

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 38A, AC COIL 50/60HZ, 48VAC



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		А	56
Operational current le			
	AC-1 (≤40°C)	А	56
	AC-1 (≤40°C) with 16mm ² wire and fork end	lugA	60
	AC-1 (≤55°C)	А	45
	AC-1 (≤55°C) with 16mm ² wire and fork end	lugA	48
	AC-1 (≤70°C)	А	40
	AC-1 (≤70°C) with 16mm² wire and fork end	lugA	42
	AC-3 (≤440V ≤55°C)	А	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 $L/R \le 1$ ms wi	•		
	≤24V	А	35
	48V	A	30
	75V	А	23
	110V	А	8
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms wi			
	≤24V	Α	36
	48V	A	34
	75V	A	29
	110V	A	32
	220V	A	4
IEC max current le in DC1 with $L/R \le 1$ ms wi		-	
	≤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	2201		
	≤24V	А	36
	48V	A	34
	48V 75V	A	33
	110V	A	33
IFC may autrent to in DC2 DCE with L/D < 15mg with 1 palag in agrice	220V	A	38
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series	<i>1</i> 0 0 /	•	0.4
	≤24V	A	24
	48V	A	20
	75V	А	17
	110V	A	2,5
	220V	A	-
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series			
	≤24V	А	28
	48V	А	25
	75V	А	22
	110V	А	18
	220V	А	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
·	≤24V	А	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	25
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		20
	≤24V	А	32
	48V	A	28
	48V 75V		
		A	28
	110V	A	23
	220V	<u>A</u>	15
Short-time allowable current for 10s (IEC/EN60947-1)		А	320
Protection fuse			
	gG (IEC)	А	63
	aM (IEC)	A	40
Making capacity (RMS value)		Α	380
Breaking capacity at voltage			
	440V	А	304
	500V	А	240
	690V	А	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	lth	W	6
	AC-3	Ŵ	2.9
Tightening torque for terminals	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	**	
	min	Nm	2.5
	max	Nm	3
	min	Ibin	3 1.8
	max	Ibin	2.2

Tightening torque for coil terminal



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	min	Nm	0.8
	max		1
	min	Ibin	0.8
	max	Ibin	0.74
imultaneously connectable		Nr.	2
AWG/Kcmil			
	max		6
Flexible w/o lug conductor section			
	min	mm²	2.5
	max	mm²	16
Flexible c/w lug conductor section			
	min		1
	max	mm²	10
Flexible with insulated spade lug conducted			
			1
	max	mm²	10
tion according to IEC/EN 60529			IP20 when
- -			properly wired
	normal		Vertical plan
			±30°
	allowable		Screw / DIN rail
			35mm
		q	430
		Ŭ	
AWG/kcmil conductor section			
	max		6
		cycles	2000000
		cycles	1400000
Id according to EN/ISO 13489-1			
		•	1400000
	mechanical load	cycles	2000000
ng to IEC/EN 609474-4-1			yes
			yes
0/60Hz		V	48
of 50/60Hz coil powered at 50Hz			
-			
pick-up		0/11	0.0
-	min	%Us	80
pick-up	min max	%Us %Us	80 110
-	max	%Us	110
pick-up	max	%Us %Us	110 20
pick-up drop-out	max	%Us	110
pick-up drop-out of 50/60Hz coil powered at 60Hz	max	%Us %Us	110 20
pick-up drop-out	max min max	%Us %Us %Us	110 20 55
pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max min	%Us %Us %Us %Us	110 20 55 85
pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max	%Us %Us %Us	110 20 55
	Flexible w/o lug conductor section Flexible c/w lug conductor section Flexible with insulated spade lug conductor tion according to IEC/EN 60529	min max simultaneously connectable AWG/Kcmil AWG/Kcmil max Flexible w/o lug conductor section min max Flexible c/w lug conductor section Flexible with insulated spade lug conductor section min max Flexible with insulated spade lug conductor section fon according to IEC/EN 60529 min AWG/kcmil conductor section max allowable allowable od according to EN/ISO 13489-1 rated load mechanical load mechanical load	min Ibin simultaneously connectable Nr. AWG/Kcmil max Flexible w/o lug conductor section min min mm² Flexible c/w lug conductor section min min mm² Flexible with insulated spade lug conductor section min min mm² Flexible with insulated spade lug conductor section min min mm² flexible with insulated spade lug conductor section min max mm² flexible with insulated spade lug conductor section min max mm² flexible with insulated spade lug conductor section min max mm² flexible with insulated spade lug conductor section min max mm² g AWG/kcmil conductor section max g AWG/kcmil conductor section max max cycles cycles cycles Od according to EN/ISO 13489-1 rated load mechanical load cycles mechanical load cycles

