



Product designation			Power contactor
Product type designation			BFK50
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	90
Rated operational power AC-6b (T≤40°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)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	6.5
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	mm²	1.5
	max	mm²	35
Flexible c/w lug conductor section			
	min	mm²	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
<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	cycles	400000
	mechanical load	cycles	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	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
	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
	in DC		
	Closing NO		
	min	ms	40
	max	ms	85
	Opening NO		
	min	ms	20
	max	ms	55
<b>UL technical data</b>			
Rated operational voltage AC (UL)		V	600
General USE			
Contactor			

AC current      A      90

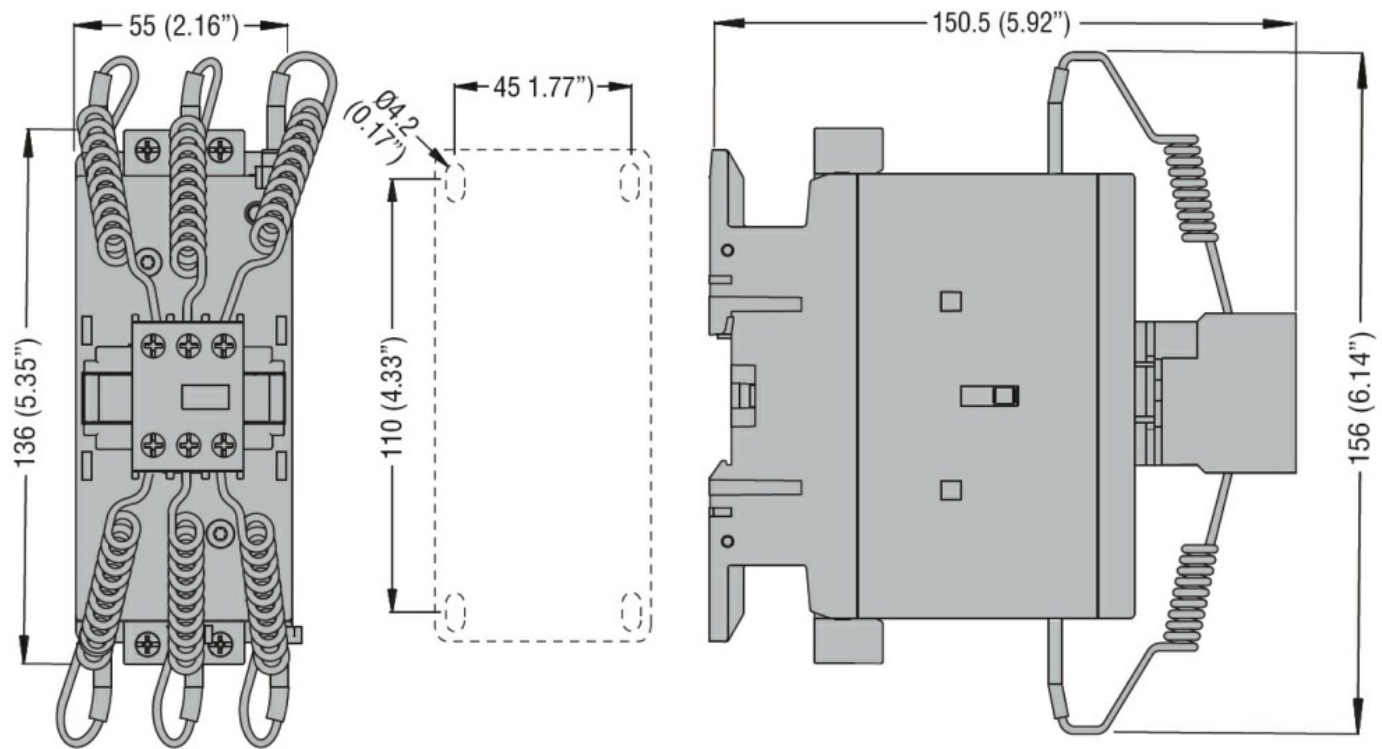
Ambient conditions

Temperature				
Operating temperature		min	°C	-50
		max	°C	70
Storage temperature		min	°C	-60
		max	°C	80
Max altitude			m	3000

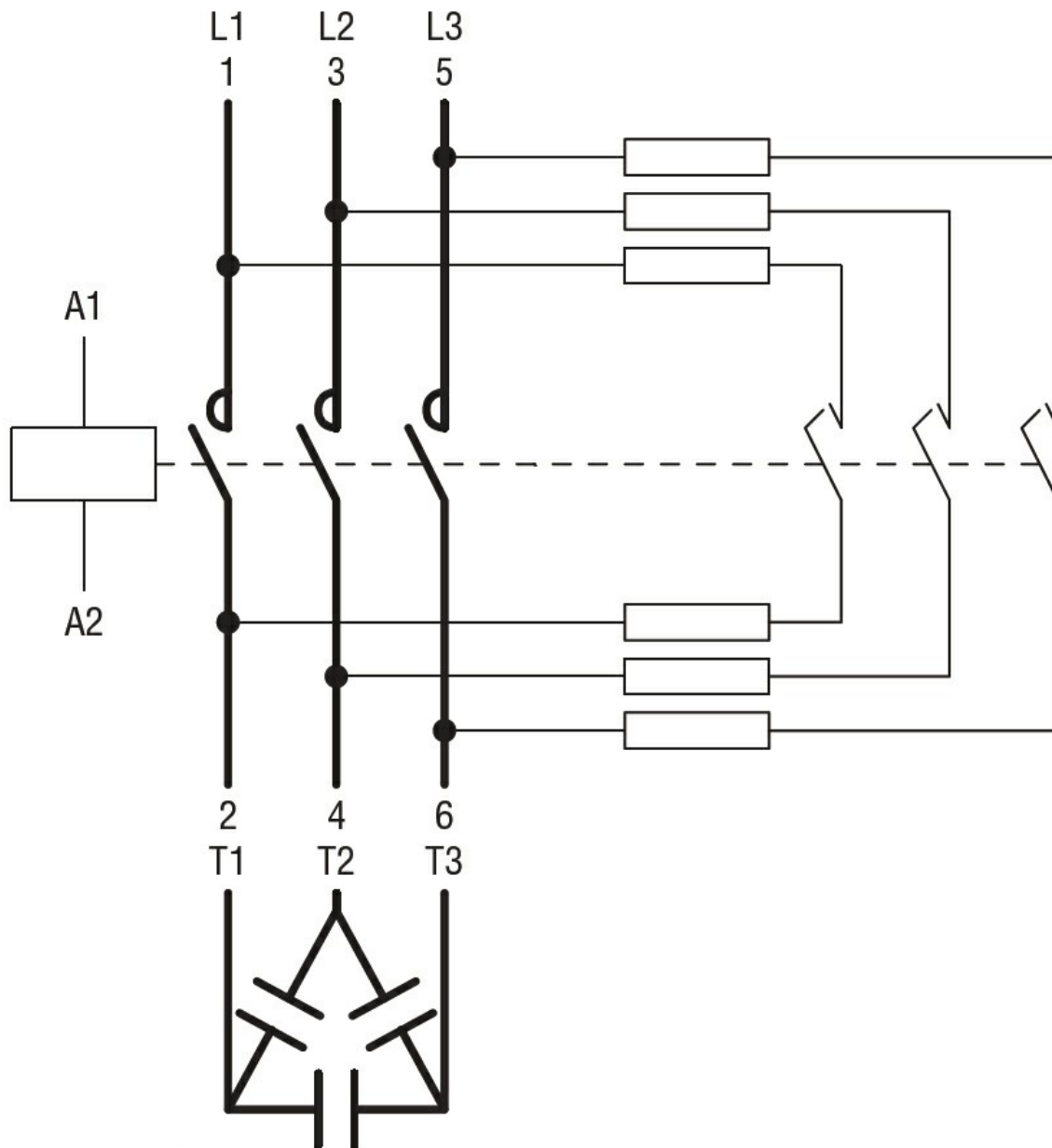
Resistance & Protection

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