



Product designation				Power contactor
Product type designation				BFK12
Contact characteristics				
Number of poles	nr.	3		
Rated insulation voltage U_i	V	690		
Rated impulse withstand voltage U_{imp}	kV	6		
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
	Conventional free air thermal current I_{th}	A	28	
Rated operational power AC6b ($T \leq 40^\circ C$)	230V	kvar	7	
	400V	kvar	12.5	
	500V	kvar	14	
	690V	kvar	16	
	Short-time allowable current for 10s (IEC/EN60947-1)	A	150	
Protection fuse	gG (IEC)	A	25	
	Resistance per pole (average value)	m Ω	2.5	
Tightening torque for terminals	min	Nm	1.5	
	max	Nm	1.8	
	min	lbft	1.1	
	max	lbft	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	AWG	min	16	
		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 wired
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	Screw / DIN rail 35mm
	125V	A	0.6
	220V	A	0.2
	600V	A	1.2

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m 3000

Operating position

normal allowable Vertical plan
±30°

Mounting

Screw / DIN rail
35mm

Weight

g 0.428

Operations

Mechanical life

Cycles 20000000

Electrical life

Cycles 400000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	Cicli	400000
mechanical load	Cicli	20000000

EMC compatibility

yes

AC coil operating

AC operating voltage

of 50/60Hz coil powered at 50Hz pick-up

min	%Us	0.8
max	%Us	1.1

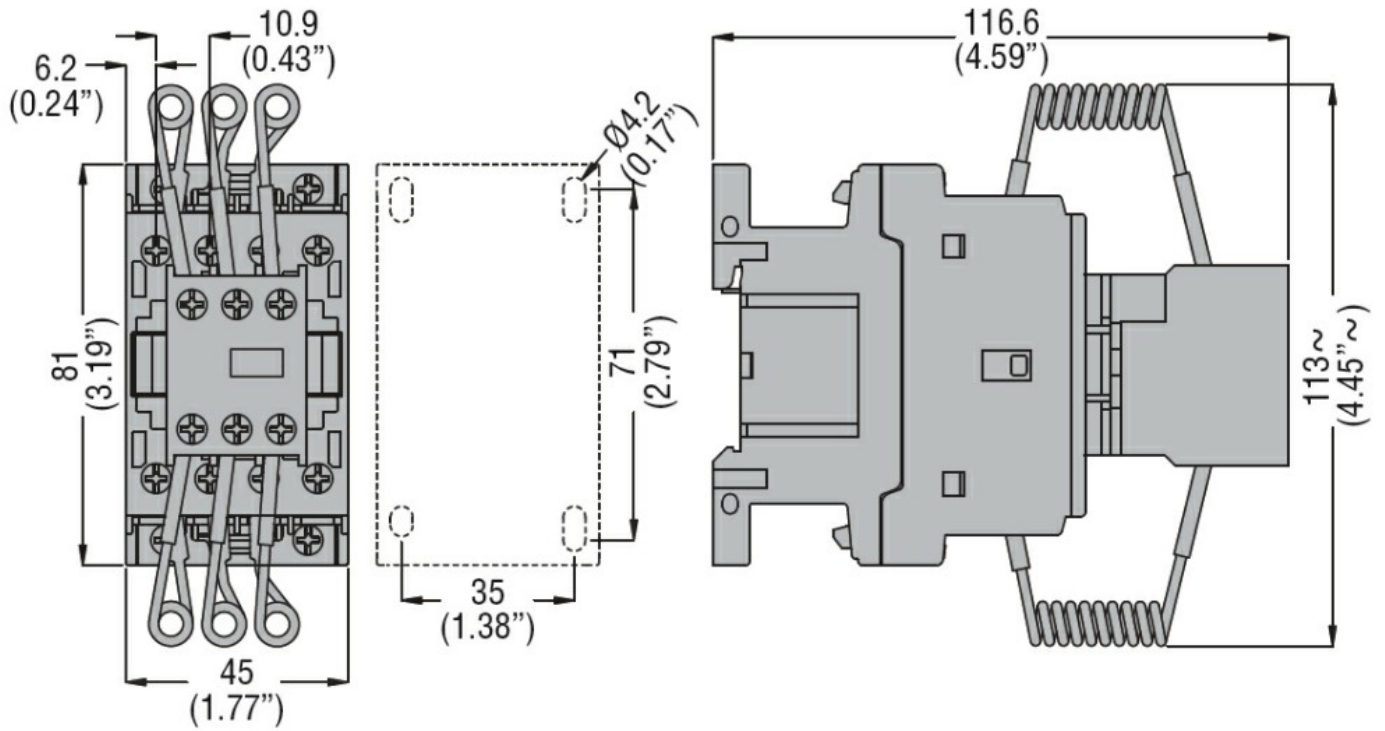
drop-out

min	%Us	0.2
max	%Us	0.55

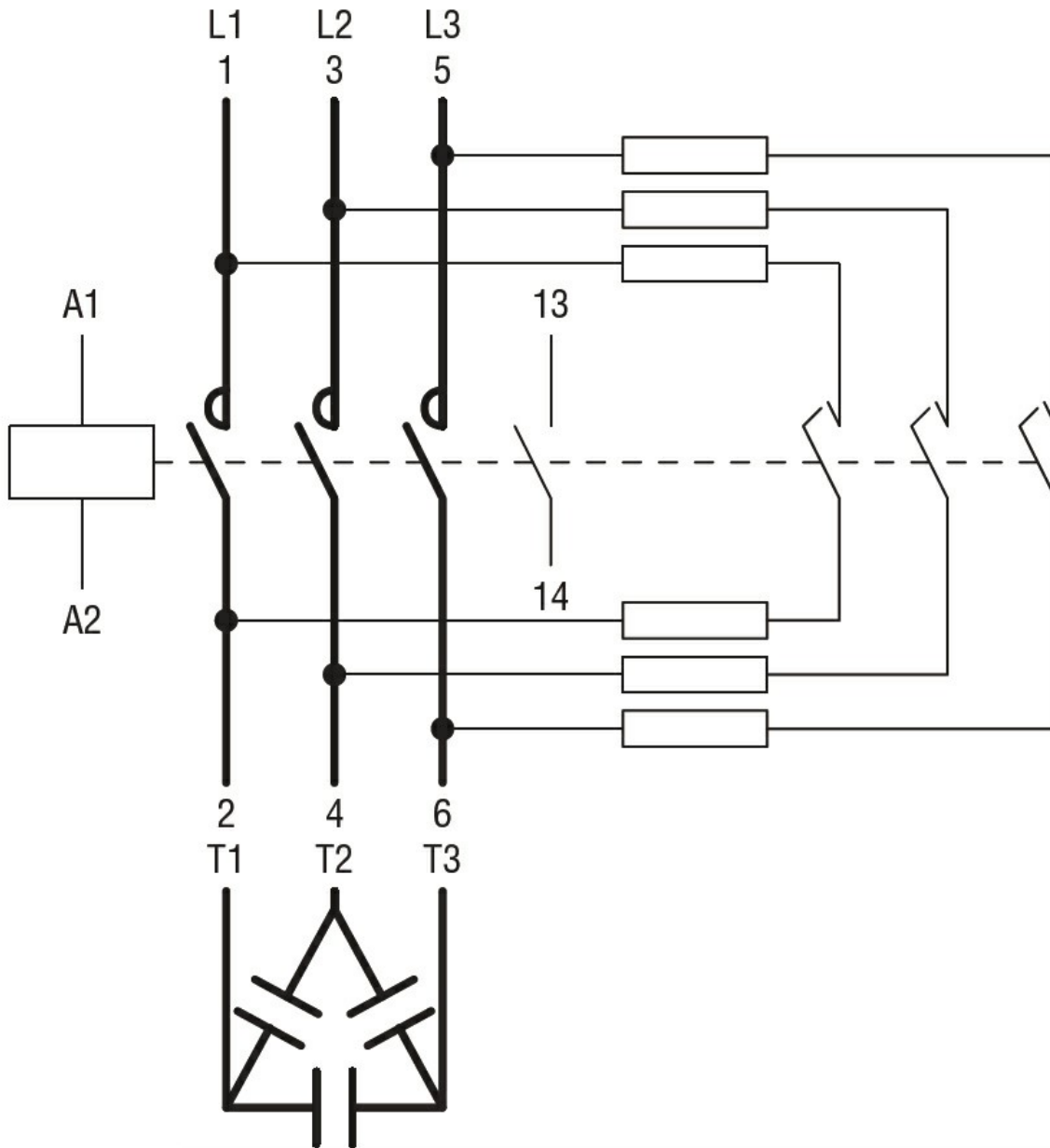
of 50/60Hz coil powered at 60Hz pick-up

min	%Us	0.85
max	%Us	1.1

	drop-out				
		min	%Us	0.2	
		max	%Us	0.55	
	of 60Hz coil powered at 60Hz				
	pick-up				
		min	%Us	0.8	
		max	%Us	1.1	
	drop-out				
		min	%Us	0.2	
		max	%Us	0.55	
AC operating voltage					
	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	
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	
UL technical data					
Yielded mechanical performance					
	for single-phase AC motor				
		at 110/120V	hp	1	
Contact rating of auxiliary contacts according to UL				A600 - P600	
Other features					
Pollution degree				3	
Dimensions					



Wiring diagrams



Certifications and compliance

Certifications

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

Compliance

CCC
cULus
EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching