THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 150A, AC/DC COIL, 440...480VAC/DC

Product designation			Power contactor
Product type designation			B145
Contact characteristics			
Number of poles		Nr.	3
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-3 (T=55°C)			
	230V	kW	46
	400V	kW	80
	415V	kW	88
	440V	kW	93
	500V	kW	100
	690V	kW	120
	1000V	kW	75
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 Ie 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 Ie 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 Ie 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 Ie 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)		m?	0.3
Power dissipation per pole (average value)			
	Ith	W	14.5
	AC3	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
Conductor section			
AWG/Kcmil			
	max		4/0
Power terminal protection according to IEC/EN 60529			IP00

Mechanical features

Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	5380
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 contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes

AC coil operating

Rated AC voltage at 50/60Hz, 60Hz			
	min	V	440
	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			

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	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	415
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
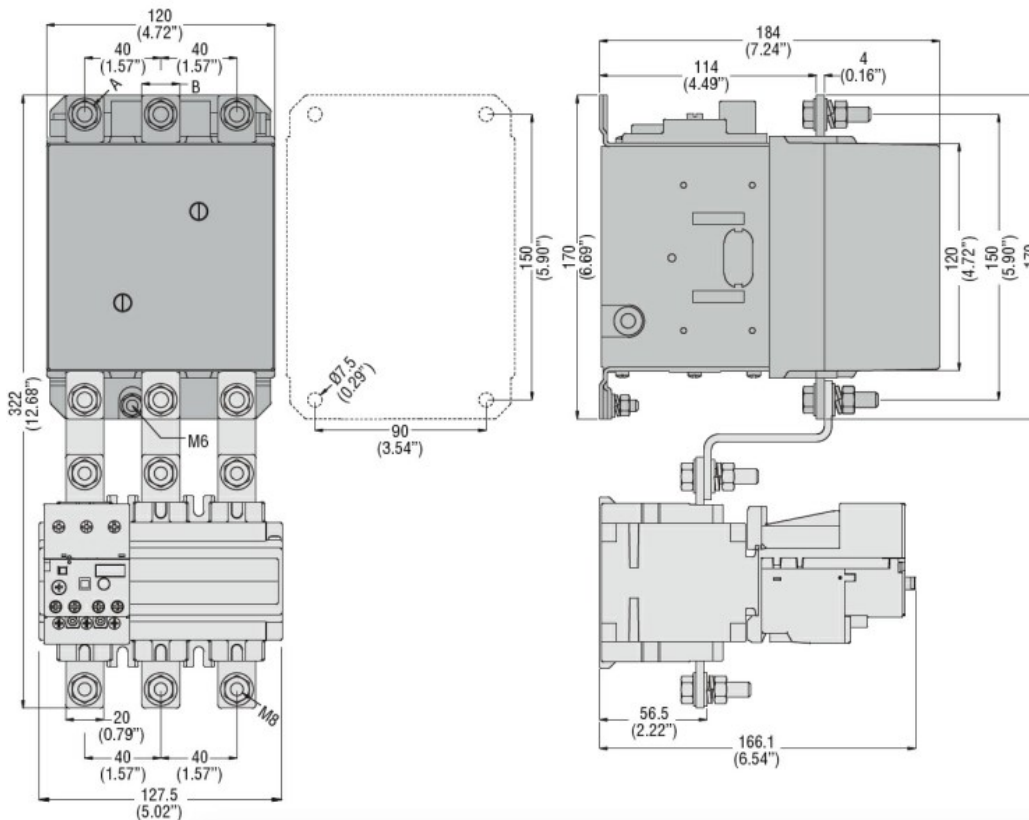
CONTACTOR TYPE	A	B
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

Wiring diagrams
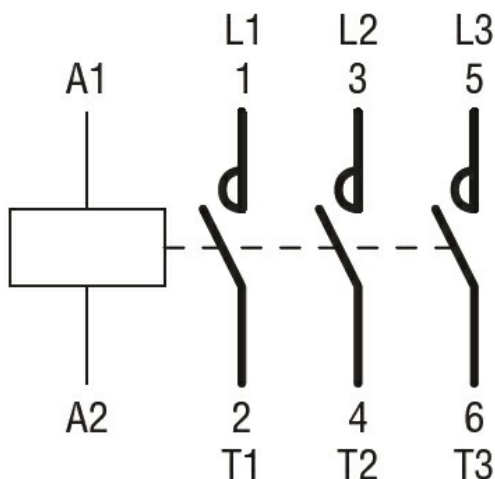
Certifications and compliance

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

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