



Product designation				Power contactor
Product type designation				BF32
<b>Contact characteristics</b>				
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 ( $\leq 40^\circ\text{C}$ )	A	56	
	AC-1 ( $\leq 55^\circ\text{C}$ )	A	45	
	AC-1 ( $\leq 70^\circ\text{C}$ )	A	40	
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	32	
	AC-4 (400V)	A	13.5	
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW	8.8	
	400V	kW	16	
	415V	kW	17	
	440V	kW	17	
	500V	kW	20	
	690V	kW	22	
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	21	
	400V	kW	36	
	500V	kW	45	
	690V	kW	62	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	30	
	48V	A	26	
	75V	A	22	
	110V	A	8	
	220V	A	-	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	32	
	48V	A	32	
	75V	A	28	
	110V	A	25	
	220V	A	3	
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	32	
	48V	A	32	
	75V	A	32	
	110V	A	27	

	220V	A	23
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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	–
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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	–
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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
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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
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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	–
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Short-time allowable current for 10s (IEC/EN60947-1)		A	320
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Protection fuse	gG (IEC)	A	63
	aM (IEC)	A	32
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Making capacity (RMS value)		A	320
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Breaking capacity at voltage	440V	A	256
	500V	A	240
	690V	A	192
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Resistance per pole (average value)		mΩ	2
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Power dissipation per pole (average value)	I <sub>th</sub>	W	6
	AC-3	W	2
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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
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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 properly wired

### Mechanical features

Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	568

Conductor section	AWG/kcmil conductor section	max		6
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### Operations

Mechanical life		cycles		20000000
Electrical life		cycles		1600000

### Safety related data

Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles	1600000
			cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1				yes
EMC compatibility				yes

### DC coil operating

DC rated control voltage			V	24
DC operating voltage	pick-up	min	%U <sub>s</sub>	80
		max	%U <sub>s</sub>	110
	drop-out	min	%U <sub>s</sub>	10
		max	%U <sub>s</sub>	40

Average coil consumption ≤20°C		in-rush holding	W	2.4
			W	2.4

### Max cycles frequency

Mechanical operation		cycles/h		3600
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### Operating times

Average time for U <sub>s</sub> control	in AC	Closing NO		
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		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
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	in DC			
	Closing NO			
		min	ms	76
		max	ms	92
	Opening NO			
		min	ms	16
		max	ms	20

**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

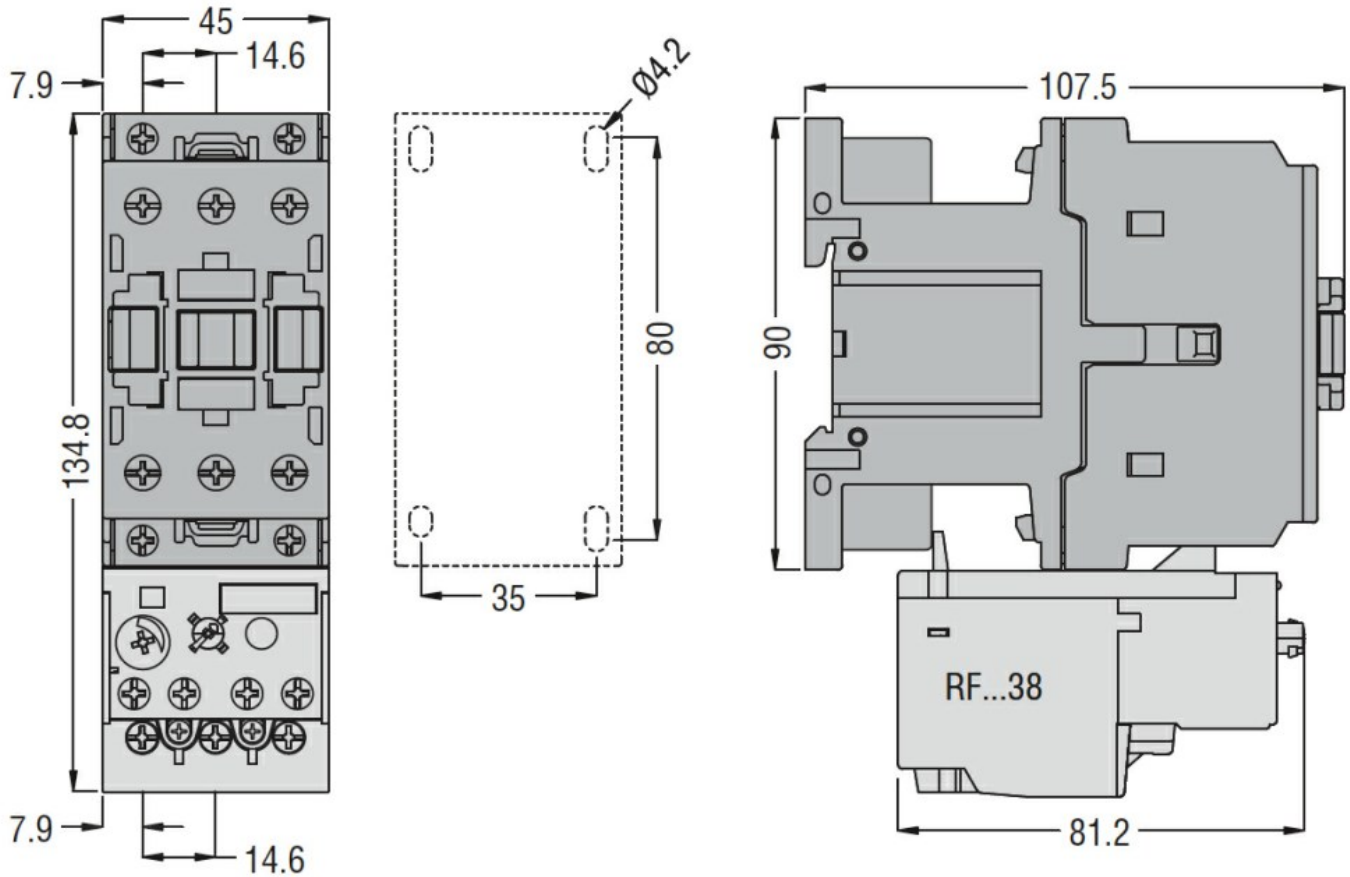
m	3000
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**Resistance & Protection**

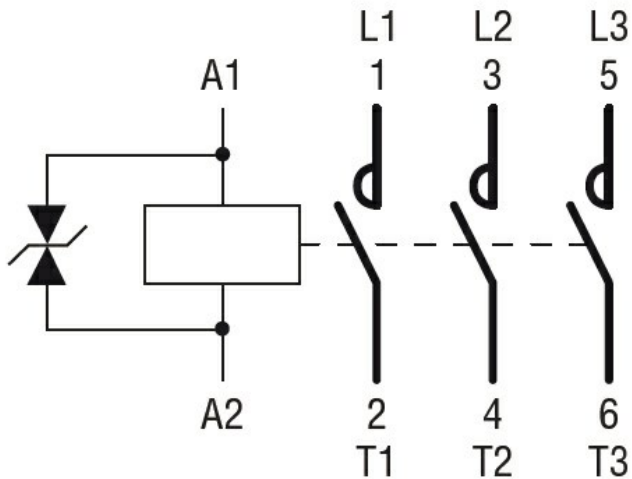
Pollution degree

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
- UL 60947-4-1

Certificates

CCC

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cULus

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EAC

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching