



Product designation				Power contactor
Product type designation				BF115
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			160
Operational current I _e	AC-1 (≤40°C)	A		160
	AC-1 (≤55°C)	A		130
	AC-1 (≤70°C)	A		115
	AC-3 (≤440V ≤55°C)	A		115
	AC-4 (400V)	A		54
Rated operational current AC-3 (T≤55°C)	230V	A		115
	400V	A		115
	415V	A		115
	440V	A		115
	500V	A		106
	690V	A		106
	1000V	A		39
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A		160
	48V	A		160
	75V	A		120
	110V	A		10
	220V	A		–
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A		160
	48V	A		160
	75V	A		160
	110V	A		130
	220V	A		14
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A		160
	48V	A		160
	75V	A		160
	110V	A		140
	220V	A		145
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A		160
	48V	A		160

	75V	A	160
	110V	A	160
	220V	A	160
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
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Short-time allowable current for 10s (IEC/EN60947-1)		A	920
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Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
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Making capacity (RMS value)		A	1500
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Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
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Resistance per pole (average value)		mΩ	0.45
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Power dissipation per pole (average value)			
	Ith	W	11.5
	AC-3	W	6.0
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Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
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Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
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Conductor section			
	AWG/Kcmil		
	max		2/0

Flexible w/o lug conductor section	min	mm ²	1.5
	max	mm ²	70
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	70
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	2420
Conductor section	AWG/kcmil conductor section		
	max		2/0
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1200000
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	55
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%Us	85
	max	%Us	110
	drop-out		
	min	%Us	40
	max	%Us	55
AC average coil consumption at 20°C	of 50/60Hz coil powered at 50Hz		
	in-rush	VA	300
	holding	VA	20
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	275
	holding	VA	17
	of 60Hz coil powered at 60Hz		
	in-rush	VA	300
	holding	VA	20
Max cycles frequency			
Mechanical operation		cycles/h	1500
Operating times			
Average time for Us control in AC	Closing NO		
	min	ms	16

Opening NO	max	ms	32
	min	ms	9
	max	ms	24

UL technical data

General USE

Contactor

AC current A 165

Short-circuit protection fuse, 600V

High fault

Short circuit current kA 100

Fuse rating A 200

Fuse class J

Standard fault

Short circuit current kA 10

Fuse rating A 250

Fuse class RK5

Ambient conditions

Temperature

Operating temperature

min °C -50

max °C 70

Storage temperature

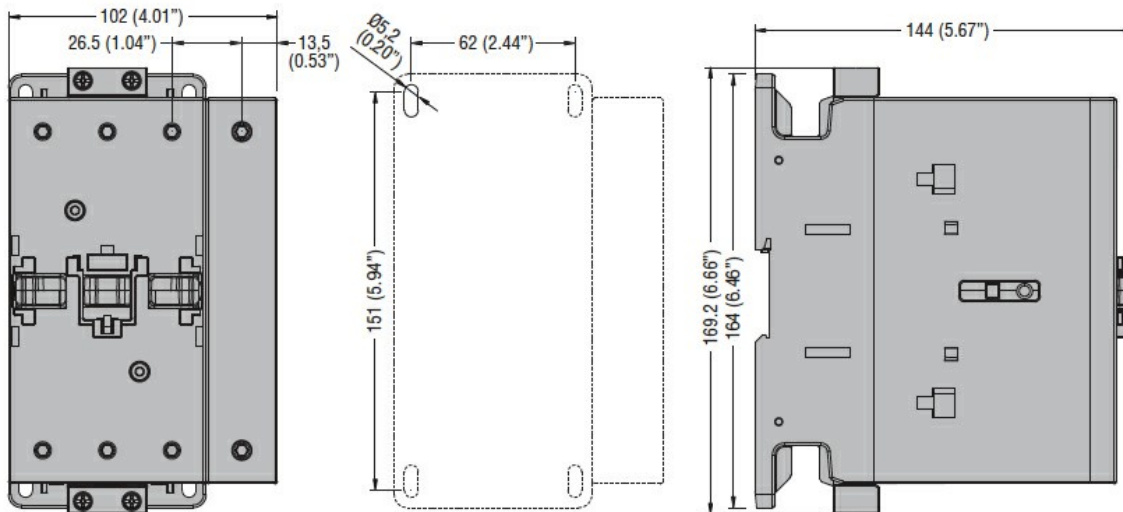
min °C -60

max °C +80

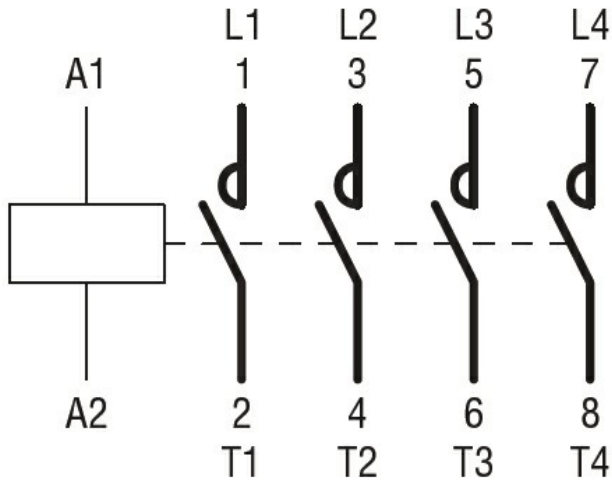
Max altitude

m 3000

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching