closing NO		
		min	ms	110
		max	ms	180
		Opening NO		
		min	ms	60
		max	ms	100
	in DC			
		Closing NO		
		min	ms	110
		max	ms	180
		Opening NO		
		min	ms	60
		max	ms	100

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

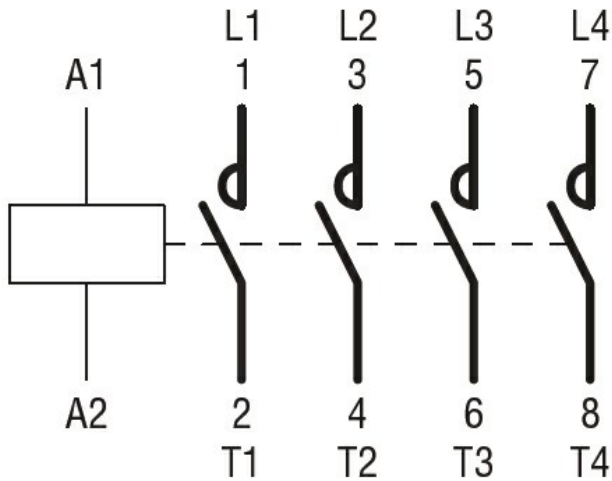
Resistance & Protection				
Pollution degree				3

Dimensions				
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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