



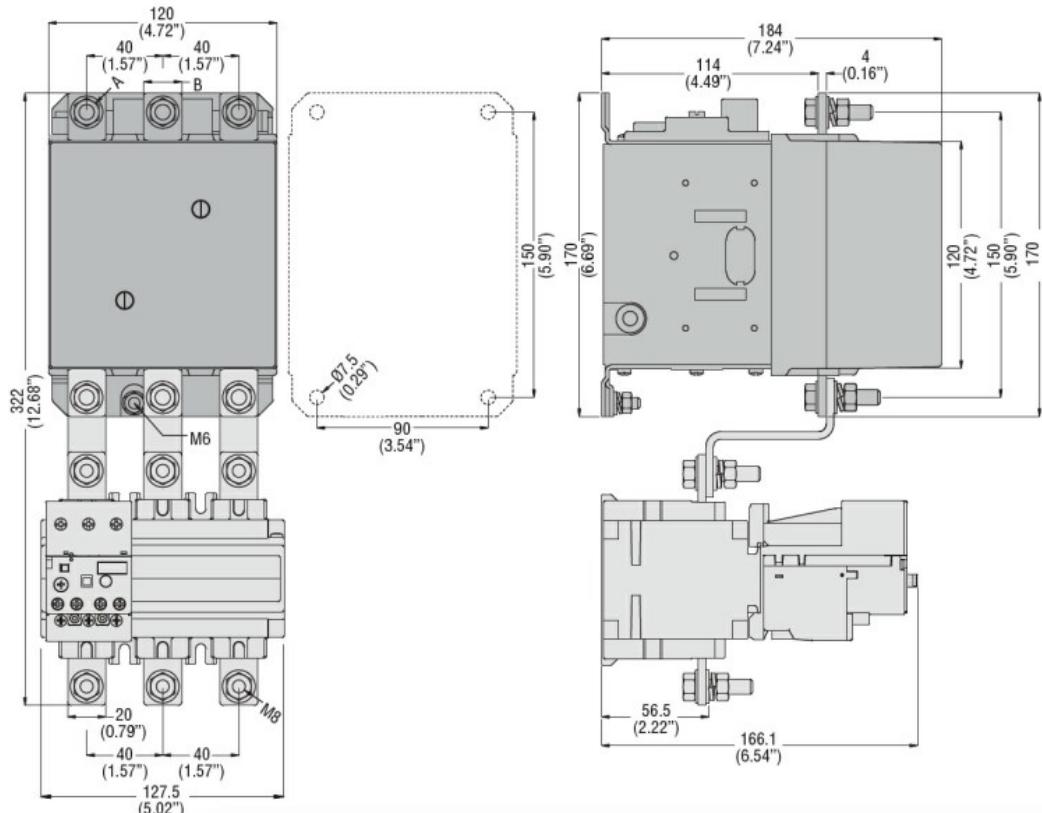
Product designation	Power contactor		
Product type designation	B145		
<b>Contact characteristics</b>			
Number of poles	Nr. 3		
Rated insulation voltage $U_i$ IEC/EN	V 1000		
Rated impulse withstand voltage $U_{imp}$	kV 8		
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$	A 250		
Operational current $I_e$			
	AC-1 ( $\leq 40^\circ C$ )	A	250
	AC-1 ( $\leq 55^\circ C$ )	A	235
	AC-1 ( $\leq 70^\circ C$ )	A	190
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A	150
	AC-4 (400V)	A	57
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	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 ( $T \leq 40^\circ C$ )	230V	kW	91
	400V	kW	150
	500V	kW	196
	690V	kW	270
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ 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 $L/R \leq 1ms$ 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 $L/R \leq 1ms$ with 3 poles in series	75V	A	220
	110V	A	150
	220V	A	150

	330V	A	130
	460V	A	—
IEC max current le 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 le 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 le 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 le 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 le 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)			m? 0.3
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	14.5
	AC3	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	Ibin	0.74
	max	Ibin	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		
<b>Mechanical features</b>			
Operating position	normal allowable	Vertical plan ±30°	
Fixing	Screw		
Weight	g	5420	
Conductor section	AWG/kcmil conductor section		
	max	4/0	
<b>Operations</b>			
Mechanical life	cycles	10000000	
Electrical life	cycles	1100000	
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles	1100000 10000000
Mirror contacts according to IEC/EN 609474-4-1	yes		
EMC compatibility	yes		
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz	V	24	
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	

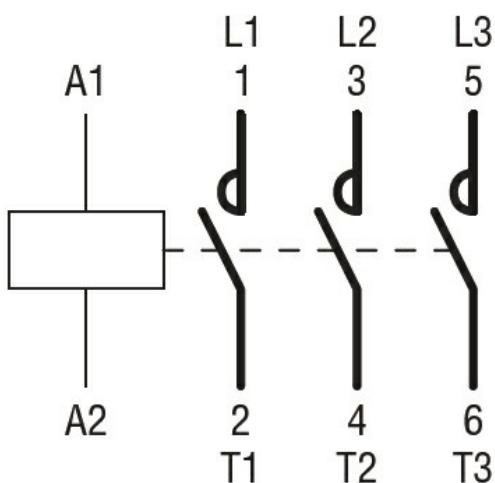
of 50/60Hz coil powered at 60Hz	in-rush	VA	300
	holding	VA	10
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	10
<b>DC coil operating</b>			
DC rated control voltage		V	24
DC operating voltage			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	60
Average coil consumption $\leq 20^{\circ}\text{C}$	in-rush	W	300
	holding	W	10
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	2400
<b>Operating times</b>			
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
<b>UL technical data</b>			
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
	460/480V	HP	100
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
<b>Ambient conditions</b>			
Temperature			
Operating temperature			

	min	°C	-50
	max	°C	70
Storage temperature			
Max altitude			
Resistance & Protection			
Pollution degree			
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

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IEC/EN 60947-4-1

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UL 60947-1

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UL 60947-4-1

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Certificates

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CCC

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cULus

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EAC

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ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching