BF38T2L048

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, DC COIL LOW CONSUMPTION, 48VDC, 2NO AND 2NC

Product designation			Power contactor
Product type designation			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		A	56
Operational current Ie			
	AC-1 (≤40°C)	A	56
	AC-1 (≤40°C) with 16mm² wire and fork end lug	A	60
	AC-1 (≤55°C)	A	45
	AC-1 (≤55°C) with 16mm² wire and fork end lug	A	48
	AC-1 (≤70°C)	A	40
	AC-1 (≤70°C) with 16mm² wire and fork end lug	A	42
	AC-3 (≤440V ≤55°C)	A	38
	AC-4 (400V)	A	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/EN60947-1)		A	320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	40
Making capacity (RMS value)		A	380
Breaking capacity at voltage			
	440V	A	304
	500V	A	240
	690V	A	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			
	min	Nm	0.8
	max	Nm	1

		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires simultaneously connectable			Nr.	2
Conductor section				
	AWG/Kcmil			
		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 protection according to IEC/EN 60529				IP20 when properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	665
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1400000
		mechanical load	cycles	20000000
EMC compatibility				yes
AC coil operating				
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	drop-out			
		max	%Us	55
DC coil operating				
DC rated control voltage			V	48
DC operating voltage				
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	10
		max	%Us	40
Average coil consumption ≤20°C				
		in-rush	W	2.4
		holding	W	2.4
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us control				

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
in DC				
	Closing NO			
		min	ms	76
		max	ms	92
	Opening NO			
		min	ms	16
		max	ms	20
	Closing NC			
		min	ms	25
		max	ms	31
	Opening NC			
		min	ms	63
		max	ms	71
UL technical data				
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	40
		at 600V	A	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	A	55
Ambient conditions				
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

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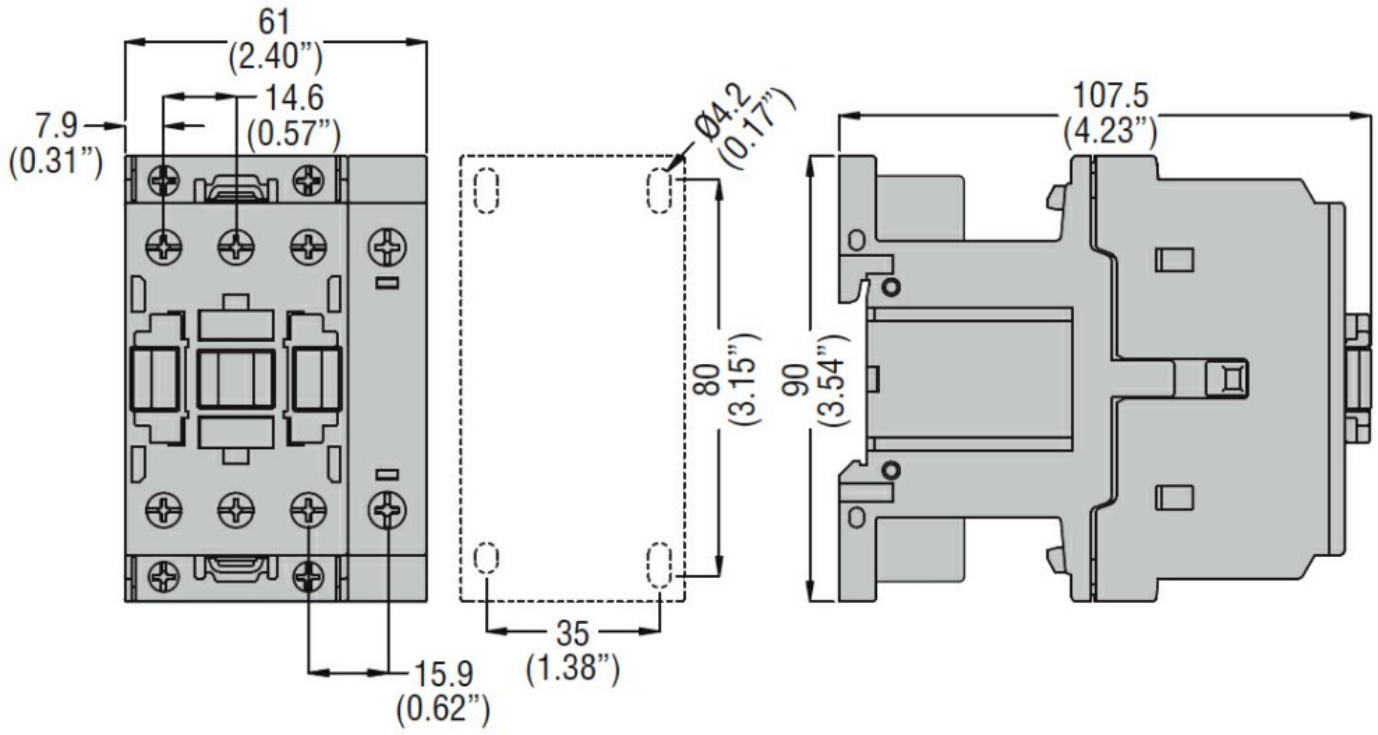
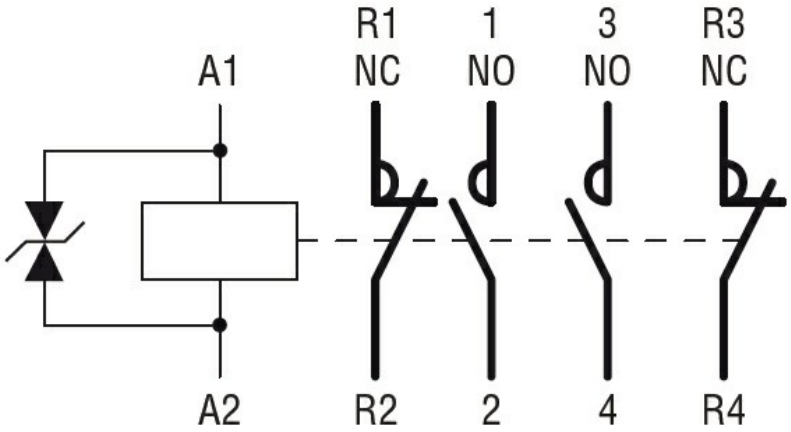
Dimensions



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

ETIM 8.0	EC000066 - Power contactor, AC switching