

## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC



Product designation Product type designation			Power contactor BF38
Contact characteristics			B1 00
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	lugA	42
	^ AC-3 (≤440V ≤55°C)	Ã	38
	AC-4 (400V)	Α	15.5
Rated operational power AC-1 (T≤40°C)	,		
,	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
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)	,	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
	max	lbin	2.2
Tightening torque for coil terminal			
3 1	min	Nm	0.8
	max	Nm	1
	max	. 4111	•



## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC

		min	Ibin	0.8
		max	lbin	0.74
Max number of wires	simultaneously connectable	тах	Nr.	2
Conductor section				
	AWG/Kcmil			
		max		6
	Flexible w/o lug conductor section			
		min	mm²	2.5
	<del></del>	max	mm²	16
	Flexible c/w lug conductor section	min	na na ²	4
		min max	mm² mm²	1 10
	Flexible with insulated spade lug conduct			10
	Tioxible Will inculated opade lag conduct	min	mm²	1
		max	mm²	10
Power terminal protec	ction according to IEC/EN 60529			IP20 when
	Stion according to IEC/EN 00329			properly wired
Mechanical features				
Operating position		·		Monthsola
		normal allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	522
Conductor section	_			
	AWG/kcmil conductor section			
		max		6
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data	10d according to FN/ICO 42400 4			
Performance level B	10d according to EN/ISO 13489-1	rated load	ovoloo	1400000
		mechanical load	cycles cycles	20000000
Mirror contats accord	ling to IEC/EN 609474-4-1	THECHAINCAI IOAG	Cyclos	YES
EMC compatibility	g to 12 6/211 600 11 1 1 1			. 20
				ves
				yes
AC coil operating	50/60Hz		V	yes 400
AC coil operating Rated AC voltage at 5			V	
AC coil operating Rated AC voltage at 5			V	
AC coil operating Rated AC voltage at 5				400
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	min	%Us	400 80
AC coil operating Rated AC voltage at 6 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up	min max		400
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	max	%Us %Us	400 80 110
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	max min	%Us %Us %Us	400 80 110 20
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out	max	%Us %Us	400 80 110
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	max min	%Us %Us %Us	400 80 110 20
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out	max min	%Us %Us %Us %Us	400 80 110 20 55
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	max min max	%Us %Us %Us	400 80 110 20
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	max min max min	%Us %Us %Us %Us	400 80 110 20 55
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	max min max min	%Us %Us %Us %Us	400 80 110 20 55



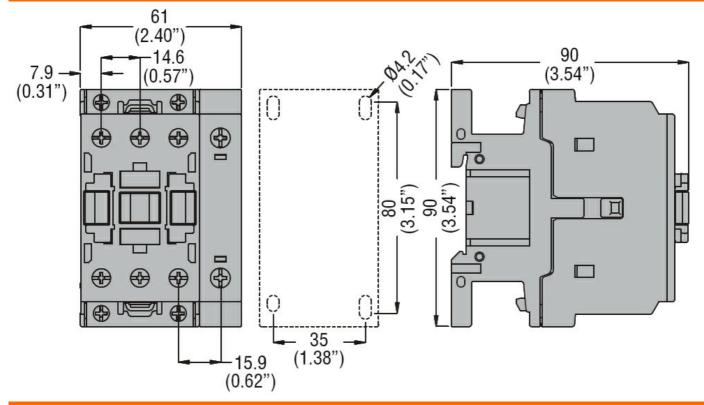
# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC

