THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 110A, AC/DC COIL, 48VAC/DC

Product designation			Power contactor
Product type designation			B115
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	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	150
	AC-1 (≤70°C)	A	110
	AC-3 (≤440V ≤55°C)	A	110
	AC-4 (400V)	A	47
Rated operational power AC-3 (T≤55°C)			
	400V	kW	61
Rated operational power AC-1 (T≤40°C)			
	230V	kW	57
	400V	kW	98
	500V	kW	129
	690V	kW	173
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	160
	110V	A	100
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	160
	110V	A	130
	220V	A	100
	330V	A	–
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	A	160
	110V	A	130
	220V	A	130
	330V	A	100
	460V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	160
	110V	A	130
	220V	A	130

	330V	A	130°
	460V	A	100
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	140
	110V	A	70
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	140
	110V	A	100
	220V	A	80
	330V	A	–
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	140
	110V	A	120
	220V	A	100
	330V	A	80
	460V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	140
	110V	A	120
	220V	A	120
	330V	A	120
	460V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)		A	1100
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1300
Breaking capacity at voltage			
	440V	A	1300
	500V	A	1100
	690V	A	880
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	Ith	W	7.7
	AC-3	W	4
Tightening torque for terminals			
	min	Nm	10
	max	Nm	10
	min	Ibin	7.4
	max	Ibin	7.4
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		2/0
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°

Fixing			Screw
Weight		g	5340
Conductor section			
	AWG/kcmil conductor section		
		max	2/0
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		V	48
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	48
DC operating voltage			
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		

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	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	96
	at 600V	A	99

Yielded mechanical performance
for three-phase AC motor

	200/208V	HP	30
	220/230V	HP	40
	575/600V	HP	100

General USE
Contactor

	AC current	A	160

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

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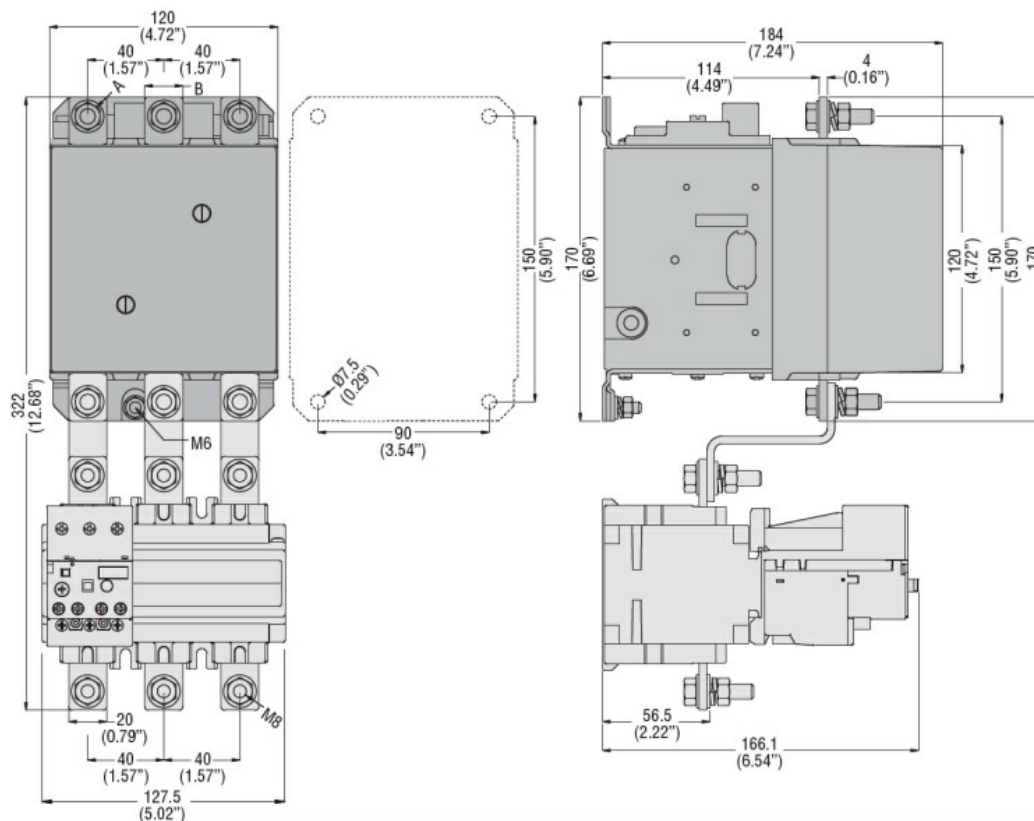
CONTACTOR TYPE	A	B
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

Wiring diagrams
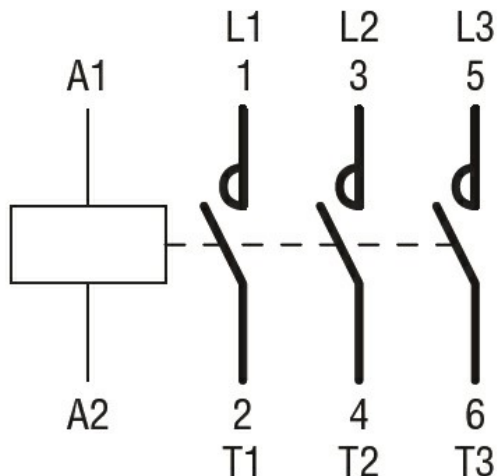
Certifications and compliance

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

11B1150048

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

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EC000066 - Power contactor, AC switching