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AC average coil consumption at 20°C

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55

%Us

max

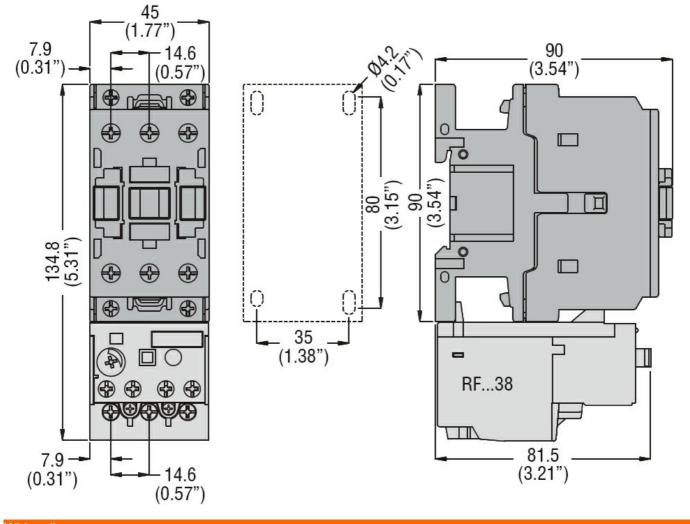
	of EQ/COUT and noward at EQUT			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	75
		holding	VA VA	9
	of 50/60Hz coil powered at 60Hz	noiding	٧٨	5
		in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	noiding	VA	0.0
	or our iz con powered at our iz	in-rush	VA	75
		holding	VA	9
issipation at holdin	a <20°C 50Hz	noiding	W	2.5
lax cycles frequend	-		vv	2.0
lechanical operatio			cycles/h	3600
Derating times			0,0100/11	0000
verage time for Us	control			
	in AC			
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NC			
	oporgrie	min	ms	5
		max	ms	15
	Closing NC			
		min	ms	9
		max	ms	20
	Opening NC			
	1 5	min	ms	9
		max	ms	17
JL technical data				
Full-load current (FL	A) for three-phase AC motor			
		at 480V	А	40
		at 600V	А	32
'ielded mechanical	performance			
ielded mechanical	-			
ielded mechanical	performance for single-phase AC motor	110/120V	HP	3
ielded mechanical	-	110/120V 230V	HP HP	3 7.5
ielded mechanical	-			
'ielded mechanical	for single-phase AC motor			
ielded mechanical	for single-phase AC motor	230V	HP	7.5
'ielded mechanical	for single-phase AC motor	230V 200/208V	HP HP	7.5
'ielded mechanical	for single-phase AC motor	230V 200/208V 220/230V	HP HP HP	7.5 10 15
	for single-phase AC motor	230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 15 30
	for single-phase AC motor	230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 15 30
	for single-phase AC motor for three-phase AC motor	230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 15 30
Seneral USE	for single-phase AC motor for three-phase AC motor Contactor	230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	7.5 10 15 30 30
General USE	for single-phase AC motor for three-phase AC motor Contactor	230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	7.5 10 15 30 30
General USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP	7.5 10 15 30 30
Seneral USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	7.5 10 15 30 30 55
Seneral USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	7.5 10 15 30 30 55 100
General USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	HP HP HP HP A	7.5 10 15 30 30 55 100 100
General USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V High fault	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	HP HP HP HP A	7.5 10 15 30 30 55 100 100
General USE	for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V High fault	230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class	HP HP HP HP A	7.5 10 15 30 30 55 55 100 100 J



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Temperature

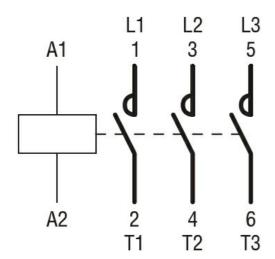
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



Wiring diagrams



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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	

ETIM 8.0

EC000066 -Power contactor, AC switching