



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 (=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-3 (T=55°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=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 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 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)		m?	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	I _{bin}	0.74
	max	I _{bin}	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			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	5450
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 cycles	1000000 10000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	24
AC operating voltage			
	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	60
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	60
	of 60Hz coil powered at 60Hz		
	pick-up		
	min	%U _s	80
	max	%U _s	110
	drop-out		
	min	%U _s	20
	max	%U _s	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

DC coil operating

DC rated control voltage		V	24
--------------------------	--	---	----

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

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

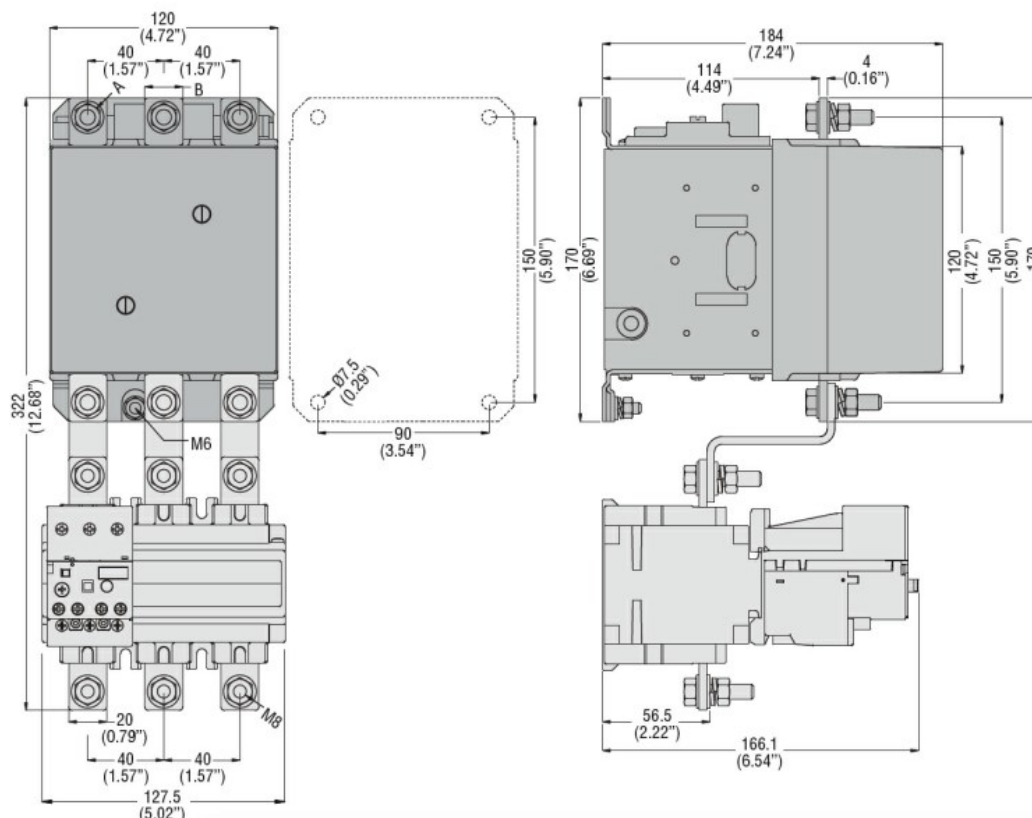
m 3000

Resistance & Protection

Pollution degree

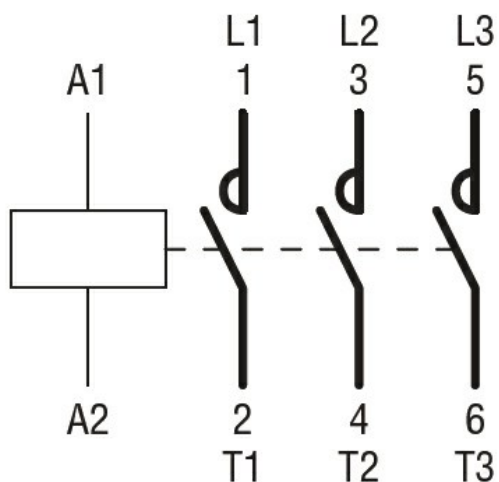
3

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