



Product designation				Power contactor
Product type designation				BF32
<b>Contact characteristics</b>				
Number of poles	Nr.			3
Rated insulation voltage U <sub>i</sub> IEC/EN	V			690
Rated impulse withstand voltage U <sub>imp</sub>	kV			6
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A			56
Operational current I <sub>e</sub>	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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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)		mΩ	2
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	6
	AC-3	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	lbin	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	430
Conductor section	AWG/kcmil conductor section	max		6

**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

**AC coil operating**

Rated AC voltage at 50/60Hz			V	48
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

AC average coil consumption at 20°C  
of 50/60Hz coil powered at 50Hz

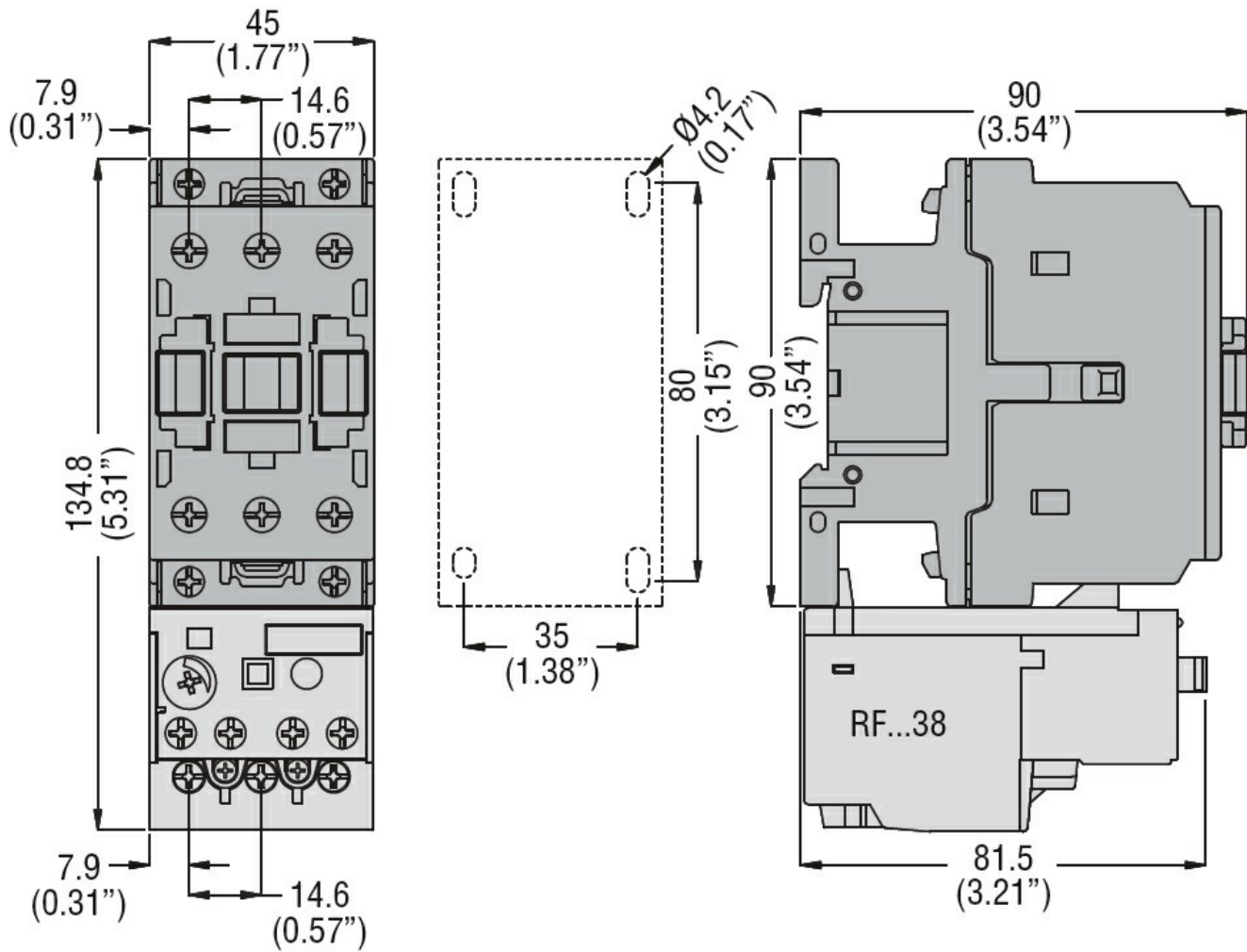
	in-rush	VA	75	
	holding	VA	9	
of 50/60Hz coil powered at 60Hz				
	in-rush	VA	70	
	holding	VA	6.5	
of 60Hz coil powered at 60Hz				
	in-rush	VA	75	
	holding	VA	9	
Dissipation at holding ≤20°C 50Hz			W	2.5
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	3600
<b>Operating times</b>				
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	
<b>UL technical data</b>				
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	
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	
<b>Ambient conditions</b>				
Temperature				
Operating temperature				
	min	°C	-50	

Storage temperature	max	°C	70
	min	°C	-60
Max altitude	max	°C	80
		m	3000

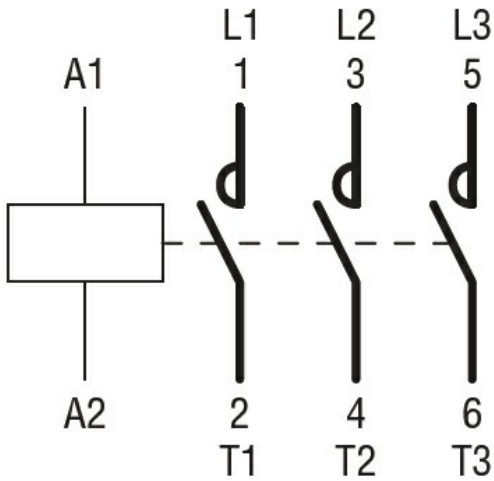
**Resistance & Protection**

Pollution degree	3
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**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