	of 50/60Hz coil powered at 50Hz				
	, , , , , , , , , , , , , , , , , , , ,	in-rush	VA	75	
		holding	VA	9	
	of 50/60Hz coil powered at 60Hz				
	5. 55/55. 12 55 politicista di  552	in-rush	VA	70	
		holding	VA	6.5	
	of 60Hz coil powered at 60Hz	g			
	01 001 12 0011 po 1101 00 00 12	in-rush	VA	75	
		holding	VA	9	
Dissipation at holding	≤20°C 50Hz		W	2.5	
Max cycles frequency				2.0	
Mechanical operation			cycles/h	3600	
Operating times			oy 0.00/1	0000	
Average time for Us of	control				
Average uniterior 65 c	in AC				
	Closing NO				
	Closing NO	min	ms	8	
		max	ms	24	
	Opening NO	IIIdA	1113	<b>4</b> 7	
	Opening NO	min	ms	5	
		max	ms	15	
	Closing NC	Παλ	1113	10	
	Closing No	min	ms	11	
		max	ms	29	
	Opening NC	παλ	1113	25	
	Opening NO	min	ms	6	
		max	ms	14	
		παλ	1113	17	
III technical data					
UL technical data Full-load current (FLA	for three-phase AC motor				
	a) for three-phase AC motor	at 480V	Δ	40	
	) for three-phase AC motor	at 480V	Α Δ	40 32	
Full-load current (FLA		at 480V at 600V	A A	40 32	
	erformance				
Full-load current (FLA		at 600V	Α	32	
Full-load current (FLA	erformance	at 600V 110/120V	A HP	32	
Full-load current (FLA	erformance for single-phase AC motor	at 600V	Α	32	
Full-load current (FLA	erformance	at 600V 110/120V 230V	A HP HP	32 3 7.5	
Full-load current (FLA	erformance for single-phase AC motor	at 600V 110/120V 230V 200/208V	HP HP	32 3 7.5	_
Full-load current (FLA	erformance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V	HP HP HP	32 3 7.5 10 15	_
Full-load current (FLA	erformance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	32 3 7.5 10 15 30	_
Full-load current (FLA	erformance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V	HP HP HP	32 3 7.5 10 15	_
Full-load current (FLA	erformance for single-phase AC motor  for three-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	32 3 7.5 10 15 30	
Full-load current (FLA	erformance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	32 3 7.5 10 15 30 30	
Full-load current (FLA	erformance for single-phase AC motor  for three-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	32 3 7.5 10 15 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	32 3 7.5 10 15 30 30	
Full-load current (FLA	erformance for single-phase AC motor  for three-phase AC motor  Contactor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	32 3 7.5 10 15 30 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	32 3 7.5 10 15 30 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor  Contactor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP HP	32 3 7.5 10 15 30 30 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor  Contactor  Operating temperature	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	32 3 7.5 10 15 30 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor  Contactor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  min max	HP HP HP HP HP	32 3 7.5 10 15 30 30 30	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions	erformance for single-phase AC motor  for three-phase AC motor  Contactor  Operating temperature	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  min max  min	A HP HP HP HP HP C C C C	32 3 7.5 10 15 30 30 30 55 -50 70 -60	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions Temperature	erformance for single-phase AC motor  for three-phase AC motor  Contactor  Operating temperature	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  min max	A HP HP HP HP HP C°C °C	32 3 7.5 10 15 30 30 30 55 -50 70 -60 80	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions Temperature	erformance for single-phase AC motor  for three-phase AC motor  Contactor  Operating temperature  Storage temperature	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  min max  min	A HP HP HP HP HP C C C C	32 3 7.5 10 15 30 30 30 55 -50 70 -60	
Full-load current (FLA  Yielded mechanical p  General USE  Ambient conditions Temperature	erformance for single-phase AC motor  for three-phase AC motor  Contactor  Operating temperature  Storage temperature	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  min max  min	A HP HP HP HP HP C°C °C	32 3 7.5 10 15 30 30 30 55 -50 70 -60 80	

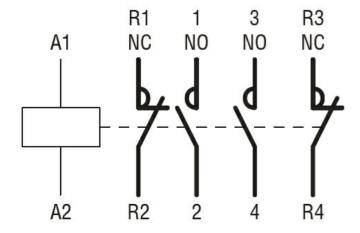
**ENERGY AND AUTOMATION** 

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC

#### **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

cULus

EAC

### ETIM classification



### BF38T2A400

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC

**ETIM 8.0** 

EC000066 -Power contactor, AC switching