



Product designation	Power contactor		
Product type designation	BFK18		
<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	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$	A	32	
Rated operational power AC-6b ( $T \leq 40^\circ C$ )	230V	kvar	9
	400V	kvar	15
	440...480V	kvar	17
	690V	kvar	20
Short-time allowable current for 10s (IEC/EN60947-1)	A	200	
Protection fuse	gG (IEC)	A	40
		A	180
Making capacity (RMS value)	A	180	
Breaking capacity at voltage	440V	A	144
	500V	A	120
	690V	A	94
Resistance per pole (average value)	$m\Omega$	2.5	
Power dissipation per pole (average value)	$I_{th}$	W	2.6
Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
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	10
		Flexible w/o lug conductor section	
	min	$mm^2$	1
	max	$mm^2$	6
Flexible c/w lug conductor section			
	min	$mm^2$	1

		max	mm <sup>2</sup>	4
Flexible with insulated spade lug conductor section				
		min	mm <sup>2</sup>	1
		max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529				IP20 when properly wired
<b>Mechanical features</b>				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	428
Conductor section				
AWG/kcmil conductor section				
		max		10
<b>Auxiliary contact characteristics</b>				
Thermal current I <sub>th</sub>			A	10
IEC/EN 60947-5-1 designation				A600 - P600
Operating current AC15				
	230V	A		3
	400V	A		1.9
	500V	A		1.4
Operating current DC12				
	110V	A		5.7
Operating current DC13				
	24V	A		5.7
	48V	A		2.9
	60V	A		2.3
	110V	A		1.25
	125V	A		1.1
	220V	A		0.6
	600V	A		0.1
<b>Operations</b>				
Mechanical life			cycles	20000000
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		20000000
Mirror contacts according to IEC/EN 60947-4-1				YES
EMC compatibility				yes
<b>AC coil operating</b>				
Rated AC voltage at 50/60Hz			V	400
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			

drop-out	min	%Us	85
	max	%Us	110
	min	%Us	20
	max	%Us	55

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz

in-rush	VA	75
holding	VA	9

of 50/60Hz coil powered at 60Hz

in-rush	VA	70
holding	VA	6.5

of 60Hz coil powered at 60Hz

in-rush	VA	75
holding	VA	9

Dissipation at holding ≤20°C 50Hz

W	2.5
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Max cycles frequency

Mechanical operation

cycles/h	3600
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	8
max	ms	24

Opening NO

min	ms	10
max	ms	20

Closing NC

min	ms	14
max	ms	28

UL technical data

General USE

Contactor

AC current	A	32
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Auxiliary contacts

AC voltage	V	600
AC current	A	10
DC voltage	V	250
DC current	A	1

Contact rating of auxiliary contacts according to UL

A600 - P600

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

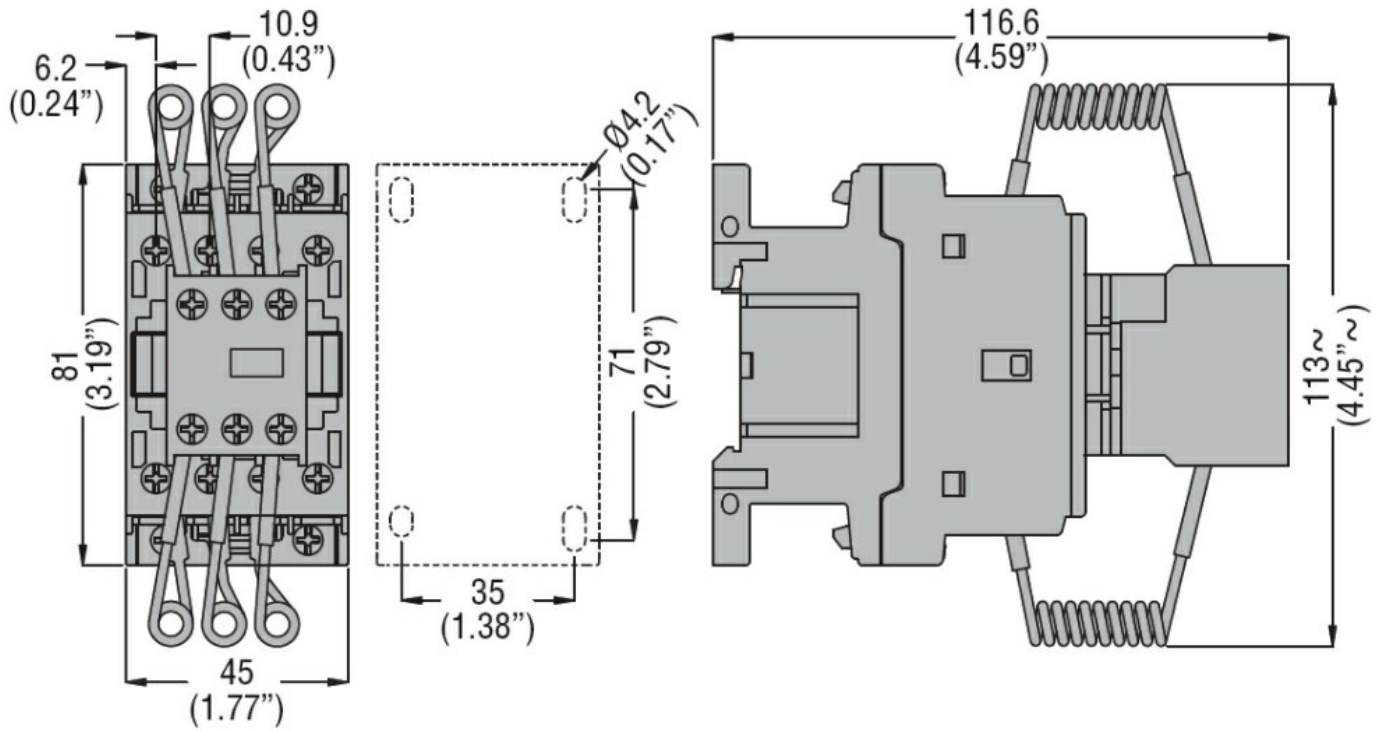
m	3000
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Resistance & Protection

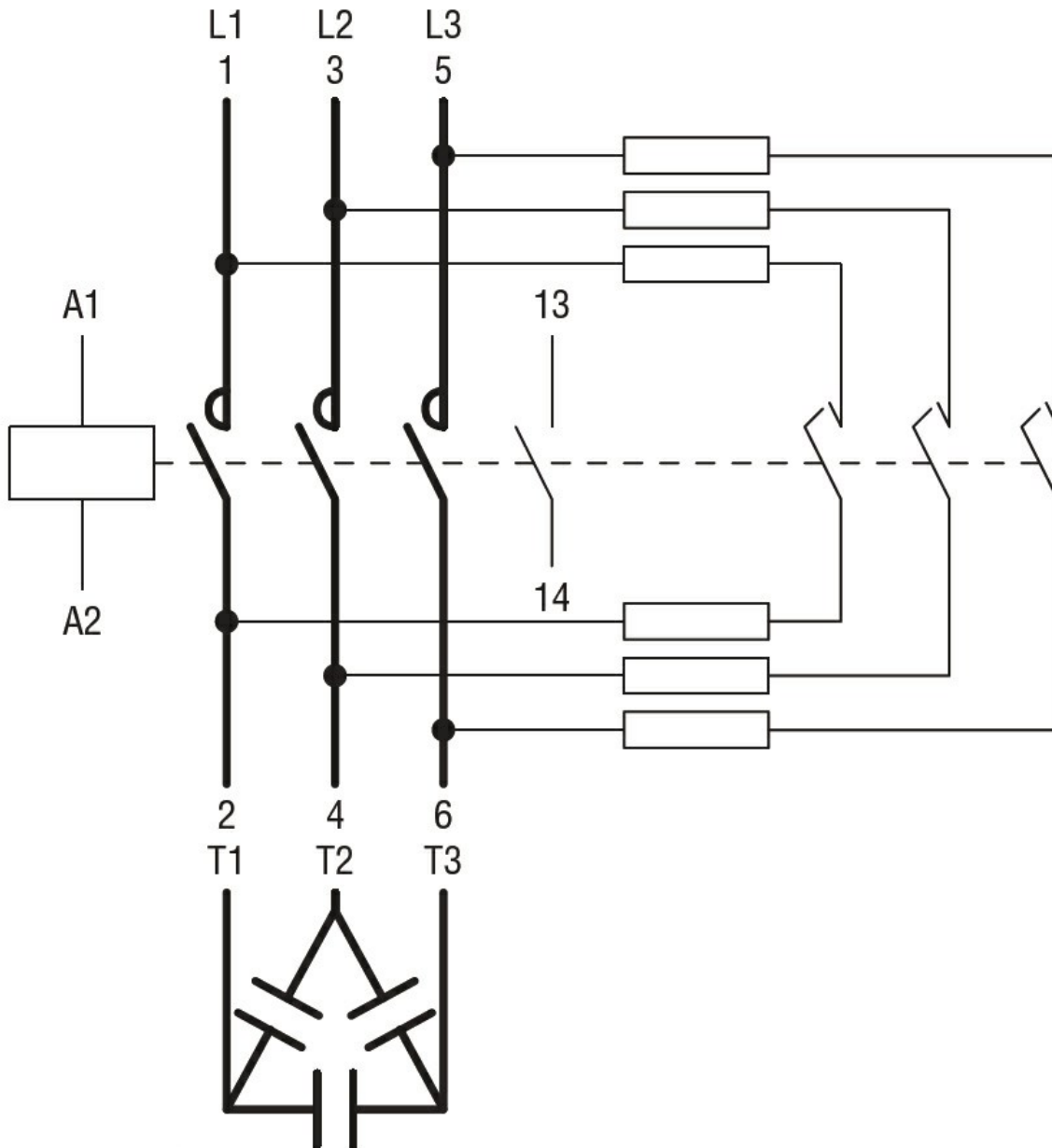
Pollution degree

3

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
- EAC

**ETIM classification**

ETIM 8.0

EC001079 -  
Capacitor  
contactor