



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		Α	56
Operational current le			
	AC-1 (≤40°C)	Α	56
	AC-1 (≤40°C) with 16mm² wire and fork end	lugA	60
	AC-1 (≤55°C)	Α	45
	AC-1 (≤55°C) with 16mm² wire and fork end	lugA	48
	AC-1 (≤70°C)	Α	40
	AC-1 (≤70°C) with 16mm² wire and fork end	lugA	42
	AC-3 (≤440V ≤55°C)	Α	38
	AC-4 (400V)	Α	15.5
Rated operational power AC-3 (T≤55°C)			
	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 ≤ 1ms with	n 1 poles in series		
	≤24V	Α	35
	48V	Α	30
	75V	Α	23
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with	n 2 poles in series		
	≤24V	Α	36
	48V	Α	34
	75V	Α	29
	110V	Α	32
	220V	Α	4
IEC max current le in DC1 with L/R ≤ 1ms witl			
	· ≤24V	Α	36



## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, DC COIL, 60VDC

	48V	Α	34
	75V	Α	33
	110V	Α	34
	220V	Α	30
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	36
	48V	Α	34
	75V	Α	33
	110V	Α	34
	220V	Α	38
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		_	
	≤24V	Α	24
	48V	A	20
	75V	A	17
	110V	A	2,5
IFO the in DO2 DO5 with 1/D < 45 with 0 in ani	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	<04)/	۸	20
	≤24V 48V	A	28
	48 V 75 V	A A	25 22
	110V	A	18
	220V	A	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		<u> </u>
TEO MAX CUITER REPOSE OF WILL ETT 2 TOMS WILL 5 POICS IT SCHOS	≤24V	Α	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	Α	25
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
·	≤24V	Α	32
	48V	Α	28
	75V	Α	28
	110V	Α	23
	220V	Α	15
Short-time allowable current for 10s (IEC/EN60947-1)		Α	320
Protection fuse			
	gG (IEC)	Α	63
	aM (IEC)	Α	40
Making capacity (RMS value)		Α	380
Breaking capacity at voltage			
	440V	Α	304
	500V	Α	240
	690V	Α	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	Ith	W	6
	AC-3	W	2.9
Tightening torque for terminals			
	min	Nm	2.5
	max ·	Nm	3
	min	lbin	1.8
Tightening terms for call terms and	max	Ibin	2.2
Tightening torque for coil terminal			





