



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 ($\leq 40^\circ\text{C}$)	A	160
	AC-1 ($\leq 55^\circ\text{C}$)	A	130
	AC-1 ($\leq 70^\circ\text{C}$)	A	115
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	115
	AC-4 (400V)	A	54
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A
48V		A	160
75V		A	160
110V		A	130
220V		A	14
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series		$\leq 24\text{V}$	A
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	A
48V		A	160
75V		A	160
110V		A	160
220V		A	160
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series		$\leq 24\text{V}$	A
	48V	A	50
	75V	A	40
	110V	A	6

	220V	A	–
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		m Ω	0.45
Power dissipation per pole (average value)			
	I_{th}	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	Ibin	4.4
	max	Ibin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.59
	max	Ibin	0.74
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	230
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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
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	16
max	ms	32

Opening NO

min	ms	9
max	ms	24

UL technical data

General USE

Contactor

AC current	A	165
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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

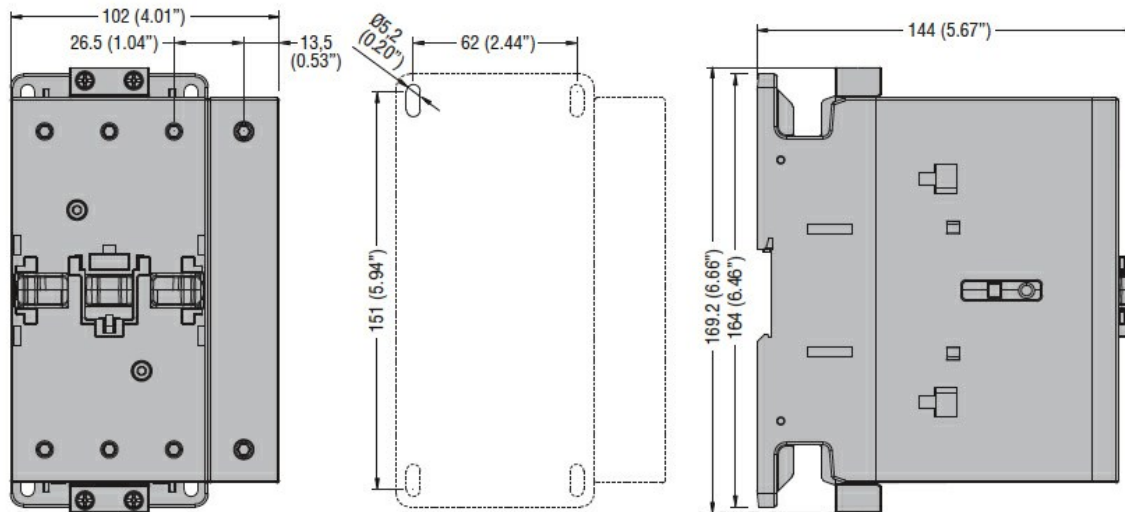
Storage temperature

min	°C	-60
max	°C	+80

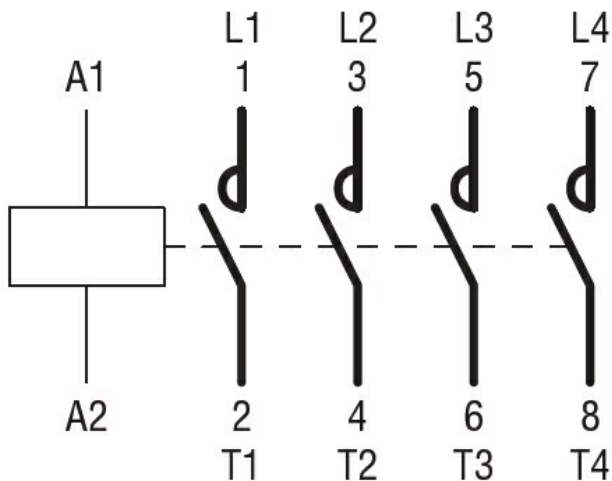
Max altitude

m	3000
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Dimensions [mm (in)]



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