



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
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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 I _e 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 I _e 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 I _e 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 I _e 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)	I _{th}	W	11.5
	AC-3	W	6.0
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Tightening torque for terminals	min	Nm	6
	max	Nm	7
	min	I _{bin}	4.4
	max	I _{bin}	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 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°
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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	100
max	V	250

AC operating voltage

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

min	%Us	80
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	80 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

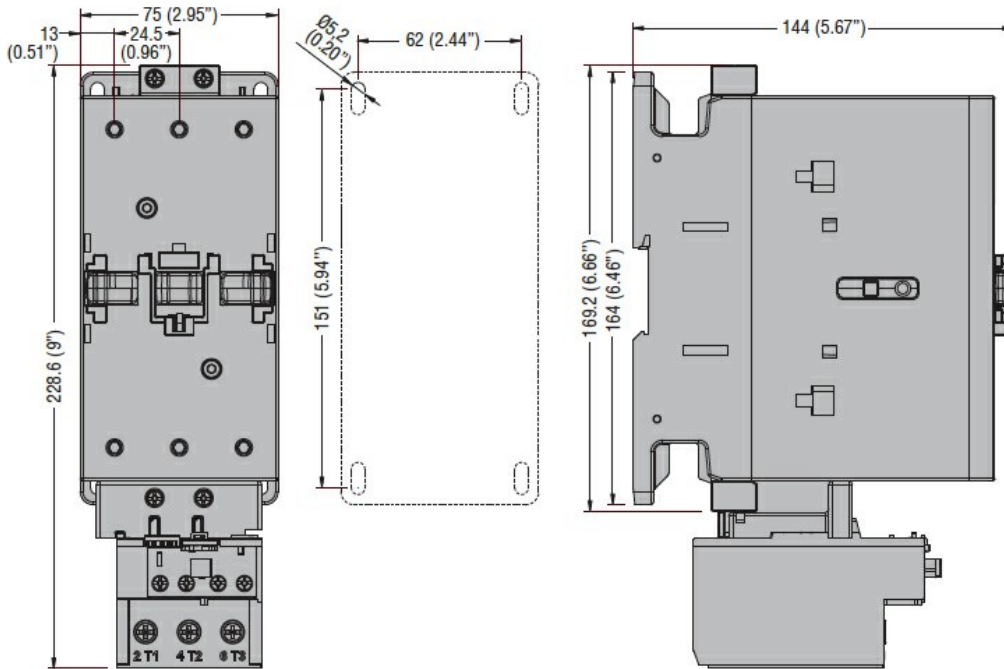
in-rush	VA	70...175
holding	VA	1.7...3.5

of 60Hz coil powered at 60Hz

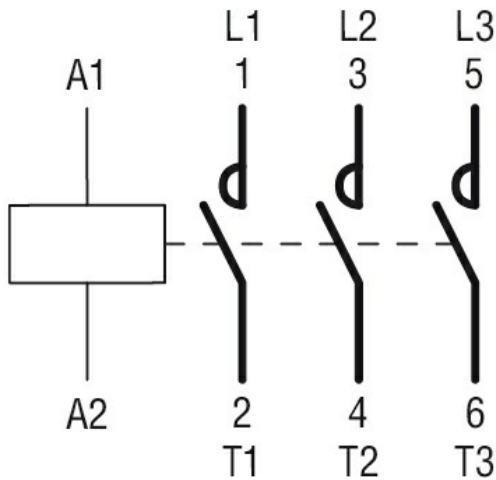
in-rush	VA	70...175
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	holding	VA	1.7...3.5
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	1.3...1,5
DC coil operating			
DC rated control voltage	min	V	100
	max	V	250
DC operating voltage			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤ 70 Us min
Average coil consumption $\leq 20^{\circ}\text{C}$			
	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	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	70
Storage temperature			
	min	$^{\circ}\text{C}$	-60
	max	$^{\circ}\text{C}$	+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