



Product designation				Power contactor
Product type designation				B180
Contact characteristics				
Number of poles	Nr.			4
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 (≤40°C)	A	275	
	AC-1 (≤55°C)	A	250	
	AC-1 (≤70°C)	A	200	
	AC-3 (≤440V ≤55°C)	A	185	
	AC-4 (400V)	A	65	
Rated operational power AC-1 (T≤40°C)	230V	kW	95	
	400V	kW	160	
	500V	kW	213	
	690V	kW	298	
IEC max current I _e in DC1 with L/R ≤ 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 ≤ 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 ≤ 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 ≤ 1ms with 4 poles in series	75V	A	260	
	110V	A	170	
	220V	A	170	
	330V	A	170	
	460V	A	150	

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series

75V	A	180
110V	A	90
220V	A	–
330V	A	–
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series

75V	A	180
110V	A	140
220V	A	100
330V	A	–
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series

75V	A	180
110V	A	160
220V	A	140
330V	A	100
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ 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
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Protection fuse

gG (IEC)	A	315
aM (IEC)	A	200

Making capacity (RMS value)

A	1850
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Breaking capacity at voltage

440V	A	1850
500V	A	1600
690V	A	1480

Resistance per pole (average value)

mΩ	0.3
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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
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Conductor section

AWG/Kcmil

max	300 kcmil
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Power terminal protection according to IEC/EN 60529

IP00

Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	6320
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
		cycles	10000000

Mirror contacts according to IEC/EN 60947-4-1

EMC compatibility

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

	min	V	220
	max	V	240

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
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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

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	$^{\circ}\text{C}$	-50
		max	$^{\circ}\text{C}$	70
	Storage temperature			

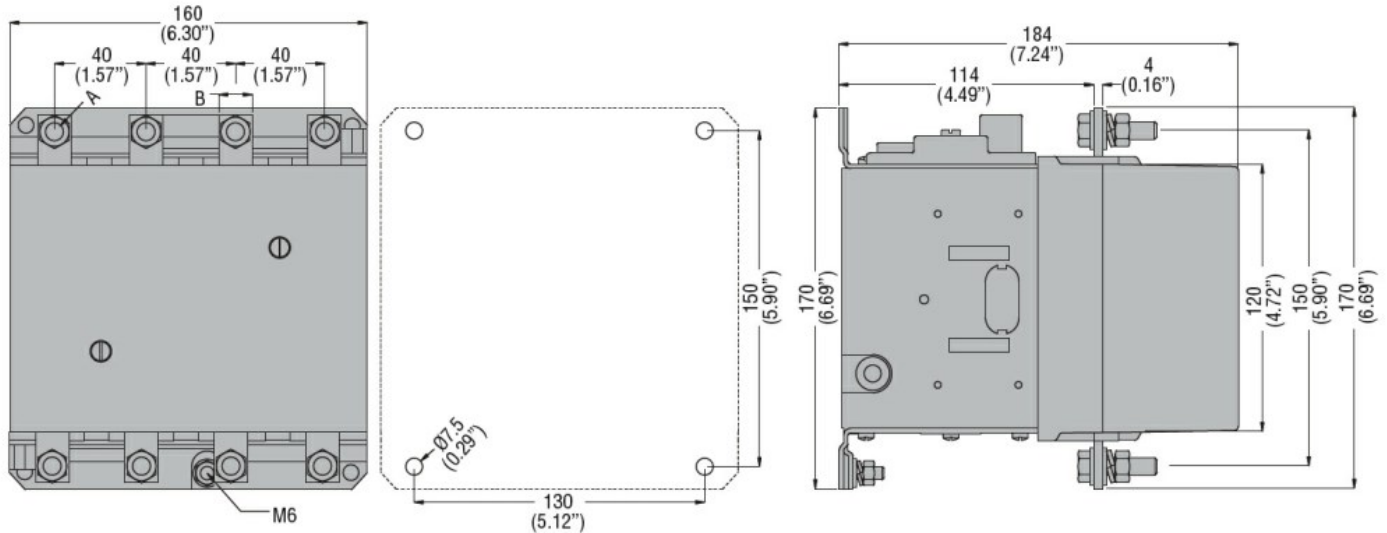
min	°C	-60
max	°C	80
Max altitude	m	3000

Resistance & Protection

Pollution degree

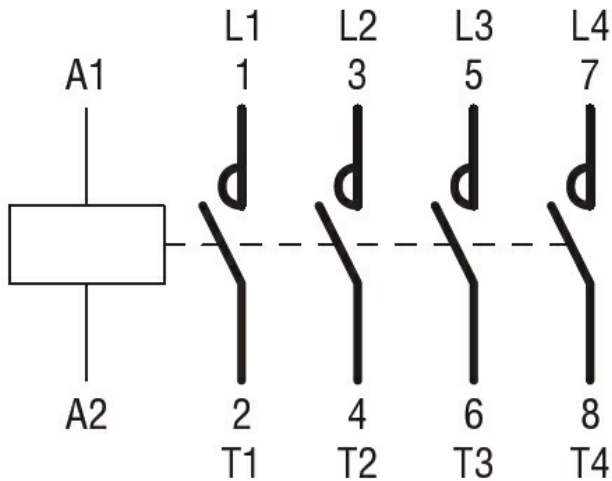
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Dimensions



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 classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching