



Product designation				Power contactor
Product type designation				BFK18
Contact characteristics				
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)				180
Breaking capacity at voltage	440V	A	144	
	500V	A	120	
	690V	A	94	
Resistance per pole (average value)		m Ω	2.5	
Power dissipation per pole (average value)	lth	W	2.6	
	min	Nm	1.5	
Tightening torque for terminals	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
	min	Nm	0.8	
Tightening torque for coil terminal	max	Nm	1	
	min	lbin	0.8	
	max	lbin	0.74	
	min	Nm	0.8	
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 ²	4
Flexible with insulated spade lug conductor section				
		min	mm ²	1
		max	mm ²	4
Power terminal protection according to IEC/EN 60529				IP20 when properly wired
Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	460
Conductor section				
AWG/kcmil conductor section				
		max		10
Auxiliary contact characteristics				
Thermal current I _{th}			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
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	400000
Safety related data				
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
AC coil operating				
Rated AC voltage at 50/60Hz			V	24
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

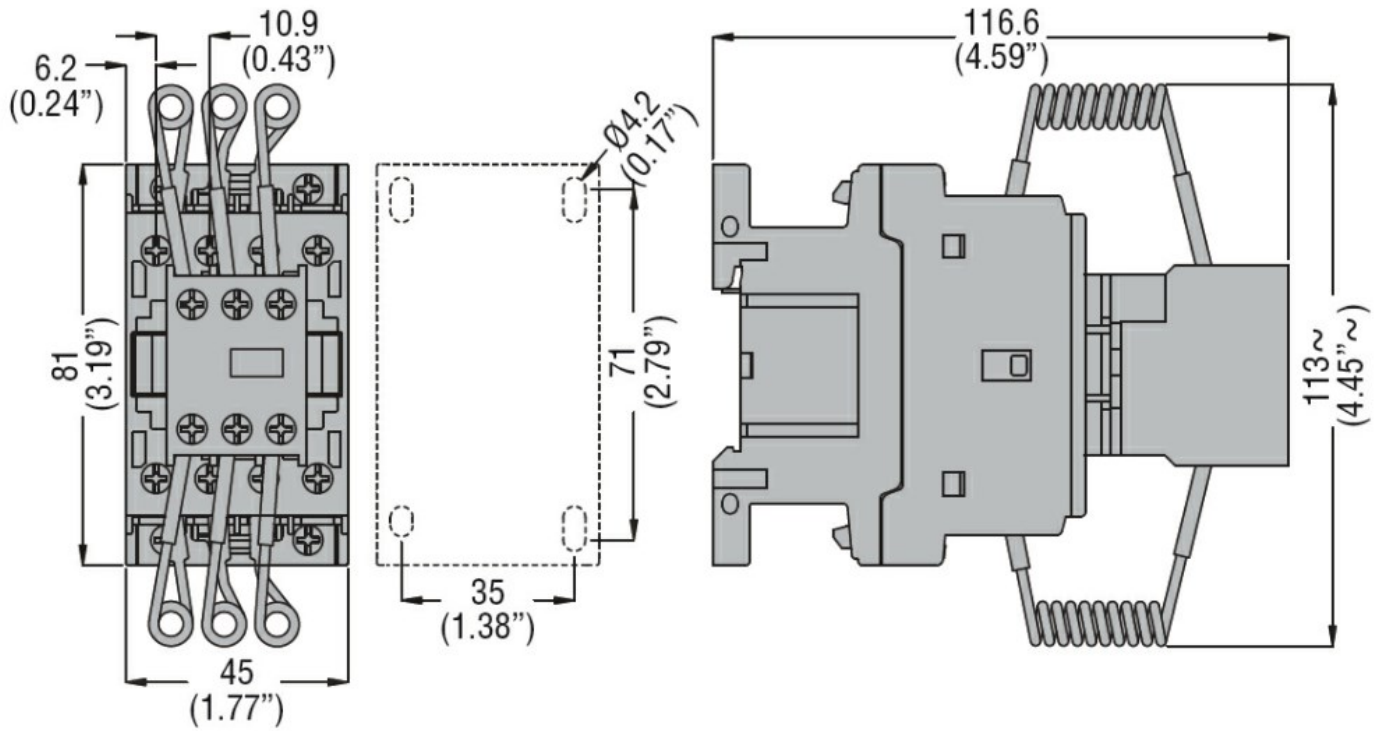
m	3000
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Resistance & Protection

