



Product designation			Power contactor		
Product type designation			BFK80		
Contact characteristics					
Number of poles			nr.	3	
Rated insulation voltage Ui			V	690	
Rated impulse withstand voltage Uimp			kV	8	
Operating frequency			Operational frequency min	Hz	25
			Operational frequency max	Hz	400
Conventional free air thermal current Ith			A	115	
Rated operational power AC6b (T≤40°C)			230V	kvar	30
			400V	kvar	50
			500V	kvar	56
			690V	kvar	65
Short-time allowable current for 10s (IEC/EN60947-1)			A	640	
Protection fuse			gG (IEC)	A	125
				mΩ	0.6
Resistance per pole (average value)					
Tightening torque for terminals			min	Nm	4
			max	Nm	5
			min	lbft	2.95
			max	lbft	3.69
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		2
Flexible w/o lug conductor section			min	mm²	1.5
			max	mm²	35
Flexible c/w lug conductor section			min	mm²	1.5
			max	mm²	35
Power terminal protection according to IEC/EN 60529			IP20 front		
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
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Operating position

normal allowable	Vertical plan ±30°
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Mounting

Screw / DIN rail
35mm

Weight

g	1.09
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Operations

Mechanical life

Cycles	15000000
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Electrical life

Cycles	400000
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Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	Cicli	400000
mechanical load	Cicli	15000000

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	0.4
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	210
holding	VA	15

of 50/60Hz coil powered at 60Hz

in-rush	VA	195
holding	VA	13

of 60Hz coil powered at 60Hz

	in-rush	VA	210
	holding	VA	15
Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	5.0

Max cycles frequency

Mechanical operations	Cycles/h	3600
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Operating times

