



Product designation

Power contactor

Product type designation

BF115

**Contact characteristics**

Number of poles	Nr.	3
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 power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 37
	400V	kW 55
	415V	kW 55
	440V	kW 55
	500V	kW 75
	690V	kW 110
	1000V	kW 55
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		

	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current I <sub>e</sub> 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
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
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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°
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Fixing

Screw / DIN rail  
35mm

Weight

g 2060

Conductor section

AWG/kcmil conductor section

max	2/0
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**Operations**

Mechanical life

cycles 15000000

Electrical life

cycles 1200000

**AC coil operating**

Rated AC voltage at 50/60Hz, 60Hz

min	V	20
max	V	48

AC operating voltage

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	85 Us min
max	%Us	110

drop-out

max	%Us	≤70 Us min
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of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	85 Us min
max	%Us	110 Us max

drop-out

max	%Us	≤70 Us min
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AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz

in-rush	VA	70...175
holding	VA	1.7...3.5

of 50/60Hz coil powered at 60Hz

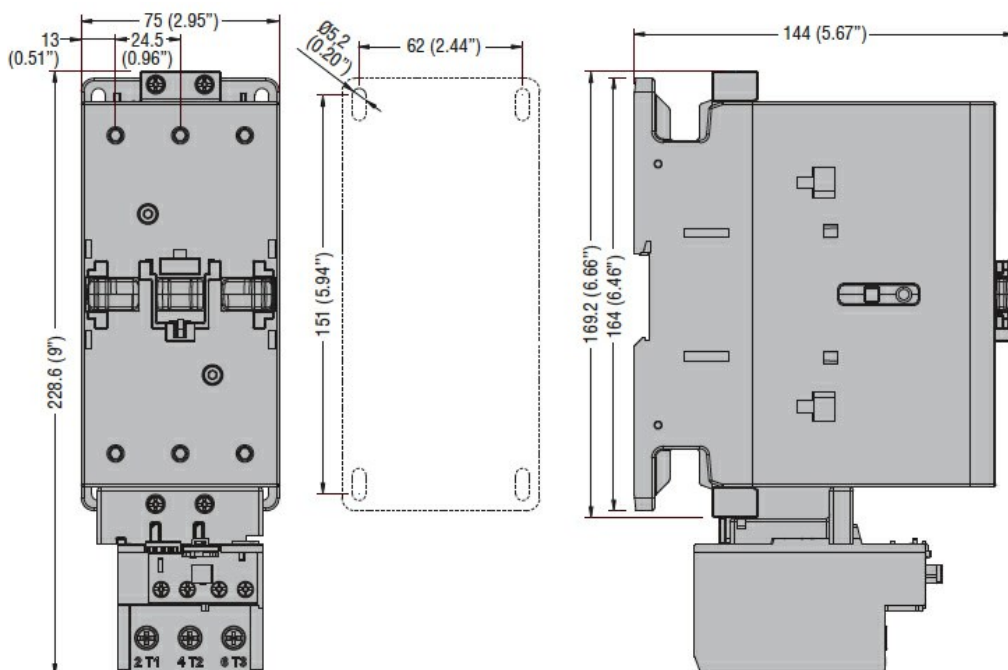
in-rush	VA	70...175
holding	VA	1.7...3.5

of 60Hz coil powered at 60Hz

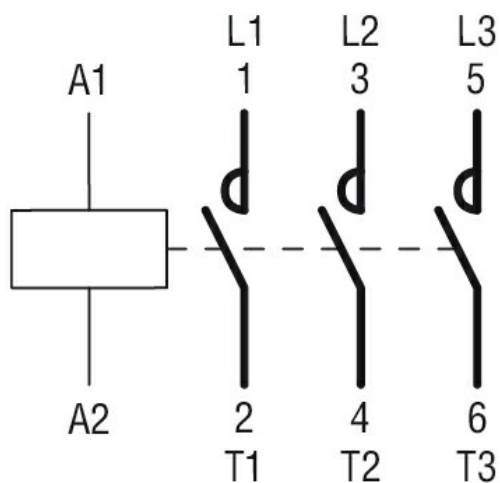
in-rush	VA	70...175
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		holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz			W	1.3...1,5
DC coil operating				
DC rated control voltage		min	V	20
		max	V	48
DC operating voltage				
pick-up		min	%Us	80 Us min
		max	%Us	110 Us max
drop-out				
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
	Closing NO	min	ms	45
		max	ms	90
	Opening NO	min	ms	24
		max	ms	60
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
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

## ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching