



Product designation				Power contactor
Product type designation				BF38
Contact characteristics				
Number of poles	nr.			3
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
Conventional free air thermal current I_{th} IEC/EN	A			56
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A		56
	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
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW		11
	400V	kW		18.5
	415V	kW		18.5
	440V	kW		18.5
	500V	kW		20
	690V	kW		22
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)	$m\Omega$			2
Power dissipation per pole (average value)	I_{th}	W		6
	AC3	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	lbft	0.8
		max	lbft	0.74
Max number of wires simultaneously connectable			nr.	2
Conductor section	AWG			
		/kcmil min		14
		/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 wired
Auxiliary contact characteristics				
Operational current I _e AC-1 (≤40°C)			A	56
Operating current DC13		110V	A	Screw / DIN rail 35mm
Ambient conditions				
Temperature	Operating temperature	min	°C	-50
		max	°C	70
	Storage temperature	min	°C	-60
		max	°C	80
Max altitude			m	3000
Operational position	Operating position normal			Vertical plan
	Operating position allowable			±30°
Fixing				Screw / DIN rail 35mm
Weight			g	0.423
Operations				
Mechanical life			Cycles	20000000
Electrical life			Cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1		rated load	Cicli	1400000
		mechanical load	Cicli	20000000
Mirror contacts according to IEC/EN 60947-4-1				yes
EMC compatibility				yes
AC coil operating				
AC operating voltage	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%U _s	0.8

		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	0.85
		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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	of 60Hz coil powered at 60Hz			
	pick-up	min	%Us	0.8
		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
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	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
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	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
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	Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	2.5
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Max cycles frequency				
	Mechanical operations		Cycles/h	3600
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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
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UL technical data				
	Full-load current (FLA) for three-phase AC motor			
		at 480V	A	40
		at 600V	A	32
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	Yielded mechanical performance for			
	for single-phase AC motor			
		Yielded mechanical performance 110/120V	hp	3
		Yielded mechanical performance 230V	hp	7.5
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	for three-phase AC motor			
		Yielded mechanical performance 200/208V	hp	10
		Yielded mechanical performance 220/230V	hp	15
		Yielded mechanical performance 460/480V	hp	30
		Yielded mechanical performance 575/600V	hp	30
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General USE				

Contactor

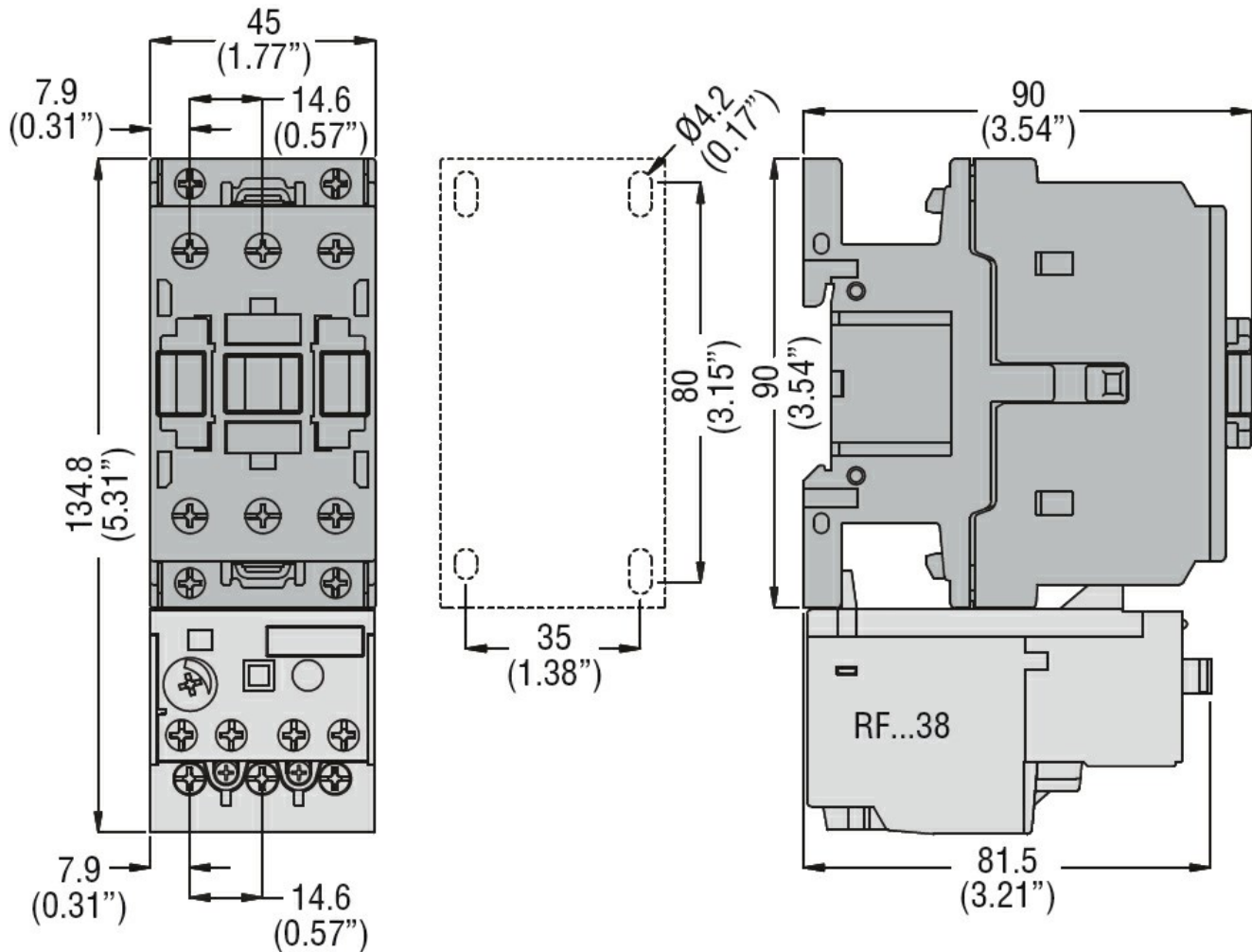
AC current A 32

Other features

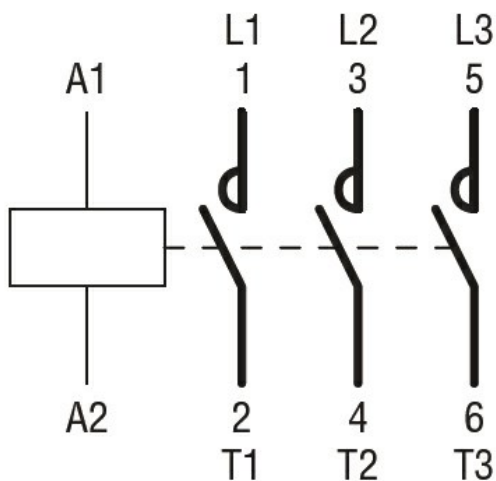
Pollution degree

3

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