

# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, DC COIL LOW CONSUMPTION, 24VDC



Product designation Product type designation			Power contactor BF38
Contact characteristics			
Number of poles		nr.	4
Rated insulation voltage Ui		V	690
Rated impulse withstand voltage Uimp	kV	6	
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	56	
Operating current			
	Operational current AC1 (≤40°C)	Α	56
	Operational current AC3 (≤440V ≤55°C)	Α	38
	Operational current AC4 (400V)	Α	15.5
Rated operational power AC1 (T≤40°C)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
Rated operational power AC3 (T≤55°C)			
	230V	kW	11
	400V	kW	18.5
	415V	kW	18.5
	440V	kW	18.5
	500V	kW	20
	690V	kW	22
Short-time allowable current for 10s (IEC/EN6	60947-1)	Α	320
Protection fuse			
	gG (IEC)	Α	63
	aM (IEC)	Α	40
Making capacity (RMS value)		A	380
Breaking capacity at voltage			
	Breaking capacity 440V	Α	304
	Breaking capacity 500V	Α	240
	Breaking capacity 690V	A	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	W	6
	AC3	W	2.9
Tightening torque for terminals			
	min	Nm	2.5
	max ·	Nm	3
	min	lbft	1.8
Tightening torque for coil terminal	max	lbft	2.2



# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, DC COIL LOW CONSUMPTION, 24VDC

	min	Nm	0.8
	max	Nm	1
	min	lbft lbft	0.8 0.74
may number of wires	simultaneously connectable max	nr.	2
Conductor section	simulaneously connectable	111.	
Conductor Section	AWG		
	min		14
	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
Power terminal protec	tion according to IEC/EN 60529		IP20 when wired
Auxiliary contact chara	cteristics		
Operational current AC	C1 (≤40°C)	Α	56
Operating current DC1	3		
	110V	Α	Screw / DIN rail 35mm
Ambient conditions			
Temperature			
	Operating temperature		
	min	°C	-50
	max	°C	70
	Storage temperature		
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Operating position			
	normal		Vertical plan
	allowable		±30°
Mounting			Screw / DIN rail 35mm
Weight		g	0.67
Operations			
Mechanical life		Cycles	20000000
Electrical life		Cycles	1400000
Safety related data			
Performance level B1	0d according to EN/ISO 13489-1		
	rated load	Cicli	1400000
	mechanical load	Cicli	20000000
-	ng to IEC/EN 609474-4-1		yes
EMC compatibility			yes
DC coil operating			
DC rated control voltage			_
	min	V	6
DC operating voltage	pick-up		



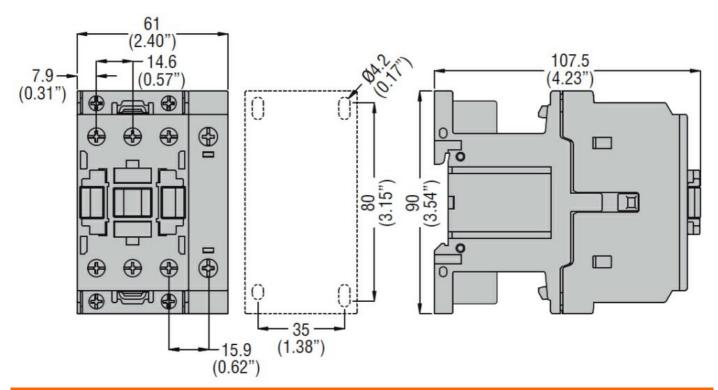


### FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, DC COIL LOW CONSUMPTION, 24VDC

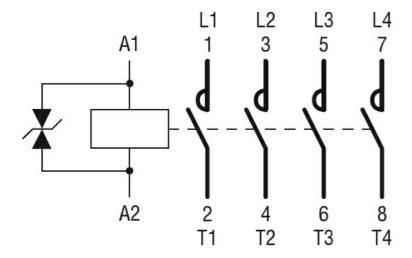
			min	%Us	0.8
	<del></del>		max	%Us	1.10
	drop-out		•	0/11-	0.4
			min	%Us	0.1
Average coil consuptio	n <20°C		max	%Us	0.40
Average con consuptio	II ≥20 C		in-rush	W	2.4
			holding	W	2.4
Max cycles frequency			noiding		2.1
Mechanical operations				Cycles/h	3600
Operating times					
Average time for Us co	ntrol				
	in AC				
		Closing NO			
			min	ms	8
		_	max	ms	24
		Opening NO			_
			min	ms	5
	· . DO		max	ms	15
	in DC	Clasias NO			
		Closing NO	min	ms	76
			max	ms	92
		Opening NO	max	1110	02
		o p o mig v o	min	ms	16
			max	ms	20
UL technical data					
Full-load current (FLA)	for three-phase AC moto	or			
			at 480V	Α	40
			at 600V	Α	32
Yielded mechanical pe					
	for single-phase AC mo	otor			0
			at 110/120V	hp	3
	for three phase AC	· · · · · · · · · · · · · · · · · · ·	at 230V	hp	7.5
	for three-phase AC mot	lOI	at 200/208V	hp	10
			at 220/230V	hp	15
			at 460/480V	hp	30
			at 575/600V	hp	30
General USE				·F	
	Contactor				
			AC current	Α	32
Other features					
Pollution degree					3
Dimensions					

3 / 4





### Wiring diagrams



#### Certifications and compliance

Certifications

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Compliance

CCC

cULus

EAC

#### ETIM 6 classification

EC000066 - Power contactor, AC switching