ENERGY AND AUTOMATION

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 12.5KVAR, COIL 220VAC 60HZ



BFK1210A22060

Contact characteristics Nr. 3 Number of poles Nr. 3 Rated insulation voltage UIEC/EN V 690 Rated insulation voltage UIEC/EN KV 6 Operational frequency min Hz 400 IEC Conventional frequency min Hz 400 IEC Conventional frequency min Hz 400 IEC Conventional frequency 230V kvar 7 400V kvar 7 400V kvar 7 400V kvar 14 69V kvar 14 69V kvar 15 5 440480V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 7 400V kvar 16 Making capacity (RMS value) A 120 8 60V A 96 500V A 96 500V A 96 690V A 94 7 7 7 7 7 7 <td< th=""><th>Product designation</th><th></th><th></th><th></th><th>Power contactor</th></td<>	Product designation				Power contactor
Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN V 690 Operational frequency min Hz 25 max Hz 400 125 IEC Conventional free air thermal current lth A 28 Rated operational power AC-6b (T≤40°C) 230V kvar 7 400V kvar 14 680V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 150 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 8 Breaking capacity at voltage 440V A 96 690V A 96 500V A 96 500V A 96 500V A 96 690V A 94 94 94 94 94 94 94 94 94 94 94 96 500V A 96 500V A 94					BFK12
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp KV 6 Operational frequency min Hz 25 IEC Conventional frequency min Hz 25 IEC Conventional frequency 230V kvar 7 400 230V kvar 7 400V kvar 14 690V kvar 400480V kvar 14 690V kvar 14 690V kvar 14 690V kvar 14 690V kvar 16 5 5 440480V kvar 14 690V kvar 16 5 7 440V 4 96 500V A 96 500V A 96 500V A 94 Power dissipation per pole (average value) m0 2.5 5 5 5 Power dissipation per pole (average value) min Nm 1.5 5		S			
Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 max HZ 400 12 IEC Conventional free air thermal current lth A 28 Rated operational power AC-6b (T≤40°C) 230V kvar 7 400V kvar 12.5 440480V kvar 14 690V kvar 16 5 5 440480V kvar 14 690V kvar 16 5 5 7 400V kvar 14 690V kvar 16 5 7 400V 8 7 400V 12.5 6 5 7 40V 8 9 8 500V 8 96 500V A 96 500V A 96 60VV A 90 <td></td> <td></td> <td></td> <td></td> <td></td>					
Operational frequency min Hz 25 max Hz 400 1EC Conventional free air thermal current lth A 28 Rated operational power AC-6b (T≤40°C) 230V kvar 7 400V kvar 12.5 440480V kvar 14 690V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 150 Protection fuse gG (IEC) A 120 Breaking capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 690V A 92 500V A 92 Power dissipation per pole (average value) mC 2.5 5 Power dissipation per pole (average value) min Nm 1.5 5 Tightening torque for coil terminals min Nm 1.5 5 Tightening torque for coil terminal min Nm 1.6 3.74 Max number of wires simultaneously connectable Nr. 2 2					
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$\begin{tabular}{ c c c c c c } \hline max & Hz & 400 \\ \hline c c & Conventional power AC-6b (T<40°C) & 28 \\ \hline Rated operational power AC-6b (T<40°C) & 230V & kvar & 7 \\ & 400V & kvar & 12.5 \\ \hline 440480V & kvar & 14 \\ \hline 690V & kvar & 16 \\ \hline Short-time allowable current for 10s (IEC/EN60947-1) & A & 150 \\ \hline Protection fuse & & & & & & & & & & & & & & & & & & &$	Operational frequency	ý l			
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			min		
Rated operational power AC-6b (Ts40°C) 230V kvar 7 400V kvar 12.5 440480V kvar 14 690V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 500V A 96 500V A 96 90wer dissipation per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Tightening torque for terminals min Nm 1.5 Tightening torque for coil terminal min Nm 1.5 max Nm 1.8 min Ibin 1.5 max Nm 1.8 min 10 1.5 Tightening torque for coil terminal min Nm 1.8 max Nm 1.8 min 10 0.8 max 10 74 <			max		
230V kvar 7 400V kvar 12.5 440460V kvar 14 690V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 500V A 96 500V A 96 690V A 94 8 96 500V A 96 Fower dissipation per pole (average value) mQ 2.5 9 9 15 Power dissipation per pole (average value) mN 1.5 15 15 Tightening torque for terminals min Nm 1.5 16 Tightening torque for coil terminal min 1.5 1.5 1.5 Tightening torque for coil terminal min 1.5 1.5 1.5 Max number of wires simultaneously connectable Nr. 2<				А	28
$\begin{array}{c cccccc} & 400 & \text{kvar} & 12.5 \\ 440480 & \text{kvar} & 14 \\ 690 & \text{kvar} & 16 \\ \hline \\ $	Rated operational pov	wer AC-6b (T≤40°C)			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				kvar	
690V kvar 16 Short-time allowable current for 10s (IEC/EN60947-1) A 150 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 690V A 96 500V A 96 690V A 94 8 94 8 Resistance per pole (average value) mΩ 2.5 9 9 2.5 9 9 16 W 2 16 1.1 1.5 1.3 1.6 1.1				kvar	
Short-time allowable current for 10s (IEC/EN60947-1) A 150 Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 500V A 96 500V A 94 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) mΩ 2.5 Power dissipation per pole (average value) min Nm 1.5 Tightening torque for terminals min Nm 1.5 Tightening torque for coil terminal min Nm 1.5 Tightening torque for coil terminal min Nm 1.6 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 10 Textbe w/o lug conductor section min mm² 1 Flexible c/w lug conductor section min mm² 1 max min² 1				kvar	
Protection fuse gG (IEC) A 25 Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 500V A 96 690V A 94 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Ith W 2 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min 1bin 1.1 max Ibin 1.5 max Nm 1.8 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Tightening torque for coil terminal min Nm 0.8 max 10 0.8 Max number of wires simultaneously connectable Nr. 2 Conductor section min min 1min 1min<			690V	kvar	16
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Making capacity (RMS value) A 120 Breaking capacity at voltage 440V A 96 500V A 96 690V A 94 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) mIn W 2 Tightening torque for terminals min Nm 1.5 Tightening torque for coil terminal min 1.0 1.5 Tightening torque for coil terminal min 1.1 max Nm 1.5 Tightening torque for coil terminal min 1.5 1.5 1.5 1.5 Tightening torque for coil terminal min 1.6 1.5 1.5 Tightening torque for coil terminal min 1.5 1.5 1.5 Tightening torque for coil terminal min 1.6 1.5 Max number of wires simultaneously connectable Nr. 2 2 2 Conductor section max 10 10 10 Flexible w/o lug conductor section <td>Protection fuse</td> <td></td> <td></td> <td></td> <td></td>	Protection fuse				
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Making capacity (RMS	S value)		А	120
500V A 96 690V A 94 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Ith W 2 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5 Tightening torque for coil terminal min Nm 1.8 Tightening torque for coil terminal min Nm 1.5 Tightening torque for coil terminal 1.1 Max number of wires simultaneously connectable Nr. 2 2 Conductor section MWG/Kcmil max 10 Flexible w/o lug conductor section min mm² 1 Max mm² 10 1	Breaking capacity at v	voltage			
690V A 94 Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Ith W 2 Tightening torque for terminals min Nm 1.5 max Nrn 1.8 min 1.6 Tightening torque for coil terminal min Nm 1.5 Tightening torque for coil terminal min Nm 1.5 Tightening torque for coil terminal min Nm 0.8 Max number of wires simultaneously connectable Nr. 2 Conductor section MWG/Kcmil max 10 Flexible w/o lug conductor section min mmx 10 Flexible c/w lug conductor section min mmx 10			440V	А	96
Resistance per pole (average value) mΩ 2.5 Power dissipation per pole (average value) Ith W 2 Tightening torque for terminals min Nm 1.5 min Nm 1.5 max Nm 1.8 min lbin 1.1 max Nm 1.5 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Max number of wires simultaneously connectable Nr. 2 2 2 2 Conductor section AWG/Kcmil max 10 10 10 Flexible w/o lug conductor section min min mm² 1 max mm² 1 max 10			500V	А	96
Power dissipation per pole (average value) Ith W 2 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5 Tightening torque for coil terminal min Nm 0.8 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 AWG/Kcmil max 10 Texible w/o lug conductor section min mm² 1 Flexible c/w lug conductor section min mm² 1 max mm² 1			690V	А	94
IthW2Tightening torque for terminalsminNm1.5maxNm1.8minIbin1.1maxIbin1.51.51.5Tightening torque for coil terminalminNm0.8maxNm1minIbin0.8maxIbin0.7410.74Max number of wires simultaneously connectableNr.22Conductor sectionNr.21Flexible w/o lug conductor sectionmax10Flexible c/w lug conductor sectionminmm²1maxmm²61	Resistance per pole (average value)		mΩ	2.5
Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5 1.5 Tightening torque for coil terminal min Nm 0.8 max Nm 1 1 max Nm 1 1 max Nm 0.8 1 min Ibin 0.8 1 min Ibin 0.74 1 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 Max number of wires simultaneously conductor section max 10 Flexible w/o lug conductor section min mm² 1 flexible c/w lug conductor section min mm² 1 max mm² 6 6 1	Power dissipation per	pole (average value)			
$\begin{array}{c cccc} & & & & & & & & & & & & & & & & & $			Ith	W	2
max Nm 1.8 min Ibin 1.1 max Ibin 1.5 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min 1bin 0.74 Max number of wires simultaneously connectable Nr. 2 0 Conductor section max 10 10 Flexible w/o lug conductor section min mm² 1 max mm² 6 1	Tightening torque for	terminals			
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 lbin 0.74 Max number of wires simultaneously connectable Nr. 2 max lbin 0.74 Conductor section Nr. 2 max 10 max 10 Flexible w/o lug conductor section min mm² 1 max mm² 1 Flexible c/w lug conductor section min mm² 1 max mm² 6			min	Nm	1.5
max Ibin 1.5 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 0.8 max Ibin 0.8 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 Max AWG/Kcmil max 10 Flexible w/o lug conductor section min mm² 1 max mm² 1 6 Flexible c/w lug conductor section min mm² 6			max	Nm	1.8
Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 0.8 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 Flexible w/o lug conductor section max 10 Flexible w/o lug conductor section min mm² Flexible c/w lug conductor section Flexible c/w lug conductor section min			min	lbin	1.1
min Nm 0.8 max Nm 1 min Ibin 0.8 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 AWG/Kcmil max 10 Flexible w/o lug conductor section min mm² min mm² 1 Flexible c/w lug conductor section Flexible c/w lug conductor section			max	lbin	1.5
max Nm 1 min lbin 0.8 max lbin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 10 Flexible w/o lug conductor section max 10 Flexible w/o lug conductor section max mm² Flexible c/w lug conductor section Flexible c/w lug conductor section mm²	Tightening torque for	coil terminal			
min Ibin 0.8 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil result AWG/Kcmil 10 Flexible w/o lug conductor section min mm² Flexible c/w lug conductor section flexible c/w lug conductor section			min	Nm	0.8
max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil III AWG/Kcmil max 10 Flexible w/o lug conductor section III Min mm² 1 Flexible c/w lug conductor section max mm²			max	Nm	1
Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil 10 Flexible w/o lug conductor section min mm² 10 Flexible c/w lug conductor section Flexible c/w lug conductor section 10			min	lbin	0.8
Conductor section AWG/Kcmil max 10 Flexible w/o lug conductor section min mm² 1 max mm² 6 6 Flexible c/w lug conductor section mm² 6			max	lbin	0.74
AWG/Kcmil max 10 Flexible w/o lug conductor section min mm ² 1 max mm ² 6 Flexible c/w lug conductor section	Max number of wires	simultaneously connectable		Nr.	2
max 10 Flexible w/o lug conductor section min mm² 1 max mm² 6 Flexible c/w lug conductor section	Conductor section				
Flexible w/o lug conductor section min mm ² 1 max mm ² 6 Flexible c/w lug conductor section		AWG/Kcmil			
min mm ² 1 max mm ² 6 Flexible c/w lug conductor section			max		10
min mm ² 1 max mm ² 6 Flexible c/w lug conductor section		Flexible w/o lug conductor section			
max mm ² 6 Flexible c/w lug conductor section		-	min	mm²	1
Flexible c/w lug conductor section			max		6
•		Flexible c/w lug conductor section			
		-	min	mm²	1

BFK1210A22060 The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



BFK1210A22060 CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 12.5KVAR,

COIL 220VAC 60HZ

	max	mm²	4
Flexible with insulated spade lug conductor sect	ion		
	min	mm²	1
	max	mm²	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	406
Conductor section		9	
AWG/kcmil conductor section			
	max		10
Auxiliary contact characteristics			
Thermal current Ith		А	10
EC/EN 60947-5-1 designation			A600 - P600
Operating current AC15			
	230V	А	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12	0001		
	110V	А	5.7
Operating current DC13			
	24V	А	5.7
	48V	А	2.9
	60V	A	2.3
	110V	A	1.25
	125V	A	1.1
	220V	A	0.6
On another a	600V	A	0.1
Operations			0000000
Mechanical life		cycles	2000000
Electrical life		cycles	400000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	roted lood	ovelee	400000
	rated load mechanical load	cycles	400000 20000000
Mirror contate according to IEC/EN 600474.4.4		cycles	20000000 YES
Mirror contats according to IEC/EN 609474-4-1			
EMC compatibility AC coil operating			yes
Rated AC voltage at 60Hz		V	220
AC operating voltage		v	220
of 60Hz coil powered at 60Hz			
pick-up			
μισκ-αρ	min	%Us	80
	max	%Us %Us	110
drop-out	Παλ	/005	110
alop-out	min	%Us	20
	max	%Us %Us	20 55
AC average coil consumption at 20°C	Παλ	/003	00

AC average coil consumption at 20°C



BFK1210A22060 CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 12.5KVAR,

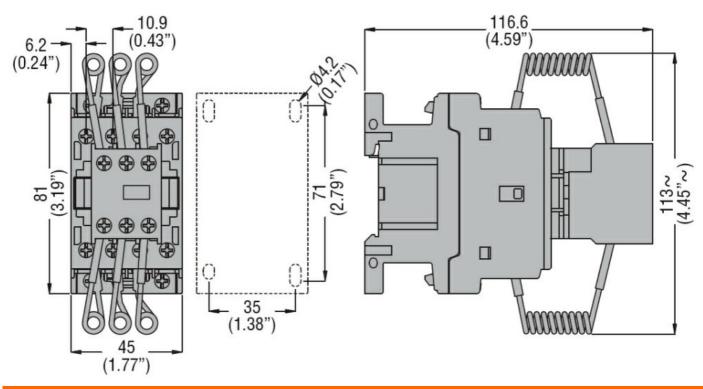
COIL 220VAC 60HZ

	of 60Hz coil powered at	t 60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding ≤	20°C 50Hz			W	2.5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ntrol				
	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	А	28
	Auxiliary contacts				
			AC voltage	V	600
			AC current	А	10
			DC voltage	V	250
			DC current	Α	1
_	ary 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
Resistance & Protectio	n				
Pollution degree					3
Dimensions					

BFK1210A22060



CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, Electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 12.5KVAR, AND AUTOMATION COIL 220VAC 60HZ



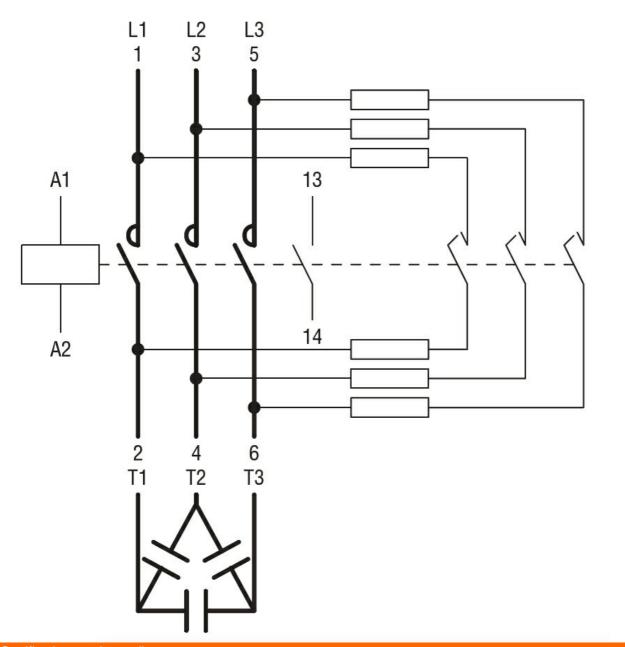
Wiring diagrams

BFK1210A22060



CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, electric INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 12.5KVAR, COIL 220VAC 60HZ

ENERGY AND AUTOMATION



Certifications and compliance

Com	oliance
COULT	manoo

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		
		EC001079 -
ETIM 8.0		Capacitor

contactor