



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 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
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	–
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	–
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	–
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
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)			
	Ith	W	14.5
	AC-3	W	6.8
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	I <sub>bin</sub>	0.74
	max	I <sub>bin</sub>	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
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1100000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1100000
	mechanical load	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	110
	max	V	125
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
of 50/60Hz coil powered at 60Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	60
of 60Hz coil powered at 60Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	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 holding	VA VA	300 10		
Dissipation at holding ≤20°C 50Hz			W	10		
DC coil operating						
DC rated control voltage		min max	V V	110 125		
DC operating voltage						
pick-up		min max	%Us %Us	80 110		
	drop-out	min max	%Us %Us	20 60		
Average coil consumption ≤20°C		in-rush holding	W W	300 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 at 600V	A A	124 125		
Yielded mechanical performance for three-phase AC motor		200/208V 220/230V 575/600V	HP HP HP	50 50 125		
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

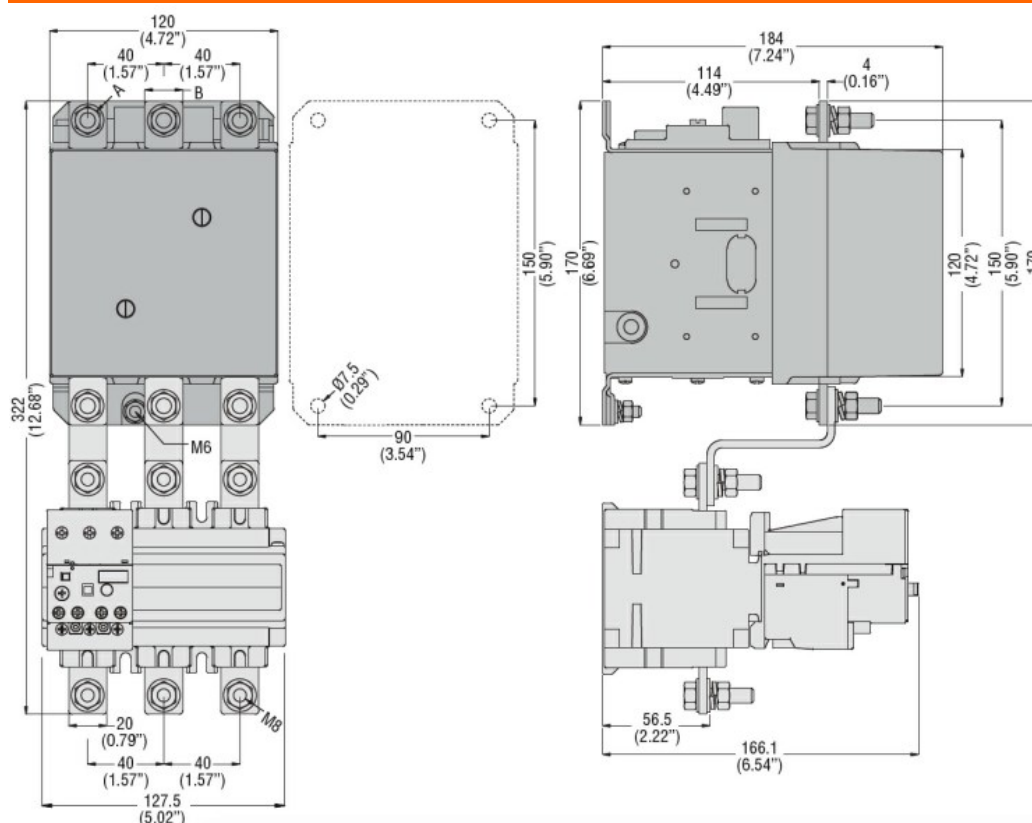
m 3000

## Resistance & Protection

Pollution degree

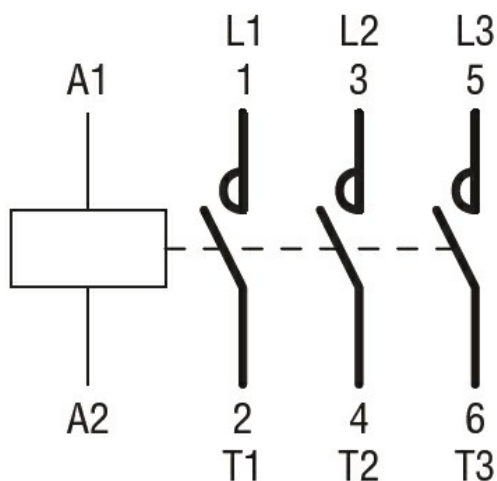
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## Dimensions



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