

## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, AC COIL 50/60HZ,



Product designation		Power contactor
Product type designation  Contact characteristics		BF38
Number of poles	Nr.	3
Rated insulation voltage Ui IEC/EN	V	690
Rated insulation voltage of IEC/EN  Rated impulse withstand voltage Uimp	kV	6
Operational frequency	ΚV	0
min	Hz	25
max	Hz	400
IEC Conventional free air thermal current Ith	A	56
Operational current le		
AC-1 (≤40°C)	Α	56
AC-1 (≤40°C) with 16mm² 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 16mm² wire and fork end		42
` AC-3 (≤440V ≤55°C)	Ã	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 1 poles in series		
≤24V	Α	35
48V	Α	30
75V	A	23
110V	A	8
220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	۸	00
≤24V	A	36
48V 75V	A	34
75V 110V	A A	29
220V	A	32 4
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	- 1	+
≤24V	Α	36
⊇∠ <b>4</b> V	$\Lambda$	50



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	48V	Α	34
	75V	Α	33
	110V	Α	34
	220V	Α	30
EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 1	,,	
EO max carrent le in BOT with E/X = 1m3 with 4 poles in series	≤24V	Α	36
	48V	A	34
	75V	A	33
	110V	A	34
	220V		38
IFC may surrent to in DC2 DC5 with L/D < 15mg with 1 notes in series	220 V	A	30
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	<b>-04</b> 1/	^	0.4
	≤24V	A	24
	48V	Α	20
	75V	Α	17
	110V	Α	2,5
	220V	Α	_
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	28
	48V	Α	25
	75V	Α	22
	110V	Α	18
	220V	Α	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	32
	48V	Α	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	A	28
	75V	A	28
	110V	A	23
	220V		15
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A 	320
,		A	320
Protection fuse	.0 (150)		00
	gG (IEC)	A	63
	aM (IEC)	A	40
Making capacity (RMS value)		A	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	Ibin	1.8
	max	Ibin	2.2
Tightening torque for coil terminal	· · · · ·	.~	<b>_</b>

Tightening torque for coil terminal



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			Nima	0.0
		min	Nm Nm	0.8 1
		max min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	simultaneously connectable	Hax	Nr.	2
Conductor section	minutaricously conficulable		141.	
Conductor Coolion	AWG/Kcmil			
	7.117 6/7.16/11111	max		6
	Flexible w/o lug conductor section			
	3	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
Power terminal protect	tion according to IEC/EN 60529			IP20 when
				properly wired
Mechanical features				
Operating position				Mantle - Late
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	429
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data				1400000
Safety related data	0d according to EN/ISO 13489-1		cycles	
Safety related data	0d according to EN/ISO 13489-1	rated load	cycles	1400000
Safety related data Performance level B10	0d according to EN/ISO 13489-1	rated load mechanical load	cycles	1400000 20000000
Safety related data Performance level B10  EMC compatibility	0d according to EN/ISO 13489-1		cycles	1400000
Safety related data Performance level B10  EMC compatibility AC coil operating			cycles cycles cycles	1400000 20000000 yes
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5			cycles	1400000 20000000
Safety related data Performance level B10  EMC compatibility AC coil operating	0/60Hz		cycles cycles cycles	1400000 20000000 yes
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz of 50/60Hz coil powered at 50Hz		cycles cycles cycles	1400000 20000000 yes
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz	mechanical load	cycles cycles cycles	1400000 200000000 yes 24
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz of 50/60Hz coil powered at 50Hz	mechanical load	cycles cycles cycles	1400000 20000000 yes 24
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz  of 50/60Hz coil powered at 50Hz pick-up	mechanical load	cycles cycles cycles	1400000 200000000 yes 24
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz of 50/60Hz coil powered at 50Hz	mechanical load  min max	cycles cycles cycles V  %Us %Us	1400000 200000000 yes 24 80 110
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	0/60Hz  of 50/60Hz coil powered at 50Hz pick-up	mechanical load  min max min	cycles cycles cycles V  %Us %Us %Us	1400000 200000000 yes 24 80 110
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	mechanical load  min max	cycles cycles cycles V  %Us %Us	1400000 200000000 yes 24 80 110
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	mechanical load  min max min	cycles cycles cycles V  %Us %Us %Us	1400000 200000000 yes 24 80 110
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	mechanical load  min max min	cycles cycles cycles V  %Us %Us %Us	1400000 200000000 yes 24 80 110
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	mechanical load  min max  min max	cycles cycles cycles V  %Us %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up	mechanical load  min max  min max  min	cycles cycles cycles V  %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	mechanical load  min max  min max  min	cycles cycles cycles V  %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up	mechanical load  min max  min max  min max	cycles cycles cycles V  %Us %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	mechanical load  min max  min max  min max  min max	cycles cycles v  %Us %Us %Us %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55
Safety related data Performance level B10  EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	mechanical load  min max  min max  min max  min max	cycles cycles v  %Us %Us %Us %Us %Us %Us %Us	1400000 200000000 yes 24 80 110 20 55





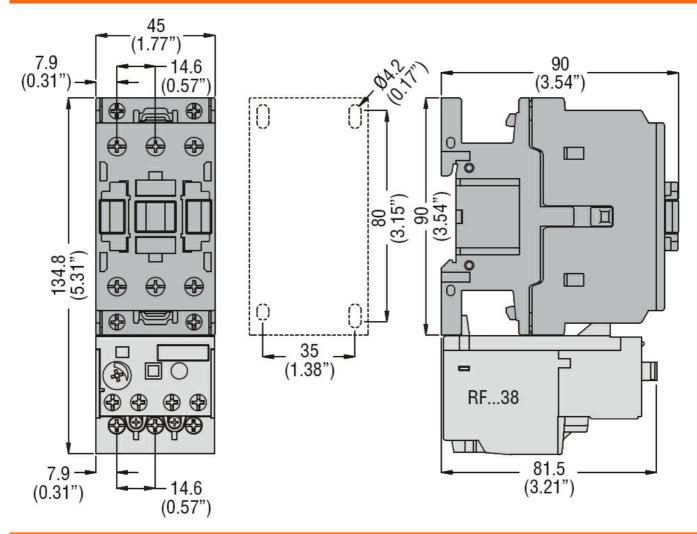
# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, AC COIL 50/60HZ, 24VAC

		holding	VA	9
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
	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 co				
	in AC			
	Closing NO			_
		min	ms	8
		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
UL technical data	. • 444			
Rated operational volta			V	600
Full-load current (FLA)	) for three-phase AC motor		_	
		at 480V	Α	40
		at 600V	Α	32
Yielded mechanical pe				
	for single-phase AC motor	440/400/4		
		110/120V	HP	3
	<del></del>	230V	HP	7.5
	for three-phase AC motor			4.0
		200/208V	HP	10
		220/230V	HP	15
		460/480V	HP	30
0		575/600V	HP	30
General USE				
	Contactor			
		AC current	Α	55
Short-circuit protection				
	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				
Ambient conditions Temperature				
	Operating temperature			
	Operating temperature	min	°C	-50



### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, AC COIL 50/60HZ, 24VAC

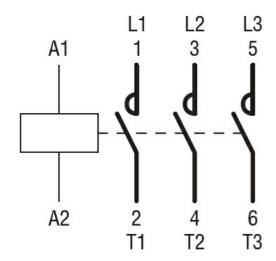
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, AC COIL 50/60HZ,



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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

ETIM 8.0

EC000066 -Power contactor, AC switching