



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
Operational current I_e	AC-3 ($\leq 440V \leq 55^\circ C$)	A	38	
	AC-4 (400V)	A	15.5	
Rated operational power AC-6b ($T \leq 40^\circ C$)	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	
	aM (IEC)	A	40	
Making capacity (RMS value)	A			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)	I_{th}	W	6	
	AC3	W	2.9	
Tightening torque for terminals	min	Nm	2.5	
	max	Nm	3	
	min	lbin	1.8	
	max	lbin	2.2	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	lbft	0.59	
	max	lbft	0.74	
Max number of wires simultaneously connectable	nr.			2
Conductor section	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
Mechanical features			
Operating position	normal allowable	vertical plan	±30°
Fixing		Screw / DIN rail	35mm
Weight		g	400
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
Mirror contacts according to IEC/EN 60947-4-1			true
EMC compatibility			true
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	12
	max	V	600
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	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 operating voltage 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 operations 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

in DC

Closing NO

min	ms	53
max	ms	65

Opening NO

min	ms	14
max	ms	18

Closing NC

min	ms	23
max	ms	28

Opening NC

min	ms	46
max	ms	56

UL technical data

Full-load current (FLA) for three-phase AC motor

at 480V	A	40
at 600V	A	32

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	15
460/480V	hp	30
575/600V	hp	30

Contact rating of auxiliary contacts according to UL

SI - A600

General USE

Auxiliary contacts

AC voltage	V	600
AC current	A	10
DC voltage	V	250
DC current	A	1

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

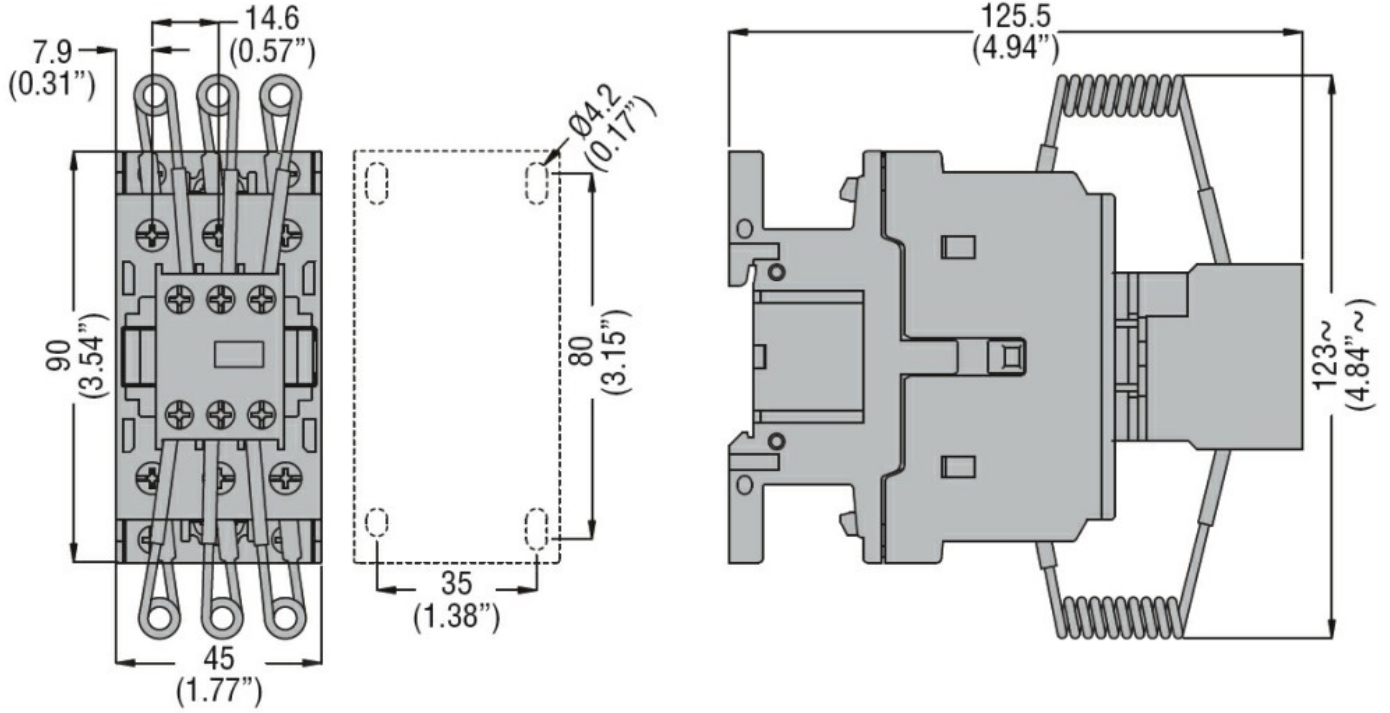
m	3000
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Resistance & Protection

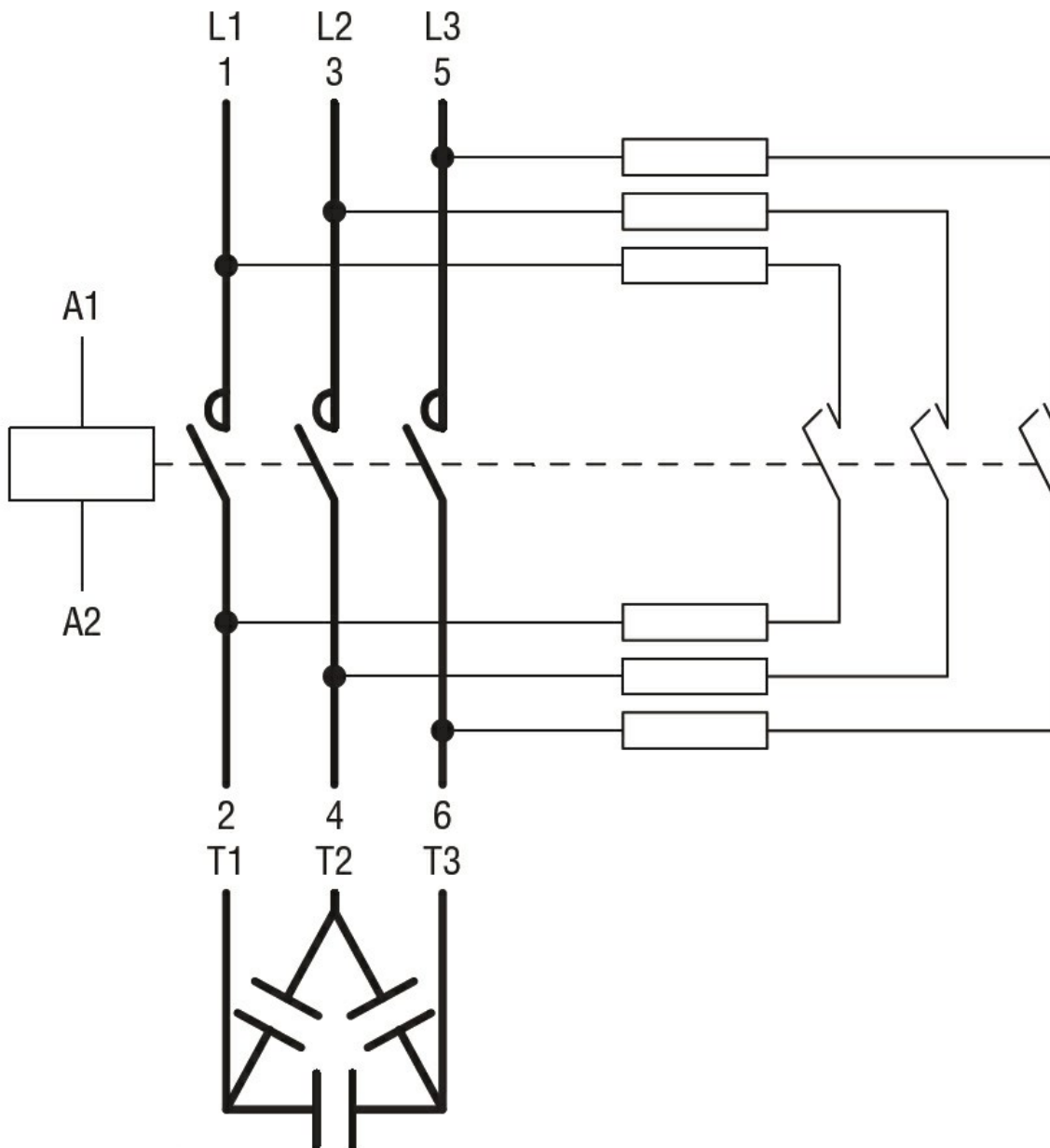
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

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

Certificates

CCC
 cULus
 EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching