



Product designation				Power contactor
Product type designation				B145
Contact characteristics				
Number of poles	Nr.			4
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 (≤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 _e 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 _e 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 _e 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 _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	

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series

75V	A	160
110V	A	80
220V	A	–
330V	A	–
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series

75V	A	160
110V	A	120
220V	A	90
330V	A	–
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series

75V	A	160
110V	A	140
220V	A	120
330V	A	90
460V	A	–

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ 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)

mΩ	0.3
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Power dissipation per pole (average value)

I_{th}	W	14.5
AC-3	W	6.8

Tightening torque for terminals

min	Nm	18
max	Nm	18
min	I_{bin}	13.3
max	I_{bin}	13.3

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
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Conductor section

AWG/Kcmil

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

IP00

Mechanical features

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	6280
Conductor section	AWG/kcmil conductor section	
	max	4/0

Operations

Mechanical life	cycles	1000000
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	V	60
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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

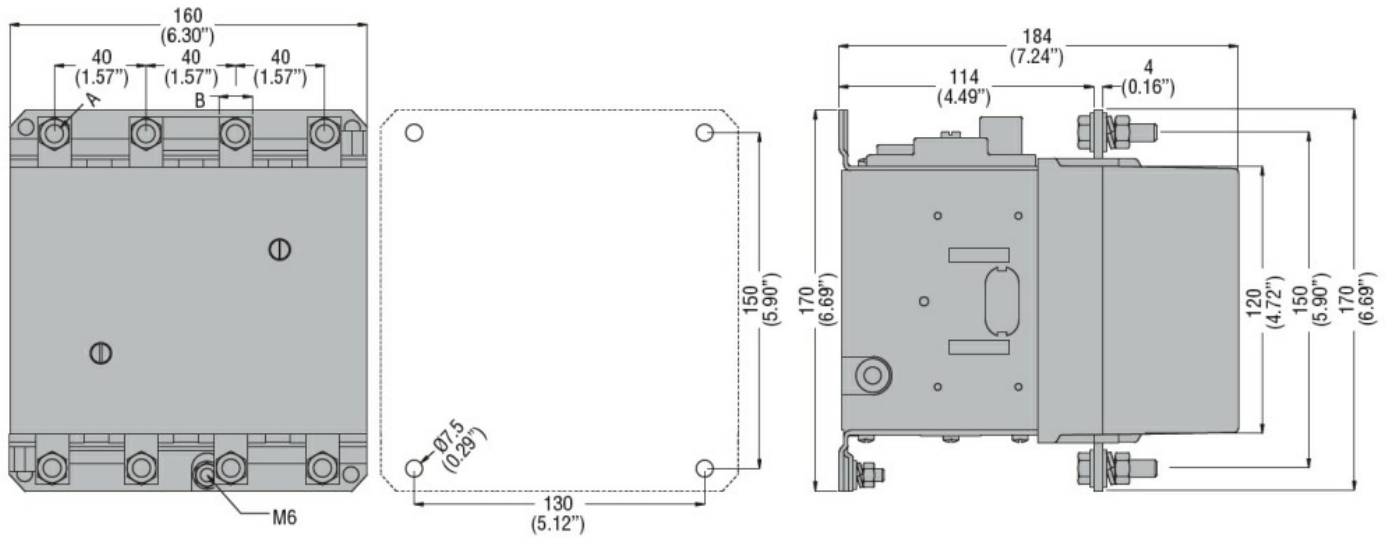
Dissipation at holding ≤20°C 50Hz	W	10
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DC coil operating

DC rated control voltage	V	60
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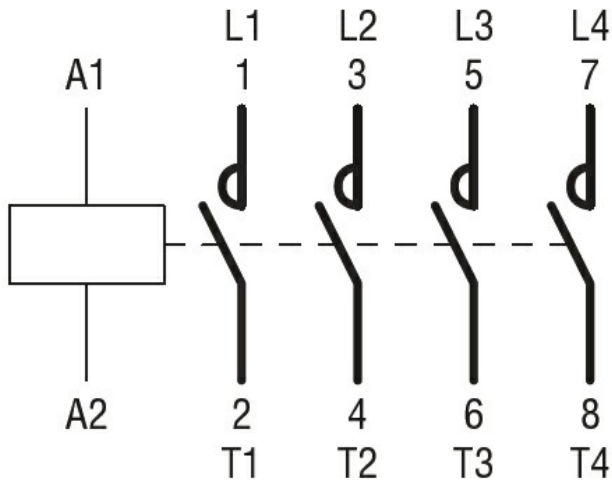
DC operating voltage		
		pick-up

		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	60
Average coil consumption ≤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				
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
Max altitude				m 3000
Resistance & Protection				
Pollution degree				3
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