



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
	440...480V	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 Ie 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 Ie 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 Ie 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 Ie 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)

Ith	W	20.3
AC3	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	Ibft	0.74
max	Ibft	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			6320
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 609474-4-1				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 ≤20°C 50Hz	W			10
DC coil operating				
DC rated control voltage				
	min	V	24	
	max	V	500	
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

Ambient conditions

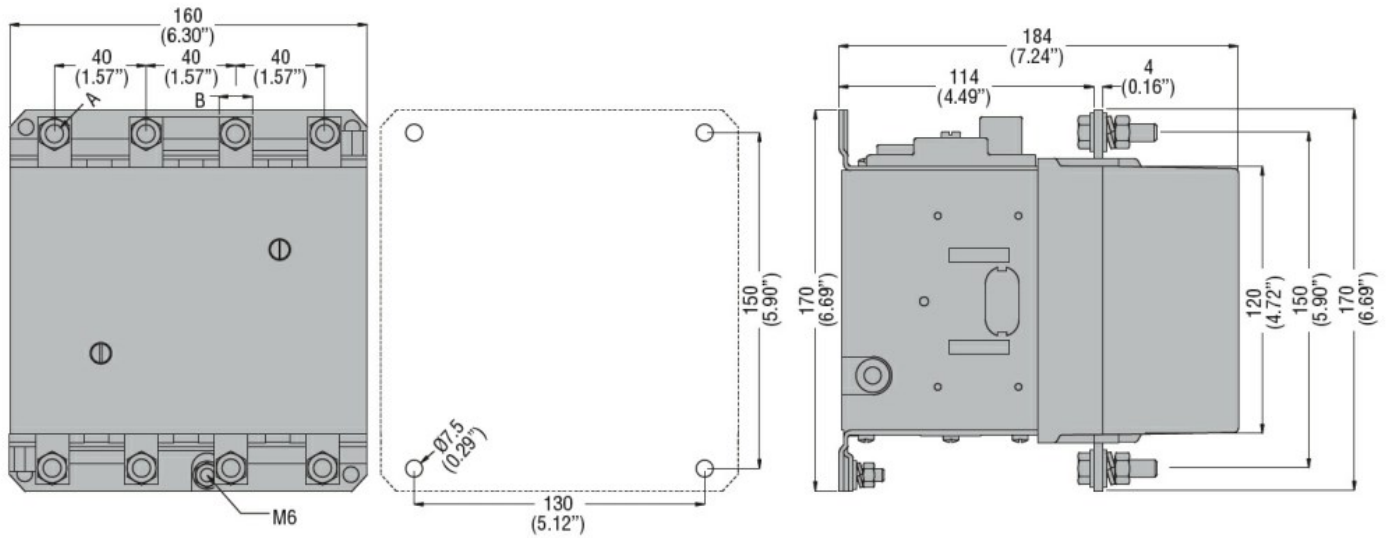
Temperature			
Operating temperature			
	min	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	70
Storage temperature			
	min	$^{\circ}\text{C}$	-60
	max	$^{\circ}\text{C}$	80

Max altitude	m	3000
--------------	---	------

Resistance & Protection

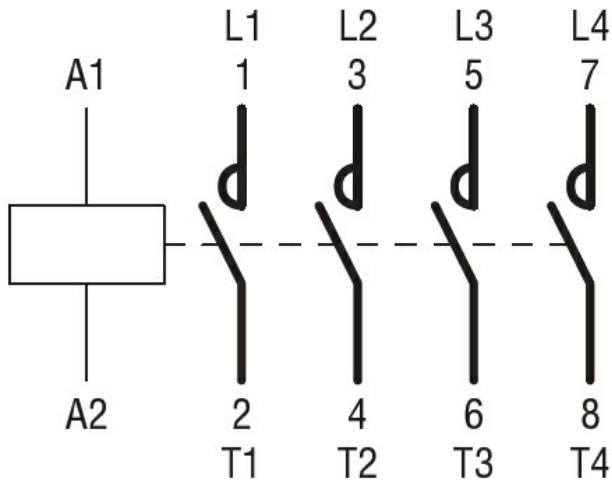
Pollution degree	3
------------------	---

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