



Product designation				Power contactor
Product type designation				BFK38
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
Rated operational power AC-6b ($T \leq 40^\circ C$)	230V	kvar	17	
	400V	kvar	30	
	440...480V	kvar	33	
	690V	kvar	36	
Short-time allowable current for 10s (IEC/EN60947-1)	A			320
Protection fuse	gG (IEC)	A	63	
		A	380	
Making capacity (RMS value)				380
Breaking capacity at voltage	440V	A	304	
	500V	A	240	
	690V	A	192	
Resistance per pole (average value)		m Ω	2	
Power dissipation per pole (average value)		lth	W	6
		min	Nm	2.5
Tightening torque for terminals		max	Nm	3
		min	lbin	1.8
		max	lbin	2.2
		min	Nm	0.8
Tightening torque for coil terminal		max	Nm	1
		min	lbin	0.59
		max	lbin	0.74
		min	Nm	0.8
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	400
Conductor section				
AWG/kcmil conductor section				
		max		6
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	400000
		mechanical load	cycles	20000000
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	7
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 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

UL technical data

General USE

Contactor

AC current A 56

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

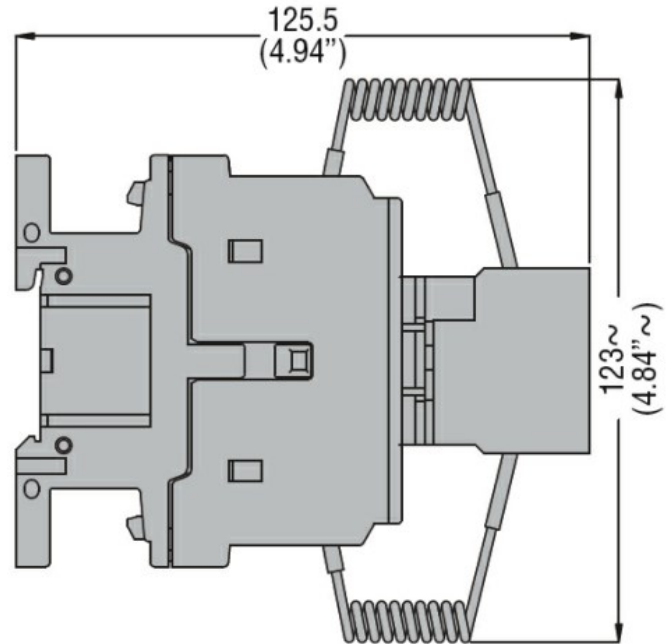
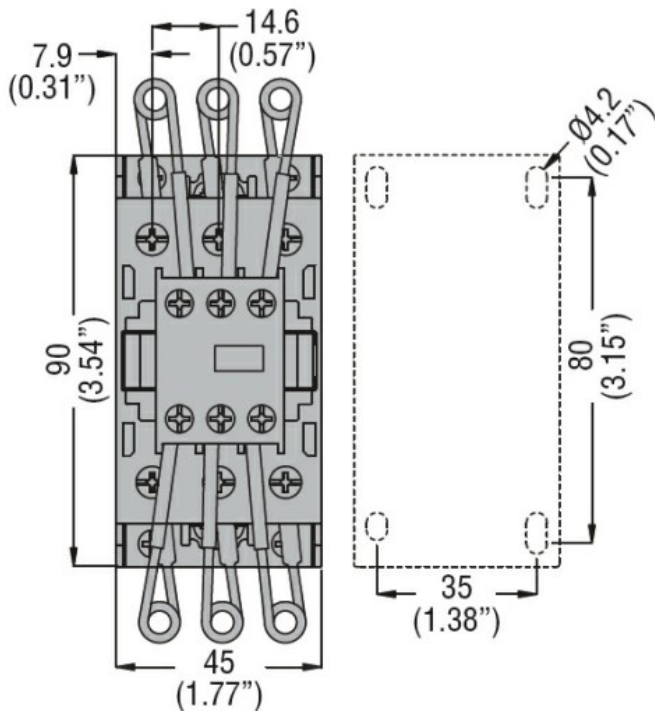
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Resistance & Protection

