



Product designation Power contactor
Product type designation BFK50

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	90	
Rated operational power AC-6b ($T \leq 40^\circ C$)	230V	kvar	22
	400V	kvar	40
	440...480V	kvar	41
	690V	kvar	46
Short-time allowable current for 10s (IEC/EN60947-1)	A	400	
Protection fuse	gG (IEC)	A	80
	Making capacity (RMS value)	A	500
Breaking capacity at voltage	440V	A	400
	500V	A	352
	690V	A	312
Resistance per pole (average value)	m Ω	0.8	
Power dissipation per pole (average value)	I_{th}	W	6.5
	Tightening torque for terminals	min	Nm
max		Nm	5
min		I_{bin}	2.95
max		I_{bin}	3.69
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I_{bin}	0.8
	max	I_{bin}	0.74
Max number of wires simultaneously connectable	Nr.	2	
Conductor section	AWG/Kcmil	max	2
	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
Conductor section	AWG/kcmil conductor section	max		2
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 cycles	400000 15000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz			V	110
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	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 ≤20°C 50Hz			W	5
Max cycles frequency				
Mechanical operation			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

General USE

Contactor

AC current A 90

Ambient conditions

Temperature

Operating temperature

min °C -50
max °C 70

Storage temperature

min °C -60
max °C 80

Max altitude

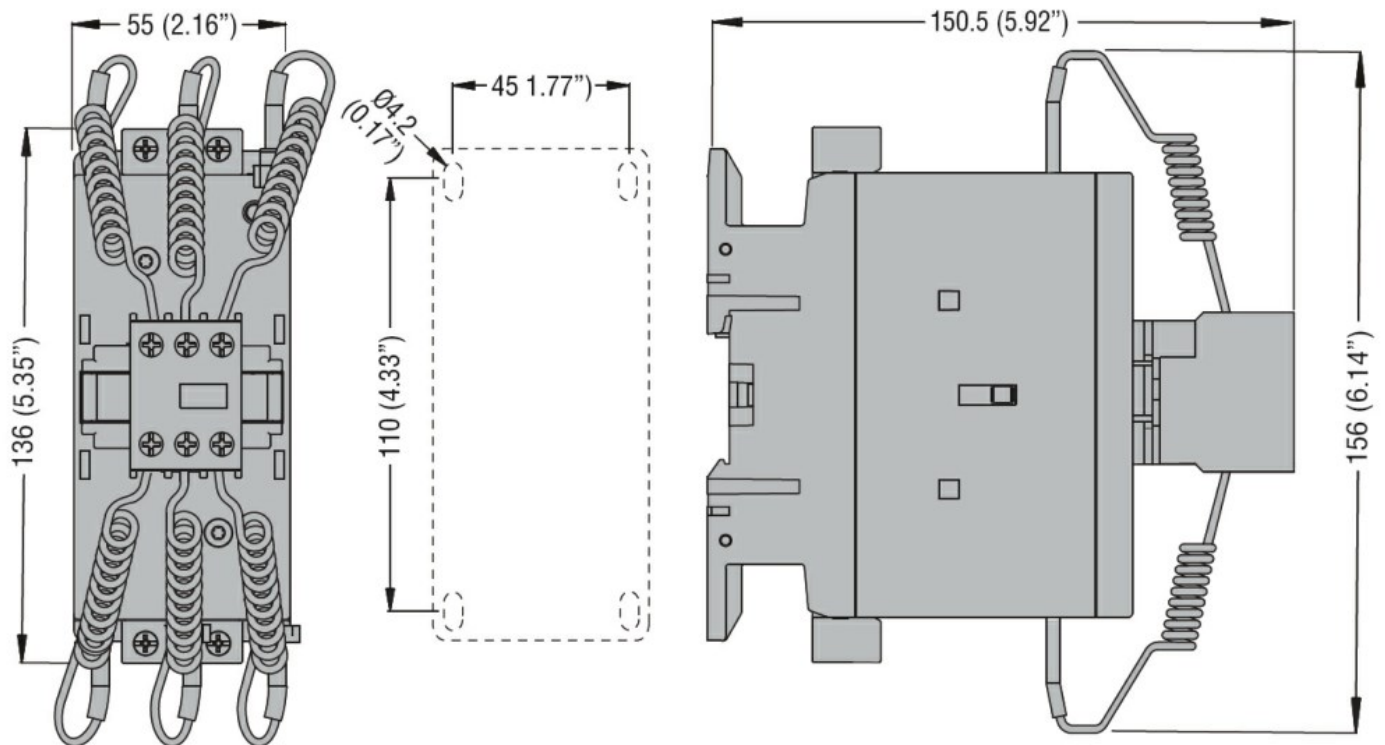
m 3000

Resistance & Protection

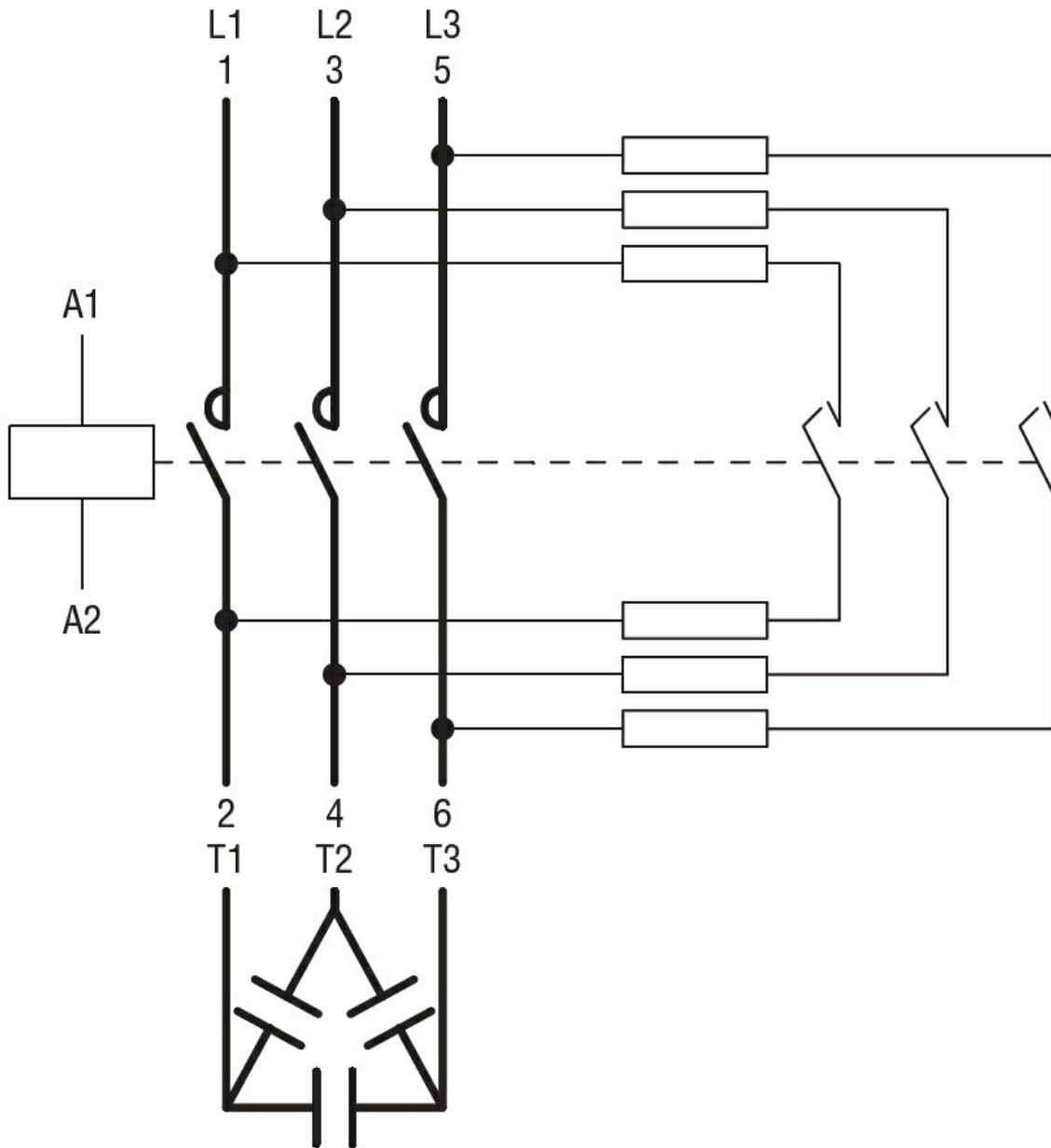
Pollution degree

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

ETIM classification

ETIM 8.0

EC001079 -
Capacitor
contactor