ENERGY AND AUTOMATION

electric FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 275A, AC/DC COIL, 380... 415VAC/DC



Product designation Product type designation		Power contactor B180
Contact characteristics		
Number of poles	nr.	4
Rated insulation voltage Ui	V	1000
Rated impulse withstand voltage Uimp	kV	8
Operating frequency		
Operational frequency min	Hz	25
Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	275
Operating current		
Operational current AC1 (≤40°C)	Α	275
Operational current AC3 (≤440V ≤55°C)	Α	185
Operational current AC4 (400V)	Α	65
Rated operational power AC1 (T≤40°C)		
230V	kW	95
400V	kW	160
500V	kW	213
690V	kW	298
Rated operational power AC3 (T≤55°C)		
230V	kW	57
400V	kW	100
415V	kW	708
440V	kW	115
500V	kW	123
690V	kW	144
1000V	kW	103
Short-time allowable current for 10s (IEC/EN60947-1)	Α	1500
Protection fuse		
gG (IEC)	Α	315
aM (IEC)	Α	200
Making capacity (RMS value)	Α	1850
Breaking capacity at voltage		
Breaking capacity 440V	Α	1850
Breaking capacity 500V	Α	1600
Breaking capacity 690V	A	1480
Resistance per pole (average value)	mΩ	0.3
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	20.3
AC3	W	9.7
Tightening torque for terminals		
min	Nm	18
max	Nm	18
min	lbft	13.3
max	lbft	13.3

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max number of wires s	simultaneously connectable		nr.	2
Conductor section				
	AWG			
		max		300 kcmil
	tion according to IEC/EN 60529			IP00
Auxiliary contact chara			^	075
Operational current AC	,		Α	275
Operating current DC1	3	110V	۸	Sorow
Ambient conditions		1100	Α	Screw
emperature				
ciriperature	Operating temperature			
	oporating temperature	min	°C	-50
		max	°C	70
	Storage temperature			
	,	min	°C	-60
		max	°C	80
lax altitude			m	3000
perating position				
		normal		Vertical plan
		allowable		±30°
<i>l</i> ounting				Screw
Veight			g	6.34
Operations				
			Cycles	10000000
Electrical life			Cycles Cycles	10000000 1000000
Electrical life Safety related data	2			
Electrical life Safety related data	Od according to EN/ISO 13489-1	note d local	Cycles	1000000
Electrical life Safety related data	Od according to EN/ISO 13489-1	rated load	Cycles	1000000
Electrical life Safety related data Performance level B10	-	rated load mechanical load	Cycles	1000000 1000000 10000000
Electrical life Safety related data Performance level B10 Mirror contats according	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1		Cycles	1000000 1000000 10000000 yes
lectrical life cafety related data derformance level B10 dirror contats according MC compatibility	-		Cycles	1000000 1000000 10000000
Electrical life cafety related data derformance level B10 dirror contats according MC compatibility C coil operating	-		Cycles	1000000 1000000 10000000 yes
lectrical life lafety related data lerformance level B10 lirror contats accordin lMC compatibility lC coil operating	ng to IEC/EN 609474-4-1		Cycles	1000000 1000000 10000000 yes
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility C coil operating	of 50/60Hz coil powered at 50Hz		Cycles	1000000 1000000 10000000 yes
Electrical life cafety related data derformance level B10 dirror contats according MC compatibility C coil operating	ng to IEC/EN 609474-4-1	mechanical load	Cycles Cicli Cicli	1000000 1000000 10000000 yes yes
lectrical life lafety related data lerformance level B10 lirror contats accordin lMC compatibility lC coil operating	of 50/60Hz coil powered at 50Hz		Cycles	1000000 1000000 10000000 yes
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	of 50/60Hz coil powered at 50Hz	mechanical load	Cycles Cicli Cicli WUs	1000000 1000000 10000000 yes yes
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility C coil operating	of 50/60Hz coil powered at 50Hz pick-up	mechanical load	Cycles Cicli Cicli WUs	1000000 1000000 10000000 yes yes
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max	Cycles Cicli Cicli WUs WUs	1000000 1000000 10000000 yes yes
lectrical life lafety related data lerformance level B10 lirror contats accordin lMC compatibility lC coil operating	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min	Cycles Cicli Cicli WUs WUs WUs	1000000 1000000 10000000 yes yes 0.8 1.1
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility C coil operating	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min max	Cycles Cicli Cicli WUs WUs WUs WUs	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
lectrical life lafety related data lerformance level B10 lirror contats accordin lMC compatibility lC coil operating	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min max min max	Cycles Cicli Cicli %Us %Us %Us %Us %Us	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility C coil operating	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max	Cycles Cicli Cicli WUs WUs WUs WUs	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min max min max	Cycles Cicli Cicli *Us *Us *Us *Us *Us *Us	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max min max min max	Cycles Cicli Cicli **Us **Us **Us **Us **Us **Us **Us **	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Cafety related data Performance level B10 Mirror contats according Mirror compatibility AC coil operating AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max min max	Cycles Cicli Cicli *Us *Us *Us *Us *Us *Us	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Cafety related data Performance level B10 Mirror contats according Mirror compatibility AC coil operating AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	mechanical load min max min max min max min max	Cycles Cicli Cicli **Us **Us **Us **Us **Us **Us **Us **	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
Electrical life Cafety related data Performance level B10 Mirror contats according Mirror compatibility AC coil operating AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max min max min max	Cycles Cicli Cicli WUs WUs WUs WUs WUs WUs WUs	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6
	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	mechanical load min max min max min max min max	Cycles Cicli Cicli **Us **Us **Us **Us **Us **Us **Us **	1000000 1000000 10000000 yes yes 0.8 1.1 0.2 0.6

