



Product designation

Power contactor

Product type designation

BF32

**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
IEC Conventional free air thermal current $I_{th}$	A	56
Operational current $I_e$	AC-1 (=40°C)	A 56
	AC-1 (=55°C)	A 45
	AC-1 (=70°C)	A 40
	AC-3 (=440V =55°C)	A 32
	AC-4 (400V)	A 13.5
Rated operational power AC-3 (T=55°C)	230V	kW 8.8
	400V	kW 16
	415V	kW 17
	440V	kW 17
	500V	kW 20
	690V	kW 22
Rated operational power AC-1 (T=40°C)	230V	kW 21
	400V	kW 36
	500V	kW 45
	690V	kW 62
IEC max current $I_e$ in DC1 with L/R = 1ms with 1 poles in series	=24V	A 30
	48V	A 26
	75V	A 22
	110V	A 8
	220V	A –
IEC max current $I_e$ in DC1 with L/R = 1ms with 2 poles in series	=24V	A 32
	48V	A 32
	75V	A 28
	110V	A 25
	220V	A 3
IEC max current $I_e$ in DC1 with L/R = 1ms with 3 poles in series	=24V	A 32
	48V	A 32
	75V	A 32
	110V	A 27

	220V	A	23
IEC max current I <sub>e</sub> in DC1 with L/R = 1ms with 4 poles in series			
	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 1 poles in series			
	=24V	A	20
	48V	A	17
	75V	A	15
	110V	A	2,5
	220V	A	—
IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 2 poles in series			
	=24V	A	25
	48V	A	22
	75V	A	20
	110V	A	15
	220V	A	3
IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 3 poles in series			
	=24V	A	30
	48V	A	28
	75V	A	28
	110V	A	20
	220V	A	23
IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 4 poles in series			
	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
Short-time allowable current for 10s (IEC/EN60947-1)		A	320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	32
Making capacity (RMS value)		A	320
Breaking capacity at voltage			
	440V	A	256
	500V	A	240
	690V	A	192
Resistance per pole (average value)		m?	2
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	6
	AC3	W	2
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	I <sub>bin</sub>	1.8
	max	I <sub>bin</sub>	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	0.8

	max	I <sub>bin</sub>	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	max		6
Flexible w/o lug conductor section	min	mm <sup>2</sup>	2.5
	max	mm <sup>2</sup>	16
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	10
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	10
Power terminal protection according to IEC/EN 60529			IP20 when wired
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	422
Conductor section			
AWG/kcmil conductor section	max		6
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	1600000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	1600000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	230
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
drop-out	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	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
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
Average time for U <sub>s</sub> 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	27
at 600V	A	27

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	10
460/480V	HP	20
575/600V	HP	25

General USE

Contactor

AC current	A	55
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Short-circuit protection fuse, 600V