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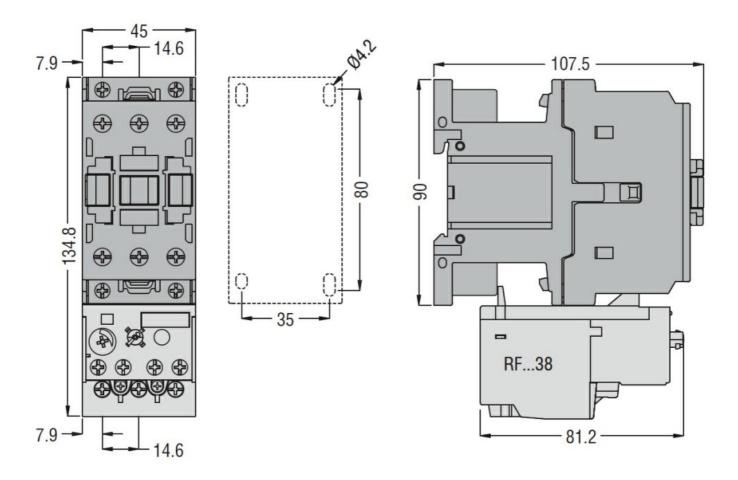
Max   Nm   Nm   Nm   Nm   Nm   Nm   Nm   N				
Max number of wires simultaneously connectable   Minimal   Mini		min	Nm	8.0
Max number of wires simultaneously connectable		max	Nm	1
Max number of wires simultaneously connectable         Nr.         2           Conductor section         max         6           Flexible w/o lug conductor section         min         mm²         2.5           Flexible c/w lug conductor section         min         mm²         16           Flexible with insulated spade lug conductor section         min         mm²         1           Flexible with insulated spade lug conductor section         min         mm²         1           Power terminal protection according to IEC/EN 60529         IP20 when properly wired           Mechanical features         Properting position         Vertical plan allowable         230°           Fixing         Screw / DIN rail 35mm         Screw / DIN rail 35mm           Weight         g         560           Operations         cycles 20000000           Bectrical life         cycles 20000000           Satery related data         cycles 20000000           Performance level B10d according to EN/ISO 13489-1         rated load cycles 20000000           EMC compatibility         yes           DC coil operating         yes           DC coil operating         yes           DC coil operating         yes           DC coil operating         yes		min	lbin	0.8
AWG/Kcmil		max	lbin	0.74
AWG/Kcmi    Flexible w/o lug conductor section   Flexible w/o lug conductor section   Flexible w/o lug conductor section   Flexible c/w lug conductor section   Flexible with insulated spade lug conductor section   min max mm²   10   10   10   10   10   10   10   1	Max number of wires s	simultaneously connectable	Nr.	2
Flexible w/o lug conductor section	Conductor section			
Flexible w/o lug conductor section		AWG/Kcmil		
Flexible c/w lug conductor section		max		6
Flexible c/w lug conductor section   Flexible c/w lug conductor section   Flexible with insulated spade lug conductor section   min max mm²   1 mm²   10		Flexible w/o lug conductor section		
Flexible c/w lug conductor section		min	mm²	2.5
Plexible with insulated spade lug conductor section		max	mm²	16
Plexible with insulated spade lug conductor section   Flexible with insulated spade lug conductor section   min		Flexible c/w lug conductor section		
Flexible with insulated spade lug conductor section			mm²	1
Minimax		max	mm²	10
Min		Flexible with insulated spade lug conductor section		
Power terminal protection according to IEC/EN 60529   IP20 when properly wired		•	mm²	1
Properly wired   Pro			mm²	10
Properly wired   Pro				IP20 when
Mechanical features           Operating position         normal allowable         Vertical plan ±30°           Fixing         Screw / DIN rail 35mm           Weight         g 560           Operations         Cycles         20000000           Bechanical life         cycles         20000000           Electrical life         cycles         1400000           Safety related data         rated load cycles         1400000           Performance level B10d according to EN/ISO 13489-1         rated load cycles         200000000           EMC compatibility         yes         200000000           DC rated control voltage         V         60           DC operating voltage         V         60           DC operating voltage         min         %Us         125           drop-out         min         %Us         10           Average coil consumption ≤20°C         in-rush holding         W         5.4           Max cycles frequency         in-rush holding         W         5.4           Mechanical operation         cycles/h         3600           Operating times         Closing NO         min         ms         8	Power terminal protect	tion according to IEC/EN 60529		
Operating position         Note that plan allowable         Vertical plan allowable         Screw / DIN rail 35mm         Screw / DIN	Mechanical features			, , ,
Normal allowable   Normal all				
Fixing   Screw / DIN rail 35mm   Weight   g 560  Operations   ycles 20000000   Electrical life   cycles 20000000   Safety related data   Performance level B10d according to EN/ISO 13489-1   Fixing   rated load   cycles 1400000   EMC compatibility   rated load   cycles 20000000   EMC compatibility   yes 20000000   EMC compatibility   yes 20000000   DC rated control voltage   √ 60   DC operating voltage   pick-up   min	1 01	normal		Vertical plan
Fixing Screw / DIN rail 35mm  Weight 9 560  Operations  Mechanical life cycles 20000000  Electrical life cycles 1400000  Safety related data  Performance level B10d according to EN/ISO 13489-1  EMC compatibility yes  DC coil operating  DC rated control voltage V 60  DC operating voltage  pick-up  min %Us 70 max %Us 125  drop-out  min %Us 70 max %Us 125  drop-out  min %Us 40  Average coil consumption ≤20°C  in-rush holding W 5.4  Max cycles frequency  Mechanical operation  Closing NO  min Max 8  Closing NO  min ms 8 8				
Weight         g         560           Operations           Mechanical life         cycles         20000000           Electrical life         cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1         rated load cycles         1400000 cycles         200000000           EMC compatibility         yes           DC coil operating         V         60           DC rated control voltage         V         60           DC operating voltage         yes           DC operating voltage         yes         yes           DC operating voltage         yes         yes         DC operating woltage         yes	Fixing			Screw / DIN rail
Operations           Mechanical life         cycles         20000000           Electrical life         cycles         1400000           Safety related data           Performance level B10d according to EN/ISO 13489-1           rated load mechanical load cycles         1400000 cycles         20000000           EMC compatibility         yes           DC coil operating         V 60           DC operating voltage         v         60           DC operating voltage         min will will will will will will will wi	Weight		a	
