



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
Rated operational current AC-3 ( $T \leq 55^\circ\text{C}$ )		
	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 $L/R \leq 1\text{ms}$ 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 160
	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 160
	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 160
	48V	A 160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current I <sub>e</sub> 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	–
IEC max current I <sub>e</sub> 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
IEC max current I <sub>e</sub> 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
IEC max current I <sub>e</sub> 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
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)		mΩ	0.45
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	11.5
	AC-3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
	AWG/Kcmil		
	max		2/0

Flexible w/o lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	70
Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	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	400
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 holding	VA 300 20
of 50/60Hz coil powered at 60Hz		in-rush holding	VA 275 17
of 60Hz coil powered at 60Hz		in-rush holding	VA 300 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	Short circuit current	kA	100
High fault	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

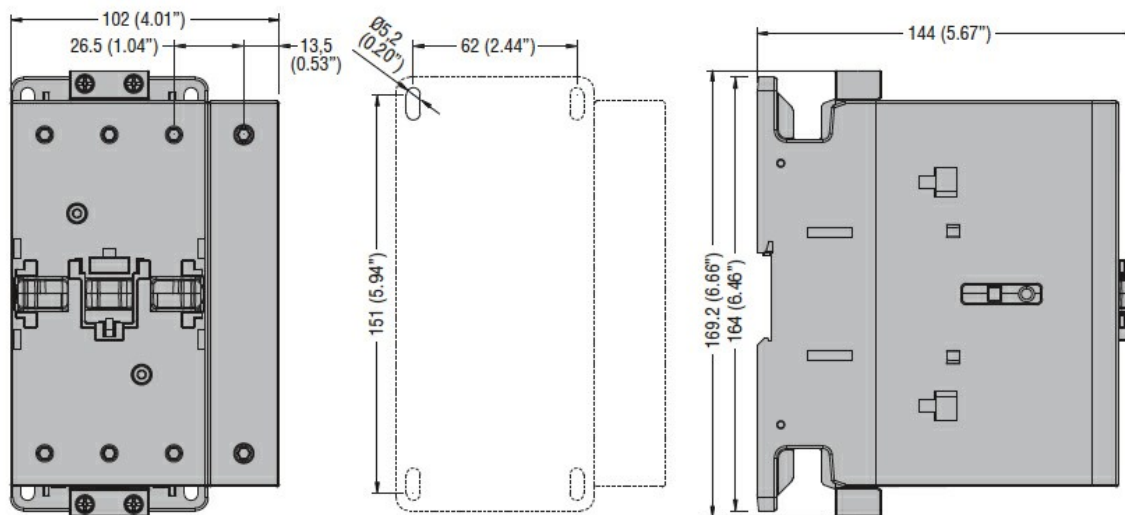
##### Storage temperature

min	°C	-60
max	°C	+80

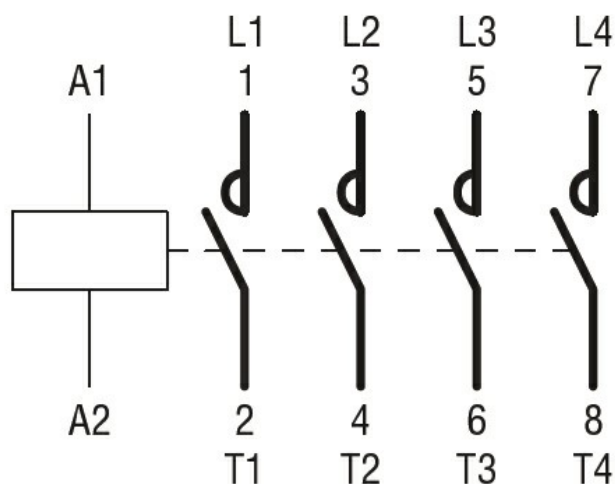
##### Max altitude

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