



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 ($\leq 40^\circ\text{C}$)	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 _e 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 _e 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 _e 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 _e 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 _e 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 _{th}	W	6
	AC-3	W	2
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Tightening torque for terminals	min	Nm	2.5
	max	Nm	3
	min	I _{bin}	1.8
	max	I _{bin}	2.2
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.8

		max	Ibin	0.74
Max number of wires simultaneously connectable			Nr.	2
Conductor section	AWG/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 properly wired

Mechanical features

Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	558

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

AC coil operating

AC operating voltage	of 50/60Hz coil powered at 50Hz drop-out	max	%Us	55
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DC coil operating

DC rated control voltage			V	48
DC operating voltage	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	10
		max	%Us	40

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

Max cycles frequency

Mechanical operation cycles/h 3600

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	
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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	
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for three-phase AC motor					
		200/208V	HP	10	
		220/230V	HP	10	
		460/480V	HP	20	
		575/600V	HP	25	

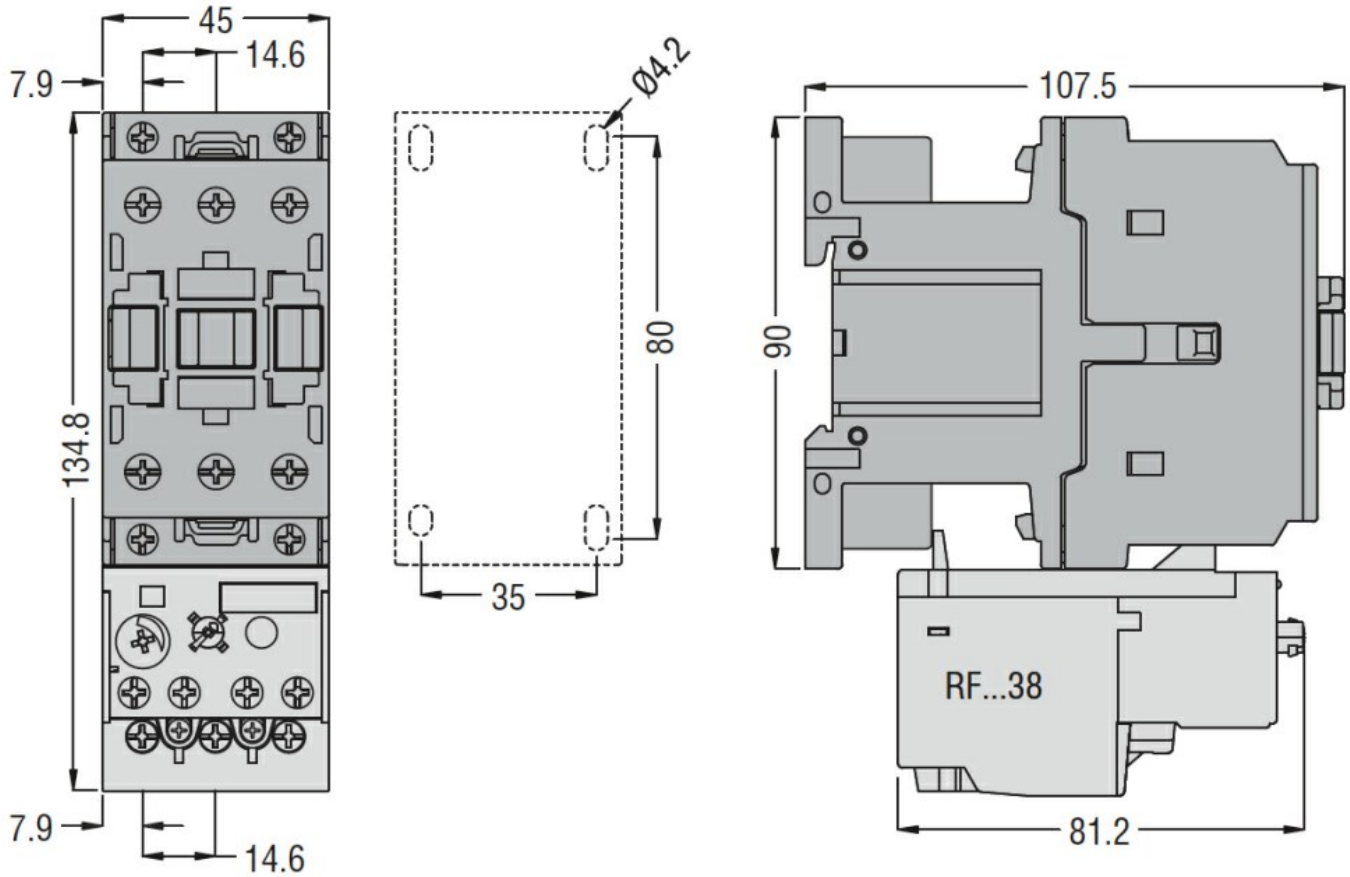
General USE					
	Contactor				
		AC current	A	55	

Short-circuit protection fuse, 600V High fault					
	Short circuit current	kA		100	
	Fuse rating	A		100	
	Fuse class			J	
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Standard fault					
	Short circuit current	kA		5	
	Fuse rating	A		125	

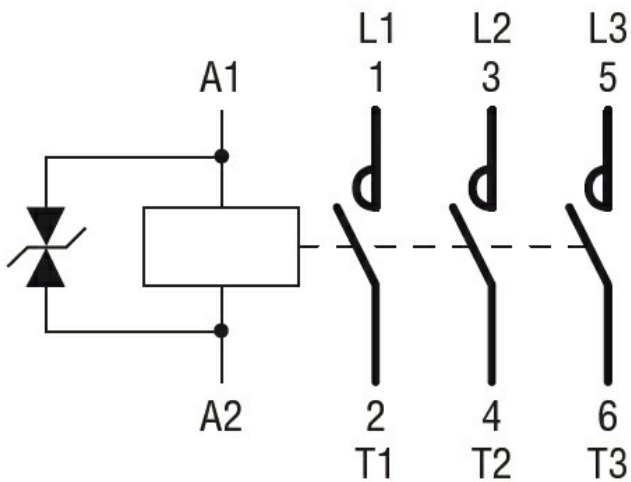
Ambient conditions

Temperature					
Operating temperature					
		min	°C	-50	
		max	°C	70	
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Storage temperature					
		min	°C	-60	

Max altitude	max	°C	80
		m	3000
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

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching