



Product designation Product type designation			Power contactor BF38
Contact characteristics			
Number of poles		Nr.	4
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	_	42
	AC-3 (≤440V ≤55°C)	Α	38
	AC-4 (400V)	Α	15.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
IFO	690V	kW	62
IEC max current le in DC1 with L/R ≤ 1ms with	•	•	0.5
	≤24V	A	35
	48V	A	30
	75V	A	23
	110V	A	8
IEC may aurrent to in DC1 with L/B < 1 mg with	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with	12 poles in series ≤24V	۸	36
	48V	A A	34
	75V	A	29
	110V	A	32
	220V	A	4
IEC max current le in DC1 with L/R ≤ 1ms with		- , ,	'
in a max sarrone in Bot mar Live - into ma	≤24V	Α	36
	48V	Α	34
	75V	Α	33
	110V	Α	34
	220V	Α	30
IEC max current le in DC1 with L/R ≤ 1ms with			
	≤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	Α	20
	75V	Α	17
	110V	Α	2,5
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		- , ,	
The max danger to the Boo Boo with Eff Tomo with 2 police in defice	≤24V	Α	28
	48V	Α	25
	75V	A	22
	110V		18
		A	
IFC many assessment to in DC2 DC5 with L/D < 45 may with 2 malos in agains	220V	Α	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	40.4V		00
	≤24V	A	32
	48V	A	28
	75V	Α	28
	110V	Α	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	A	192
Resistance per pole (average value)	0001	mΩ	2
Power dissipation per pole (average value)		11132	
rower dissipation per pole (average value)	lth	۱۸/	6
	Ith	W	6
Tinhtonia a tonnua fantamainala	AC-3	W	2.9
Tightening torque for terminals		N I.a.:	0.5
	min	Nm	2.5
	max	Nm	3
	min	lbin	1.8
	max	lbin	2.2
Tightening torque for coil terminal			
	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			

Conductor section

AWG/Kcmil





Operating position normal allowable Vertical plan allowable 230° Fixing g 50° Screw / DIN rail 35mm 35mm Weight g 50° 35mm 35				
Fiexible c/w lug conductor section			Х	6
Place Prescribe c/w lug conductor section min		-		2 0 5
Flexible c/w lug conductor section				
Max			x mm	16
Pickible with insulated spade lug conductor section min max mm² 10 10 10 10 10 10 10 1			n	.2 4
Flexible with insulated spade lug conductor section				
Max			x mm	1- 10
Power terminal protection according to IEC/EN 60529 Power terminal protection allowable Power terminal protection		·	n min	n ² 1
Power terminal protection according to IEC/EN 60529 Mechanical features				
According to IEC/EN 60529 properly wired Mechanical features Operating position normal allowable Vertical plan ±30° Fixing \$ 50° \$ 50° Weight \$ 50° \$ 50° Conductor section max 6 Operations \$ 50° \$ 50° Mechanical life \$ 50° \$ 20000000 Electrical life \$ 50° \$ 20000000 Safety related data \$ 70° \$ 20000000 Performance level B10d according to EN/ISO 13489-1 rated load cycles 1400000 \$ 1400000 Mirror contats according to IEC/EN 609474-4-1 yes \$ 50° EMC compatibility yes \$ 50° AC coil operating \$ 70° \$ 70° AC coil operating \$ 70° \$ 70° AC coperating voltage \$ 70° \$ 70° AC operating voltage \$ 70° \$ 70° AC average coil consumption at 20°C \$ 50° \$ 50° AC average coil consumption at 20°C \$ 70° \$ 70° \$ 70° <tr< td=""><td></td><td>IIIc</td><td>X 11111</td><td></td></tr<>		IIIc	X 11111	
	Power terminal protect	tion according to IEC/EN 60529		
Normal allowable Normal all	Mechanical features			
Fixing 30° 30	Operating position			
Screw / DIN rat 35mm		norm	al	Vertical plan
New End		allowab	е	±30°
Weight	Fixing			Screw / DIN rail
AWG/kcmil conductor section max				
AWG/kcmil conductor section max			g	500
Operations cycles 20000000 Mechanical life cycles 20000000 Electrical life cycles 1400000 Safety related data rated load 1400000 Mirror contats according to IEC/EN 609474-4-1 rated load 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 60Hz yes AC operating voltage for 60Hz coil powered at 60Hz min %Us 80 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush %Us 25 AC average coil consumption at holding ≤20°C 50Hz in-rush VA 75 Max cycles frequency www.pick-rush www.pick-rush Weden frequency Cycles/h 3600 Operating times Average time for Us control in AC	Conductor section			
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 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 60Hz yes AC operating voltage min subject with subject				•
Mechanical life Cycles 20000000		ma	Х	6
Electrical life cycles 1400000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes AC coil operating Rated AC voltage at 60Hz of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush NA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 8	•			0000000
Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1400000 mechanical load cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes AC coil operating Rated AC voltage at 60Hz of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Closing NO min ms 8				
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1400000 mechanical load cycles 20000000 mechanical load cycles 20000000 mechanical load 200000000000000000000000000000000000			cycl	es 1400000
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Mirror contats according to IEC/EN 609474-4-1 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating V 24 AC coil operating voltage min %Us 80 Max %Us 110 110 drop-out min %Us 20 max %Us 55 110 AC average coil consumption at 20°C max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency W 2.5 Max cycles frequency Wechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8	Performance level B10	_		4400000
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EMC compatibility AC coil operating Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 8	Mirror contato cocardir		a cycli	
AC coil operating Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operating times Average time for Us control in AC Closing NO min ms 8		19 to 1EC/EN 609474-4-1		
Rated AC voltage at 60Hz AC operating voltage of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 8				yes
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pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Mechanical operation Cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8	AC operating voltage	of 60Hz coil powered at 60Hz		
min %Us 80 max %Us 110		·		
max %Us 110 drop-out			n %II	ls 80
drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8				
min %Us 20 max %Us 55 AC average coil consumption at 20°C			, /0 U	
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8			n %II	ls 20
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation Cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8				
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in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8		•		
holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8			h VA	75
Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Operating times Average time for Us control in AC Closing NO min ms 8				
Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8	Dissipation at holding :			
Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8				
Operating times Average time for Us control	Mechanical operation		cycle	s/h 3600
Average time for Us control in AC Closing NO min ms 8	Operating times			
in AC Closing NO min ms 8		ontrol		
Closing NO min ms 8	÷			
min ms 8				
			n ms	8

