



Product designation				Power contactor
Product type designation				BFK12
<b>Contact characteristics</b>				
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
Operating current	Operational current AC3 ( $\leq 440V \leq 55^\circ C$ )	A		12
	Operational current AC4 (400V)	A		7.9
	Short-time allowable current for 10s (IEC/EN60947-1)	A		150
Protection fuse	gG (IEC)	A		32
	aM (IEC)	A		12
	Making capacity (RMS value)	A		120
Breaking capacity at voltage	Breaking capacity 440V	A		96
	Breaking capacity 500V	A		96
	Breaking capacity 690V	A		94
	Resistance per pole (average value)	m $\Omega$		2.5
Power dissipation per pole (average value)	Power dissipation pole (average value) $I_{th}$	W		2
	AC3	W		0.4
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		0.59
	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 <sup>2</sup>		1
	max	mm <sup>2</sup>		6
Flexible c/w lug conductor section				

	min	mm <sup>2</sup>	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
<b>Auxiliary contact characteristics</b>			
Type of contact			1 NA
Thermal current I <sub>th</sub>			A 10
IEC/EN 60947-5-1 designation			A600
<b>Ambient conditions</b>			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude			m 3,000
Operating position			
	normal allowable		Vertical plan ±30°
Mounting			Screw / DIN rail 35mm
Weight			g 0.367
<b>Operations</b>			
Mechanical life			Cycles 20,000,000
Electrical life			Cycles 2000000
<b>Safety related data</b>			
Mirror contacts according to IEC/EN 60947-4-1			Yes
EMC compatibility			Yes
<b>AC coil operating</b>			
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		
	min	%Us	80
	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	40
	max	%Us	55
of 60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	80
	max	%Us	110

drop-out		min	%Us	20
		max	%Us	55
<b>AC operating voltage</b>				
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
<b>Max cycles frequency</b>				
Mechanical operations			Cycles/h	3,600
<b>Operating times</b>				
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
<b>UL technical data</b>				
Full-load current (FLA) for three-phase AC motor				
	at 480V	A		11
	at 600V	A		11
<b>Yielded mechanical performance</b>				
for single-phase AC motor				
	at 110/120V	hp		1
	at 230V	hp		2
for three-phase AC motor				
	at 200/208V	hp		5

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, BFK TYPE  
(INCLUDING LIMITING RESISTORS), MAXIMUM IEC OPERATIONAL POWER 400V =  
12.5KVAR, 24VAC 50/60HZ

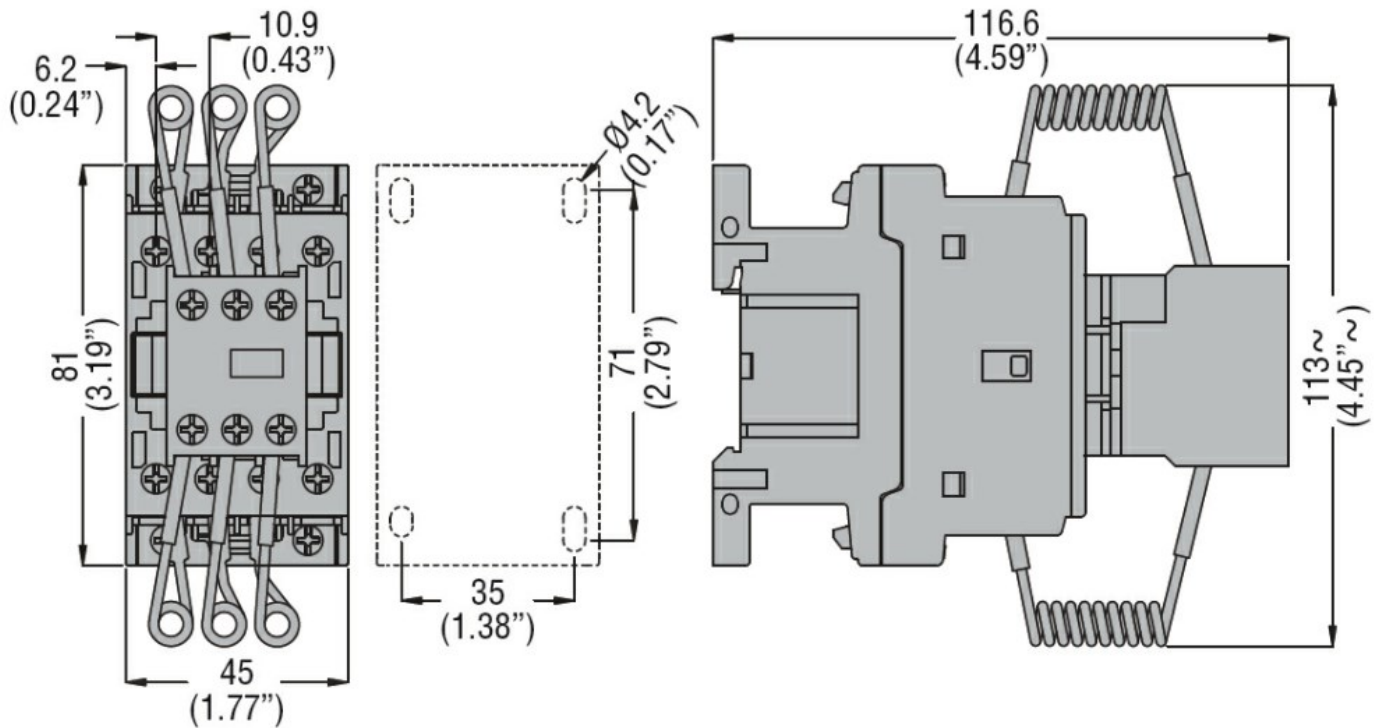
at 220/230V	hp	5
at 460/480V	hp	7.5
at 575/600V	hp	10

