



Product designation				Power contactor
Product type designation				B180
Contact characteristics				
Number of poles	nr.			4
Rated insulation voltage U _i	V			1000
Rated impulse withstand voltage U _{imp}	kV			8
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
Conventional free air thermal current I _{th}	A			275
Operating current	Operational current AC1 (≤40°C)	A	275	
	Operational current AC3 (≤440V ≤55°C)	A	185	
	Operational current AC4 (400V)	A	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	
Short-time allowable current for 10s (IEC/EN60947-1)	1000V	kW	103	
		A	1500	
Protection fuse	gG (IEC)	A	315	
	aM (IEC)	A	200	
Making capacity (RMS value)	A			1850
Breaking capacity at voltage	Breaking capacity 440V	A	1850	
	Breaking capacity 500V	A	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) I _{th}	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	

max number of wires simultaneously connectable		nr.	2
Conductor section	AWG	max	300 kcmil
Power terminal protection according to IEC/EN 60529			IP00
Auxiliary contact characteristics			
Operational current AC1 ($\leq 40^{\circ}\text{C}$)		A	275
Operating current DC13		110V	A Screw
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
Operating position		normal allowable	Vertical plan $\pm 30^{\circ}$
Mounting			Screw
Weight		g	6.38
Operations			
Mechanical life		Cycles	10000000
Electrical life		Cycles	1000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	Cicli 1000000 Cicli 10000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
AC operating voltage	of 50/60Hz coil powered at 50Hz		
	pick-up	min	%Us 0.8
		max	%Us 1.1
	drop-out	min	%Us 0.2
		max	%Us 0.6
	of 50/60Hz coil powered at 60Hz		
	pick-up	min	%Us 0.8
		max	%Us 1.1
	drop-out	min	%Us 0.2
		max	%Us 0.6
AC operating voltage	of 50/60Hz coil powered at 50Hz	in-rush holding	VA 300 VA 10
	of 50/60Hz coil powered at 60Hz		

	in-rush	VA	300
	holding	VA	10
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	10

DC coil operating

DC rated control voltage	min	V	24
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DC operating voltage

pick-up	min	%Us	0.8
	max	%Us	1.10

drop-out	min	%Us	0.2
	max	%Us	0.60

Average coil consumption $\leq 20^{\circ}\text{C}$

in-rush	W	300
holding	W	10

Max cycles frequency

Mechanical operations	Cycles/h	2400
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Operating times

Average time for Us control

in AC	Closing NO	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
		max	ms	60

UL technical data

Full-load current (FLA) for three-phase AC motor

at 480V	A	180
at 600V	A	144

Yielded mechanical performance

for three-phase AC motor	at 200/208V	hp	60
	at 220/230V	hp	75
	at 460/480V	hp	150
	at 575/600V	hp	150

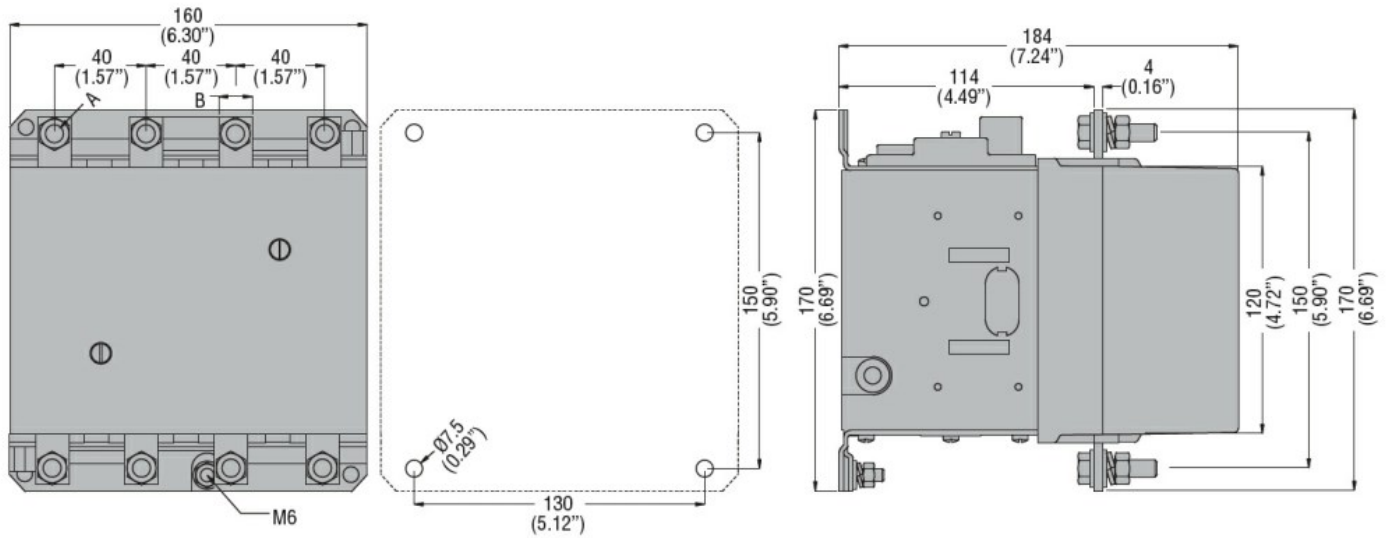
General USE

Contactor	AC current	A	275
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Other features

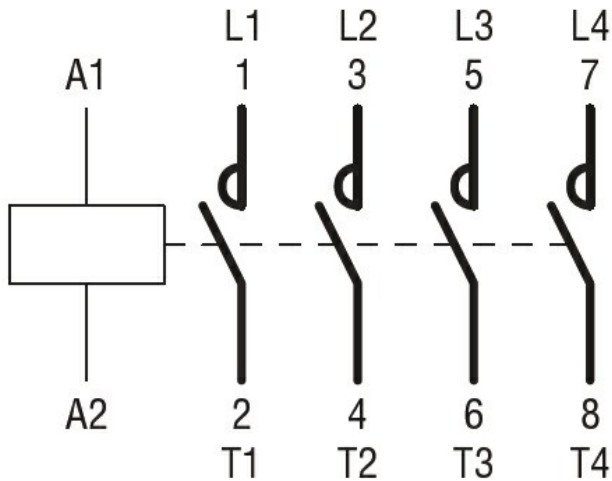
Pollution degree	3
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Dimensions



CONTACTOR TYPE	A	B
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