



Product designation

Power contactor

Product type designation

BFK38

Contact characteristics

Number of poles	nr.	3
Rated insulation voltage U_i	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Operating frequency		
	Operational frequency min	Hz 25
	Operational frequency max	Hz 400
Conventional free air thermal current I_{th}	A	56
Rated operational power AC6b ($T \leq 40^\circ C$)		
	230V	kvar 17
	400V	kvar 30
	500V	kvar 33
	690V	kvar 36
Short-time allowable current for 10s (IEC/EN60947-1)	A	320
Protection fuse		
	gG (IEC)	A 63
Resistance per pole (average value)	m Ω	2
Tightening torque for terminals		
	min	Nm 2.5
	max	Nm 3
	min	lbft 1.8
	max	lbft 2.2
Tightening torque for coil terminal		
	min	Nm 0.8
	max	Nm 1
	min	lbft 0.8
	max	lbft 0.74
max number of wires simultaneously connectable	nr.	2
Conductor section		
AWG		
	min	14
	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 wired

Auxiliary contact characteristics

Operating current DC13

110V A Screw / DIN rail
35mm

Ambient conditions

Temperature

Operating temperature

min °C -50
max °C 70

Storage temperature

min °C -60
max °C 80

Max altitude

m 3000

Operating position

normal allowable Vertical plan
±30°

Mounting

Screw / DIN rail
35mm

Weight

g 0.492

Operations

Mechanical life

Cycles 20000000

Electrical life

Cycles 400000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load Cicli 400000
mechanical load Cicli 20000000

EMC compatibility

yes

AC coil operating

AC operating voltage

of 50/60Hz coil powered at 50Hz
pick-up

min %Us 0.8
max %Us 1.1

drop-out

min %Us 0.2
max %Us 0.55

of 50/60Hz coil powered at 60Hz
pick-up

min %Us 0.85
max %Us 1.1

drop-out

min %Us 0.2
max %Us 0.55

of 60Hz coil powered at 60Hz
pick-up

min %Us 0.8
max %Us 1.1

drop-out

min %Us 0.2
max %Us 0.55

AC operating voltage

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

Max cycles frequency

Mechanical operations	Cycles/h	3600
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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

UL technical data

Yielded mechanical performance

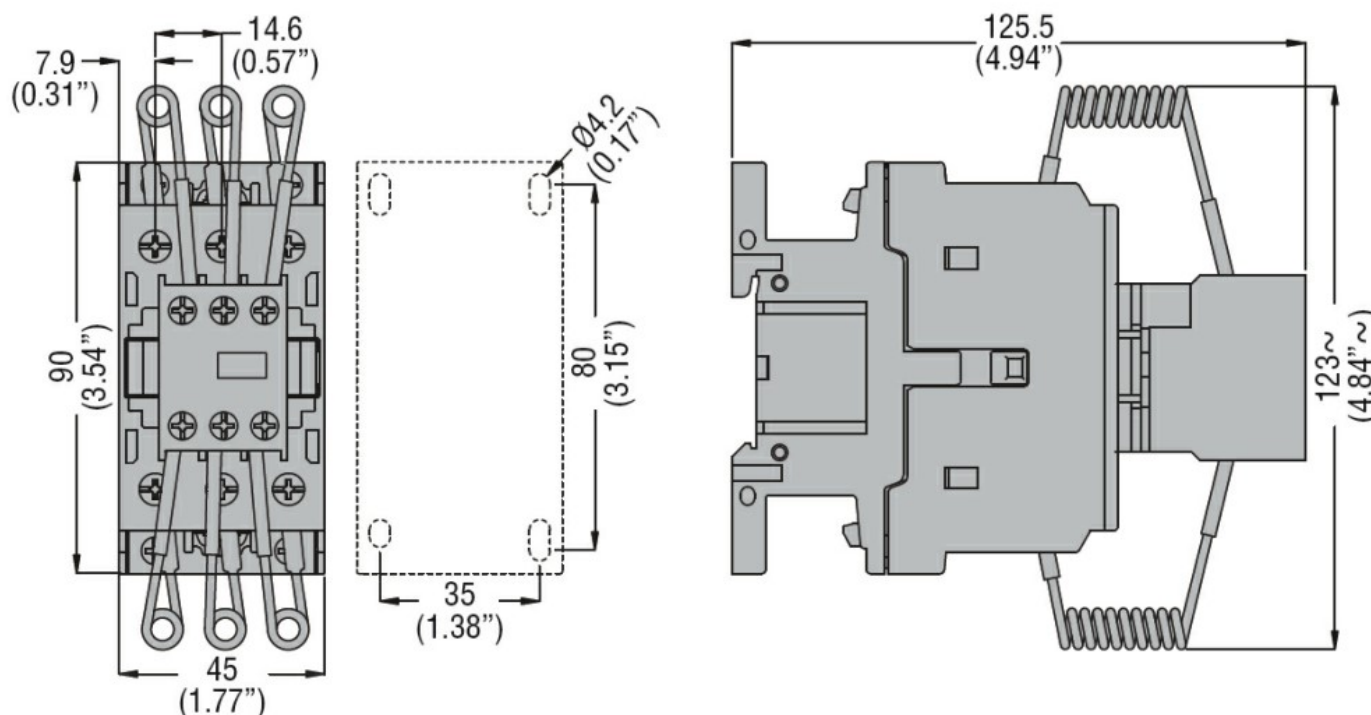
for single-phase AC motor

at 110/120V	hp	3
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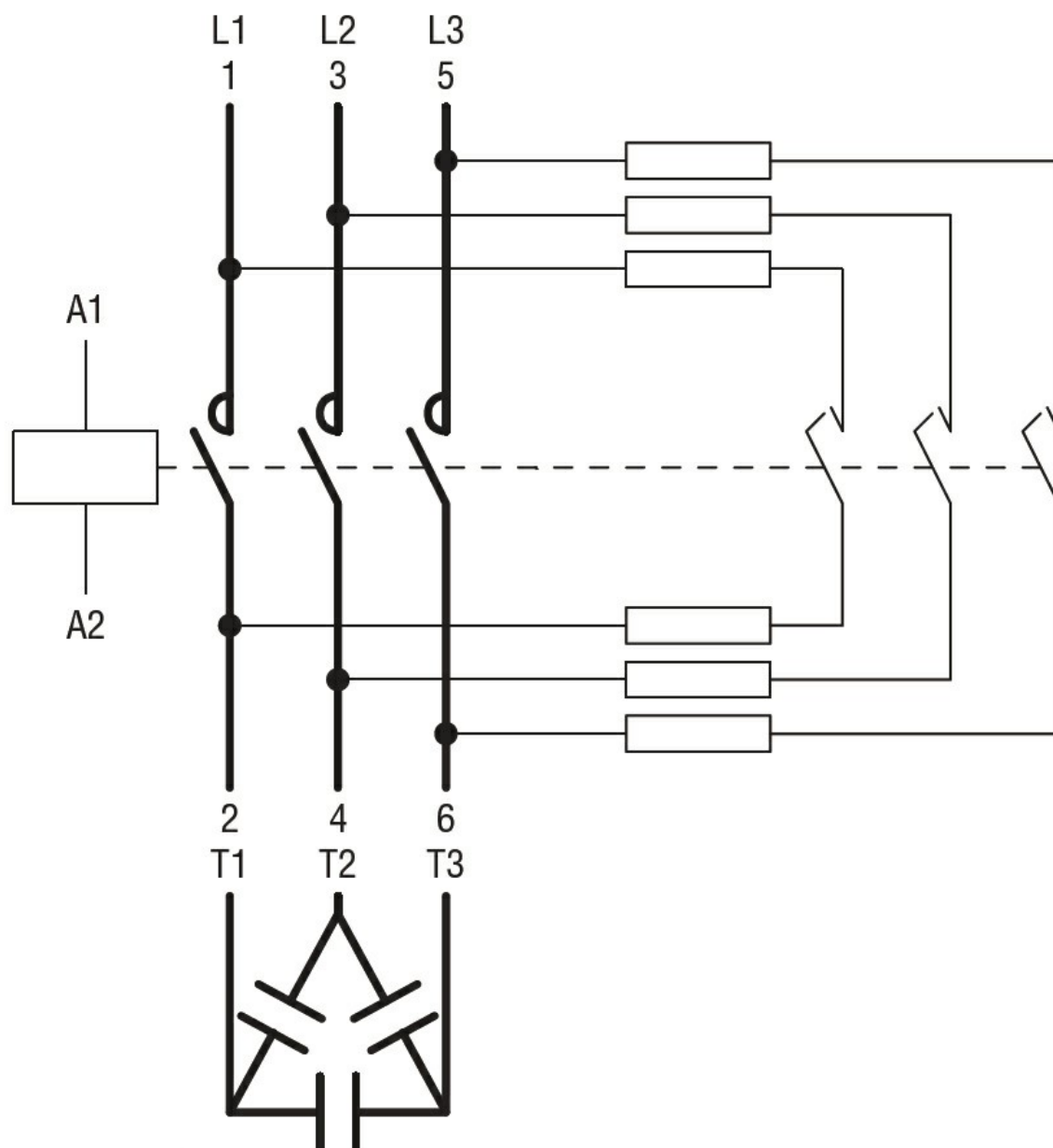
Other features

Pollution degree	3
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Dimensions



Wiring diagrams



Certifications and compliance

Certifications

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60947-1
IEC/EN 60947-4-1
UL 60947-1
UL 60947-4-1

Compliance

$$\frac{\text{CCC}}{\text{cULus}} = \text{EAC}$$

ETIM 6 classification

EC000066 - Power contactor, AC switching