Mechanical life         cycles         20000000           Electrical life         cycles         1400000           Safety related data           rated load mechanical load cycles         1400000           EMC compatibility         yes           DC coil operating           DC operating voltage         y         60           DC operating voltage         min         %Us         70           drop-out         min         %Us         125           drop-out         min         %Us         40           Average coil consumption ≤20°C         in-rush holding         W         5.4 holding         W         5			9	
Electrical life	•		cycles	20000000
Safety related data           Performance level B10d according to EN/ISO 13489-1         rated load mechanical load cycles and cycles are proposed and cycles and cycles and cycles are proposed and cycles are proposed and cycles and cycles and cycles are proposed and cycles and cycles and cycles are proposed and cycles and cycles are proposed and cycles and cycles are proposed and cycle			-	
Performance level B10d according to EN/ISO 13489-1           rated load mechanical load mechanical load mechanical load cycles 20000000           EMC compatibility         yes           DC roul operating         V 60           DC rated control voltage         V 60           DC operating voltage         min %Us 70 max %Us 125           drop-out         min min %Us 10 max %Us 10 max %Us 40           Average coil consumption ≤20°C         in-rush My 5.4 holding W 5.4           Max cycles frequency         W 5.4           Mechanical operation         cycles/h 3600           Operating times           Average time for Us control           in AC         Closing NO           min min ms 8			0)0100	1 100000
Rated load   Cycles   1400000   Mechanical load   Cycles   200000000   Mechanical load   Cycles   200000000   Mechanical load   Cycles   200000000   Mechanical load   Cycles   200000000   Mechanical load   Cycles   Mechanical load   Mechanical	•	Od according to EN/ISO 13489-1		
mechanical load         cycles         20000000           EMC compatibility         yes           DC coil operating         V         60           DC operating voltage         min         %Us         70           pick-up         min         %Us         125           drop-out         min         %Us         10           max         %Us         40           Average coil consumption ≤20°C         in-rush nolding         W         5.4 nolding           Max cycles frequency         in-rush nolding         W         5.4 nolding           Mechanical operation         cycles/h         3600           Operating times           Average time for Us control in AC         min AC         min ms         8		-	cycles	1400000
EMC compatibility yes    DC coil operating   V 60			•	
DC coil operating           DC rated control voltage         V 60           DC operating voltage         min max wus vus 125           drop-out         min max wus vus 40           Average coil consumption ≤20°C         in-rush holding wus 5.4 holding wus 5.4           Max cycles frequency         Max cycles/h adding wus 5.4           Mechanical operation         cycles/h adding wus 5.4           Operating times           Average time for Us control in AC         Closing NO           min ms ms 8         8	FMC compatibility	moonamoa roaa	0,0.00	
DC rated control voltage         DC operating voltage       V       60         DC operating voltage       min       %Us       70         max       %Us       125         drop-out       min       %Us       10         max       %Us       40         Average coil consumption ≤20°C       in-rush w 5.4 holding w 5.4         Max cycles frequency       w       5.4         Mechanical operation       cycles/h 3600         Operating times         Average time for Us control in AC       Closing NO       min ms       8				yes
DC operating voltage    pick-up	-		V	60
Pick-up		y <del>c</del>	V	00
min   %Us   70   max   %Us   125	DC operating voltage	niek un		
max   %Us   125			0/110	70
drop-out  min %Us 10 max %Us 40  Average coil consumption ≤20°C  in-rush W 5.4 holding W 5.4  Max cycles frequency  Mechanical operation cycles/h 3600  Operating times  Average time for Us control in AC  Closing NO  min ms 8				
min max       %Us do word       10 max         Average coil consumption ≤20°C       in-rush w 5.4 holding w 5.4         Max cycles frequency       W 5.4         Mechanical operation       cycles/h 3600         Operating times         Average time for Us control in AC       in AC         Closing NO       min ms 8			/oUS	120
Average coil consumption ≤20°C in-rush holding W 5.4 holding   Max cycles frequency W 5.4   Mechanical operation cycles/h 3600   Operating times Average time for Us control in AC In AC   Closing NO min ms 8			0/116	4.0
Average coil consumption ≤20°C  in-rush W 5.4 holding W 5.4  Max cycles frequency  Mechanical operation cycles/h 3600  Operating times  Average time for Us control in AC  Closing NO  min ms 8				
in-rush W 5.4 holding W 5.4  Max cycles frequency  Mechanical operation cycles/h 3600  Operating times  Average time for Us control in AC  Closing NO  min ms 8			%US	40
Max cycles frequency  Mechanical operation  Operating times  Average time for Us control  in AC  Closing NO  min ms 8	Average coll consump			- 4
Max cycles frequency  Mechanical operation cycles/h 3600  Operating times  Average time for Us control  in AC  Closing NO  min ms 8				
Mechanical operation cycles/h 3600  Operating times  Average time for Us control in AC  Closing NO  min ms 8		holding	W	5.4
Operating times  Average time for Us control				
Average time for Us control in AC Closing NO min ms 8			cycles/h	3600
in AC Closing NO min ms 8				
Closing NO min ms 8	Average time for Us co	ontrol		
min ms 8		in AC		
		Closing NO		
max ms 24		min	ms	8
		max	ms	24



