



Product designation			Power contactor
Product type designation			B180
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	275	
Operational current Ie	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 Ie 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 Ie 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 Ie 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 Ie 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
AC-3	W	9.7

Tightening torque for terminals

min	Nm	18
max	Nm	18
min	Ibin	13.3
max	Ibin	13.3

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	Ibin	0.74
max	Ibin	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	6250

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			Yes
EMC compatibility			yes

AC coil operating

Rated AC voltage at 50/60Hz	V	48
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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	V	48
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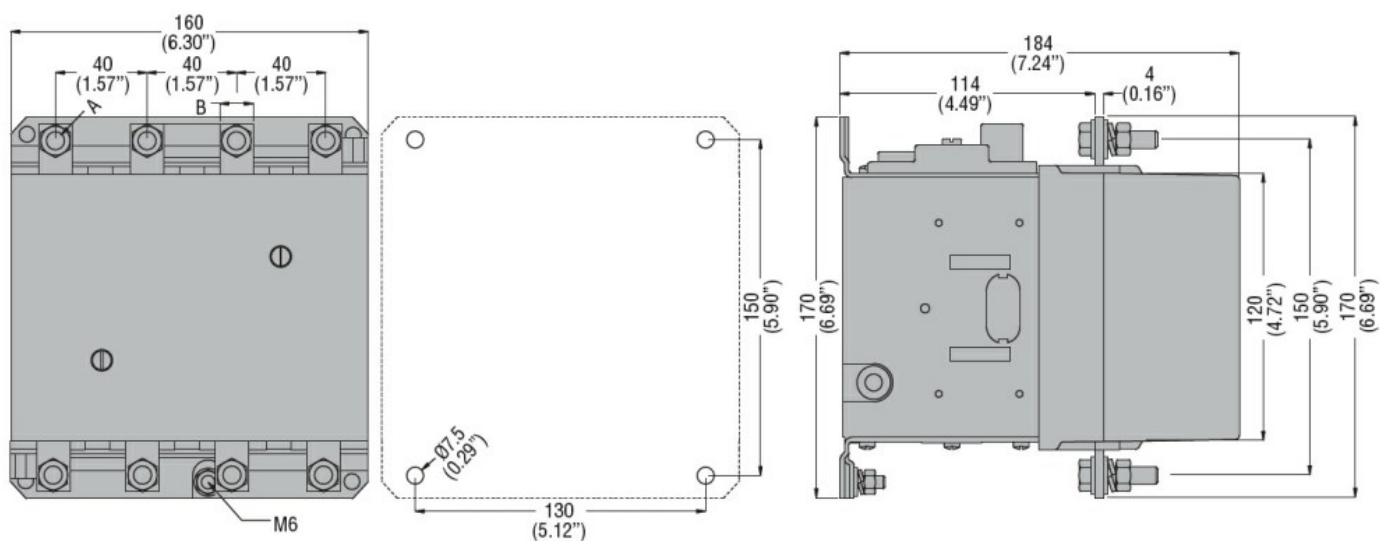
DC operating voltage

pick-up

min	%Us	80
max	%Us	110

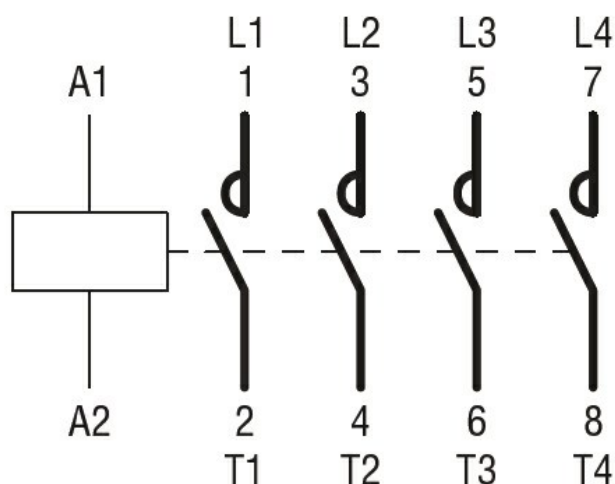
drop-out

		min	%Us	20
		max	%Us	60
Average coil consumption ≤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