



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 ($\leq 40^\circ\text{C}$)	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-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 I_e in DC1 with $L/R \leq 1\text{ms}$ 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

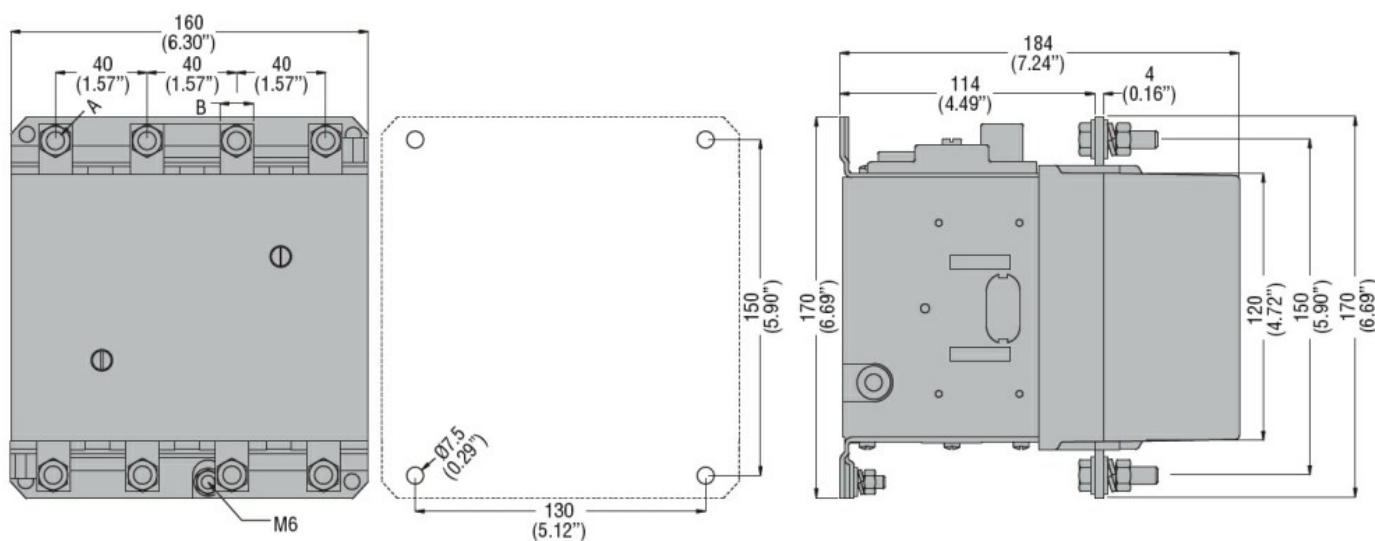
IP00

Mechanical features

Operating position

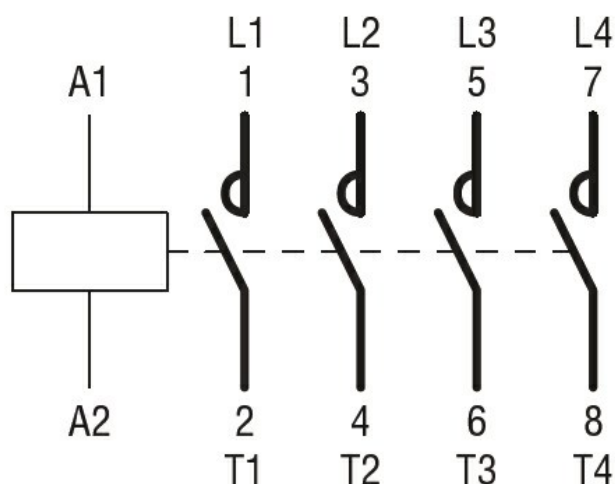
	normal allowable	Vertical plan ±30°
Fixing		Screw
Weight	g	6280
Operations		
Mechanical life	cycles	10000000
Electrical life	cycles	1100000
Safety related data		
Performance level B10d according to EN/ISO 13489-1		
	rated load mechanical load	cycles cycles
		1100000 10000000
Mirror contacts according to IEC/EN 60947-4-1		Yes
EMC compatibility		yes
AC coil operating		
Rated AC voltage at 50/60Hz	V	60
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
DC coil operating		
DC rated control voltage	V	60
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
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