



Product designation				Power contactor
Product type designation				BFK50
<b>Contact characteristics</b>				
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	
		A	500	
Making capacity (RMS value)				500
Breaking capacity at voltage	440V	A	400	
	500V	A	352	
	690V	A	312	
Resistance per pole (average value)		m $\Omega$	0.8	
Power dissipation per pole (average value)		lth	W	6.5
		min	Nm	4
Tightening torque for terminals		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
		min	Nm	0.8
Tightening torque for coil terminal		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
		min	Nm	0.8
Max number of wires simultaneously connectable	Nr.			2
Conductor section	AWG/Kcmil	max	2	
	Flexible w/o lug conductor section	min	mm <sup>2</sup>	1.5
		max	mm <sup>2</sup>	35
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1.5	

		max	mm <sup>2</sup>	35
Power terminal protection according to IEC/EN 60529				IP20 front
<b>Mechanical features</b>				
Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	1090
Conductor section	AWG/kcmil conductor section	max		2
<b>Operations</b>				
Mechanical life			cycles	15000000
Electrical life			cycles	400000
<b>Safety related data</b>				
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles cycles	400000 15000000
EMC compatibility				yes
<b>AC coil operating</b>				
Rated AC voltage at 60Hz			V	48
AC operating voltage	of 60Hz coil powered at 60Hz pick-up	min max	%Us %Us	80 110
	drop-out	min max	%Us %Us	20 55
AC average coil consumption at 20°C	of 60Hz coil powered at 60Hz	in-rush holding	VA VA	210 15
Dissipation at holding ≤20°C 50Hz			W	5
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	3600
<b>Operating times</b>				
Average time for Us control	in AC			
	Closing NO	min max	ms ms	12 28
	Opening NO	min max	ms ms	8 22
	in DC			
	Closing NO	min max	ms ms	40 85
	Opening NO	min max	ms ms	20 55
<b>UL technical data</b>				