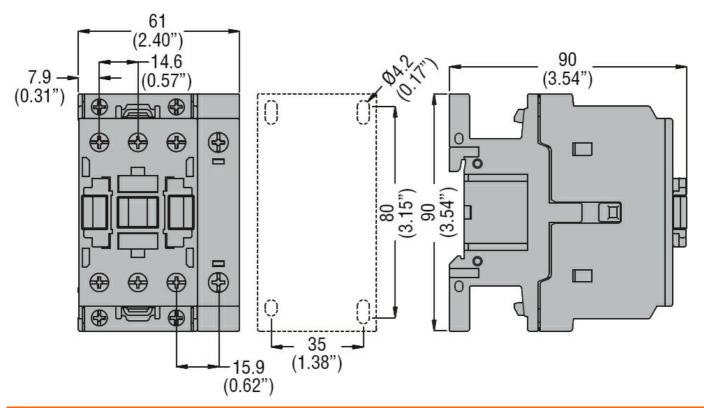




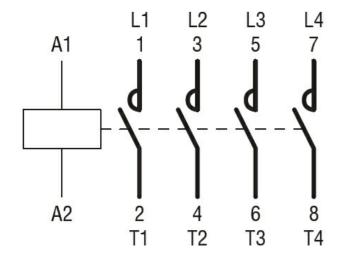
	Opening NO			
	s p s m g v s	min	ms	5
		max	ms	15
	Closing NC			
	· ·	min	ms	9
		max	ms	20
	Opening NC			
		min	ms	9
		max	ms	17
UL technical data				
Full-load current (FL	A) for three-phase AC motor			
		at 480V	Α	40
		at 600V	Α	32
Yielded mechanical	performance			_
	for single-phase AC motor			
		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
		575/600V	HP	30
General USE				
	Contactor			
		AC current	Α	55
Short-circuit protecti	on fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	100
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ction			
Pollution degree				3
Dimensions				

ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 60HZ,



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

EAC

ETIM classification



BF38T4A02460

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 60HZ,

ETIM 8.0

EC000066 -Power contactor, AC switching