



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	–
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IEC max current I _e 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 I _e 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 I _e 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 I _e 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 I _e 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)		mΩ	0.3
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Power dissipation per pole (average value)			
	I _{th}	W	14.5
	AC-3	W	6.8
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Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	I _{bin}	13.3
	max	I _{bin}	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	5430
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 609474-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	48
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	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		V	48
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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 $\leq 20^{\circ}\text{C}$

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

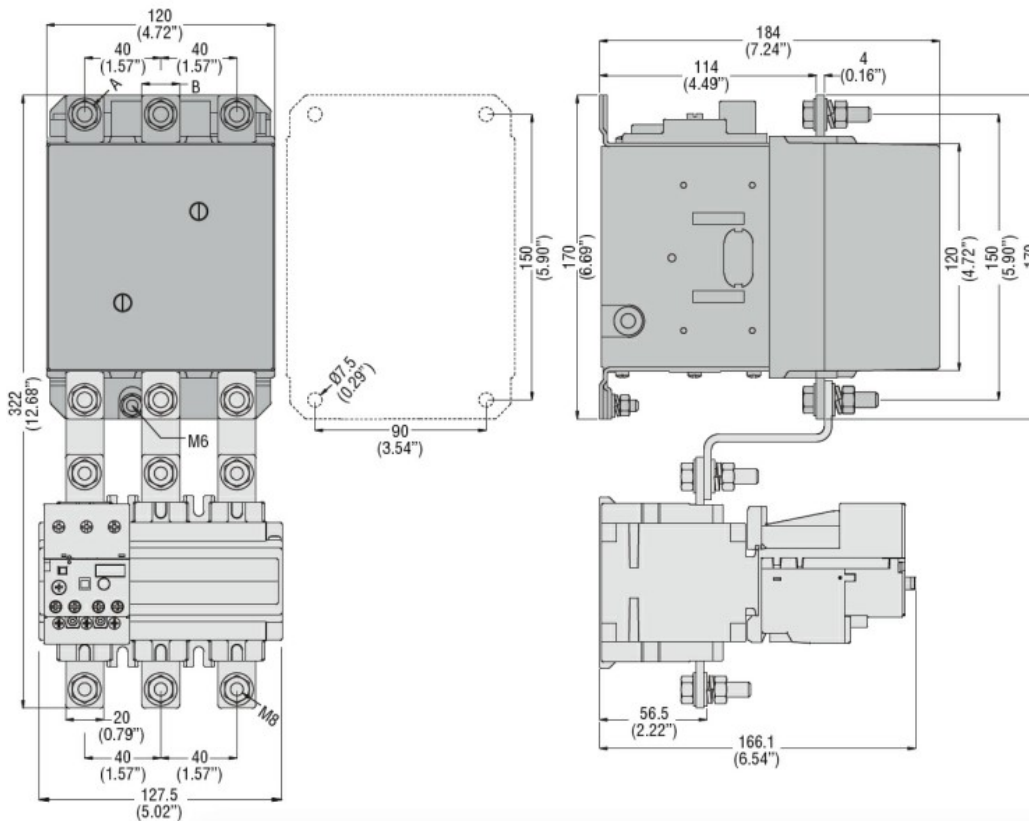
Operating temperature	min	$^{\circ}\text{C}$	-50
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Storage temperature	max	°C	70
	min	°C	-60
Max altitude	max	°C	80
		m	3000

Resistance & Protection

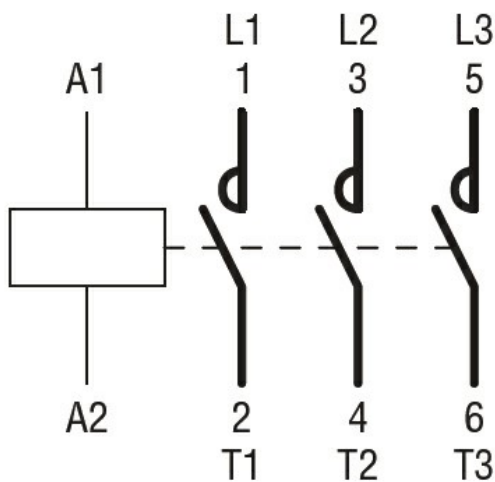
Pollution degree	3
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Dimensions



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