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

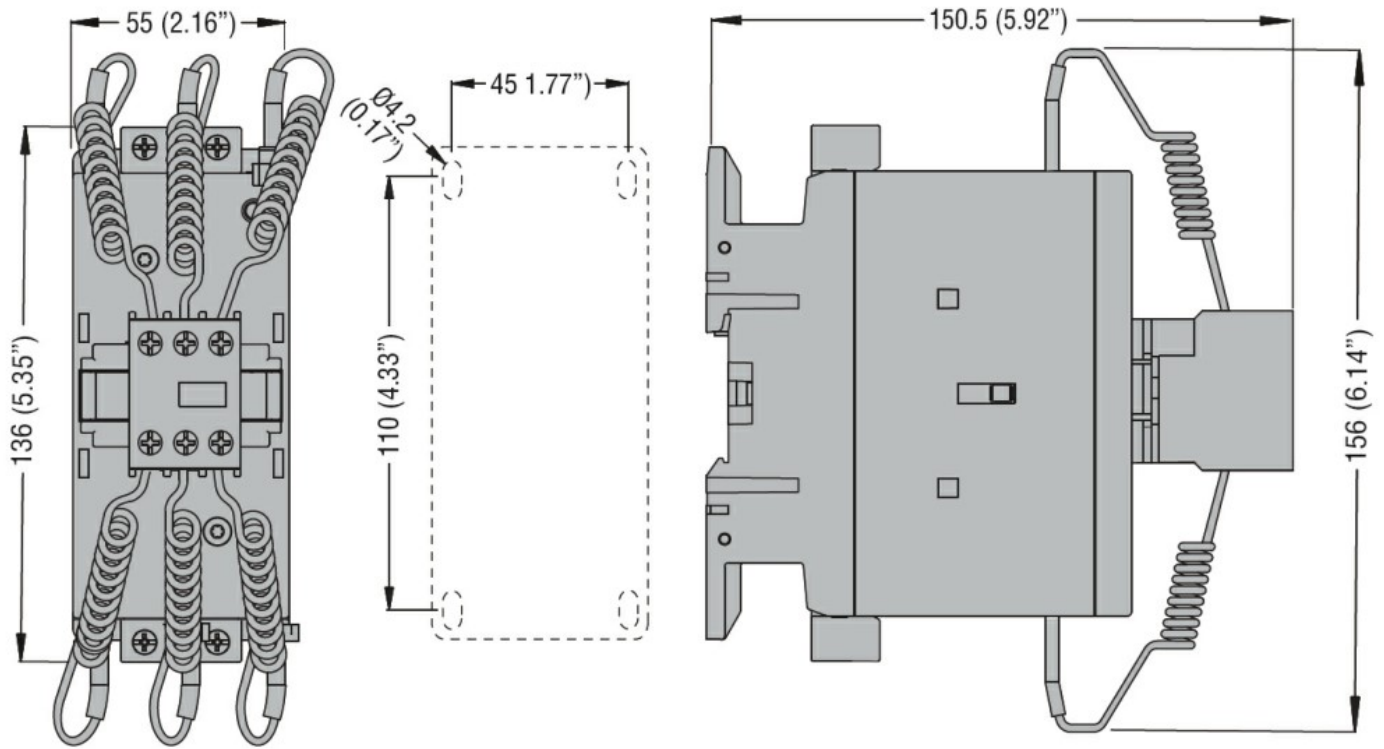
m 3000

Resistance & Protection

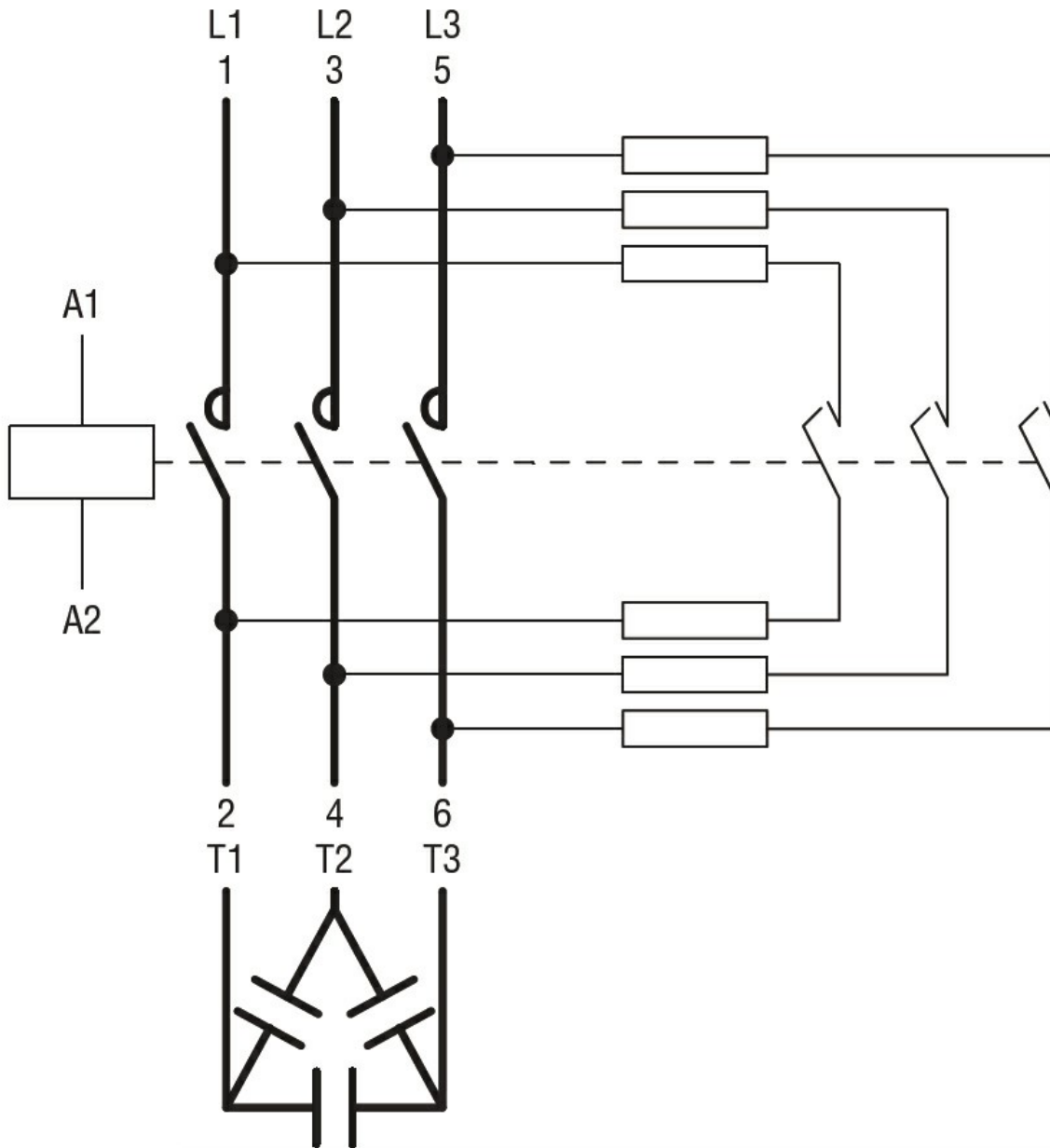
Pollution degree

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