



Product designation			Power contactor
Product type designation			BFK80
Contact characteristics			
Number of poles	nr.	3	
Rated insulation voltage Ui	V	1000	
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	
Operating current	Operational current AC3 (≤440V ≤55°C)	A	80
	Operational current AC4 (400V)	A	38
Short-time allowable current for 10s (IEC/EN60947-1)	A	640	
Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)	A	800	
Breaking capacity at voltage	Breaking capacity 440V	A	640
	Breaking capacity 500V	A	625
	Breaking capacity 690V	A	456
Resistance per pole (average value)	mΩ	0.6	
Power dissipation per pole (average value)	Power dissipation pole (average value) Ith	W	7.9
	AC3	W	3.8
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	0.59
	max	lbft	0.74
max number of wires simultaneously connectable	nr.	2	
Conductor section	AWG		
	min	18	
	max	2	
	Flexible w/o lug conductor section		
	min	mm²	1.5
	max	mm²	35
Power terminal protection according to IEC/EN 60529			IP20 front

### Ambient conditions

#### Temperature

##### Operating temperature

min	°C	-50
max	°C	70

##### Storage temperature

min	°C	-60
max	°C	80

#### Max altitude

m	3,000
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#### Operating position

normal allowable	Vertical plan ±30°
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#### Mounting

Screw / DIN rail  
35mm

#### Weight

g	1
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### Operations

#### Mechanical life

Cycles	15,000,000
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#### Electrical life

Cycles	1300000
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### Safety related data

#### Mirror contacts according to IEC/EN 60947-4-1

Yes

#### EMC compatibility

Yes

### 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

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	40
max	%Us	55

##### of 60Hz coil powered at 60Hz pick-up

min	%Us	80
max	%Us	110

##### drop-out

min	%Us	20
max	%Us	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
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Max cycles frequency

Mechanical operations

Cycles/h	3,600
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	12
max	ms	21