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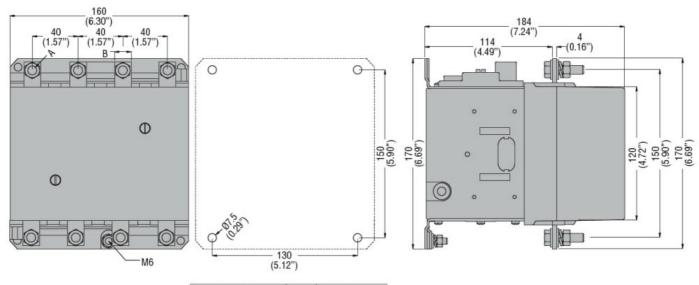
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			in-rush	VA	300
			holding	VA	10
Dissipation at holding	≤20°C 50Hz			W	10
DC coil operating					
DC rated control voltage	je				
-			min	V	24
DC operating voltage					
	pick-up			0/11	
			min	%Us	0.8
			max	%Us	1.10
	drop-out		min	0/110	0.0
			min	%Us %Us	0.2 0.60
Average coil consuption	vn <20°C		max	%US	0.00
Average con consupuic	011 ≥20 C		in-rush	W	300
			holding	W	10
Max cycles frequency			Holding	V V	10
Mechanical operations				Cycles/h	2400
Operating times				J J 0100/1	100
Average time for Us co	ontrol				
· · · · · · · · · · · · · · · · · · ·	in AC				
		Closing NO			
		3 - 1 - 3 - 1	min	ms	60
			max	ms	100
		Opening NO			
			min	ms	25
			max	ms	60
	in DC				
		Closing NO			
			min	ms	60
			max	ms	100
		Opening NO			
			min	ms	25
THE COLD STORY THE			max	ms	60
UL technical data	for three place ^	Cmotor			
Full-load current (FLA)	ioi tillee-phase A	IO 1110101	o+ 400\/	٨	180
			at 480V at 600V	A A	180
Yielded mechanical pe	rformance		at 000 V	^	144
nelueu mechanicai pe	for three-phase	AC motor			
	ioi unee-pnase	AC HIOLOI	at 200/208V	hp	60
			at 200/200V at 220/230V	hp	75
			at 460/480V	hp	150
			at 575/600V	hp	150
General USE			2. 2. 3, 333 V		
	Contactor				
			AC current	Α	275
Other features					
Pollution degree					3
Dimensions					

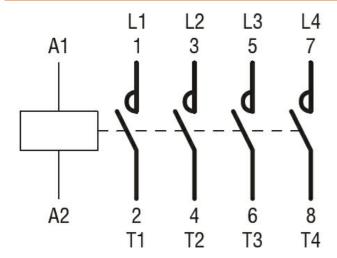
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CONTACTOR TYPE	Α	В
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

Wiring diagrams



Certifications and compliance

Certifications

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

Compliance

CCC

cULus

EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching