



Product designation			Power contactor
Product type designation			B145
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	250	
Operational current Ie	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 Ie 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 Ie 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 Ie 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 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 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	Ibin	13.3
max	Ibin	13.3

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	Ibin	0.74
max	Ibin	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	6330

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 60947-4-1			Yes
EMC compatibility			yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

	min	V	380
	max	V	415

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	380
max	V	415

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

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	$^{\circ}\text{C}$	-50
max	$^{\circ}\text{C}$	70

Storage temperature

min	$^{\circ}\text{C}$	-60
max	$^{\circ}\text{C}$	80

Max altitude

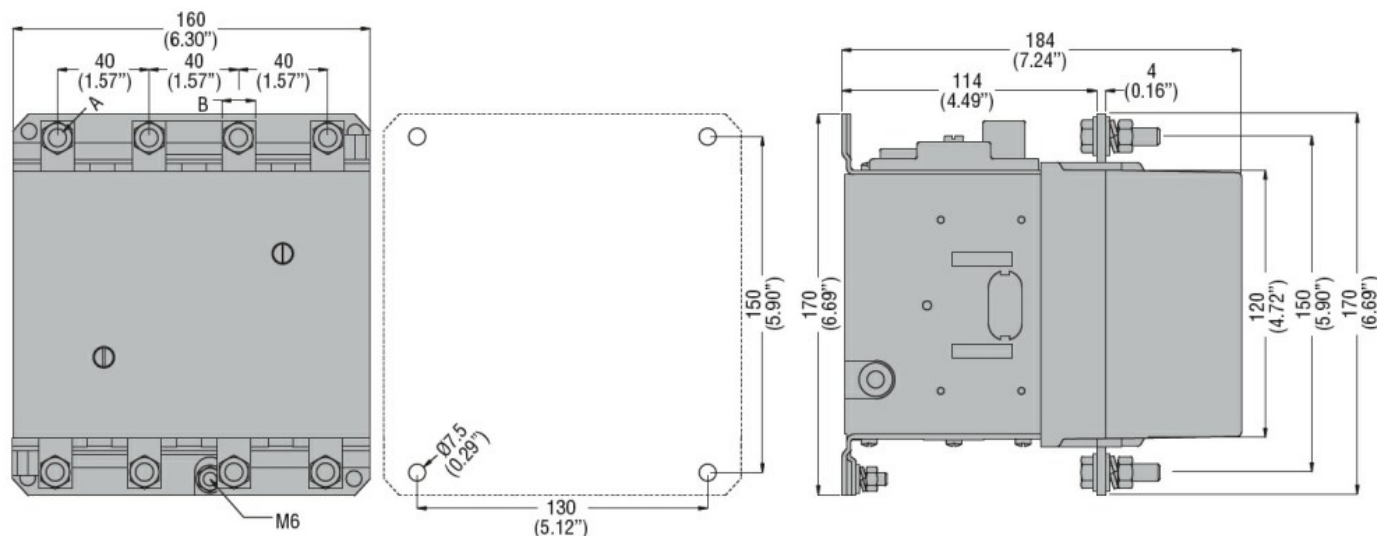
m 3000

Resistance & Protection

Pollution degree

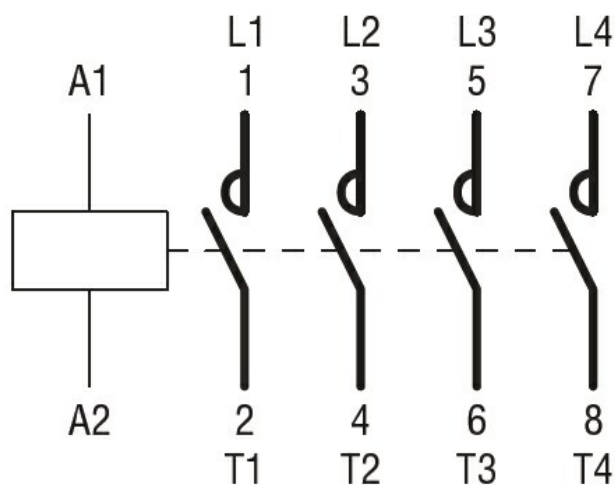
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Dimensions



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