High fault

Short circuit current	kA	100
Fuse rating	A	100
Fuse class		J

Standard fault

Short circuit current	kA	5
Fuse rating	A	125

### Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

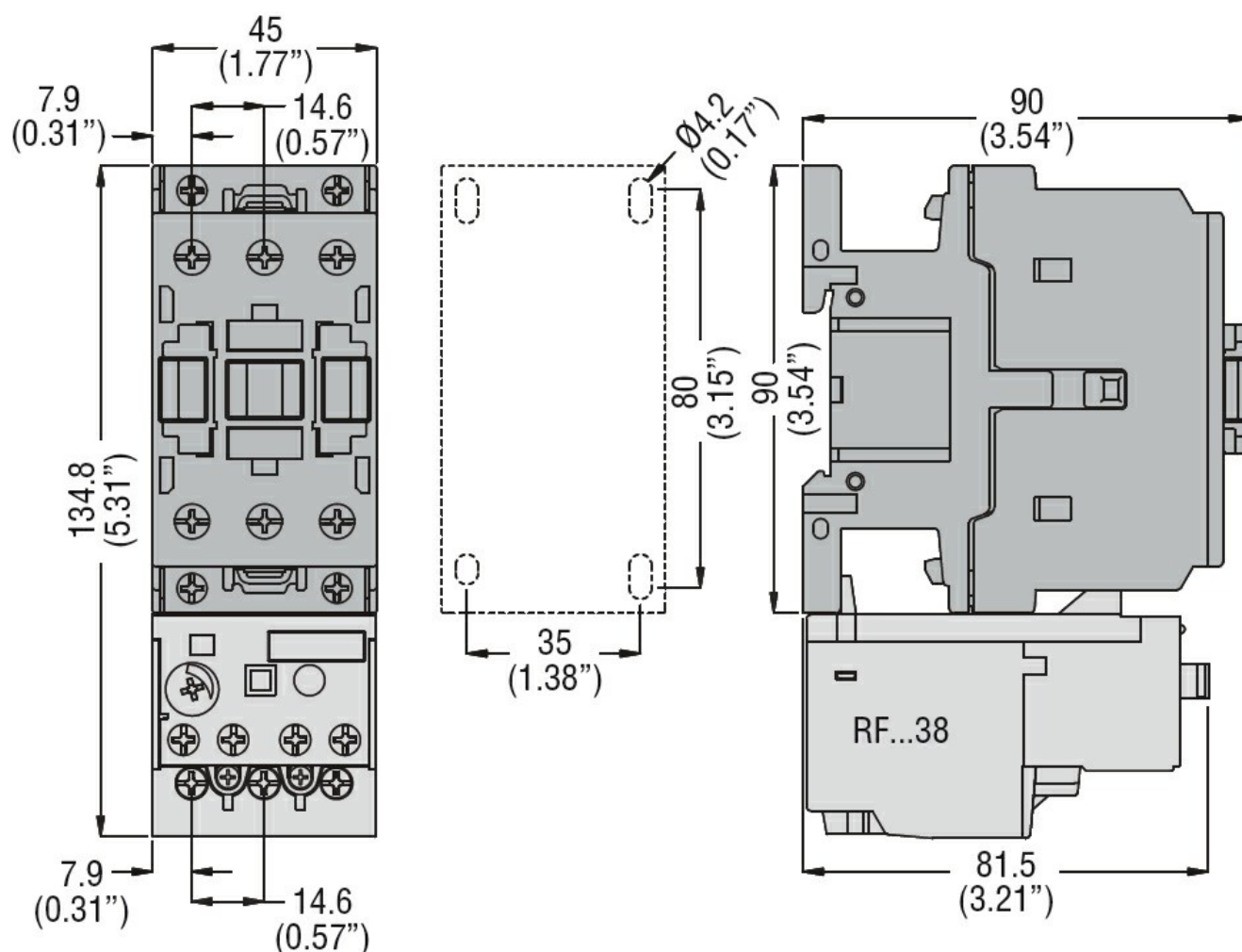
m	3000
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### Resistance & Protection

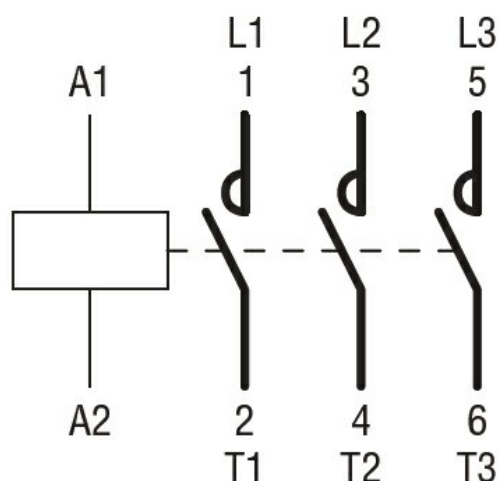
Pollution degree

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

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UL 60947-4-1

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Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching