



Product designation	Power contactor		
Product type designation	BFK80		
Contact characteristics			
Number of poles	nr.	3	
Rated insulation voltage U_i IEC/EN	V	690	
Rated impulse withstand voltage U_{imp}	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I_{th}	A	115	
Operational current I_e	AC-3 ($\leq 440V \leq 55^\circ C$)	A	80
	AC-4 (400V)	A	38
Rated operational power AC-6b ($T \leq 40^\circ C$)	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
	aM (IEC)	A	80
Making capacity (RMS value)	A	800	
Breaking capacity at voltage	440V	A	640
	500V	A	625
	690V	A	456
Resistance per pole (average value)	m Ω	0.6	
Power dissipation per pole (average value)	I_{th}	W	7.9
	AC3	W	3.8
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	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	Flexible w/o lug conductor section		
	min	mm ²	1.5

	max	mm ²	35
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	35
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1090
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles	400000
		cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1			true
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			
	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 holding	VA	210
		VA	15
of 50/60Hz coil powered at 60Hz			
	in-rush holding	VA	195
		VA	13
of 60Hz coil powered at 60Hz			
	in-rush holding	VA	210
		VA	15
Dissipation at holding ≤20°C 50Hz		W	5
Max cycles frequency			
Mechanical operations		cycles/h	3600
Operating times			
Average time for Us control			

in AC		Closing NO	min	ms	12
			max	ms	28
		Opening NO	min	ms	8
			max	ms	22
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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

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

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

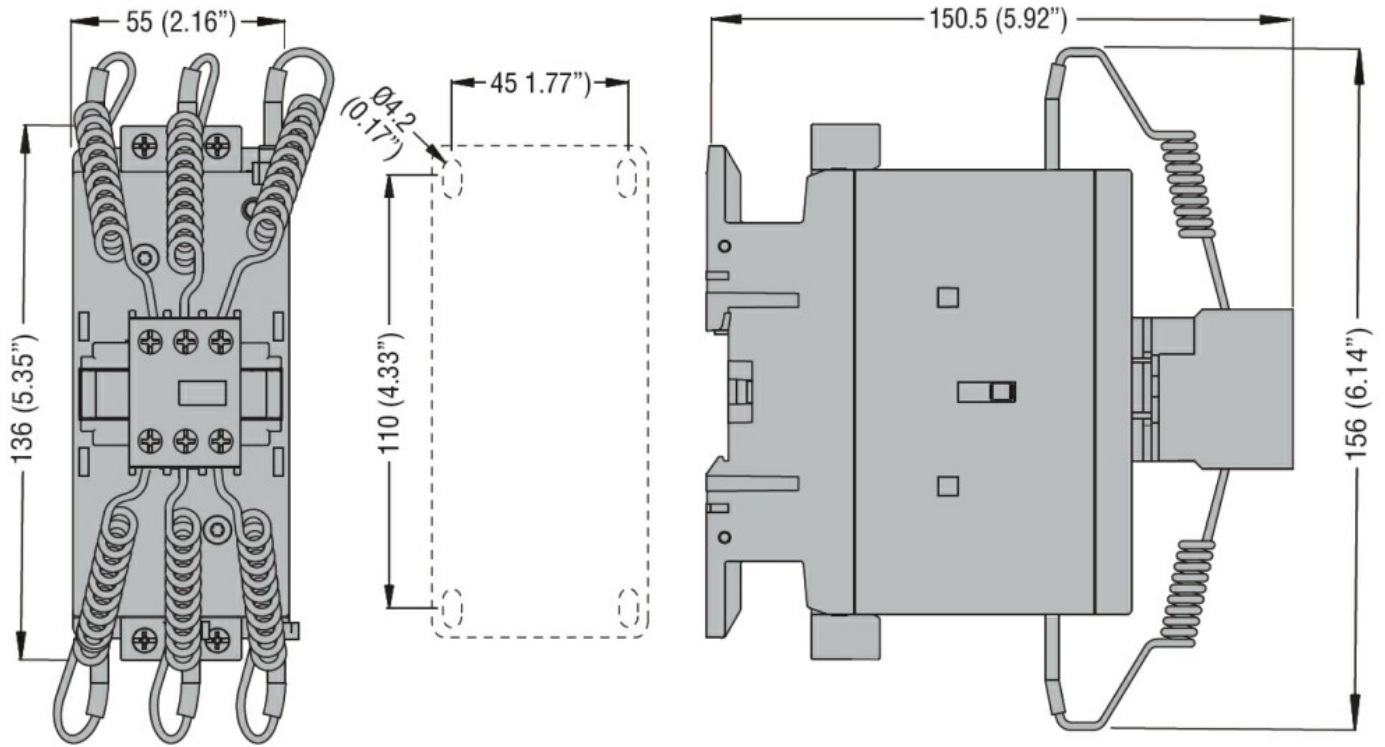
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Resistance & Protection

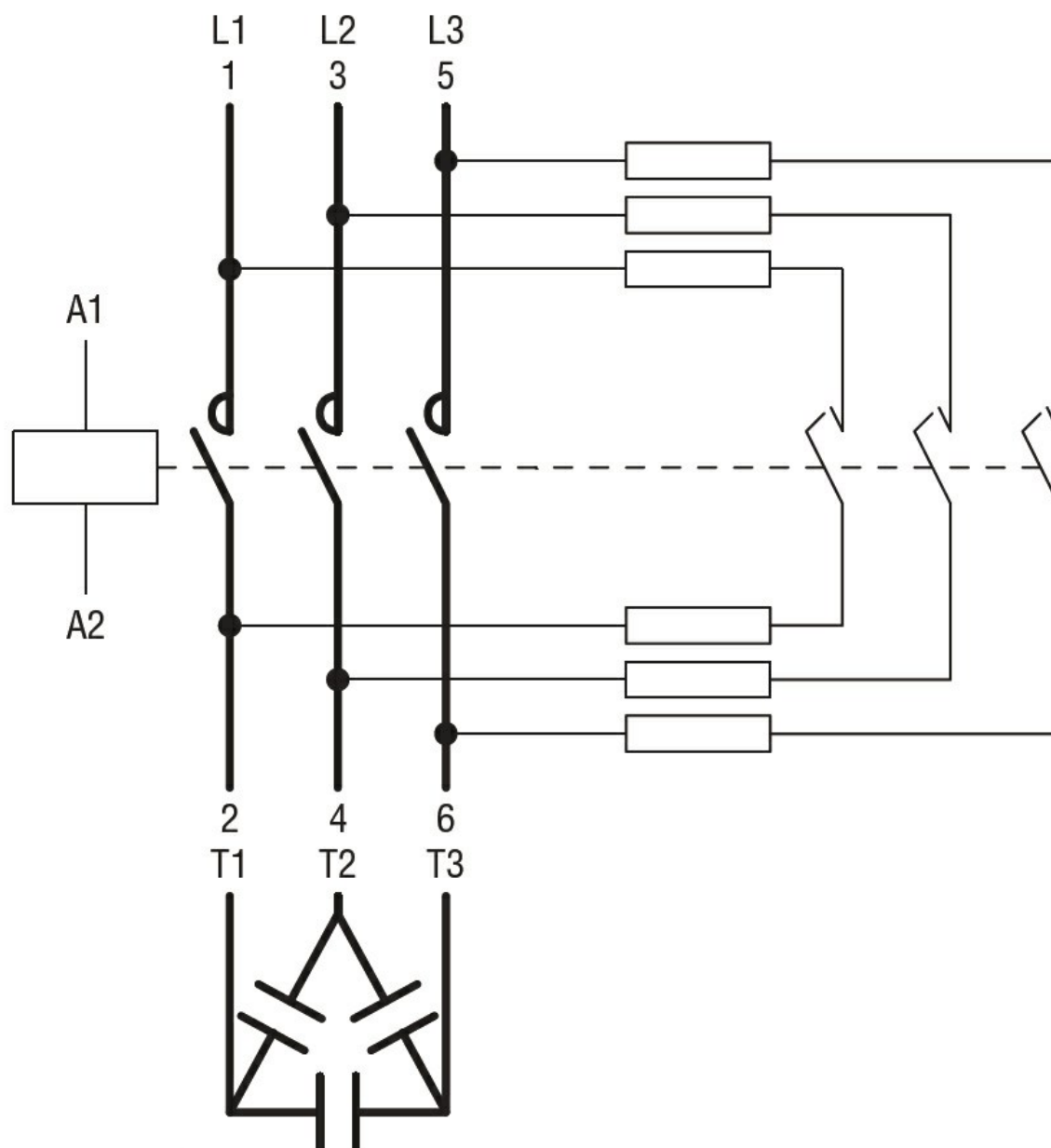
Pollution degree

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

ETIM 6 classification

EC000066 - Power contactor, AC switching