



Product designation				Power contactor
Product type designation				BFK09
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			25
Operational current I_e	AC-3 ($\leq 440V \leq 55^\circ C$)	A	9	
	AC-4 (400V)	A	4.9	
Rated operational power AC-6b ($T \leq 40^\circ C$)	230V	kvar	4.5	
	400V	kvar	7.5	
	500V	kvar	9	
	690V	kvar	10	
Short-time allowable current for 10s (IEC/EN60947-1)	A			150
Protection fuse	gG (IEC)	A	16	
	aM (IEC)	A	10	
Making capacity (RMS value)	A			90
Breaking capacity at voltage	440V	A	72	
	500V	A	72	
	690V	A	71	
Resistance per pole (average value)	m Ω			2.5
Power dissipation per pole (average value)	I_{th}	W	1.6	
	AC3	W	0.2	
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	lbft	0.8	
	max	lbft	0.74	
Max number of wires simultaneously connectable	nr.			2
Conductor section	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 wired
Mechanical features			
Operating position	normal allowable		vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	416
Auxiliary contact characteristics			
Type of contact			1 NO
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			true
EMC compatibility			Yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	12
	max	V	600
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	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 operating voltage 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 $\leq 20^\circ\text{C}$ 50Hz	W	2.5	
---	---	-----	--

Max cycles frequency

Mechanical operations	cycles/h	3600	
-----------------------	----------	------	--

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	
Opening NC			
min	ms	7	
max	ms	18	
in DC			
Closing NO			
min	ms	54	
max	ms	66	
Opening NO			
min	ms	14	
max	ms	17	
Closing NC			
min	ms	24	
max	ms	30	
Opening NC			
min	ms	47	
max	ms	57	

UL technical data

Full-load current (FLA) for three-phase AC motor			
at 480V	A	7.6	
at 600V	A	9	

Yielded mechanical performance
for single-phase AC motor

	110/120V	hp	0.8
	230V	hp	2
for three-phase AC motor			
	200/208V	hp	3
	220/230V	hp	3
	460/480V	hp	5
	575/600V	hp	7.5

Contact rating of auxiliary contacts according to UL A600 - P600
General USE

Auxiliary contacts

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

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

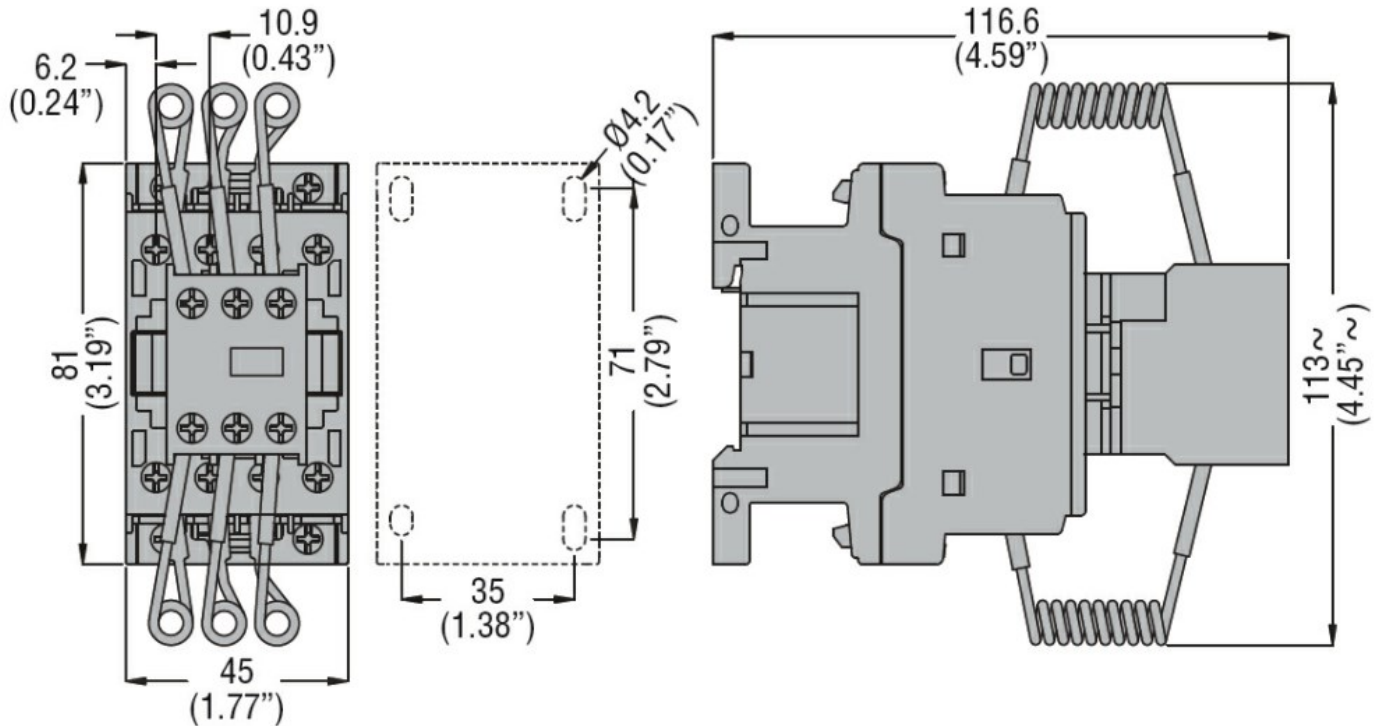
m 3000

Resistance & Protection

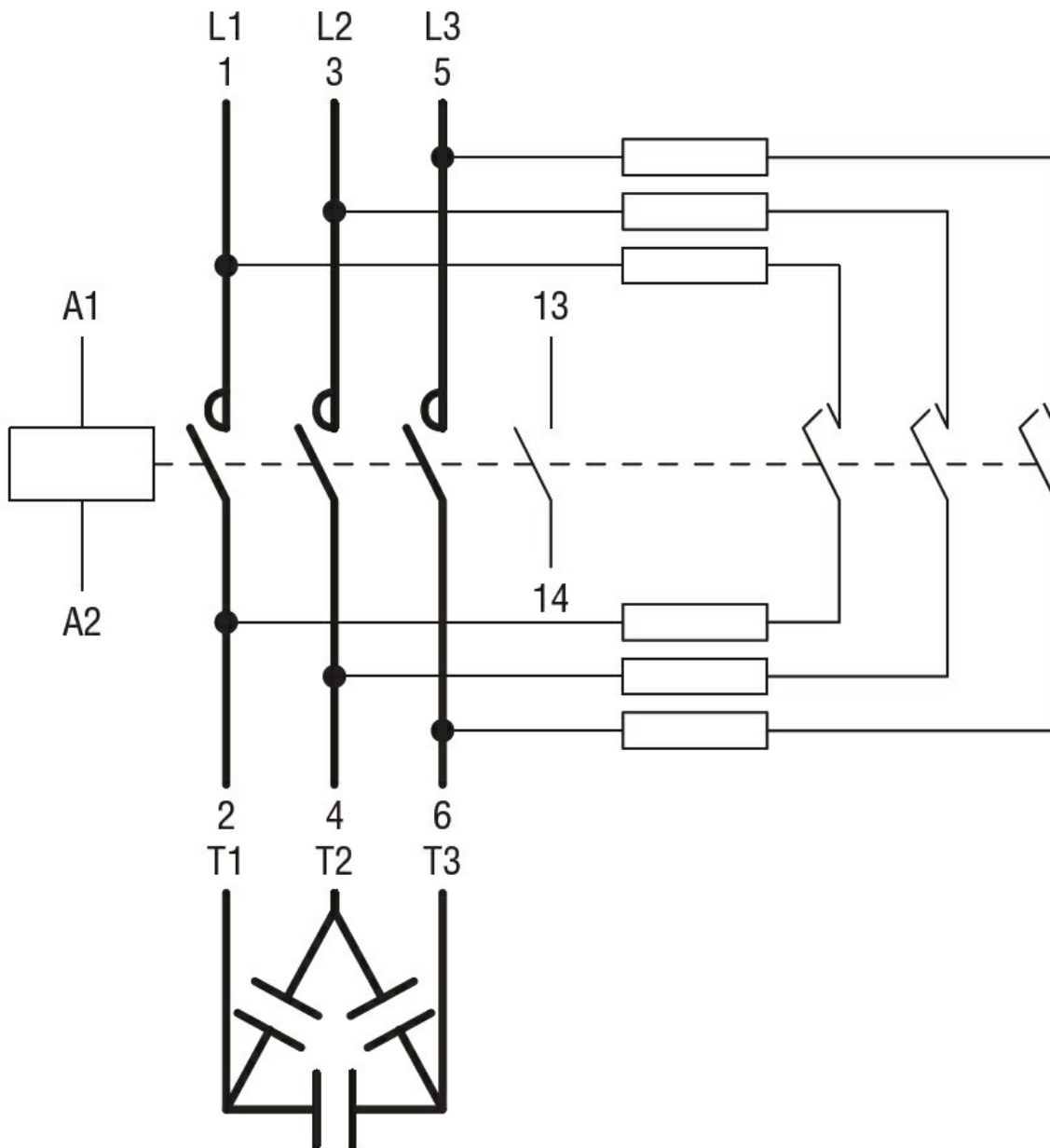
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60947-1
IEC/EN 60947-4-1
UL 60947-1
UL 60947-4-1

Certificates

CCC
cULus
EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching