



Product designation

Power contactor

Product type designation

B180

**Contact characteristics**

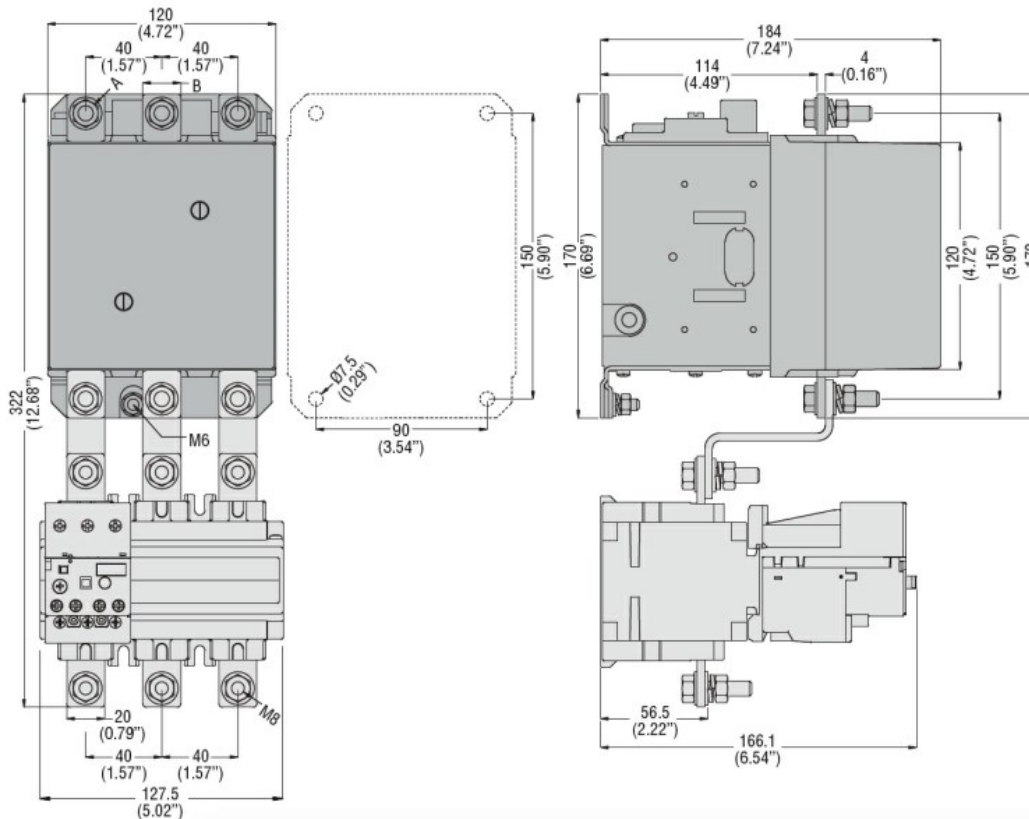
Number of poles	Nr.	3
Rated insulation voltage $U_i$ IEC/EN	V	1000
Rated impulse withstand voltage $U_{imp}$	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current $I_{th}$	A	275
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 275
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 250
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 200
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 185
	AC-4 (400V)	A 65
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	400V	kW 100
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 95
	400V	kW 160
	500V	kW 213
	690V	kW 298
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A 260
	110V	A 120
	220V	A –
	330V	A –
	460V	A –
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A 260
	110V	A 170
	220V	A 150
	330V	A –
	460V	A –
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	75V	A 260
	110V	A 170
	220V	A 170
	330V	A 150
	460V	A –
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	75V	A 260
	110V	A 170
	220V	A 170

	330V	A	170
	460V	A	150
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	180
	110V	A	90
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	180
	110V	A	140
	220V	A	100
	330V	A	–
	460V	A	–
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	180
	110V	A	160
	220V	A	140
	330V	A	100
	460V	A	–
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	180
	110V	A	160
	220V	A	160
	330V	A	160
	460V	A	100
Short-time allowable current for 10s (IEC/EN60947-1)		A	1500
Protection fuse			
	gG (IEC)	A	315
	aM (IEC)	A	200
Making capacity (RMS value)		A	1850
Breaking capacity at voltage			
	440V	A	1850
	500V	A	1600
	690V	A	1480
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	20.3
	AC-3	W	9.7
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	13.3
	max	lbin	13.3
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1
	min	lbin	0.74
	max	lbin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
	AWG/Kcmil		
	max		300 kcmil

Power terminal protection according to IEC/EN 60529			IP00	
Mechanical features				
Operating position		normal allowable	Vertical plan ±30°	
Fixing				Screw
Weight		g	6100	
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	cycles	1000000
			cycles	10000000
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	380
		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	300
		holding	VA	10
of 50/60Hz coil powered at 60Hz		in-rush	VA	300
		holding	VA	10
Dissipation at holding ≤20°C 50Hz			W	10
DC coil operating				
DC rated control voltage				
		min	V	380

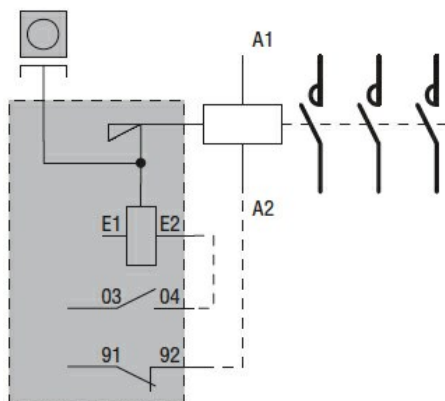
		max	V	415			
DC operating voltage							
pick-up		min	%Us	80			
		max	%Us	110			
	drop-out	min	%Us	20			
		max	%Us	60			
Average coil consumption ≤20°C							
		in-rush	W	300			
		holding	W	10			
Max cycles frequency							
Mechanical operation			cycles/h	2400			
Operating times							
Average time for 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				
			Rated operational voltage AC (UL)			V	600
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			200/208V	HP	60		
			220/230V	HP	75		
			575/600V	HP	150		
General USE							
Contactor	AC current		A	275			
Short-circuit protection fuse, 600V							
Standard fault	Short circuit current		kA	10			
	Fuse rating		A	500			
	Fuse class			RK5			
Ambient conditions							
Temperature							
Operating temperature		min	°C	-50			
		max	°C	70			
	Storage temperature	min	°C	-60			

	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
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

### 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
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