



Product designation Power contactor  
Product type designation B145

**Contact characteristics**

Number of poles	Nr.	3
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-3 ( $T \leq 55^\circ\text{C}$ )	400V	kW 80
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 <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
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1500
	500V	A	1400
	690V	A	1200
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	14.5
	AC-3	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
Conductor section			
	AWG/Kcmil		
	max		4/0

Power terminal protection according to IEC/EN 60529				IP00
<b>Mechanical features</b>				
Operating position	normal allowable	Vertical plan ±30°		
Fixing				Screw
Weight	g			6070
Conductor section	AWG/kcmil conductor section	max	4/0	
<b>Operations</b>				
Mechanical life			cycles	10000000
Electrical life			cycles	1100000
<b>Safety related data</b>				
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
<b>AC coil operating</b>				
Rated AC voltage at 50/60Hz, 60Hz	min	V	220	
	max	V	240	
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	220
max	V	240

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**

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

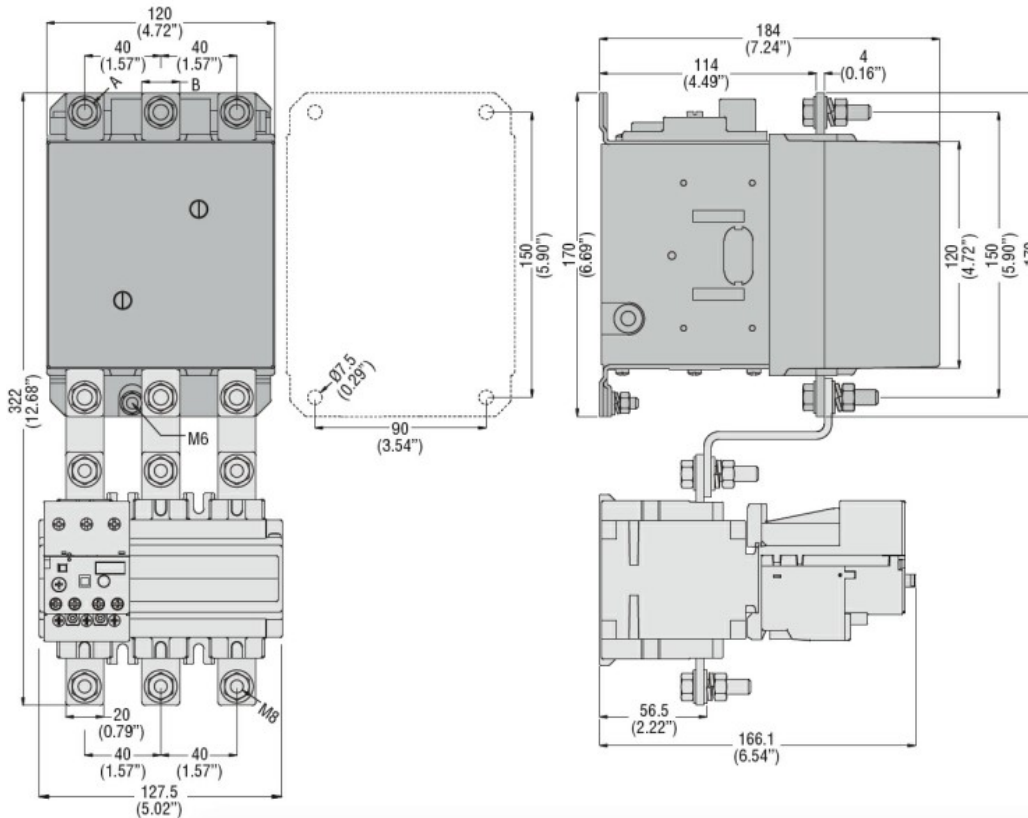
min	°C	-60
max	°C	80
Max altitude		m 3000

**Resistance & Protection**

Pollution degree

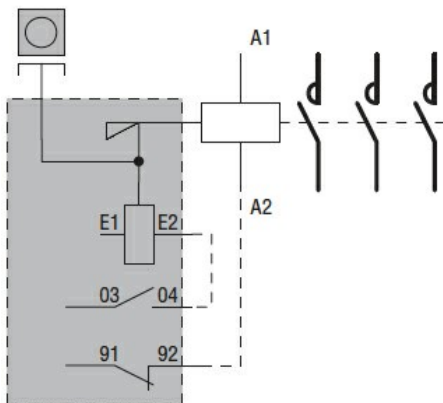
3

**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