



Product designation			Power contactor
Product type designation			BF38
Contact characteristics			-
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			-
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	max	A	56
Operational current le			
	AC-1 (≤40°C)	А	56
	AC-1 (≤40°C) with 16mm <sup>2</sup> wire and fork end		60
	AC-1 (≤55°C)	A	45
	AC-1 (≤55°C) with 16mm² wire and fork end		48
	AC-1 (≤70°C)	A	40
	AC-1 (≤70°C) with 16mm <sup>2</sup> wire and fork end		42
	AC-1 (270 C) with formin whe and fork end AC-3 (2440V 255°C)	A	38
	AC-3 (3440V 303 C) AC-4 (400V)	A	15.5
Rated operational power AC-3 (T≤55°C)	AC-4 (400V)	A	10.0
Rated operational power AC-3 (1555 C)	2201/	1.1.1/	44
	230V	kW	11
	400V	kW	18.5
	415V	kW	18.5
	440V	kW	18.5
	500V	kW	20
	690V	kW	22
Rated operational power AC-1 (T≤40°C)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
IEC max current le in DC1 with $L/R \le 1$ ms wit	•		
	≤24V	А	35
	48V	А	30
	75V	А	23
	110V	А	8
	220V	Α	_
IEC max current le in DC1 with $L/R \le 1$ ms wit	h 2 poles in series		
	≤24V	А	36
	48V	А	34
	75V	А	29
	110V	А	32
	220V	А	4
IEC max current le in DC1 with L/R ≤ 1ms wit			
	≤24V	А	36



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	48V	А	34
	75V	A	33
	110V	A	34
	220V	A	30
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V	Λ	50
The current is in DCT with $L/R \leq 100$ with 4 poles in series	<241	۸	26
	≤24V	A	36
	48V	A	34
	75V	A	33
	110V	A	34
	220V	A	38
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 1 poles in series			
	≤24V	А	24
	48V	А	20
	75V	Α	17
	110V	А	2,5
	220V	А	-
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	А	28
	48V	А	25
	75V	А	22
	110V	A	18
	220V	A	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	7.	0
	≤24V	А	32
	48V	A	28
	48V 75V	A	28
	110V	A	23
	220V	A	25
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 4 poles in series		-	
	≤24V	Α	32
	48V	А	28
	75V	А	28
	110V	А	23
	220V	Α	15
Short-time allowable current for 10s (IEC/EN60947-1)		А	320
Protection fuse			
	gG (IEC)	А	63
	aM (IEC)	А	40
Making capacity (RMS value)		А	380
Breaking capacity at voltage			
	440V	А	304
	500V	A	240
	690V	A	192
Resistance per pole (average value)	000 0	mΩ	2
Power dissipation per pole (average value)		11152	۲
i ower dissipation per pole (average value)	الدل	14/	G
	Ith	W	6
Tink to size to serve for to serve 1	AC-3	W	2.9
Tightening torque for terminals			o -
	min	Nm	2.5
	max	Nm	3
	min	Ibin	1.8
	max	lbin	2.2

## Tightening torque for coil terminal



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	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	0.74
Max number of wires	simultaneously connectable	Nr.	2
Conductor section			
	AWG/Kcmil		
	max		6
	Flexible w/o lug conductor section		
	min	mm²	2.5
	max	mm²	16
	Flexible c/w lug conductor section		
	min	mm²	1
	max	mm²	10
	Flexible with insulated spade lug conductor section		-
	min	mm²	1
	max	mm²	10
			IP20 when
Power terminal protect	ction according to IEC/EN 60529		properly wired
Mechanical features			
Operating position			
operating peetiteri	normal		Vertical plan
	allowable		±30°
			Screw / DIN rai
Fixing			35mm
Maight			
weight		a	564
-		g	564
-	AWG/kemil conductor section	g	564
-	AWG/kcmil conductor section	g	
Conductor section	AWG/kcmil conductor section max	g	6
Conductor section Operations			6
Conductor section Dperations Mechanical life		cycles	6 20000000
Conductor section Derations Mechanical life Electrical life			6
Conductor section Deerations Mechanical life Electrical life Safety related data	max	cycles	6 20000000
Conductor section Deerations Mechanical life Electrical life Safety related data	max 0d according to EN/ISO 13489-1	cycles cycles	6 20000000 1400000
Conductor section Deerations Mechanical life Electrical life Safety related data	max 0d according to EN/ISO 13489-1 rated load	cycles cycles cycles	6 20000000 1400000 1400000
Conductor section Operations Mechanical life Electrical life Safety related data Performance level B1	max 0d according to EN/ISO 13489-1 rated load mechanical load	cycles cycles	6 20000000 1400000 1400000 20000000
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1	max 0d according to EN/ISO 13489-1 rated load	cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility	max 0d according to EN/ISO 13489-1 rated load mechanical load	cycles cycles cycles	6 20000000 1400000 1400000 20000000
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating	0d according to EN/ISO 13489-1 rated load mechanical load	cycles cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes yes
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load	cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1	cycles cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes yes
	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up	cycles cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes yes 220
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1	cycles cycles cycles cycles V	6 20000000 1400000 1400000 20000000 yes yes 220 70
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max	cycles cycles cycles cycles	6 20000000 1400000 1400000 20000000 yes yes 220
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min	cycles cycles cycles cycles V V	6 20000000 1400000 1400000 20000000 yes yes 220 70 125
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max	cycles cycles cycles cycles V V %Us %Us %Us	6 20000000 1400000 1400000 20000000 yes yes 220 70
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max drop-out	cycles cycles cycles cycles V V	6 20000000 1400000 1400000 20000000 yes yes 220 70 125
Conductor section Deerations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility DC coil operating DC rated control volta	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max drop-out min max	cycles cycles cycles cycles V V %Us %Us %Us	6 20000000 1400000 1400000 20000000 yes yes 220 70 125 10
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta DC operating voltage	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max drop-out min max	cycles cycles cycles cycles V V %Us %Us %Us	6 20000000 1400000 1400000 20000000 yes yes 220 70 125 10
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta DC operating voltage	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up min max drop-out min max	cycles cycles cycles cycles V V %Us %Us %Us %Us	6 20000000 1400000 1400000 20000000 yes yes 220 70 125 10 40
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta DC operating voltage	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up inin max drop-out min max otion ≤20°C	cycles cycles cycles cycles V V %Us %Us %Us %Us %Us %Us	6 20000000 1400000 20000000 yes yes 220 70 125 10 40 5.4
Conductor section  Deerations  Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility DC coil operating DC rated control volta DC operating voltage  Average coil consump	0d according to EN/ISO 13489-1 rated load mechanical load ing to IEC/EN 609474-4-1 ge pick-up inin max drop-out min max otion ≤20°C	cycles cycles cycles cycles V V %Us %Us %Us %Us %Us %Us	6 20000000 1400000 1400000 20000000 yes yes 220 70 125 10 40 5.4 5.4 5.4

