



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 ($\leq 40^\circ C$)	A	275	
AC-1 ($\leq 55^\circ C$)	A	250	
AC-1 ($\leq 70^\circ C$)	A	200	
AC-3 ($\leq 440V \leq 55^\circ C$)	A	185	
AC-4 (400V)	A	65	
Rated operational power AC-3 ($T \leq 55^\circ C$)	400V	kW	100
Rated operational power AC-1 ($T \leq 40^\circ C$)	230V	kW	95
	400V	kW	160
	500V	kW	213
	690V	kW	298
IEC max current I_e in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ with 4 poles in series	75V	A	260
	110V	A	170
	220V	A	170

	330V	A	170
	460V	A	150
IEC max current le 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 le 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 le 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 le 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)			m? 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	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						
Fixing	normal allowable	Vertical plan ±30°				
Weight		Screw	g 6040			
Conductor section						
AWG/kcmil conductor section	max	300 kcmil				
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 10000000			
Mirror contacts according to IEC/EN 609474-4-1		yes				
EMC compatibility						
AC coil operating						
Rated AC voltage at 50/60Hz, 60Hz	min max	V V	220 240			
AC operating voltage						
of 50/60Hz coil powered at 50Hz						
pick-up	min max	%Us %Us	80 110			
drop-out	min max	%Us %Us	20 60			
of 50/60Hz coil powered at 60Hz						
pick-up	min max	%Us %Us	80 110			
drop-out	min max	%Us %Us	20 60			
of 60Hz coil powered at 60Hz						
pick-up	min max	%Us %Us	80 110			
drop-out	min max	%Us %Us	20 60			
AC average coil consumption at 20°C						
of 50/60Hz coil powered at 50Hz	in-rush holding	VA VA	300 10			
of 50/60Hz coil powered at 60Hz	in-rush holding	VA VA	300 10			
Dissipation at holding ≤20°C 50Hz		W	10			

DC coil operating
DC rated control voltage

min	V	220
max	V	240

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 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
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
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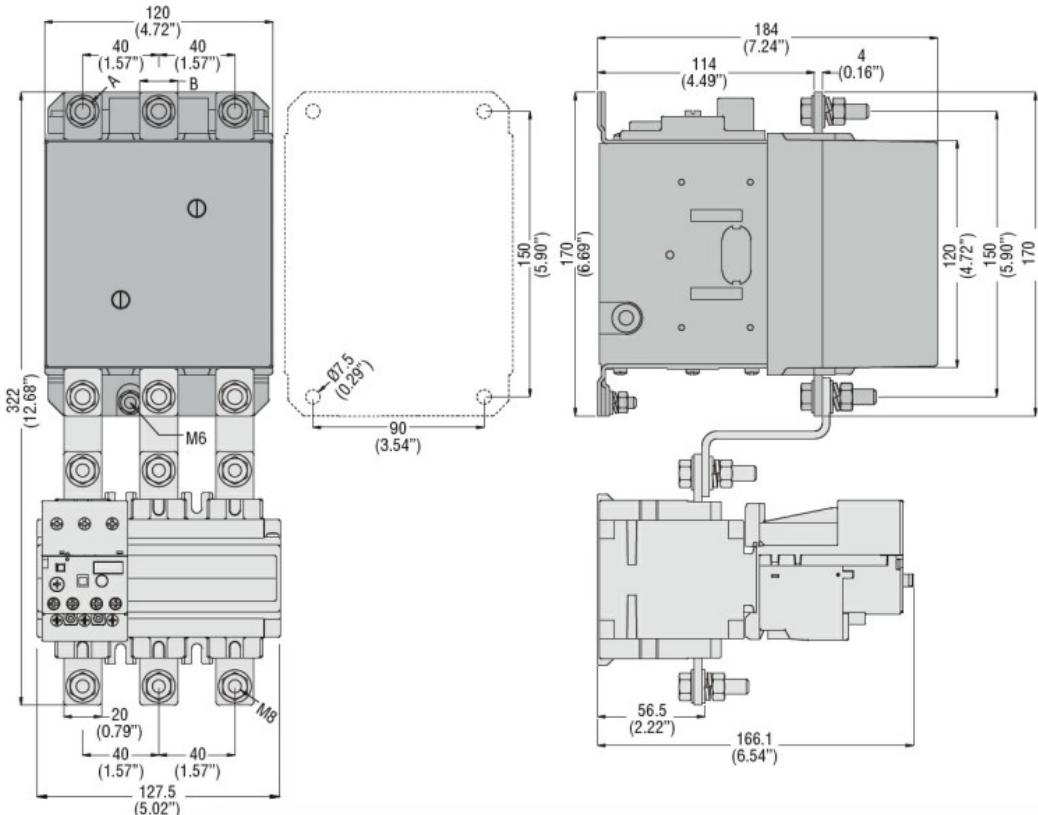
Short-circuit protection fuse, 600V
Standard fault

Short circuit current	kA	10
Fuse rating	A	500
Fuse class		RK5

Ambient conditions
Temperature
Operating temperature

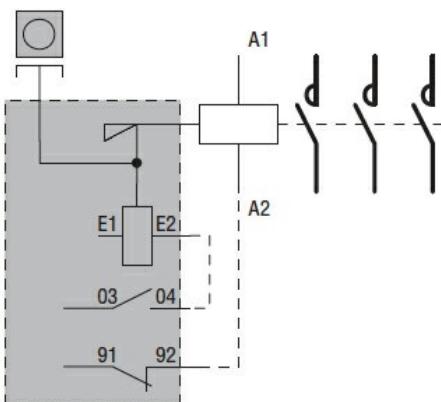
min	°C	-50
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	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



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