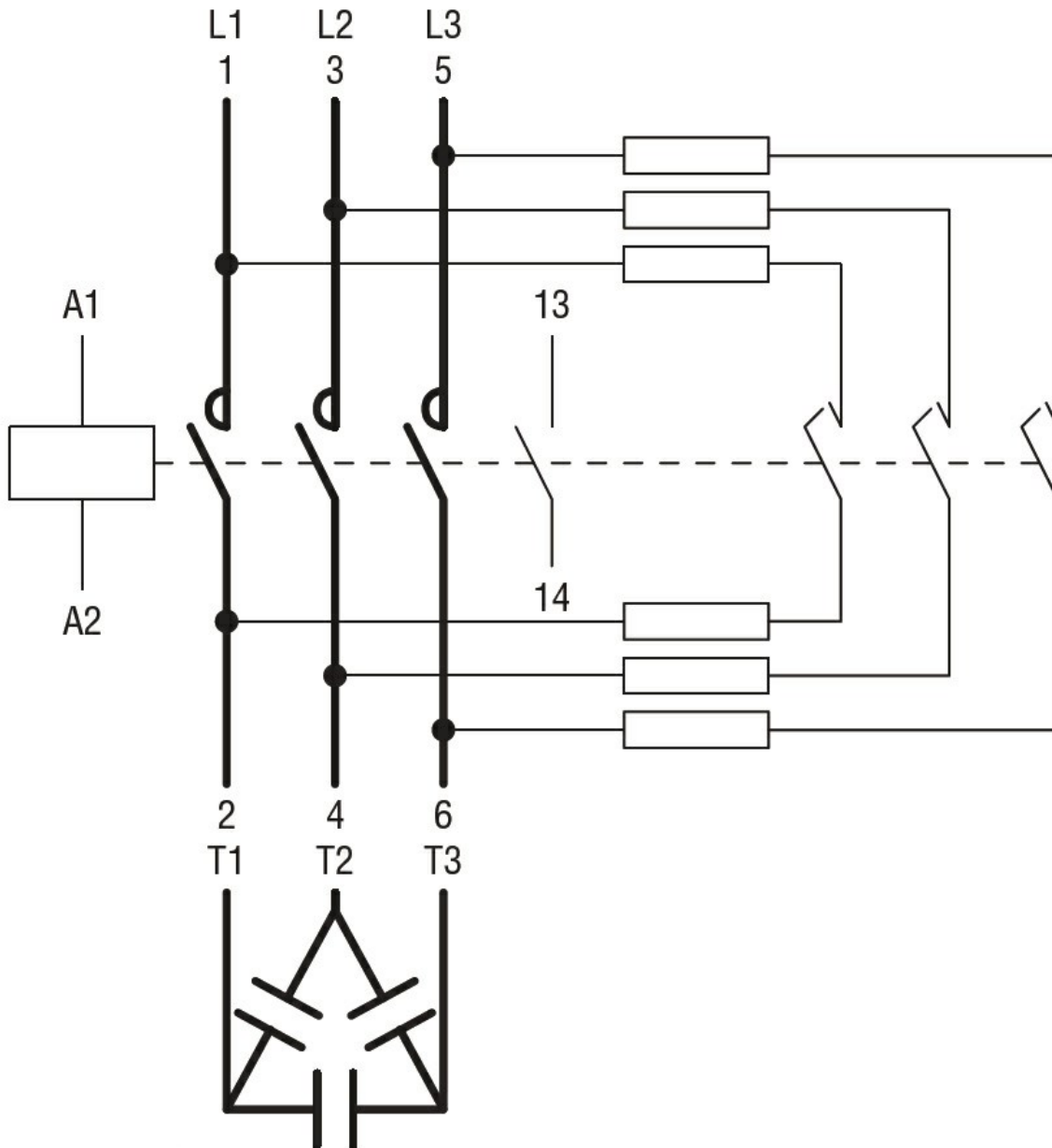
Pollution degree

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