



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 ($\leq 40^\circ\text{C}$)	A	275
	AC-1 ($\leq 55^\circ\text{C}$)	A	250
	AC-1 ($\leq 70^\circ\text{C}$)	A	200
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	185
	AC-4 (400V)	A	65
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	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 ($T \leq 40^\circ\text{C}$)	230V	kW	95
	400V	kW	160
	500V	kW	213
	690V	kW	298
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ 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 $L/R \leq 1\text{ms}$ 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 $L/R \leq 1\text{ms}$ 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 _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
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IEC max current I _e 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 _e 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 _e 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 _e 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 _{th}	W	20.3
	AC-3	W	9.7
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Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	I _{bin}	13.3
	max	I _{bin}	13.3
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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 609474-4-1			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 holding	VA VA 300 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
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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
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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
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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

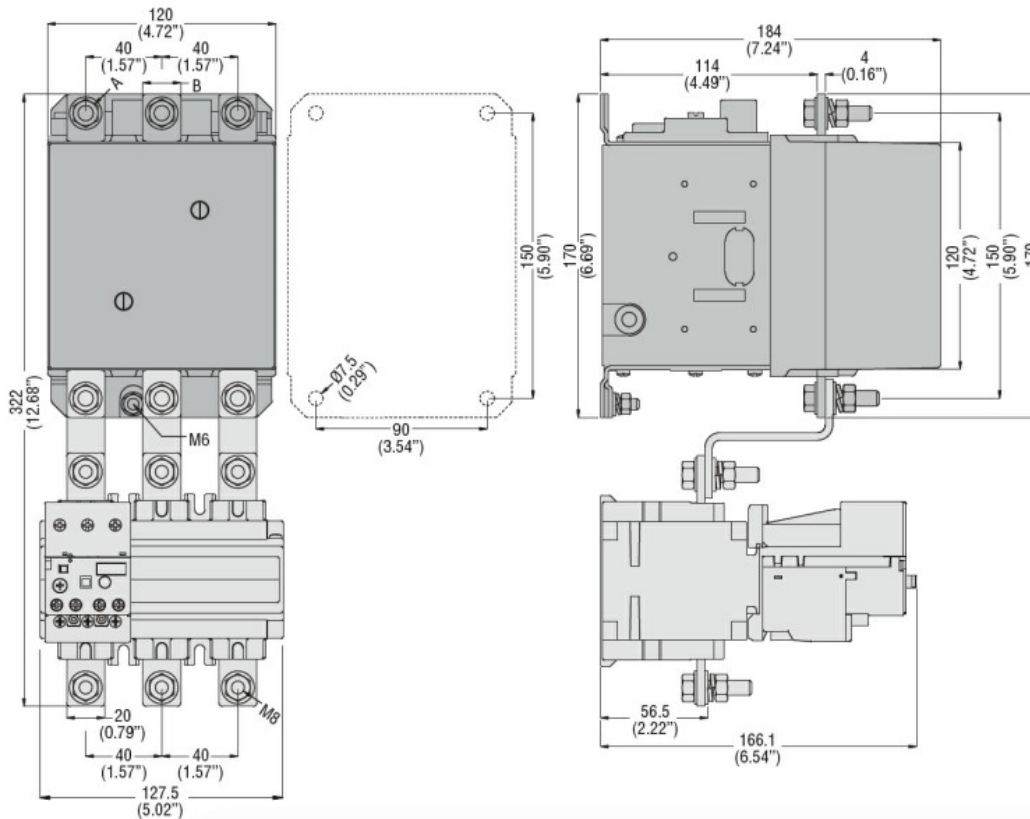
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Resistance & Protection

Pollution degree

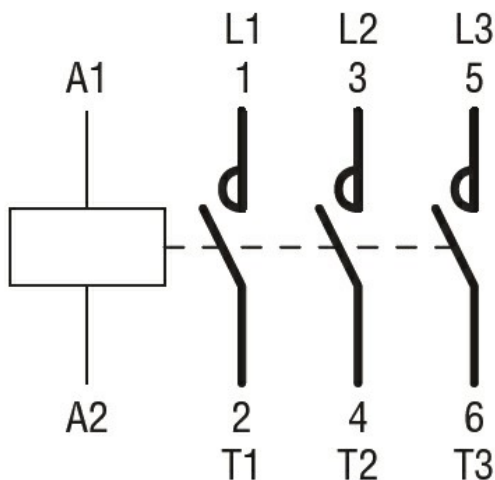
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Dimensions



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