



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 (=40°C)	A	250	
	AC-1 (=55°C)	A	235	
	AC-1 (=70°C)	A	190	
	AC-3 (=440V =55°C)	A	150	
	AC-4 (400V)	A	57	
Rated operational power AC-3 (T=55°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=40°C)	230V	kW	91	
	400V	kW	150	
	500V	kW	196	
	690V	kW	270	
IEC max current I_e in DC1 with L/R = 1ms 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 = 1ms 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 = 1ms with 3 poles in series	75V	A	220	
	110V	A	150	
	220V	A	150	

	330V	A	130
	460V	A	–
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IEC max current Ie 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
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IEC max current Ie in DC3-DC5 with L/R = 15ms with 1 poles in series			
	75V	A	160
	110V	A	80
	220V	A	–
	330V	A	–
	460V	A	–
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IEC max current Ie 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	–
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IEC max current Ie 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	–
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IEC max current Ie 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
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Short-time allowable current for 10s (IEC/EN60947-1)		A	1300
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Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
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Making capacity (RMS value)		A	1500
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Breaking capacity at voltage			
	440V	A	1500
	500V	A	1400
	690V	A	1200
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Resistance per pole (average value)		m?	0.3
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Power dissipation per pole (average value)			
	Ith	W	14.5
	AC3	W	6.8
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Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	Ibin	13.3
	max	Ibin	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		4/0
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position		normal allowable	Vertical plan ±30°
Fixing			Screw
Weight		g	5420
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		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	300
		VA	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	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
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Short-circuit protection fuse, 600V

Standard fault	Short circuit current	kA	5
	Fuse rating	A	500
	Fuse class		RK5

Ambient conditions

Temperature

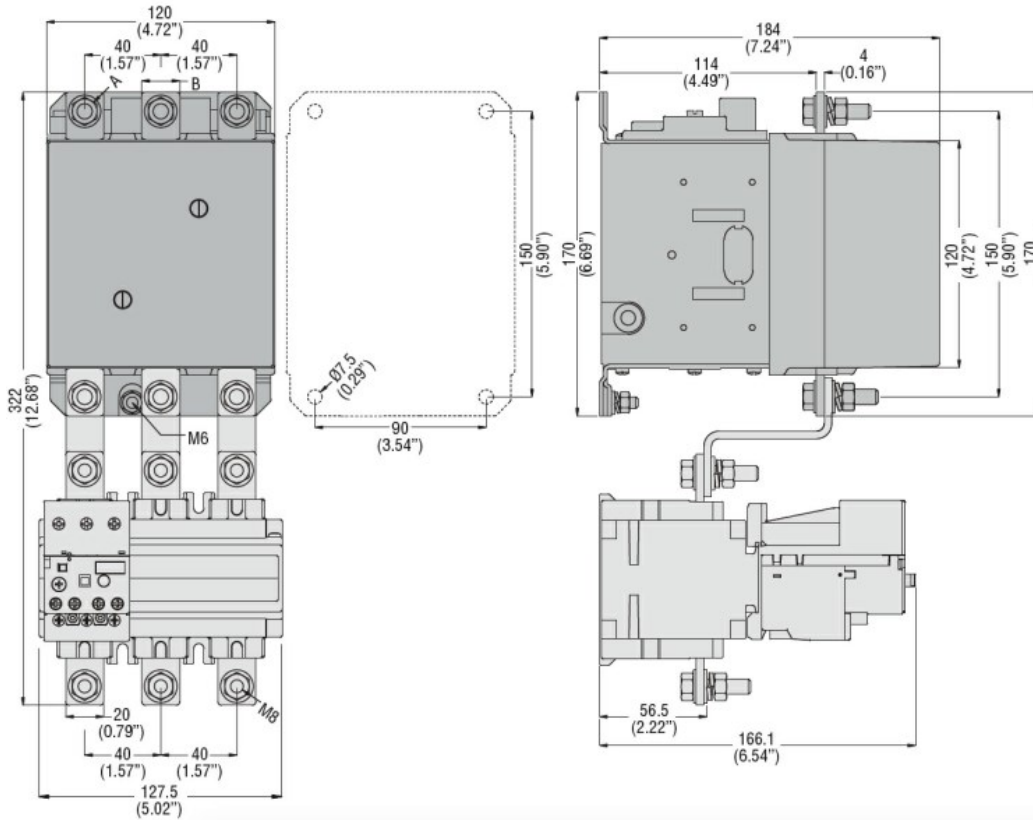
Operating temperature	min	°C	-50
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Storage temperature	max	°C	70
	min	°C	-60
Max altitude	max	°C	80
		m	3000

Resistance & Protection

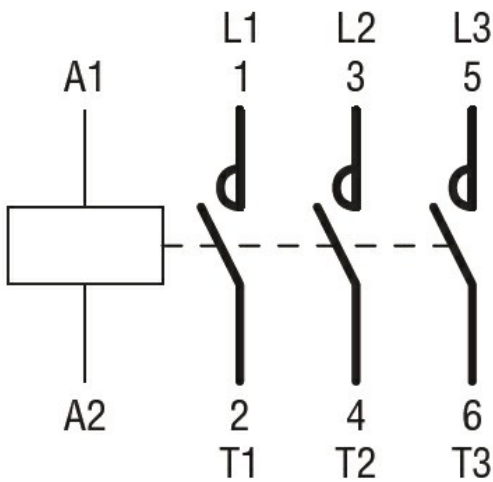
Pollution degree	3
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Dimensions



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