



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 ($\leq 40^\circ C$)	A	275
	AC-1 ($\leq 55^\circ C$)	A	250
	AC-1 ($\leq 70^\circ C$)	A	200
	AC-3 ($\leq 440V \leq 55^\circ C$)	A	185
	AC-4 (400V)	A	65
Rated operational power AC-3 ($T \leq 55^\circ C$)			
	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 ($T \leq 40^\circ C$)			
	230V	kW	95
	400V	kW	160
	500V	kW	213
	690V	kW	298
IEC max current I_e in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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 $L/R \leq 15\text{ms}$ 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)			$\text{m}\Omega$ 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	Ibin	13.3
	max	Ibin	13.3
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1

	min	Ibin	0.74		
	max	Ibin	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	5380			
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 609474-4-1	Yes				
EMC compatibility	yes				
AC coil operating					
Rated AC voltage at 50/60Hz, 60Hz	min max	V V	110 125		
AC operating voltage					
of 50/60Hz coil powered at 50Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 50/60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 60		
of 60Hz coil powered at 60Hz					
pick-up	min max	%Us %Us	80 110		
drop-out	min max	%Us %Us	20 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 $\leq 20^{\circ}\text{C}$ 50Hz		W	10
DC coil operating			
DC rated control voltage	min	V	110
	max	V	125
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			
Rated operational voltage AC (UL)		V	600
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

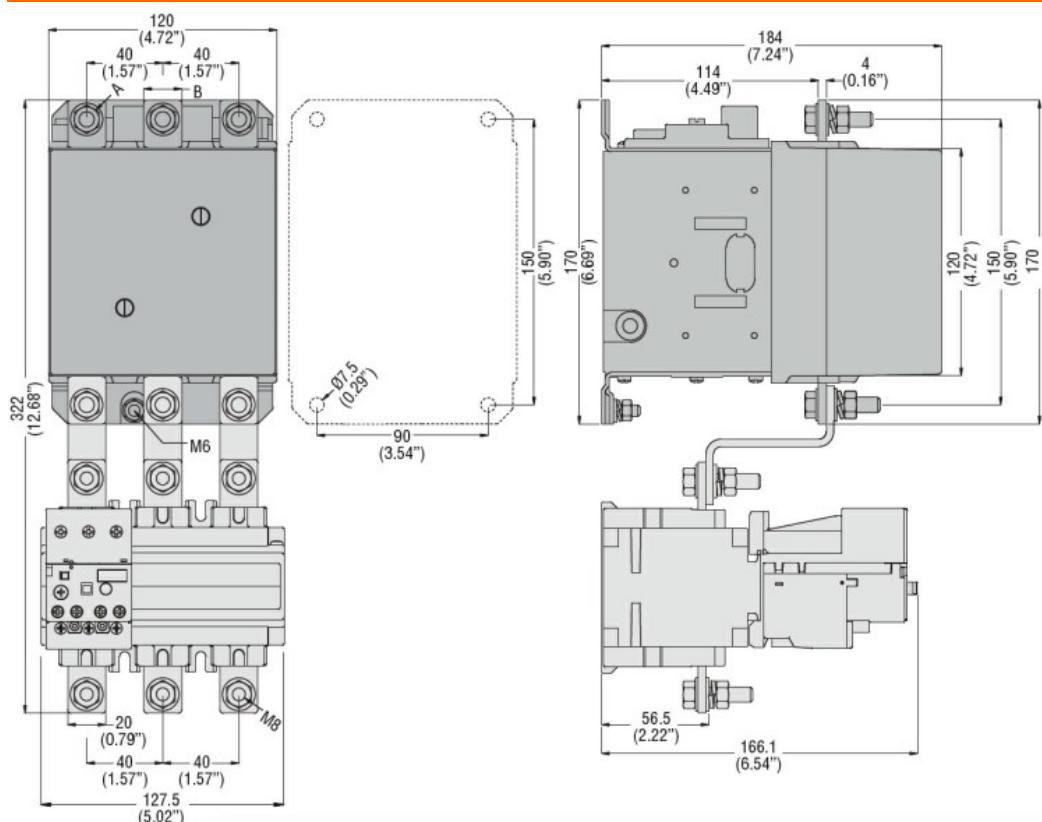
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Resistance & Protection

Pollution degree

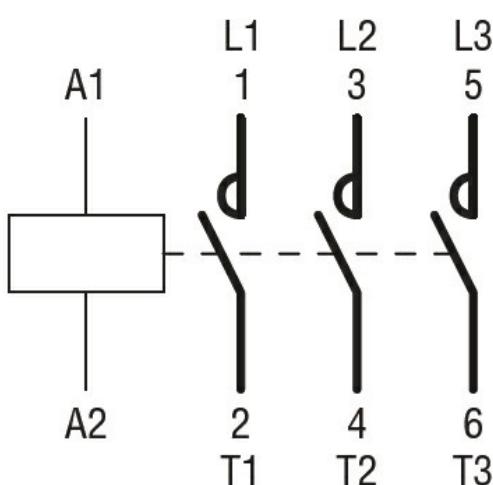
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Dimensions



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