Opening NO

min	ms	8
max	ms	22

in DC

Closing NO

min	ms	40
max	ms	85

Opening NO

min	ms	20
max	ms	55

UL technical data

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

at 480V	A	77
at 600V	A	77

Yielded mechanical performance

for three-phase AC motor

at 200/208V	hp	25
at 220/230V	hp	30
at 460/480V	hp	60
at 575/600V	hp	75

Contact rating of auxiliary contacts according to UL

SI - A600

General USE

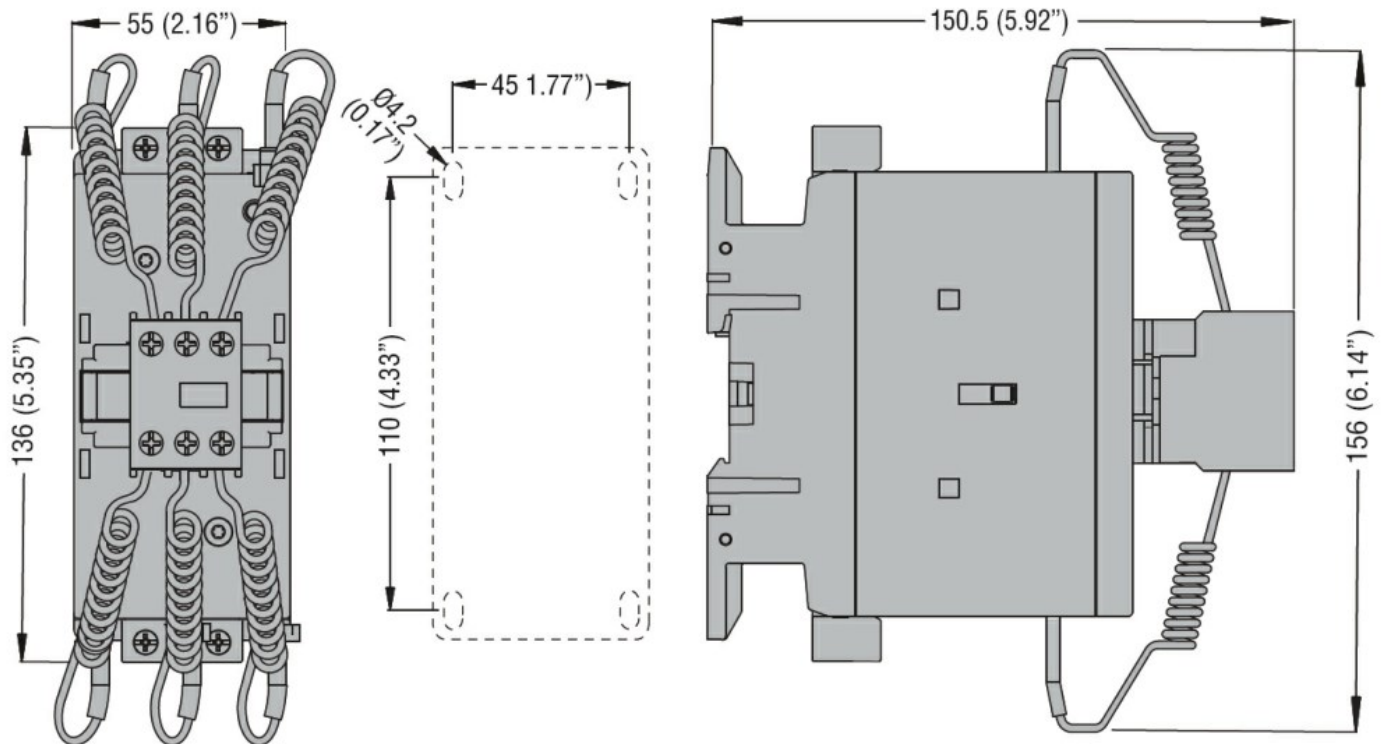
Contactor

AC current	A	32
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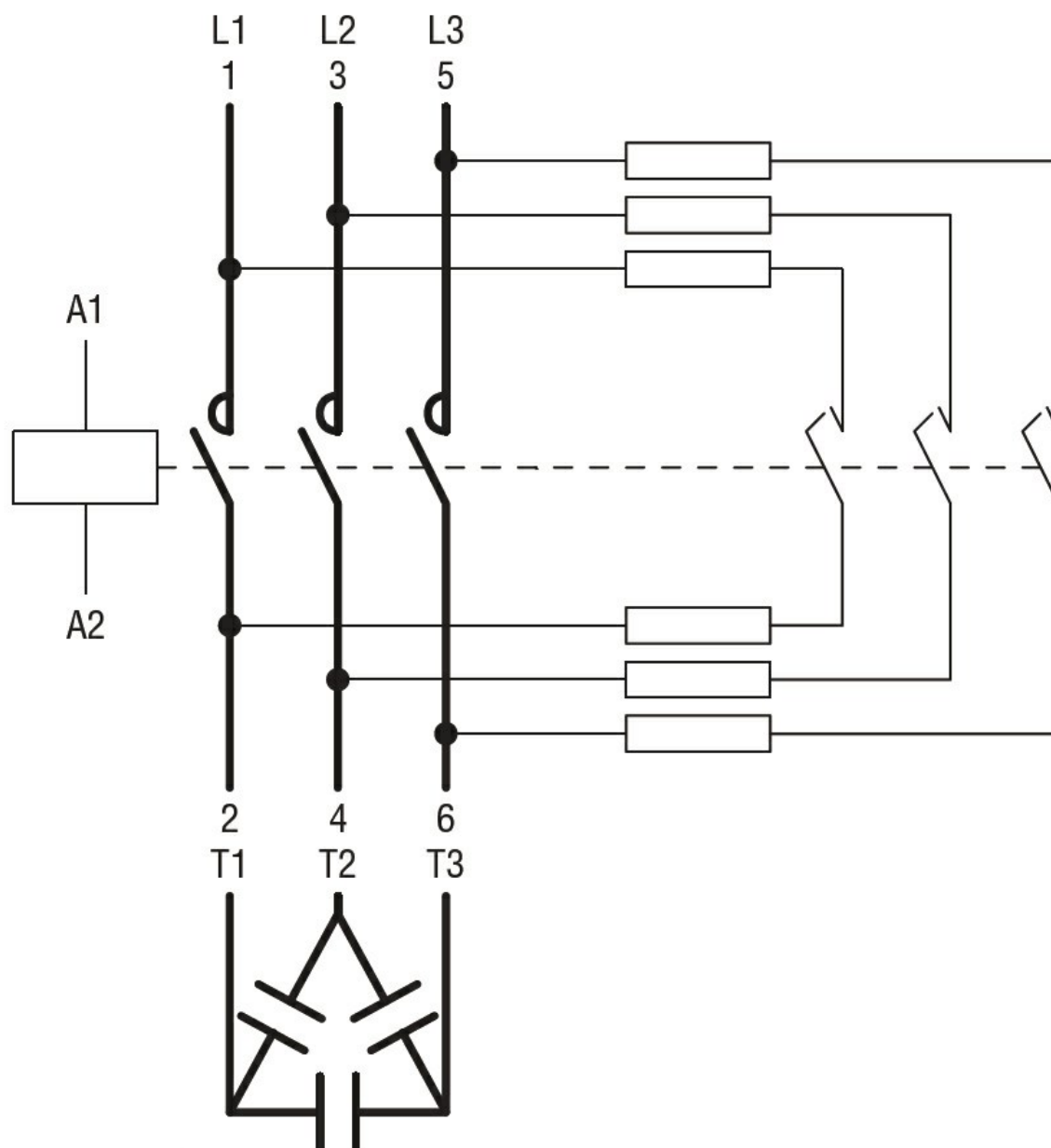
Auxiliary contacts

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

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

cULus

## ETIM 6 classification

EC000066 - Power contactor, AC switching