



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)

m?	0.3
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Power dissipation per pole (average value)

I_{th}	W	14.5
AC3	W	6.8

Tightening torque for terminals

min	Nm	18
max	Nm	18
min	lbin	13.3
max	lbin	13.3

Tightening torque for coil terminal

min	Nm	1
max	Nm	1
min	lbin	0.74
max	lbin	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	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

yes

EMC compatibility

yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz

min	V	440
max	V	480

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

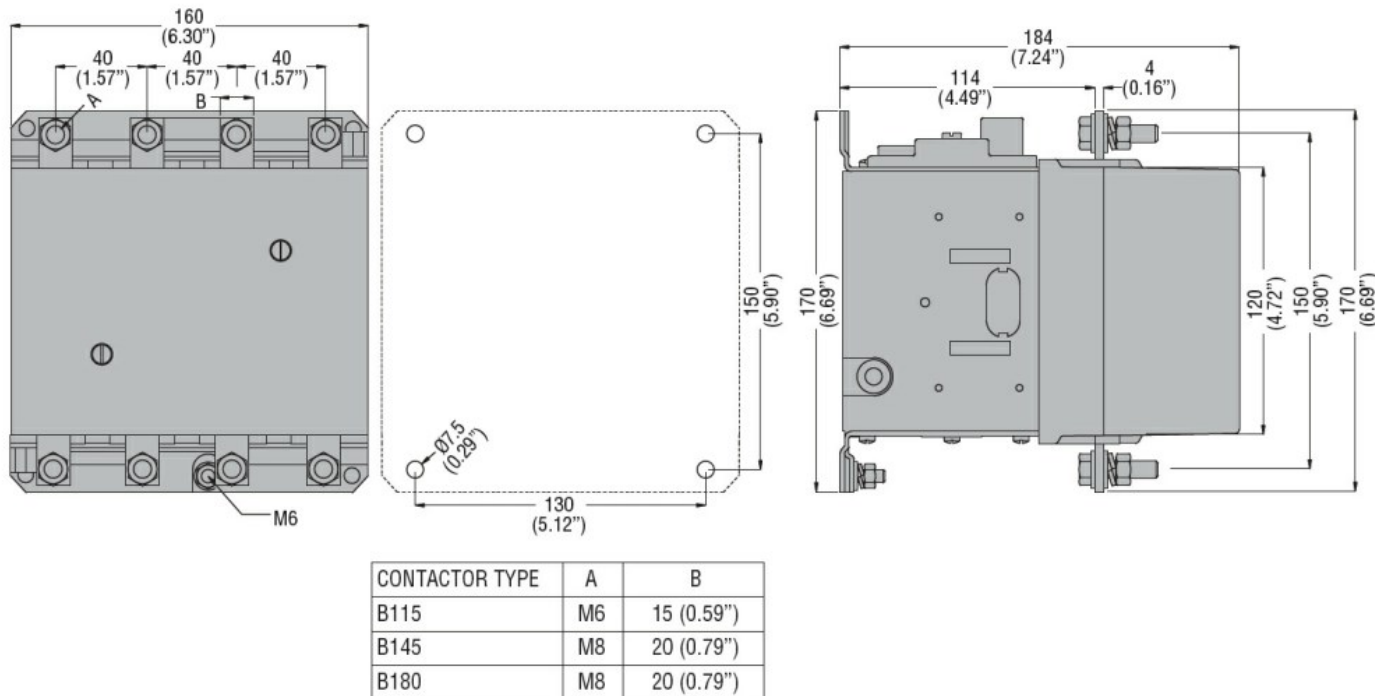
W 10

DC coil operating

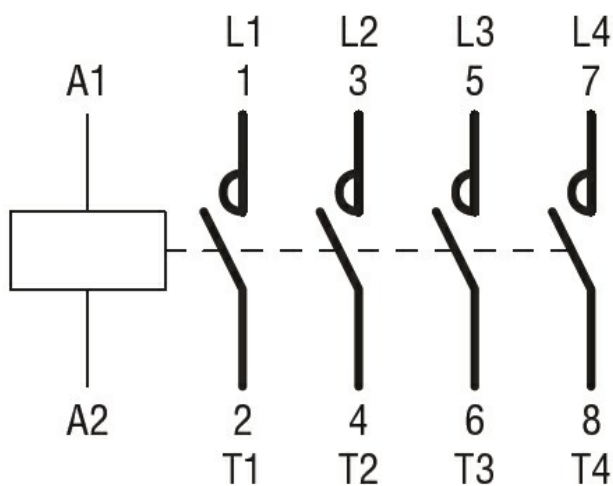
DC rated control voltage

		min	V	440				
		max	V	480				
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	
					460/480V	HP	100	
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			



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