



Product designation				Power contactor
Product type designation				B145
<b>Contact characteristics</b>				
Number of poles	Nr.			4
Rated insulation voltage U <sub>i</sub> IEC/EN	V			1000
Rated impulse withstand voltage U <sub>imp</sub>	kV			8
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A			250
Operational current I <sub>e</sub>	AC-1 (=40°C)	A	250	
	AC-1 (=55°C)	A	235	
	AC-1 (=70°C)	A	190	
	AC-3 (=440V =55°C)	A	150	
	AC-4 (400V)	A	57	
Rated operational power AC-1 (T=40°C)	230V	kW	91	
	400V	kW	150	
	500V	kW	196	
	690V	kW	270	
IEC max current I <sub>e</sub> in DC1 with L/R = 1ms with 1 poles in series	75V	A	220	
	110V	A	110	
	220V	A	–	
	330V	A	–	
	460V	A	–	
IEC max current I <sub>e</sub> in DC1 with L/R = 1ms with 2 poles in series	75V	A	220	
	110V	A	150	
	220V	A	130	
	330V	A	–	
	460V	A	–	
IEC max current I <sub>e</sub> in DC1 with L/R = 1ms with 3 poles in series	75V	A	220	
	110V	A	150	
	220V	A	150	
	330V	A	130	
	460V	A	–	
IEC max current I <sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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 I<sub>e</sub> 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
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Protection fuse

gG (IEC)	A	250
aM (IEC)	A	160

Making capacity (RMS value)

A	1500
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Breaking capacity at voltage

440V	A	1500
500V	A	1400
690V	A	1200

Resistance per pole (average value)

m?	0.3
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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	I <sub>bin</sub>	13.3
max	I <sub>bin</sub>	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
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Conductor section

AWG/Kcmil

max	4/0
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Power terminal protection according to IEC/EN 60529

IP00
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### Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	6340
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	cycles	1100000
	mechanical load	cycles	10000000

Mirror contacts according to IEC/EN 60947-4-1

EMC compatibility

**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	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	60

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	60

of 60Hz coil powered at 60Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	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

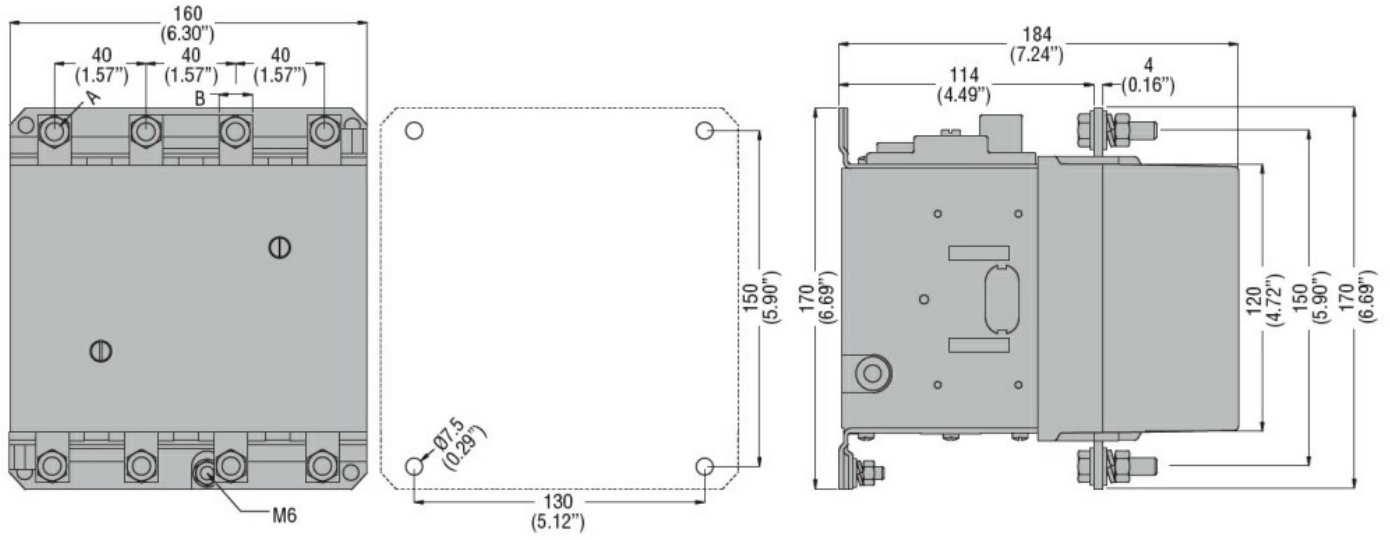
W	10
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**DC coil operating**

DC rated control voltage

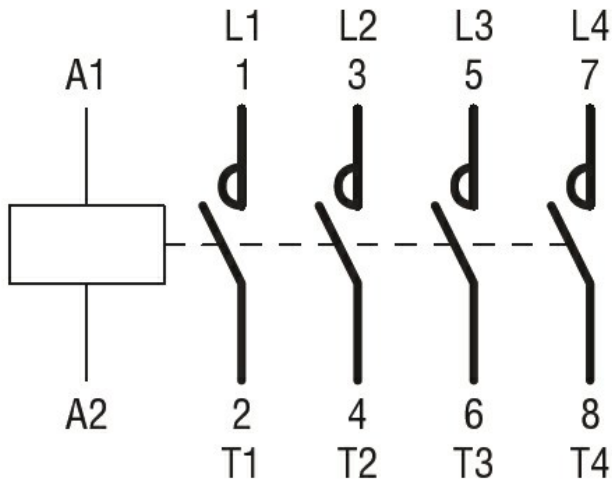
		min	V	110
		max	V	125
DC operating voltage				
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	60
Average coil consumption =20°C				
		in-rush	W	300
		holding	W	10
<b>Max cycles frequency</b>				
Mechanical operation				cycles/h 2400
<b>Operating times</b>				
Average time for Us control				
	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
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			
		min	°C	-60
		max	°C	80

Max altitude	m	3000
<b>Resistance &amp; Protection</b>		
Pollution degree		3
<b>Dimensions</b>		



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