



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	–
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 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	–
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	–
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	–
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
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)			
	I _{th}	W	20.3
	AC-3	W	9.7
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	I _{bin}	13.3
	max	I _{bin}	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	5339
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 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, 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 $\leq 20^{\circ}\text{C}$ 50Hz		W	10
DC coil operating			
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 $\leq 20^{\circ}\text{C}$			
	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
	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

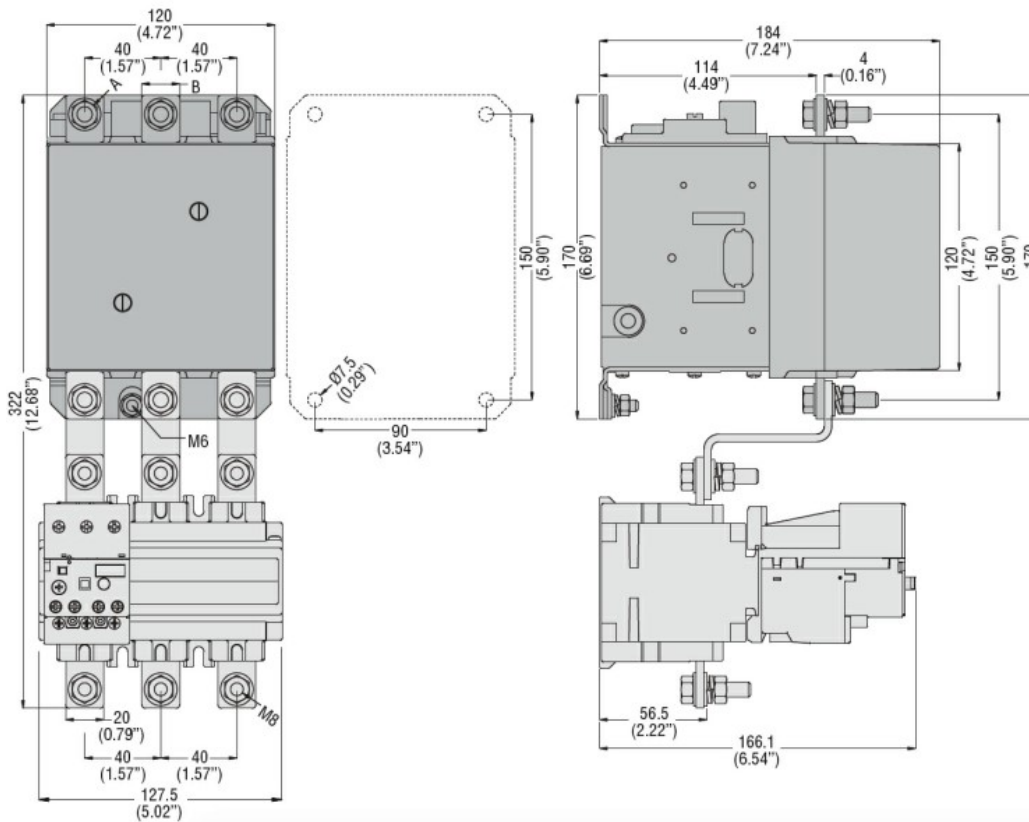
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Resistance & Protection

Pollution degree

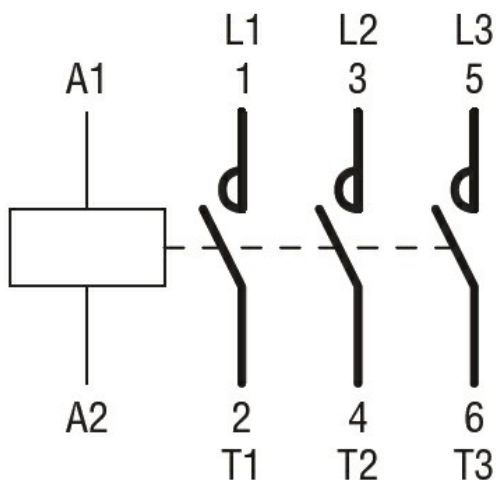
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Dimensions



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