



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	130
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	185
	AC-4 (400V)	A	65
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW	57
	400V	kW	100
	415V	kW	108
	440V	kW	115
	500V	kW	123
	690V	kW	144
	1000V	kW	103
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW	95
	400V	kW	160
	500V	kW	213
	690V	kW	298
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)	m Ω	0.3	
Power dissipation per pole (average value)	I_{th}	W	20.3
	AC3	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	lbft	0.74
	max	lbft	0.74
Max number of wires simultaneously connectable	nr.		2
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position	normal allowable	vertical plan	±30°
Fixing			Screw
Weight		g	5340
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	1000000
	mechanical load	cycles	10000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	24
	max	V	480
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 operating voltage 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 $\leq 20^{\circ}\text{C}$ 50Hz		W	10

DC coil operating

DC rated control voltage	min	V	24
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DC operating voltage	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	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			
	200/208V	hp	60
	220/230V	hp	75
	460/480V	hp	150
	575/600V	hp	150

General USE			
Contactor			
	AC current	A	275

Ambient conditions

Temperature			
Operating temperature			
	min	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	70

Storage temperature

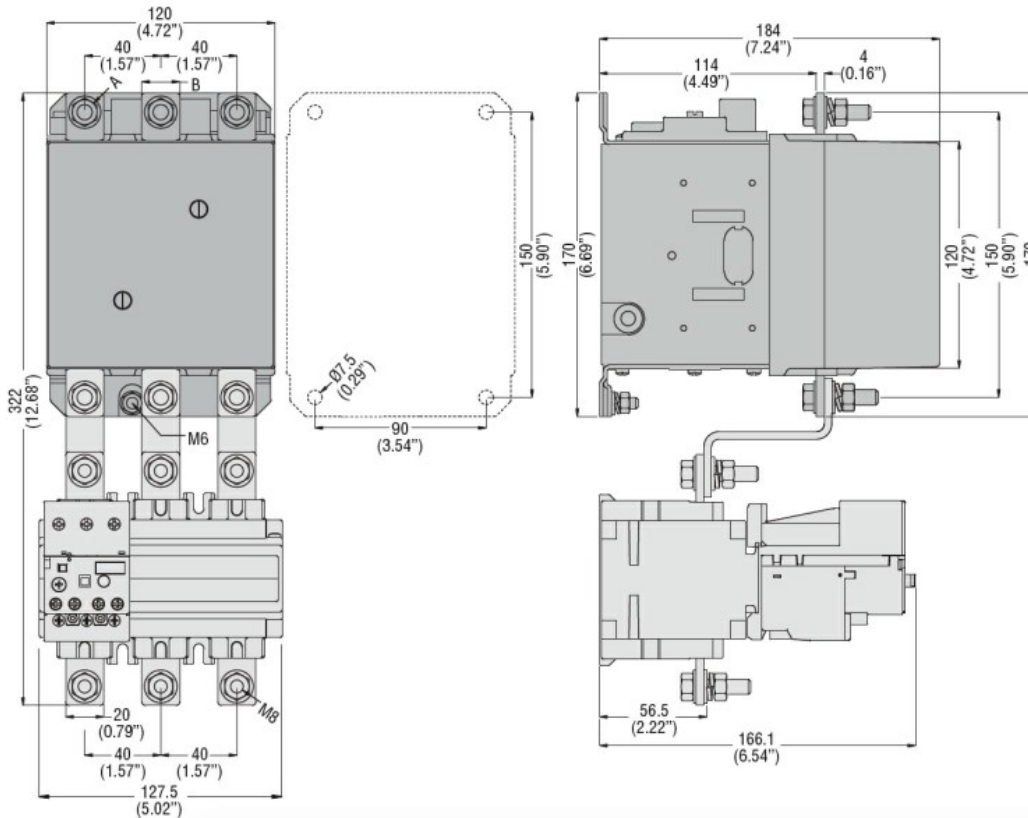
min	°C	-60
max	°C	80
Max altitude	m	3000

Resistance & Protection

Pollution degree

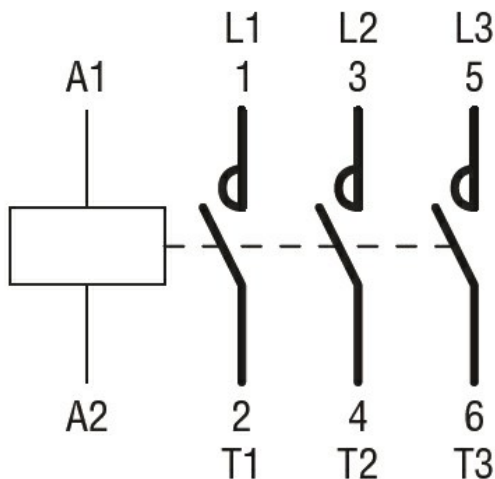
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Dimensions



CONTACTOR TYPE	A	B
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

Wiring diagrams



Certifications and compliance

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 6 classification

EC000066 - Power contactor, AC switching