Average time for U_s control
in AC

Closing NO

min	ms	12
max	ms	28

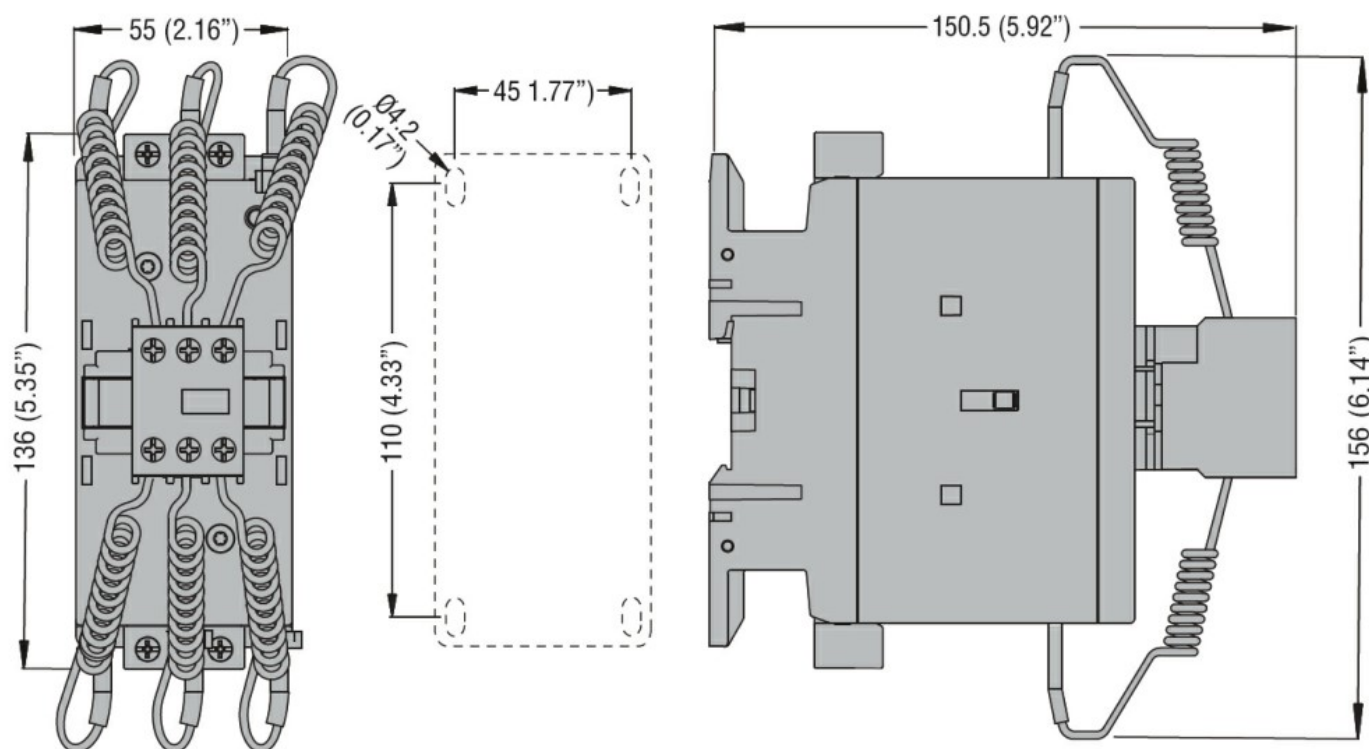
Opening NO

min	ms	8
max	ms	22

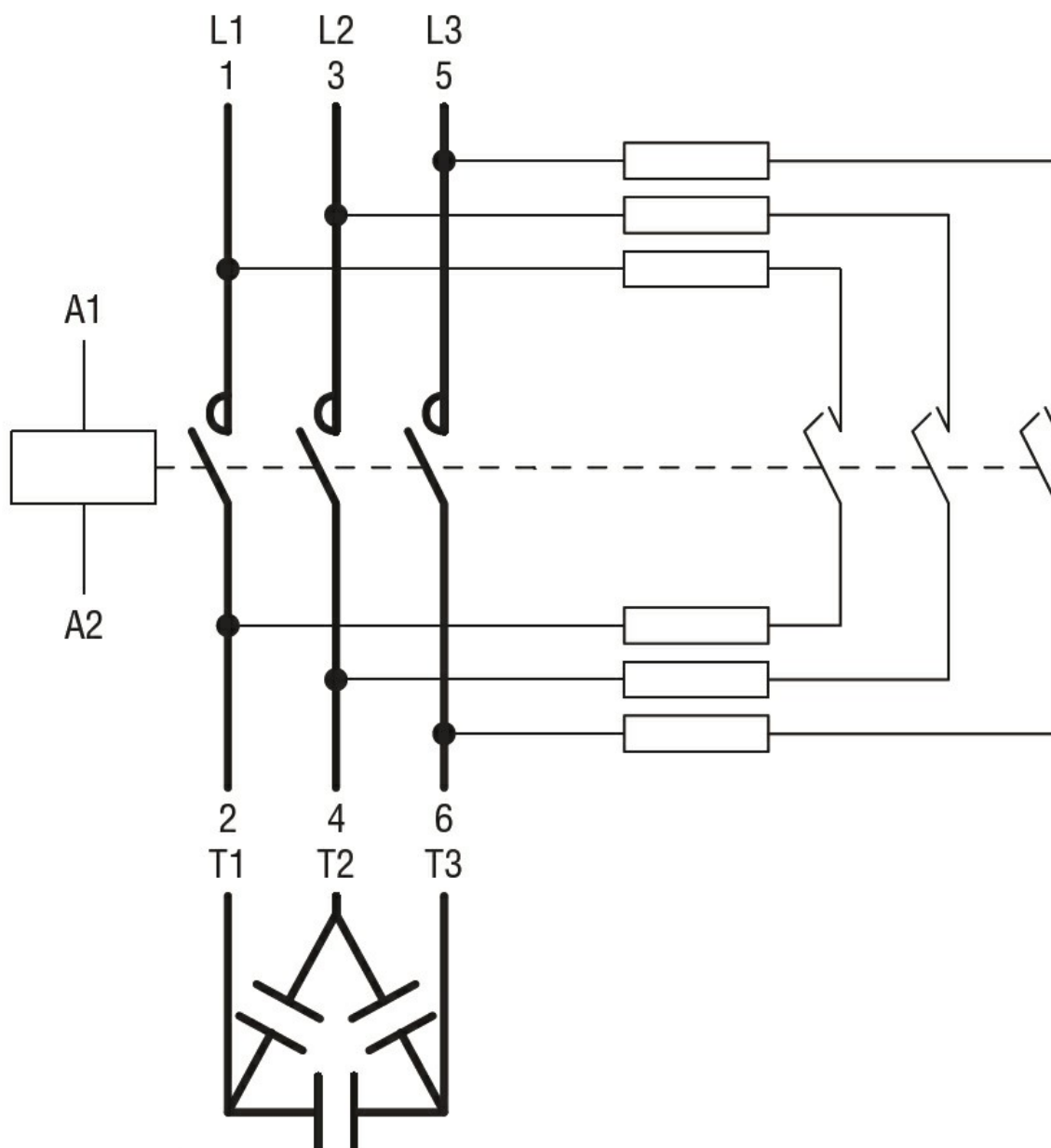
Other features

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

CCC
cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching