



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
Rated operational power AC-6b ( $T \leq 40^\circ C$ )	230V	kvar 30
	400V	kvar 50
	440...480V	kvar 56
	690V	kvar 65
Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse	gG (IEC)	A 125
		A 800
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 $\Omega$	0.6
Power dissipation per pole (average value)	$I_{th}$	W 7.9
Tightening torque for terminals	min	Nm 4
	max	Nm 5
	min	Ibin 2.95
	max	Ibin 3.69
Tightening torque for coil terminal	min	Nm 0.8
	max	Nm 1
	min	Ibin 0.8
	max	Ibin 0.74
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 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
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	3600
<b>Operating times</b>				
Average time for Us control	in AC			
		Closing NO		

		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
<hr/>				
	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 115

**Ambient conditions**

Temperature

Operating temperature

min °C -50  
max °C 70

Storage temperature

min °C -60  
max °C 80

Max altitude

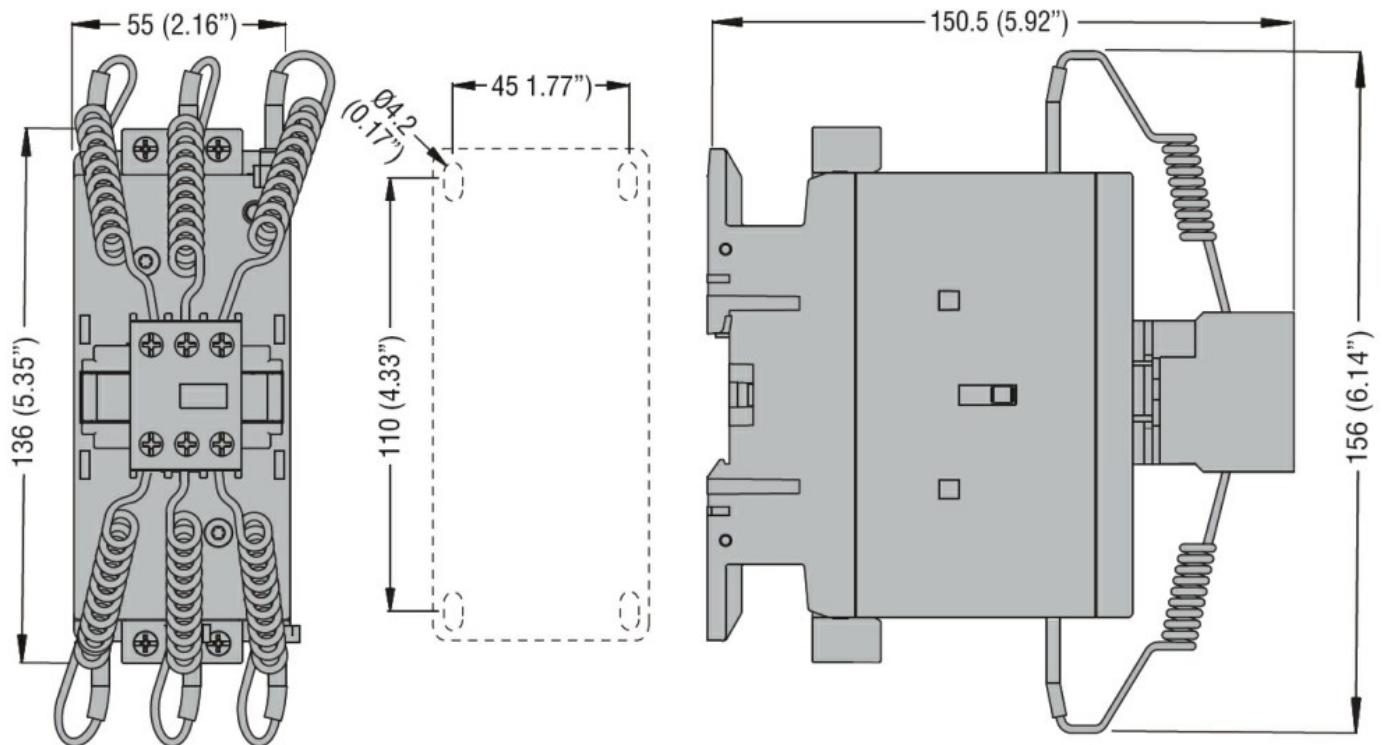
m 3000

**Resistance & Protection**

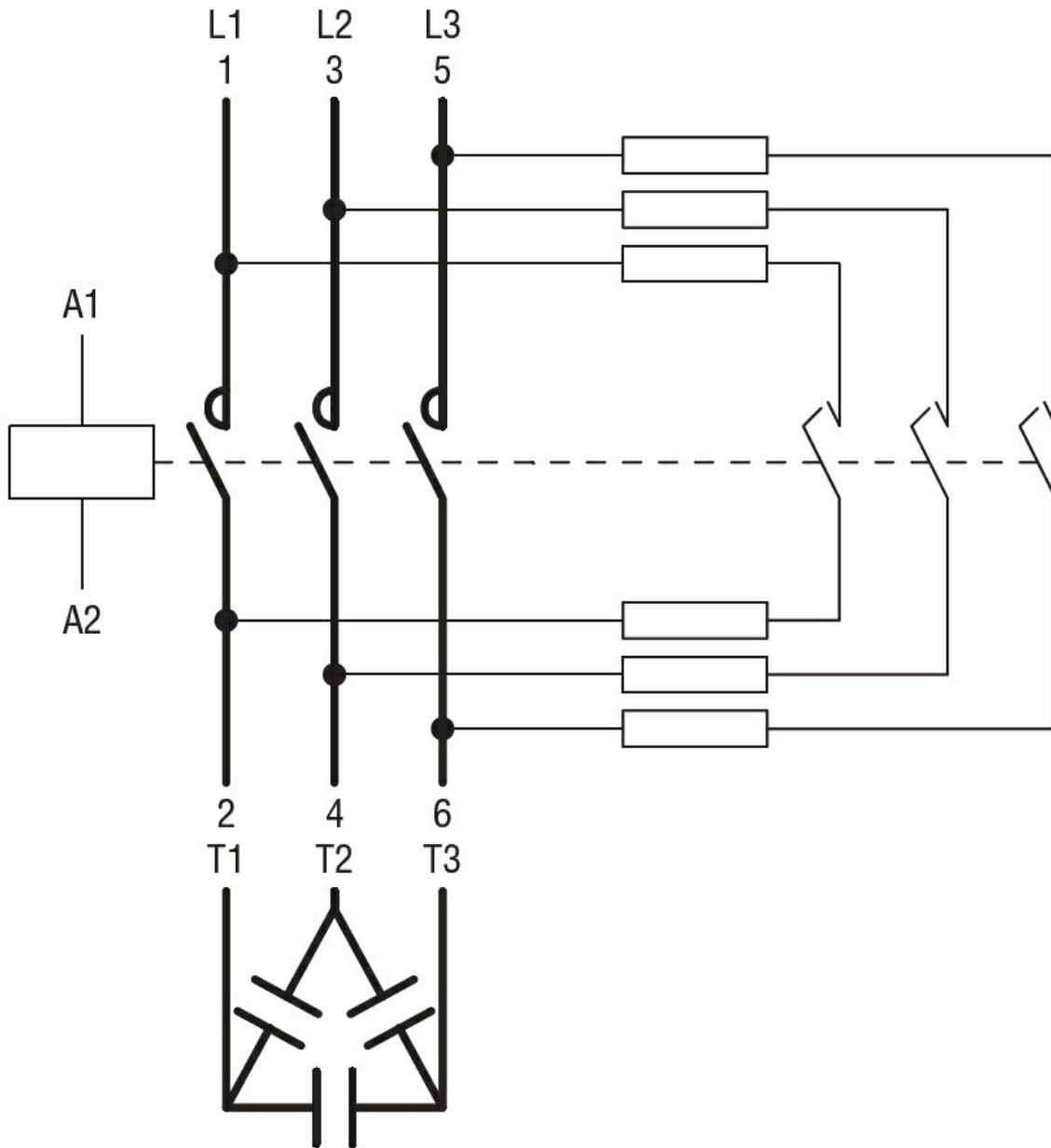
Pollution degree

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