



Product designation
Product type designation
Power contactor
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
Making capacity (RMS value)	A	800
Breaking capacity at voltage	440V A	640
	500V A	625
	690V A	456
Resistance per pole (average value)	mΩ	0.6
Power dissipation per pole (average value)	I_{th} W	7.9
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 lbin	0.8
	max lbin	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	mm²	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 cycles	400000 15000000
EMC compatibility				
yes				
AC coil operating				
Rated AC voltage at 50/60Hz			V	48
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 holding	VA VA	210 15
of 50/60Hz coil powered at 60Hz		in-rush holding	VA VA	195 13
of 60Hz coil powered at 60Hz		in-rush holding	VA VA	210 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				

in DC		min	ms	8
		max	ms	22
	Closing NO	min	ms	40
		max	ms	85
	Opening NO	min	ms	20
		max	ms	55

UL technical data

Rated operational voltage AC (UL)	V	600
General USE		

Contactor

AC current A 115

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

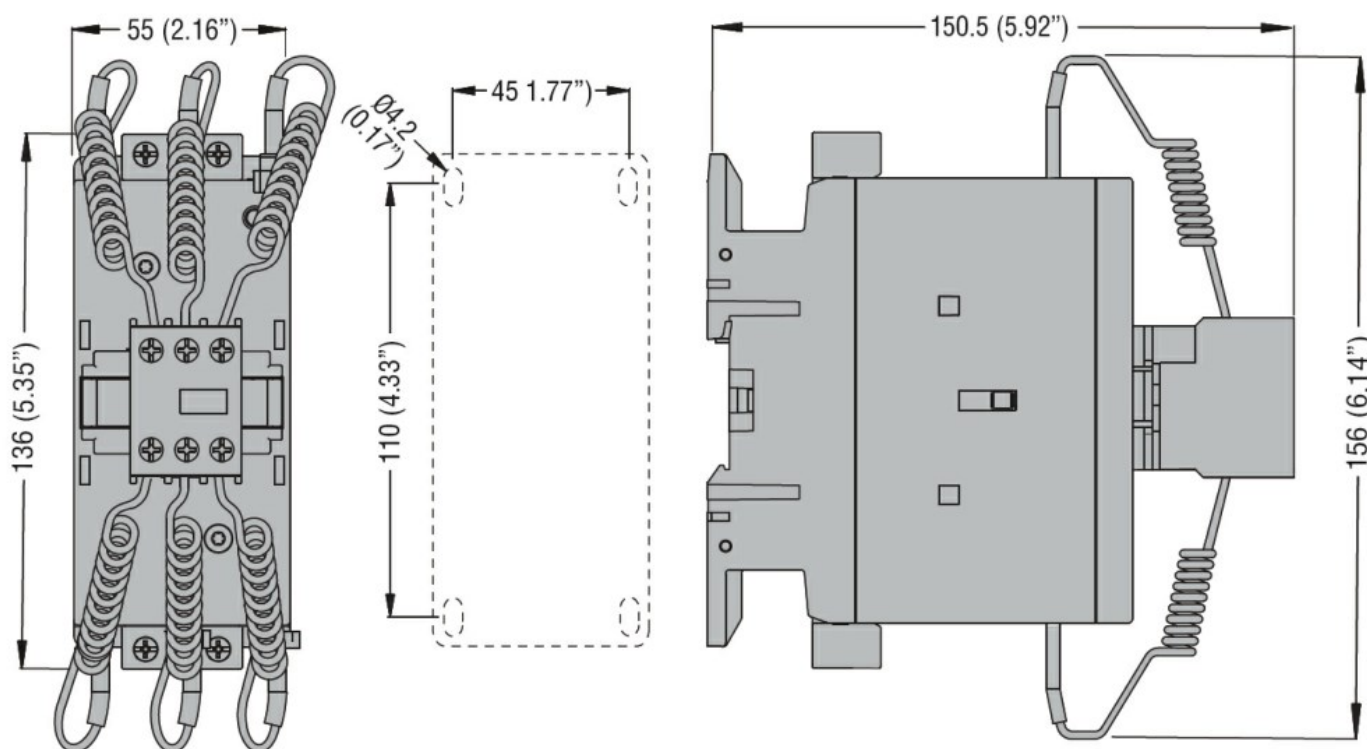
min	°C	-60
max	°C	80

Max altitude	m	3000
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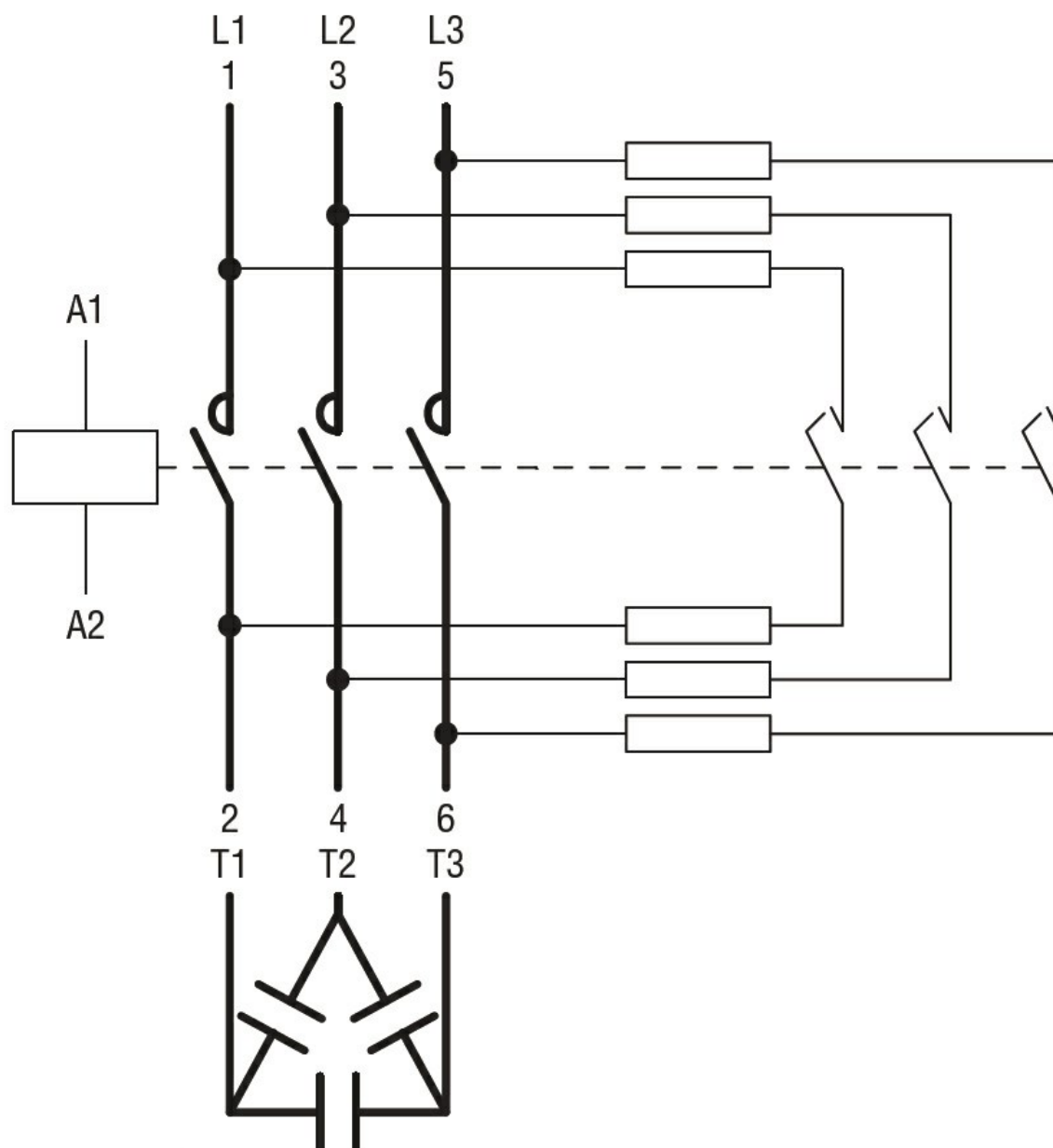
Resistance & Protection

Pollution degree	3
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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