

# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 520A, AC/DC COIL, 48VAC/DC



Product designation Product type designation		Power contactor B500
Contact characteristics		В300
Number of poles	Nr.	3
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	Α	700
Operational current le		
AC-1 (≤40°C)	Α	700
AC-1 (≤55°C)	Α	550
AC-1 (≤70°C)	Α	500
AC-3 (≤440V ≤55°C)	Α	520
AC-4 (400V)	Α	240
Rated operational power AC-3 (T≤55°C)		
230V	kW	156
400V		290
415V		306
440V		328
500V		367
690V		416
1000V	kW	312
Rated operational power AC-1 (T≤40°C)		
230V		252
400V		438
500V		575
690V	kW	755
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		
75V		650
110V		320
220\		
330V		
IEC may ourrent to in DC1 with L/D < 1 mg with 2 notes in coring	A	<del></del>
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	٨	GEO
75V 110V		650 550
220V		550 450
330V		450 
460V		 
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	^	_ <del>-</del>
75V	Α	650
110V		600
220V		600
220 V	^	300



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	330V	Α	450
	460V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	Α	650
	110V	Α	600
	220V	Α	600
	330V	Α	600
	460V	Α	450
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	1001	- / \	100
120 max carrent to in 200 200 war 2/11 = Tome war 1 poloc in conce	75V	Α	550
	110V	A	320
	220V	A	
		A	
	330V		
150 DOS DOS WILLIAM WILLIAM IN CO. 1. 1. 1.	460V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		_	
	75V	Α	550
	110V	Α	550
	220V	Α	450
	330V	Α	
	460V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	Α	550
	110V	Α	550
	220V	Α	550
	330V	Α	450
	460V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	1001	,,	
120 max current to in 200-200 with 2/1 2 forms with 4 poics in series	75V	Α	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	450
Short-time allowable current for 10s (IEC/EN60947-1)		Α	4050
Protection fuse			
	gG (IEC)	Α	800
	aM (IEC)	Α	500
Making capacity (RMS value)		Α	5000
Breaking capacity at voltage			
	440V	Α	5000
	500V	Α	4500
	690V	Α	4000
Resistance per pole (average value)		mΩ	0.14
Power dissipation per pole (average value)			
1 1 1 ( 3)	Ith	W	68.6
	AC-3	W	35
Tightening torque for terminals	7.00	•••	
ng.no.mg torquo for torrimitato	min	Nm	35
		Nm	35 35
	max		25.8
	min	lbin	
Tightoning tour of an acil to recircle	max	Ibin	25.8
Tightening torque for coil terminal			4
	min	Nm	1
	max	Nm	1



## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 520A, AC/DC COIL,

		min	Ibin	0.74
		max	Ibin	0.74
Max number of wires simultane	eously connectable		Nr.	2
Conductor section				
AWG/I	Kcmil			
		max		2x 500 kcmil
Power terminal protection acco	ording to IEC/EN 60529			IP00
Mechanical features				
Operating position		normal		Vertical plan
		normal allowable		Vertical plan ±30°
Fixing		allowable		Screw
Weight			g	1798
Conductor section			9	1700
	kcmil conductor section			
		max		2x 500 kcmil
Operations				
Mechanical life			cycles	5000000
Electrical life			cycles	700000
Safety related data				
Performance level B10d accor	ding to EN/ISO 13489-1			
		rated load	cycles	700000
		mechanical load	cycles	5000000
Mirror contats according to IEC	S/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating			V	48
Rated AC voltage at 50/60Hz AC operating voltage			V	40
	60Hz coil powered at 50Hz			
01 00/0	pick-up			
	pion dp	min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	60
of 50/6	60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
	duan aut	max	%Us	110
	drop-out	ma:	0/110	20
		min max	%Us %Us	20 60
of 60H	Iz coil powered at 60Hz	IIIdX	/003	
01 0011	pick-up			
	p.o., up	min	%Us	80
		max	%Us	110
		max		
	drop-out	THEAT.		
	drop-out	min	%Us	20
	drop-out		%Us %Us	20 60
AC average coil consumption a	at 20°C	min		
		min max	%Us	60
	at 20°C	min		



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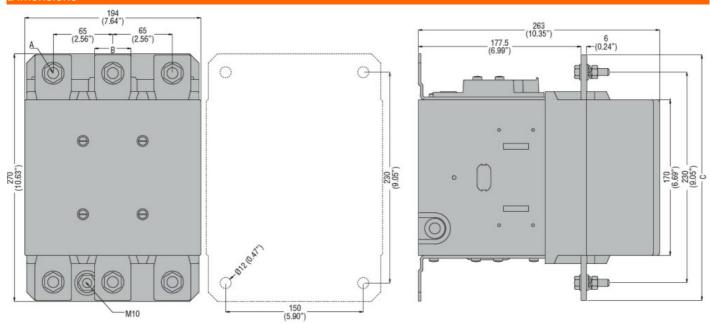
of 50/60Hz coil powered at 60Hz  in-rush VA 400 holding VA 18  Dissipation at holding ≤20°C 50Hz  W 18  DC coil operating  DC rated control voltage  DC operating voltage  pick-up  min %Us 80	
Dissipation at holding ≤20°C 50HzVA18DC coil operatingDC rated control voltageV48DC operating voltageV48	
Dissipation at holding ≤20°C 50Hz  DC coil operating  DC rated control voltage  DC operating voltage  pick-up  V 18  V 48	
DC coil operating  DC rated control voltage  DC operating voltage  pick-up	
DC rated control voltage V 48  DC operating voltage pick-up	
DC operating voltage pick-up	
pick-up	
min %i je xi j	
max %Us 110	
drop-out	
min %Us 20	
Max %Us 60	
Average coil consumption ≤20°C	
in-rush W 400	
holding W 18	
Max cycles frequency Mechanical operation cycles/h 1200	
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 °C -50	
max °C 70	
Storage temperature	
min °C -60	
min °C -60 max °C 80	
min         °C         -60           max         °C         80           Max altitude         m         3000	
min °C -60 max °C 80	



**ENERGY AND AUTOMATION** 

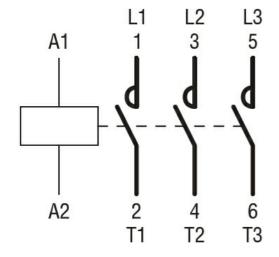
### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 520A, AC/DC COIL,

#### **Dimensions**



CONTACTOR TYPE	A	В	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



#### 11B5000048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 520A, AC/DC COIL, 48VAC/DC

ETIM 8.0

EC000066 -Power contactor, AC switching