



Product designation				Power contactor
Product type designation				B145
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	250		
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A	250	
	AC-1 ($\leq 55^\circ\text{C}$)	A	235	
	AC-1 ($\leq 70^\circ\text{C}$)	A	190	
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	150	
	AC-4 (400V)	A	57	
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW	46	
	400V	kW	80	
	415V	kW	88	
	440V	kW	93	
	500V	kW	100	
	690V	kW	120	
	1000V	kW	75	
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW	91	
	400V	kW	150	
	500V	kW	196	
	690V	kW	270	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A	220	
	110V	A	110	
	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	220	
	110V	A	150	
	220V	A	130	
	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	220	
	110V	A	150	
	220V	A	150	

	330V	A	130
	460V	A	–
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	220
	110V	A	150
	220V	A	150
	330V	A	150
	460V	A	130
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	160
	110V	A	80
	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	160
	110V	A	120
	220V	A	90
	330V	A	–
	460V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	160
	110V	A	140
	220V	A	120
	330V	A	90
	460V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	160
	110V	A	140
	220V	A	140
	330V	A	140
	460V	A	90
Short-time allowable current for 10s (IEC/EN60947-1)		A	1300
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1500
	500V	A	1400
	690V	A	1200
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	I _{th}	W	14.5
	AC-3	W	6.8
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	13.3
	max	lbin	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		4/0
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position		normal allowable	Vertical plan ±30°
Fixing			Screw
Weight		g	5390
Conductor section			
		AWG/kcmil conductor section	
	max		4/0
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1100000
Safety related data			
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles 1100000 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		V	
	min		380
	max		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	380
	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	124
	at 600V	A	125
Yielded mechanical performance			
for three-phase AC motor			
	200/208V	HP	50
	220/230V	HP	50
General USE			
Contactor			
	AC current	A	250
Short-circuit protection fuse, 600V			
Standard fault			
	Short circuit current	kA	5
	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

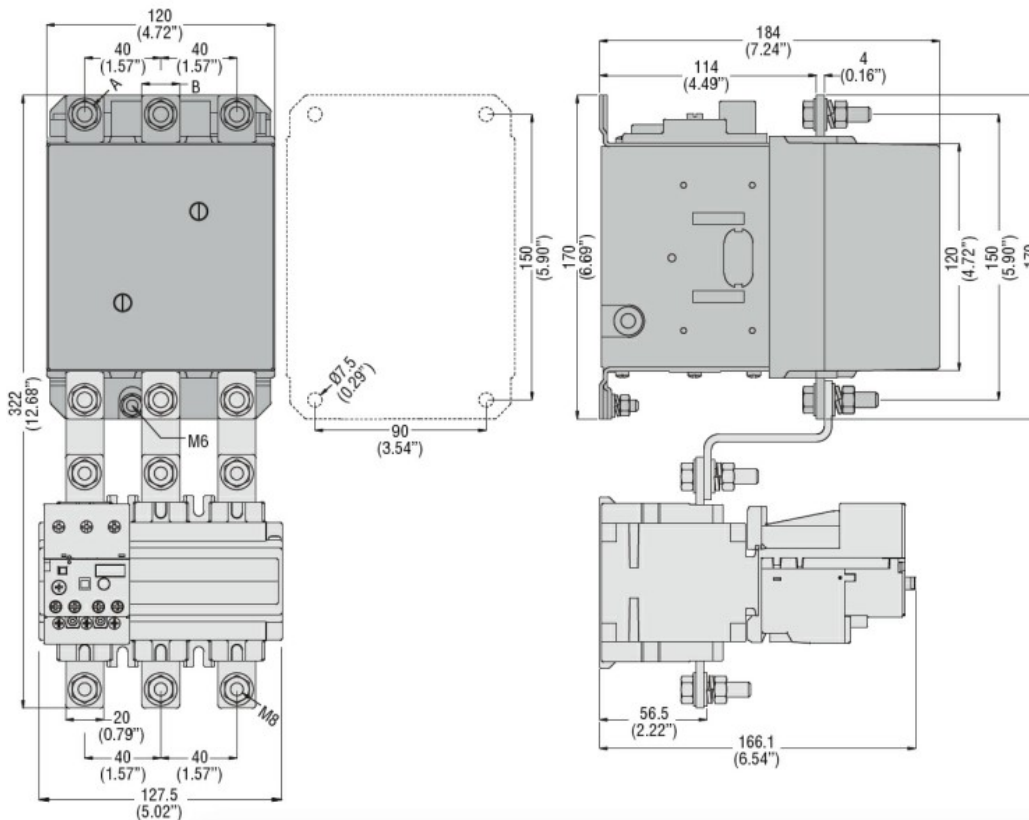
m	3000
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Resistance & Protection

Pollution degree

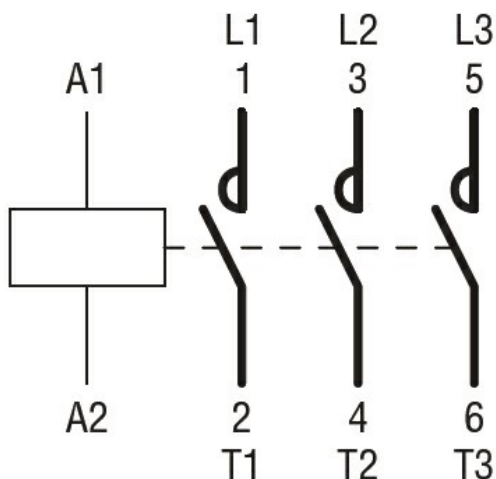
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Dimensions



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