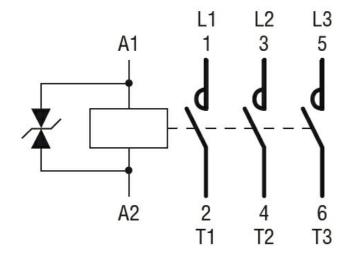
# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, DC COIL, 60VDC

		Opening NO			
		Opening NO	min	ms	5
			max	ms	15
		Closing NC	max	1113	10
		Grooming 140	min	ms	9
			max	ms	20
		Opening NC			
		, ,	min	ms	9
			max	ms	17
	in DC				_
		Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
			max	ms	17
UL technical data	ango AC (LIL)			\/	600
Rated operational volt		AC motor		V	600
Full-load current (FLA	) for three-phase <i>F</i>	AC motor	at 400\/	۸	40
			at 480V at 600V	A A	40 32
Yielded mechanical pe	orformanco		at 600 v	A	32
rielueu mechanicai pi	for single-phase	λC motor			
	ioi sirigie-priase	5 AC IIIOIOI	110/120V	HP	3
			230V	HP	7.5
	for three-phase	AC motor	200 V		7.0
	ioi unos priass	7.0 motor	200/208V	HP	10
			220/230V	HP	15
			460/480V	HP	30
			575/600V	HP	30
General USE					
	Contactor				
			AC current	Α	55
Short-circuit protection	n fuse, 600V				
	High fault				
			Short circuit current	kA	100
			Fuse rating	Α	100
	<u> </u>		Fuse class		J
	Standard fault		Observation 1	1 4	_
			Short circuit current	kA ^	5
Ambient conditions			Fuse rating	Α	150
Temperature					
romporature	Operating temp	erature			
	Operating temp	Graturo	min	°C	-50
			max	°C	70
	Storage temper	ature	max		
	2.2.290 101111011	=::=:• <del>▼</del>	min	°C	-60
			max	°C	80
Max altitude				m	3000
Resistance & Protecti	on				
Pollution degree					3
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



### BF3800D060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, DC COIL, 60VDC

cULus			
FAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching