



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
	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	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
<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 cycles	1100000 10000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
<b>AC coil operating</b>			
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	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				
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
		575/600V	HP	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

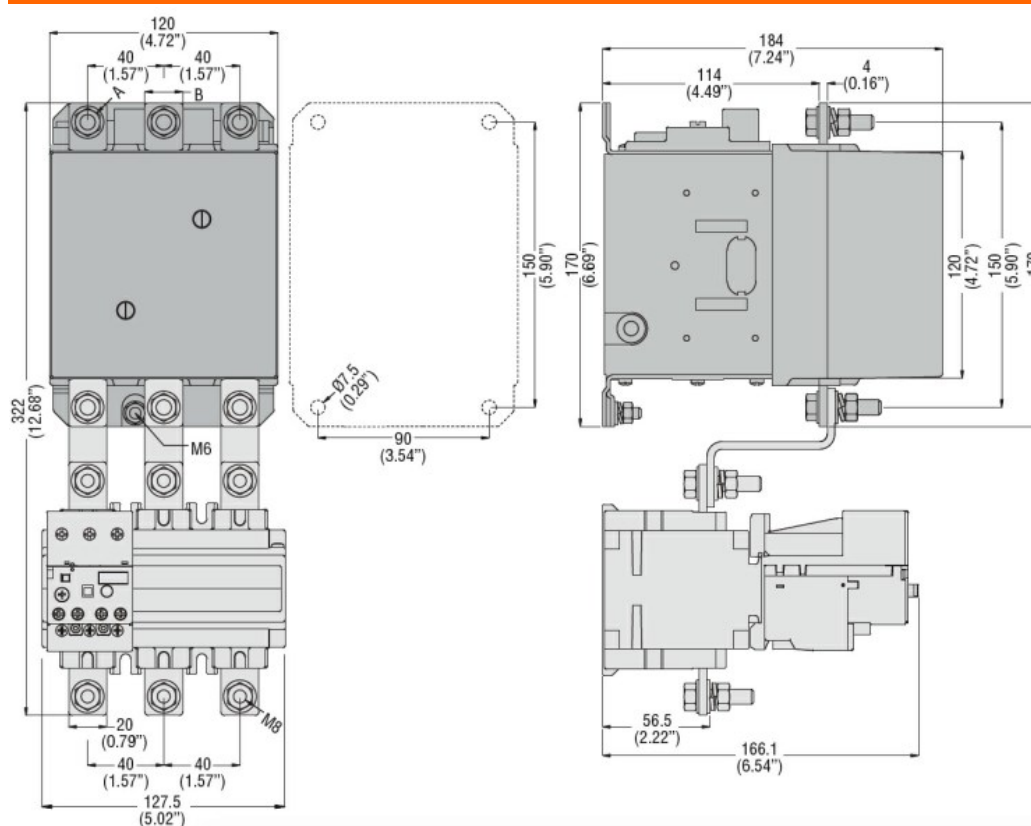
m 3000

### Resistance & Protection

Pollution degree

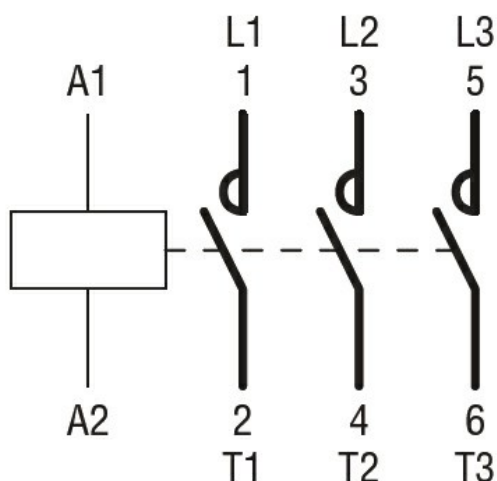
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### Dimensions



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