Contact rating of auxiliary contacts according to UL SI - A600

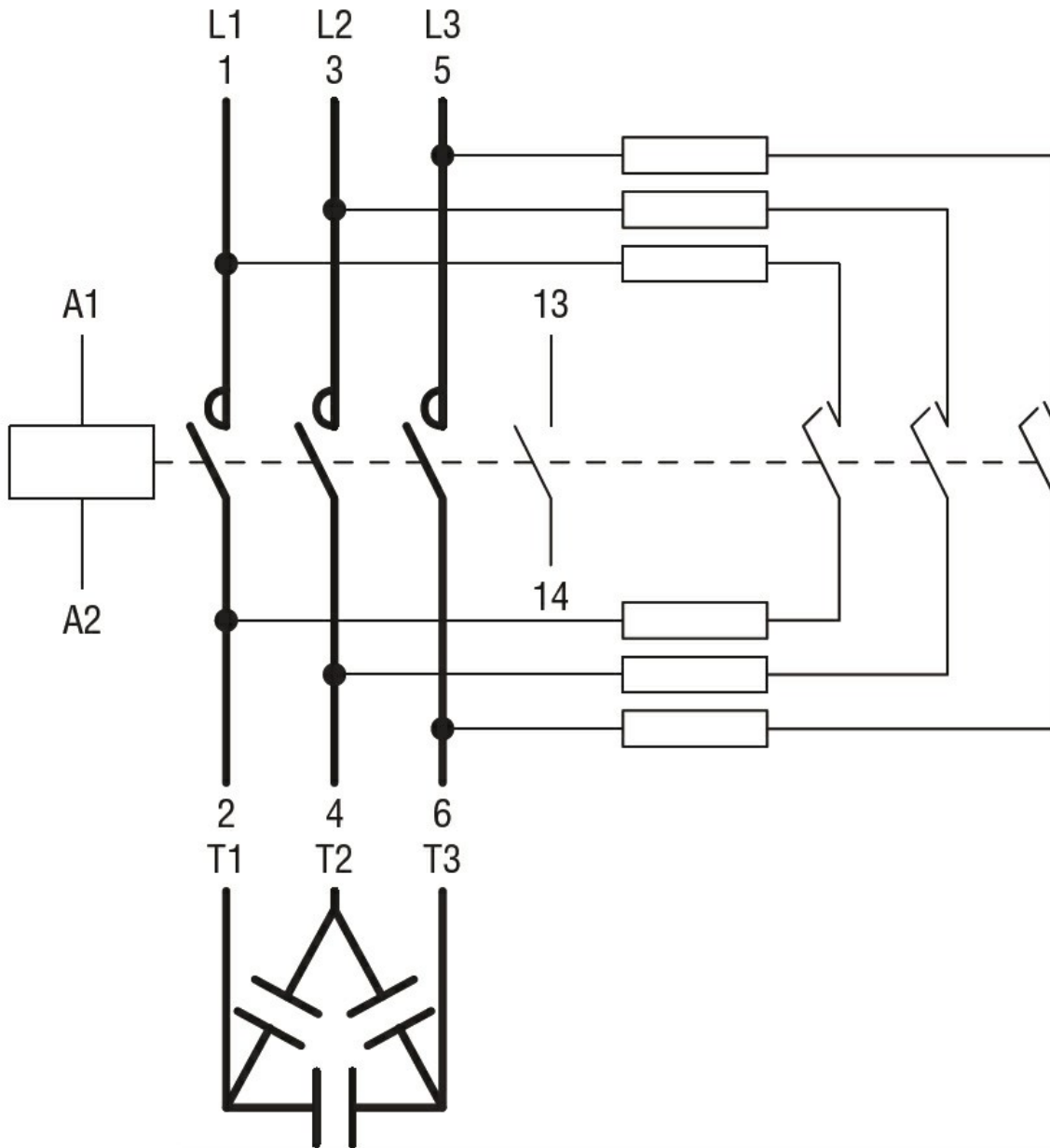
General USE

Contactor	AC current	A	32
Auxiliary contacts	AC voltage	V	600
	AC current	A	10
	DC voltage	V	250
	DC current	A	1

**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