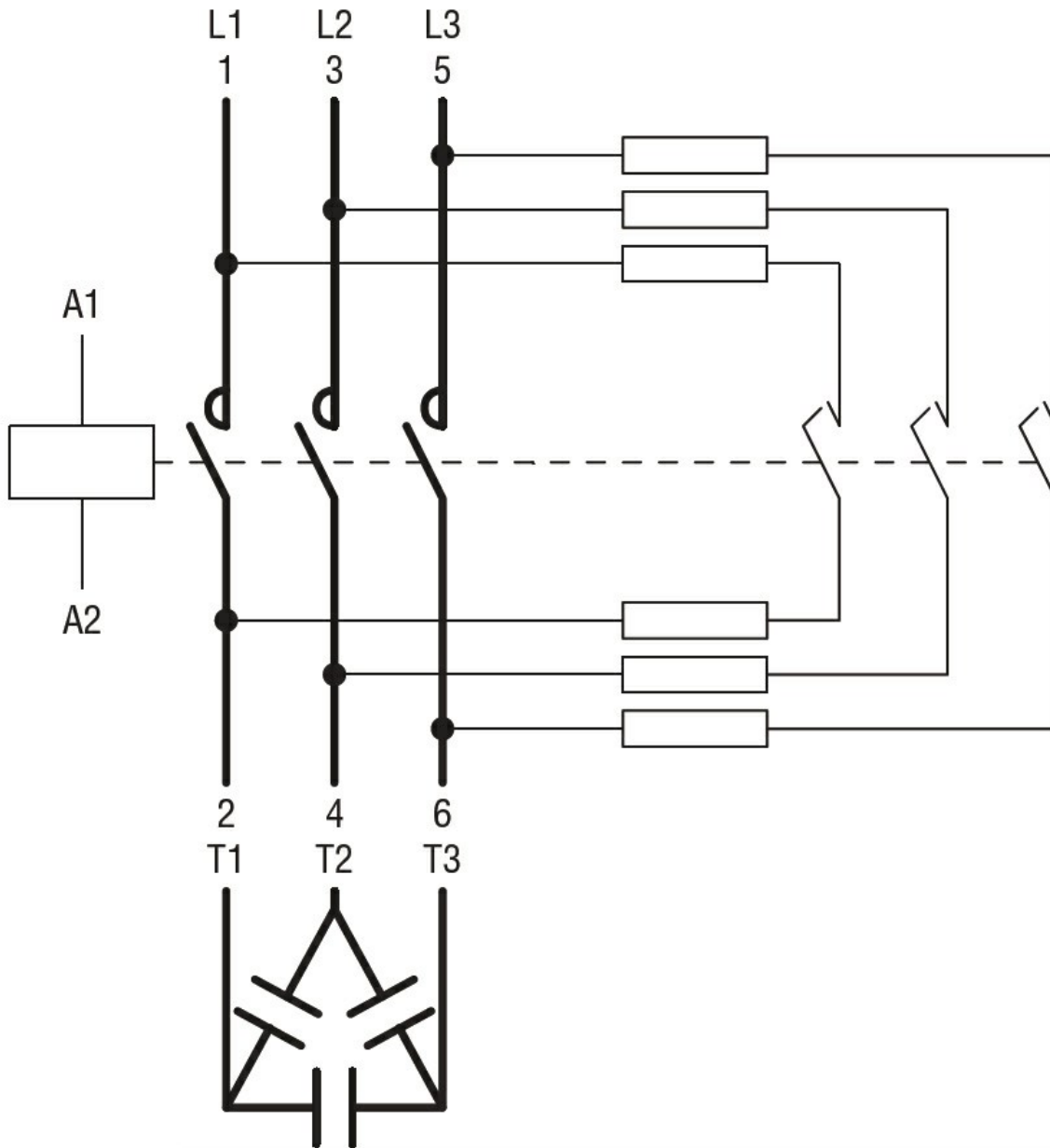
Pollution degree

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
- cULus
- EAC

ETIM classification

ETIM 8.0

EC001079 -
Capacitor
contactor