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Average time for Us control

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, tronago timo for oo	in AC				
	III AO	Closing NO			
			min	ms	8
					8 24
		Opening NO	max	ms	24
		Opening NO			-
			min	ms	5
			max	ms	15
		Closing NC			
			min	ms	9
			max	ms	20
		Opening NC			
			min	ms	9
			max	ms	17
	in DC				
		Closing NO			
		3	min	ms	54
			max	ms	66
		Opening NO	max	113	50
			min	ms	14
					14
			max	ms	17
UL technical data					
Full-load current (FL	A) for three-phase A	AC motor			
			at 480V	A	40
			at 600V	Α	32
Yielded mechanical	performance				
	for single-phase	e AC motor			
			110/120V	HP	3
			230V	HP	7.5
	for three-phase	AC motor			
			200/208V	HP	10
			220/230V	HP	15
			460/480V	HP	30
				HP	
			575/600V	ΠF	30
General USE					
	Contactor				
			AC current	A	55
Short-circuit protecti					
	High fault				
			Short circuit current	kA	100
			Fuse rating	А	100
			Fuse class		J
	Standard fault				
			Short circuit current	kA	5
			Fuse rating	A	150
Ambient conditions				/\	
Temperature					
	Operating temp	erature			
			min	°C	-50
			max	°C	70
	Storage temperation	ature			
			min	°C	-60
			max	°C	80
Max altituda				~	2000

Max altitude

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m

3000



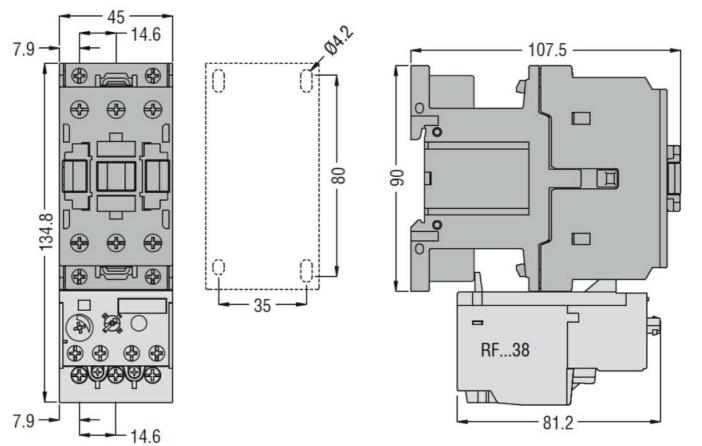
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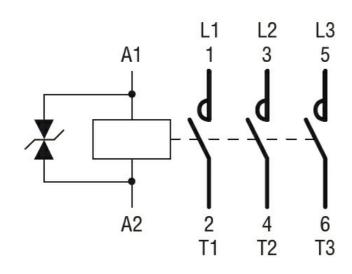
ENERGY AND AUTOMATION

## Resistance & Protection Pollution degree

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		



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	UL 60947-4-1	
Certificates		
	CCC	
	cULus	
	EAC	
ETIM classification	n	
		EC000066 -

ETIM 8.0

EC000066 -Power contactor, AC switching

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