



Power contactor
BF38

Product designation

Product type designation

Contact characteristics

Number of poles	nr.	3	
Rated insulation voltage U _i	V	690	
Rated impulse withstand voltage U _{imp}	kV	6	
Operating frequency	Operational frequency min	Hz 25	
	Operational frequency max	Hz 400	
Conventional free air thermal current I _{th}	A	56	
Operating current	Operational current AC3 (≤440V ≤55°C)	A 38	
	Operational current AC4 (400V)	A 15.5	
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	Breaking capacity 440V	A 304	
	Breaking capacity 500V	A 240	
	Breaking capacity 690V	A 192	
Resistance per pole (average value)	mΩ	2	
Power dissipation per pole (average value)	Power dissipation pole (average value) I _{th}	W 6	
	AC3	W 2.9	
Tightening torque for terminals	min	Nm 2.5	
	max	Nm 3	
	min	lbft 1.8	
	max	lbft 2.2	
Tightening torque for coil terminal	min	Nm 0.8	
	max	Nm 1	
	min	lbft 0.59	
	max	lbft 0.74	
max number of wires simultaneously connectable	nr.	2	
Conductor section	AWG	min	14
		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
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3,000
Operating position			
	normal allowable	Vertical plan ±30°	
Mounting		Screw / DIN rail 35mm	
Weight		g	0.432
Operations			
Mechanical life		Cycles	20,000,000
Electrical life		Cycles	1400000
Safety related data			
Mirror contacts according to IEC/EN 609474-4-1		Yes	
EMC compatibility		Yes	
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	12
	max	V	600
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	85
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
of 60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
AC operating voltage			

of 50/60Hz coil powered at 50Hz

in-rush	VA	75
holding	VA	9

of 50/60Hz coil powered at 60Hz

in-rush	VA	70
holding	VA	6.5

of 60Hz coil powered at 60Hz

in-rush	VA	75
holding	VA	9

Dissipation at holding ≤20°C 50Hz	W	2.5
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Max cycles frequency

Mechanical operations	Cycles/h	3,600
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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

UL technical data

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

at 110/120V	hp	3
at 230V	hp	7.5

for three-phase AC motor

at 200/208V	hp	10
at 220/230V	hp	15
at 460/480V	hp	30
at 575/600V	hp	30

Contact rating of auxiliary contacts according to UL	SI - A600
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General USE

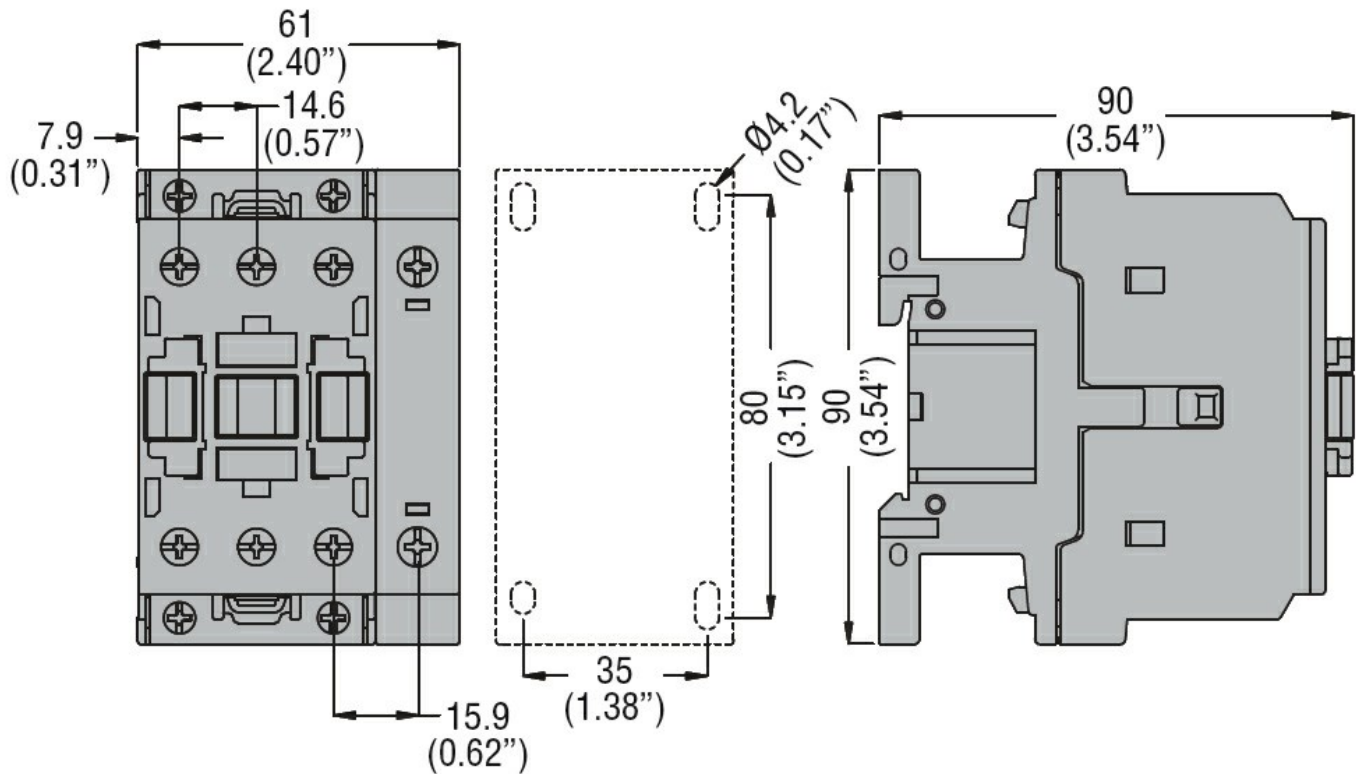
Contactor

AC current	A	32
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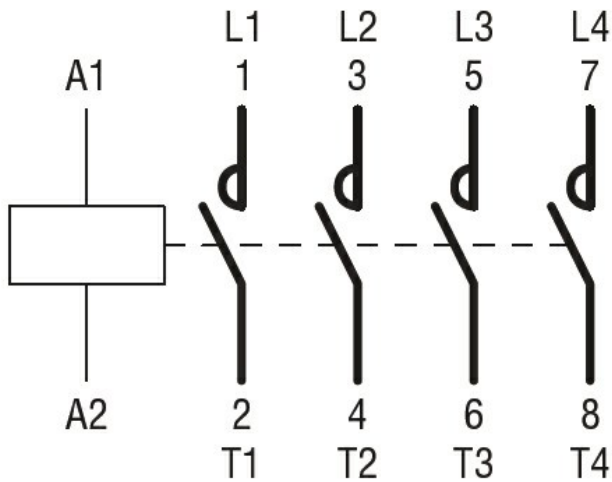
Auxiliary contacts

AC voltage	V	600
AC current	A	10
DC voltage	V	250
DC current	A	1

Dimensions



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