



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 Ie 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 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	–
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
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
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
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)			
	Ith	W	11.5
	AC-3	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	lbin	0.59
max	lbin	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 2060

Operations

Mechanical life

cycles 15000000

Electrical life

cycles 1200000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	1200000
mechanical load	cycles	15000000

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
-----	-----	------------

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
-----	-----	------------

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

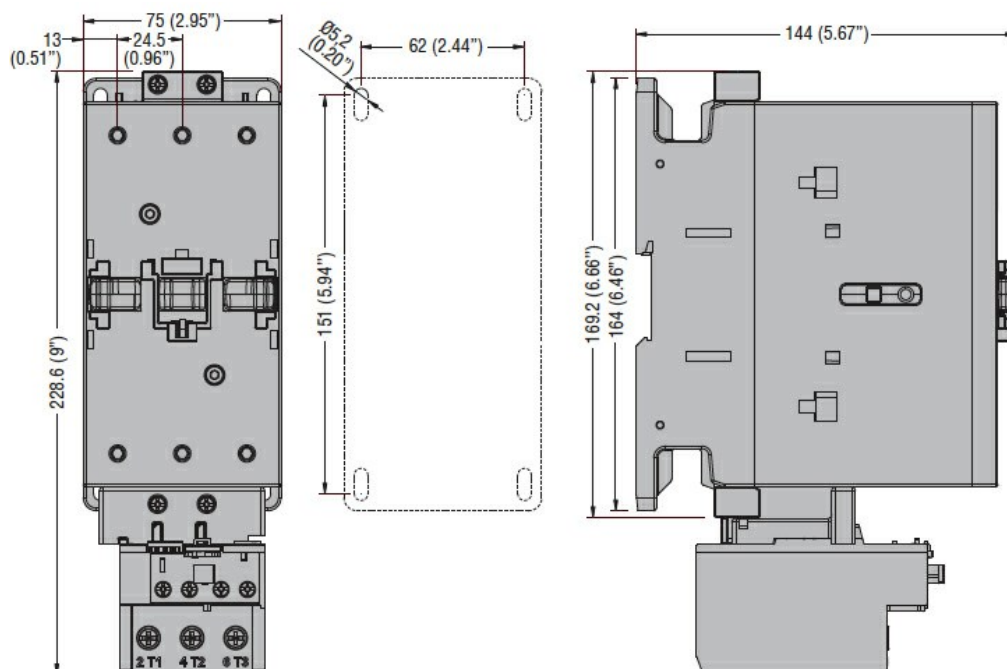
in-rush	VA	70...175
holding	VA	1.7...3.5

of 60Hz coil powered at 60Hz

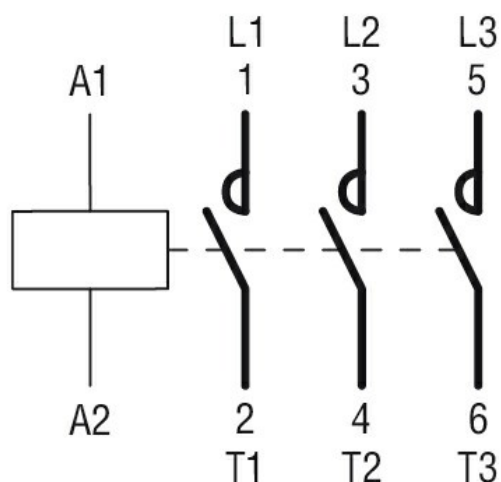
		in-rush	VA	70...175
		holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz			W	1.3...1,5
DC coil operating				
DC rated control voltage				
		min	V	20
		max	V	48
DC operating voltage				
pick-up		min	%Us	80 Us min
		max	%Us	110 Us max
drop-out		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		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				
Rated operational voltage AC (UL)			V	600
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