



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
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw
Weight		g	5430
<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	cycles	1100000
	mechanical load	cycles	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		V	48
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 ≤20°C 50Hz		W	10
DC coil operating			
DC rated control voltage		V	48
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
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	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
	m	3000

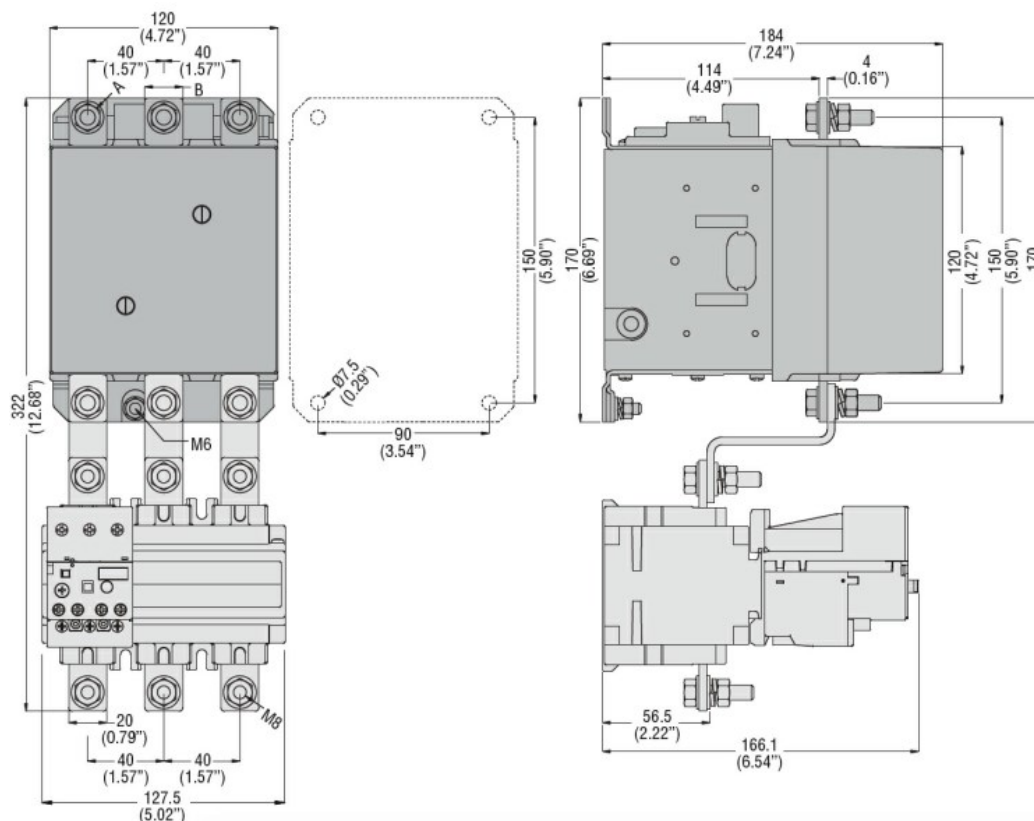
Max altitude

Resistance & Protection

Pollution degree

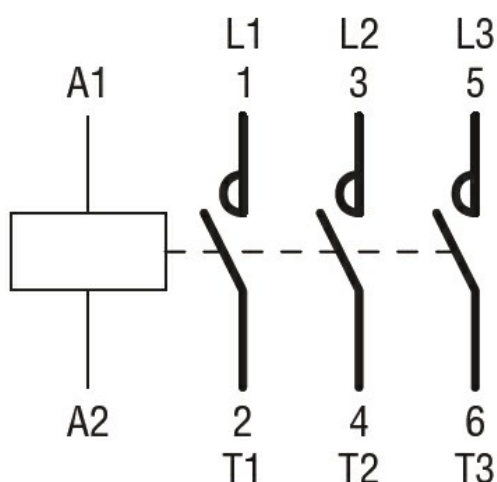
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Dimensions



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

Certificates	UL 60947-4-1
	CCC
	cULus
	EAC

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching
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