



Product designation  
Product type designation

Power contactor  
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
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
IEC max current Ie 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 Ie 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 Ie 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 Ie 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)			
	Ith	W	6
	AC-3	W	2
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	Ibin	1.8
	max	Ibin	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	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
<b>Mechanical features</b>				
Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	554
<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
EMC compatibility				yes
<b>DC coil operating</b>				
DC rated control voltage			V	24
DC operating voltage				
pick-up		min	%U <sub>s</sub>	70
		max	%U <sub>s</sub>	125
drop-out		min	%U <sub>s</sub>	10
		max	%U <sub>s</sub>	40
Average coil consumption ≤20°C		in-rush	W	5.4
		holding	W	5.4
<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

in DC	Closing NC	min	ms	9
		max	ms	20
	Opening NC	min	ms	9
		max	ms	17
	Closing NO	min	ms	54
		max	ms	66
	Opening NO	min	ms	14
		max	ms	17

#### UL technical data

Rated operational voltage AC (UL)		V	600
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
Standard fault	Fuse class			J
	Short circuit current		kA	5
		Fuse rating	A	125

#### Ambient conditions

##### Temperature

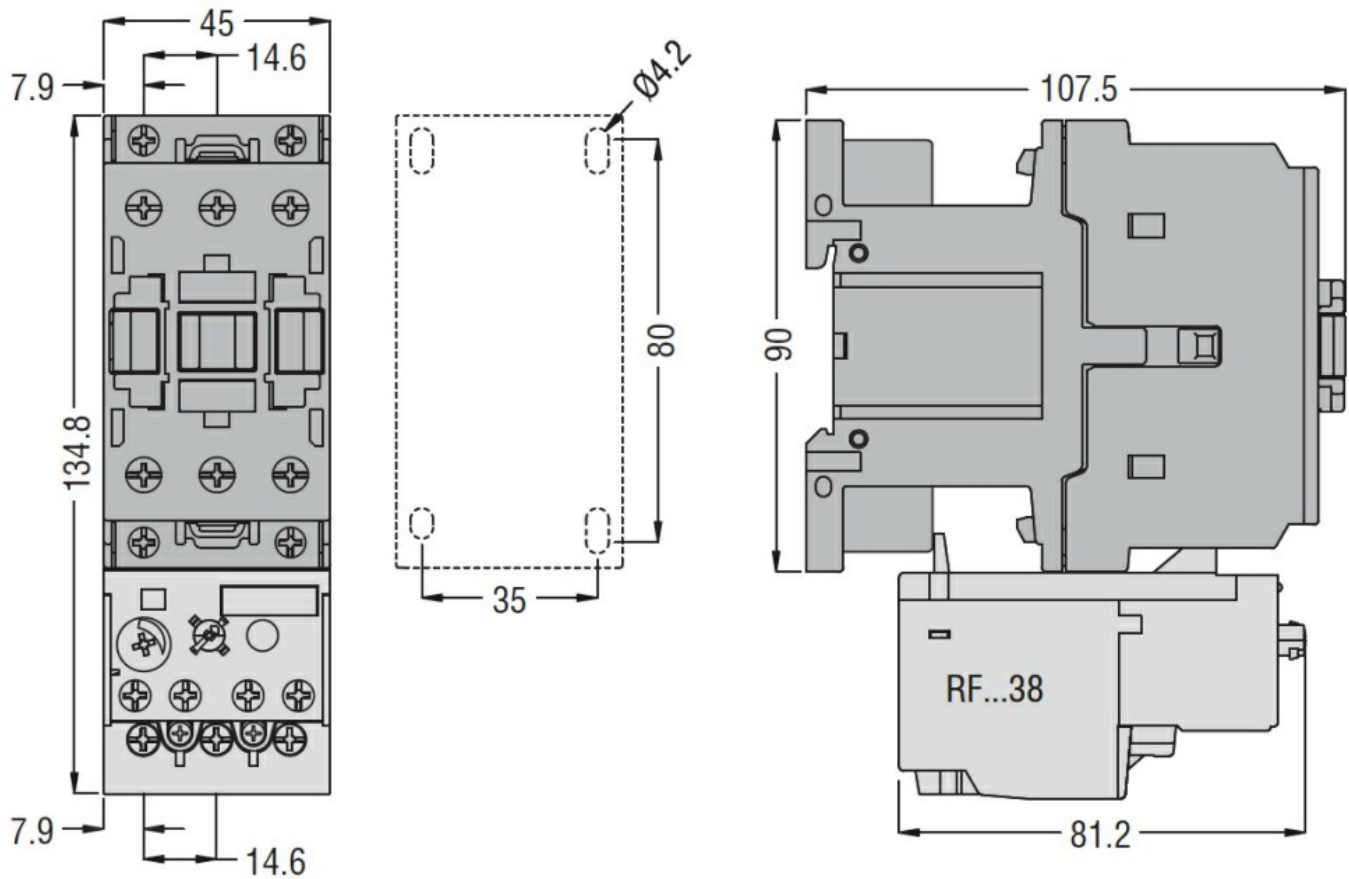
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature	min	°C	-60
	max	°C	80

Max altitude	m	3000
--------------	---	------

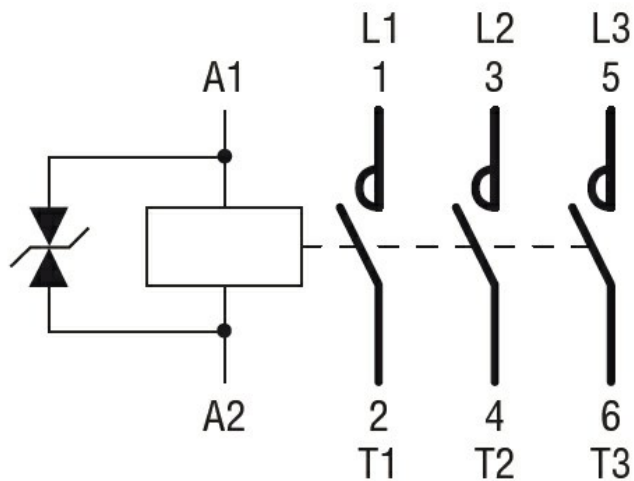
#### Resistance & Protection

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