



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	–
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IEC max current I <sub>e</sub> 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
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 1 poles in series			
	75V	A	180
	110V	A	90
	220V	A	–
	330V	A	–
	460V	A	–
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IEC max current I <sub>e</sub> 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	–
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IEC max current I <sub>e</sub> 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	–
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IEC max current I <sub>e</sub> 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
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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
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Making capacity (RMS value)		A	1850
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Breaking capacity at voltage			
	440V	A	1850
	500V	A	1600
	690V	A	1480
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Resistance per pole (average value)		mΩ	0.3
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Power dissipation per pole (average value)			
	I <sub>th</sub>	W	20.3
	AC3	W	9.7
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Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	I <sub>bin</sub>	13.3
	max	I <sub>bin</sub>	13.3
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Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

	min	I <sub>bin</sub>	0.74
	max	I <sub>bin</sub>	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
<b>Mechanical features</b>			
Operating position		normal allowable	Vertical plan ±30°
Fixing			Screw
Weight		g	5339
Conductor section			
		AWG/kcmil conductor section	
		max	300 kcmil
<b>Operations</b>			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
<b>Safety related data</b>			
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
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz		min	V 440
		max	V 415
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
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	440
	max	V	415
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
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	2400
<b>Operating times</b>			
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
<b>UL technical data</b>			
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

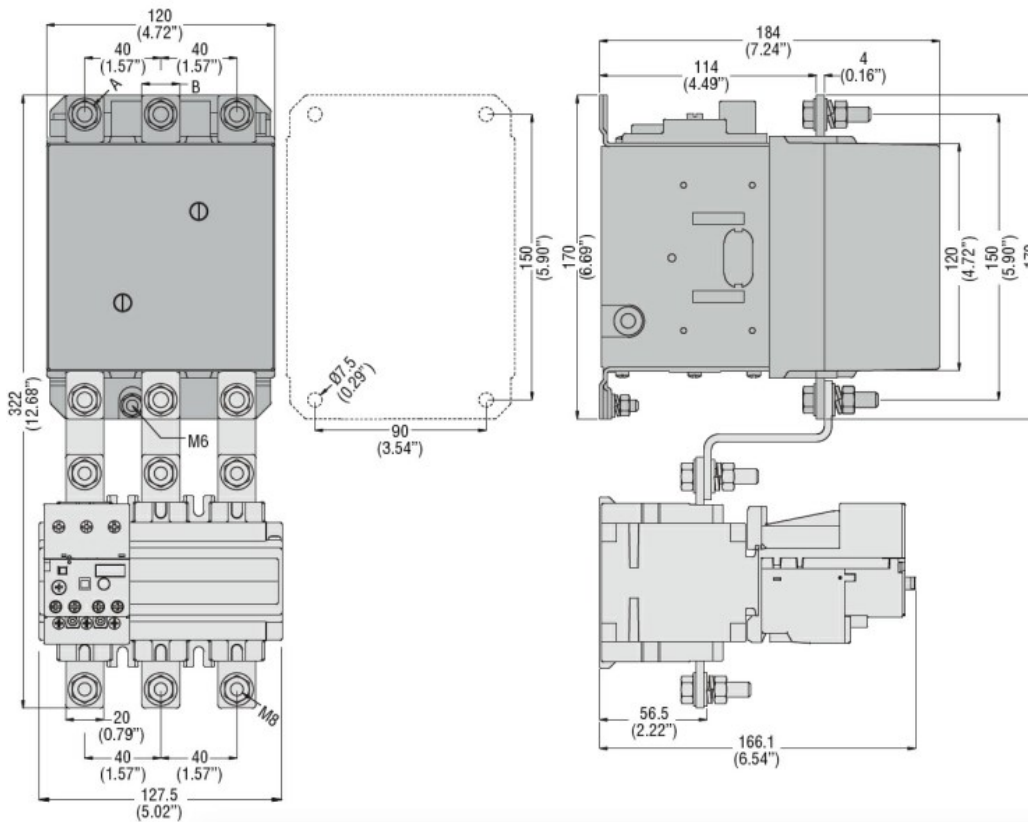
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**Resistance & Protection**

Pollution degree

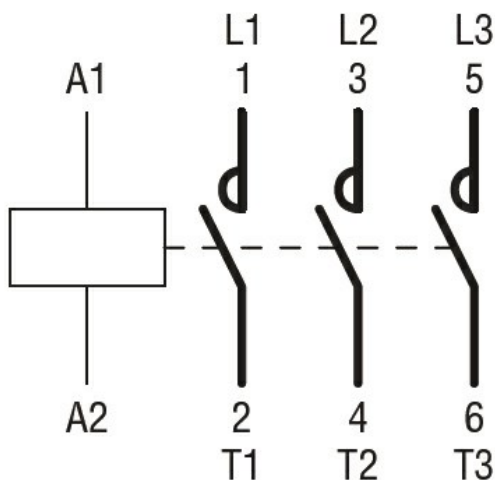
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**Dimensions**



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