



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	Ibin 1.8
	max	Ibin 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	514
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			
Rated AC voltage at 60Hz		V	48
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min	%U _s	80
	max	%U _s	110
drop-out	min	%U _s	20
	max	%U _s	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz		W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for U _s control			
in AC			
Closing NO			
	min	ms	8

Opening NO	max	ms	24
	min	ms	5
Closing NC	max	ms	15
	min	ms	11
Opening NC	max	ms	29
	min	ms	6
	max	ms	14

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

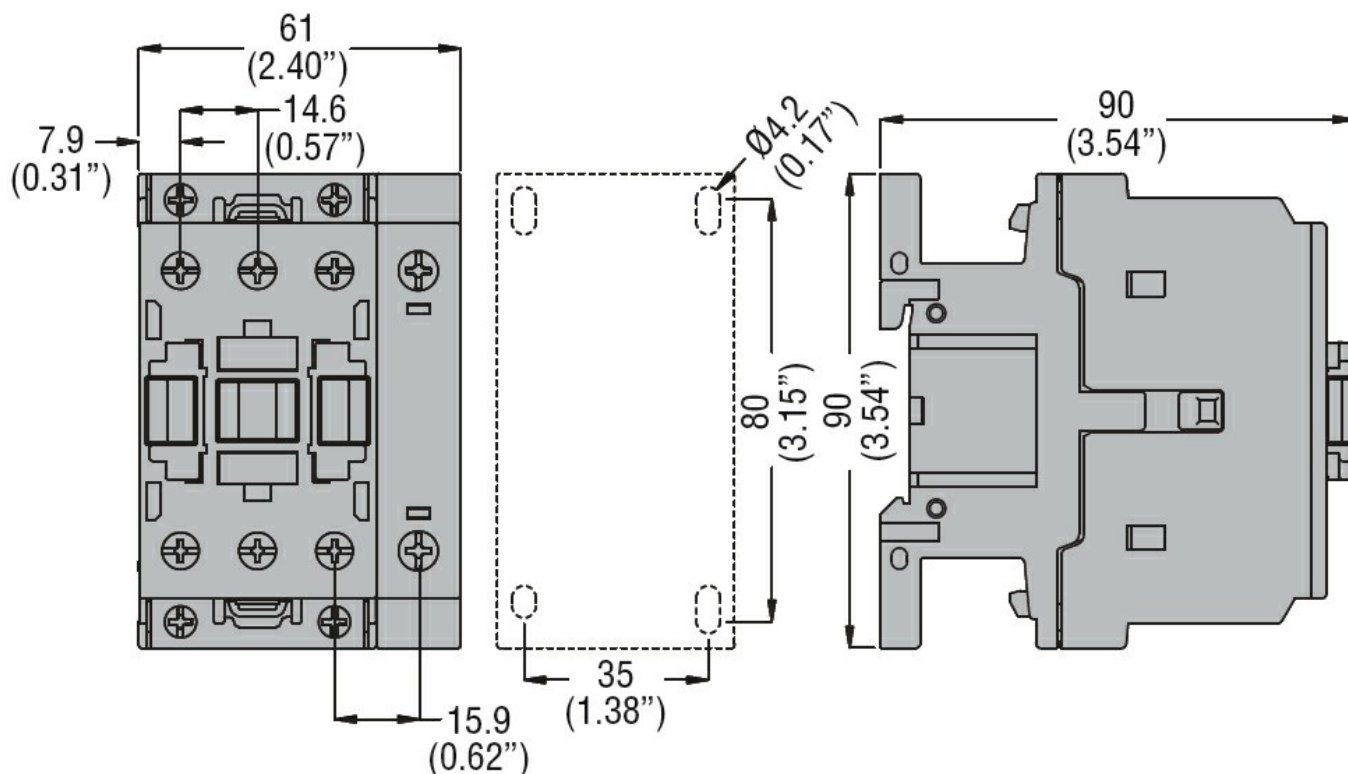
min	°C	-60
max	°C	80

Max altitude m 3000

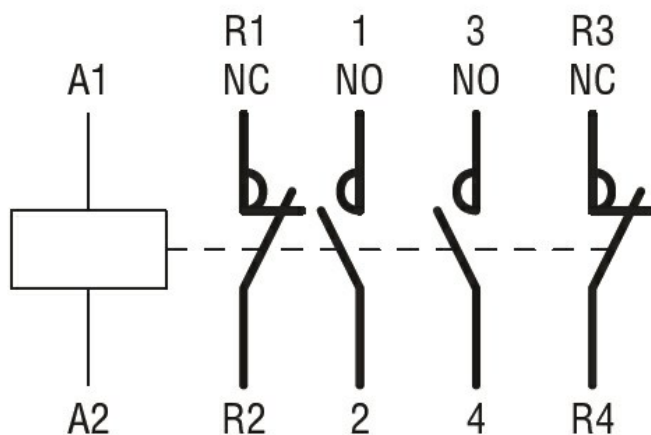
Resistance & Protection

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