



Product designation

Power contactor

Product type designation

BF38

Contact characteristics

Number of poles	Nr.	4
Rated insulation voltage U_i IEC/EN	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Operational frequency	min Hz	25
	max Hz	400
IEC Conventional free air thermal current I_{th}	A	56
Operational current I_e		
	AC-1 ($\leq 40^\circ\text{C}$)	A 56
	AC-1 ($\leq 40^\circ\text{C}$) with 16mm ² wire and fork end lug	A 60
	AC-1 ($\leq 55^\circ\text{C}$)	A 45
	AC-1 ($\leq 55^\circ\text{C}$) with 16mm ² wire and fork end lug	A 48
	AC-1 ($\leq 70^\circ\text{C}$)	A 40
	AC-1 ($\leq 70^\circ\text{C}$) with 16mm ² wire and fork end lug	A 42
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 38
	AC-4 (400V)	A 15.5
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)		
	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)		
	I_{th} 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	I _{bin}	0.8
		max	I _{bin}	0.74
Max number of wires simultaneously connectable			Nr.	2
Conductor section	AWG/Kcmil			
		max		6
Flexible w/o lug conductor section		min	mm ²	2.5
		max	mm ²	16
Flexible c/w lug conductor section		min	mm ²	1
		max	mm ²	10
Flexible with insulated spade lug conductor section		min	mm ²	1
		max	mm ²	10
Power terminal protection according to IEC/EN 60529				IP20 when properly wired
Mechanical features				
Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	660
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
DC coil operating				
DC rated control voltage			V	110
DC operating voltage				
	pick-up	min	%U _s	80
		max	%U _s	125
	drop-out	min	%U _s	10
		max	%U _s	40
Average coil consumption ≤20°C		in-rush	W	5.4
		holding	W	5.4
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for U _s control				
	in AC			
	Closing NO	min	ms	8
		max	ms	24
	Opening NO	min	ms	5

in DC	Closing NC	max	ms	15
		min	ms	9
	Opening NC	max	ms	20
		min	ms	9
		max	ms	17
		min	ms	54
	Closing NO	max	ms	66
		min	ms	14
	Opening NO	max	ms	17
		min	ms	23
	Closing NC	max	ms	28
		min	ms	46
	Opening NC	max	ms	56

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
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Ambient conditions

Temperature

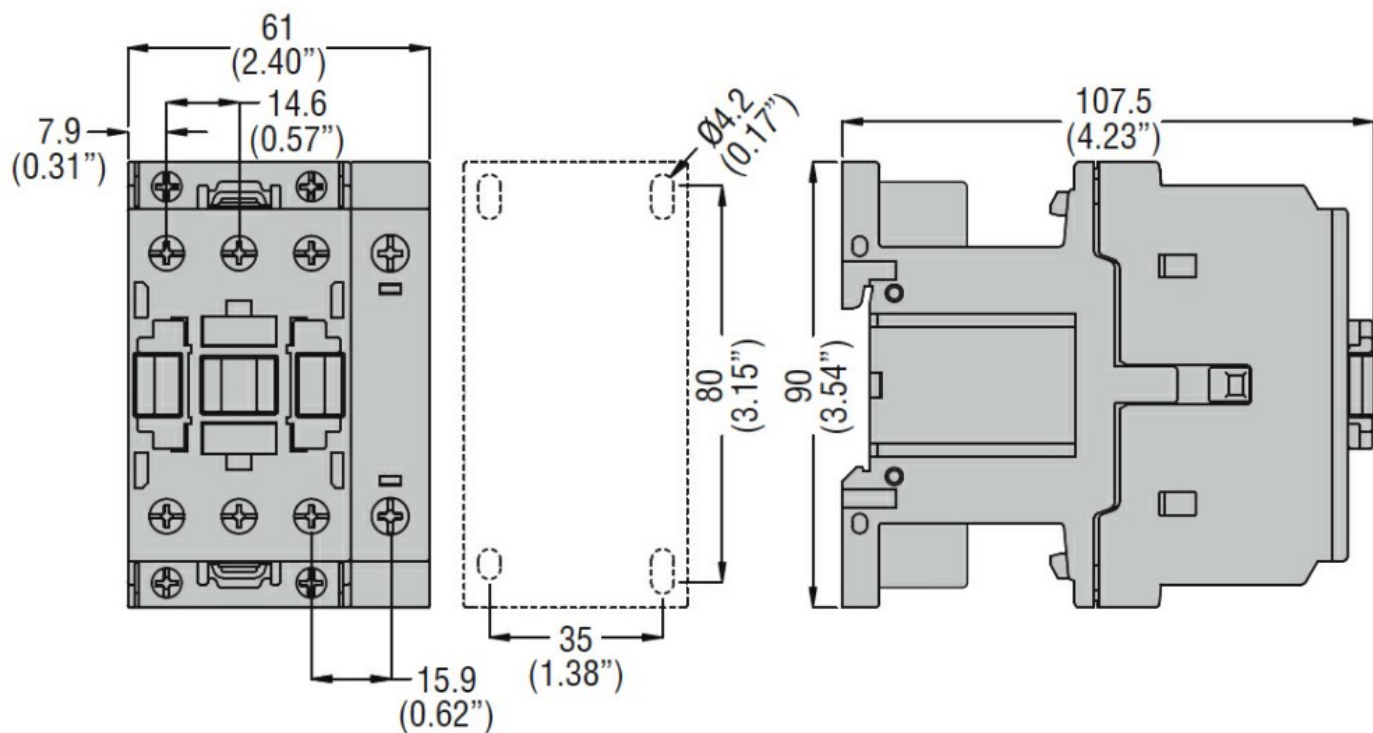
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature	min	°C	-60
	max	°C	80

Max altitude m 3000

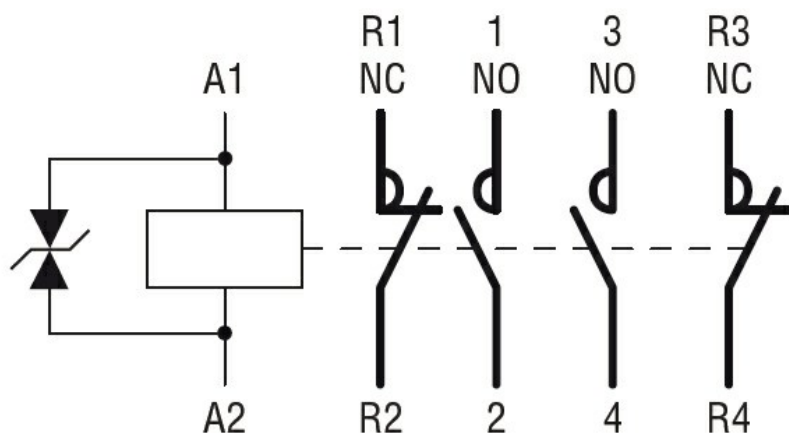
Resistance & Protection

Pollution degree 3

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