ENERGY AND AUTOMATION

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 30KVAR, COIL 120VAC 60HZ



BFK3800A12060

Product designation Power contactor BFK38 Product type designation BFK38 Number of poles Nr. 3 Rated insultance values V 690 Rated insultance values WV 6 Operational frequency min Hz 25 max Hz 400 12 IEC Conventional frequency min Hz 25 Rated operational power AC-6b (Ts40°C) 200V kvar 17 400V kvar 30 440480V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 Soov A 192 Resistance per pole (average value) mM 2 Power dissipation per pole (average value) min Nm 2.5 max Nm 3 min Ibin 1.8 max Nm 3 min					0.0-
Product type designation BFK38 Contact that control characteristics Nr. 3 Number of poles Nr. 3 Rated insulation voltage Ui IEC/EN V 600 Operational frequency min Hz 25 max Hz 400 1EC 6 IEC Conventional free air thermal current th A 56 56 Rated operational power AC-6b (TS40°C) 230V kvar 17 4000 kvar 33 690V kvar 33 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse 9G (IEC) A 630 Making capacity (RMS value) A 380 380 380 380 Breaking capacity at voltage 440V A 304 500V A 192 Power dissipation per pole (average value) mO 2 2 2 2 Power dissipation per pole (average value) mo A 380 3 3 3 3 3	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 1 IEC Conventional frequency min Hz 400 IEC Conventional free air thermal current lth A 56 Rated operational power AC-6b (T≤40°C) 230V kvar 17 400V kvar 30 440480V kvar 30 690V kvar 33 690V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse 36 GG (IEC) A 63 380 380 380 380 Breaking capacity (RMS value) Ma 304 500V A 304 60V Keral 304 500V A 192 36 Reaking capacity at voltage mnΩ 2 2 2 2 2 2 2 2 2	-	tion			BFK38
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Operational frequency min Hz 25 max Hz 400 1EC Conventional free air thermal current lth A 56 Rated operational power AC-6b (T≤40°C) 230V kvar 17 400V kvar 30 440480V kvar 33 690V kvar 36 56 56 56 Short-time allowable current for 10s (IEC/EN60947-1) A 320 90V kvar 33 690V kvar 3304 500V Kvar 340 Breaking capacity (RMS value) A 320 800 80 80 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 80 A 192 100 12 Power dissipation per pole (average value) mm Nm 2.5 max Nm 1 Tightening torque for coil terminal min Nm 2.5 18 17 16 16	Rated insulation voltage	ge Ui IEC/EN		V	690
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$\begin{array}{c c c c c c } \hline max & Hz & 400 \\ \hline \hline IEC Conventional free air thermal current lth & A & 56 \\ \hline \hline Rated operational power AC-6b (T<40°C) & & & & & & & & & & & & & & & & & & &$	Operational frequency	/			
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			min	Hz	25
Rated operational power AC-6b (T≤40°C) 230V kvar 17 400V kvar 30 440480V kvar 33 690V kvar 33 690V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 Breaking capacity at voltage 440V A 304 500V A 240 Power dissipation per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 Power dissipation per pole (average value) mín Nm 2.5 max Nm 3 Tightening torque for coil terminals min Nm 2.5 max Nm 3 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min 1.6 0.59 max Nm 1 1 1 1 <td></td> <td></td> <td>max</td> <td>Hz</td> <td>400</td>			max	Hz	400
230V kvar 17 400V kvar 30 440480V kvar 33 680V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 500V A 240 690V A 240 690V A 240 690V A 192 Resistance per pole (average value) mC 2 Power dissipation per pole (average value) mC 2 Power dissipation per pole (average value) Ith W 6 1 Tightening torque for terminals min Nm 3. 1 min bin 0.59 max Nm 1 max Nm 1 min 1bin 0.59 1bin 0.59 max Nm 1 150	IEC Conventional free	e air thermal current Ith		А	56
400V kvar 30 440480V kvar 33 690V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 2 2 Power dissipation per pole (average value) mín Nm 2.5 max Tightening torque for terminals min Nm 3.6 3.6 Tightening torque for coll terminal min Nm 1.8 3.6 max Nm 1.8 3.6 3.6 3.6 Max number of wires simultaneously connectable Nr. 2 2 2 2 Conductor section max 6 6 6	Rated operational pov	wer AC-6b (T≤40°C)			
440480V kvar 33 690V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 304 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 Power dissipation per pole (average value) min Nm 2.5 max Tightening torque for terminals min Nm 2.5 max Tightening torque for coil terminal min Nm 0.59 max Nm Max number of wires simultaneously connectable Nr. 2 Conductor section A 6 Hexible w/o lug conductor section min mm² 2.5 max min Nm 0.59 max 16 16			230V	kvar	17
690V kvar 36 Short-time allowable current for 10s (IEC/EN60947-1) A 320 Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 Tightening torque for terminals min Nm 2.5 max Nm 3 Tightening torque for coil terminal min Nm 0.8 max Nm 1.8 max Nm 1.8 max Nm 2.5 max Nm 1.8 max 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8			400V	kvar	30
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			440480V	kvar	33
Protection fuse gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 Tightening torque for terminals min Nm 2.5 max Nm 3 Tightening torque for coil terminals min Nm 2.2 16 1 Max number of wires simultaneously connectable Nr. 2 2 2 Max number of wires simultaneously connectable Nr. 2 2 Flexible c/w lug conductor section min min 16			690V	kvar	36
gG (IEC) A 63 Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) mΩ 2 Power dissipation per pole (average value) mmΩ 2 Power dissipation per pole (average value) 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min Ibin 1.8 2.2 Tightening torque for coil terminal min Nm 3.6 max Ibin 2.2 2 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min 1.8 max Ibin 0.59 max Nm 1 Max number of wires simultaneously connectable Nr 2 2 Conductor section 6 Flexible w/o lug conductor secti	Short-time allowable of	current for 10s (IEC/EN60947-1)		А	320
Making capacity (RMS value) A 380 Breaking capacity at voltage 440V A 304 Breaking capacity at voltage 440V A 304 Breaking capacity at voltage 690V A 240 Breaking capacity at voltage mΩ 2 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) Ith W 6 Tightening torque for terminals min Nm 3. min lbin 1.8 max Nm 1. 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 6 Flexible w/o lug conductor section min mm 6 Flexible c/w lug conductor section min mm mm² 1.6	Protection fuse				
$\begin{tabular}{ c c c c } \hline Breaking capacity at voltage & 440V & A & 304 \\ \hline 500V & A & 240 \\ \hline 690V & A & 192 \\ \hline \hline Resistance per pole (average value) & m\Omega & 2 \\ \hline \hline Power dissipation per pole (average value) & Ith & W & 6 \\ \hline \hline Tightening torque for terminals & min & Nm & 2.5 \\ \hline max & Nm & 3 \\ \hline min & lbin & 1.8 \\ \hline max & lbin & 2.2 \\ \hline \hline Tightening torque for coil terminal & min & lbin & 1.8 \\ \hline max & lbin & 2.2 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline \hline Resistance per pole (average value) & Ith & V & 6 \\ \hline \hline \hline \hline \hline \hline \hline Resistance per pole (average value) & Ith & I$			gG (IEC)	А	63
440V A 304 500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) th W 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min lbin 1.8 min lbin 2.2 1.8 2.2 Tightening torque for coil terminals min Nm 3 1 min lbin 1.8 max lbin 2.2 Tightening torque for coil terminal min Nm 1 1 Max number of wires simultaneously connectable Nr. 2 2 Conductor section MWG/Kcmil max 6 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 16	Making capacity (RMS	S value)		А	380
500V A 240 690V A 192 Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) th W 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min 1bin 2.5 Tightening torque for coil terminal min Nm 2.5 Tightening torque for coil terminal min Nm 2.5 Tightening torque for coil terminal min 1bin 2.2 Tightening torque for coil terminal min Nm 3 Max number of wires simultaneously connectable Nr. 2 Conductor section MWG/Kcmil max 6 Flexible w/o lug conductor section min min mm² 2.5 max mm² 16 16 16	Breaking capacity at v	voltage			
$\begin{tabular}{ c c c c c } \hline & & & & & & & & & & & & & & & & & & $			440V	А	304
Resistance per pole (average value) mΩ 2 Power dissipation per pole (average value) Ith W 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min Ibin 1.8 min lbin 1.8 max Ibin 2.2 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 6 6 3 <td></td> <td></td> <td>500V</td> <td>А</td> <td>240</td>			500V	А	240
Power dissipation per pole (average value) Ith W 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min Ibin 1.8 max Ibin 2.2 Tightening torque for coil terminal min Nm 0.8 max Nm 1 10 min Ibin 0.59 10 max Ibin 0.74 10 Max number of wires simultaneously connectable Nr. 2 Conductor section Max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16			690V	А	192
Ith W 6 Tightening torque for terminals min Nm 2.5 max Nm 3 min Ibin 1.8 max Ibin 2.2 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min 1bin 0.59 max Ibin 0.59 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 Flexible c/w lug conductor section min mm² 1.5	Resistance per pole (a	average value)		mΩ	2
Tightening torque for terminals min Nm 2.5 max Nm 3 min Ibin 1.8 max Ibin 2.2 10 2.2 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 0.59 max Ibin 0.59 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 2 Conductor section AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 16	Power dissipation per	pole (average value)			
min Nm 2.5 max Nm 3 min Ibin 1.8 max Ibin 2.2 Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 0.59 max Ibin 0.74 0.74 0.74 Max number of wires simultaneously connectable Nr. 2 0.74 Conductor section Nr. 2 0.74 Max number of wires simultaneously connectable Nr. 2 0.74 Conductor section max 6 6 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 16			Ith	W	6
maxNm3minlbin1.8maxlbin2.2Tightening torque for coil terminalminNm0.8maxNm1maxNm1maxlbin0.59maxlbin0.74Max number of wires simultaneously connectableNr.2Conductor sectionNr.2AWG/Kcmilmax6Flexible w/o lug conductor sectionminmm²flexible w/o lug conductor sectionminmm²flexible c/w lug conductor sectionminmm²flexible c/w lug conductor sectionmaxmm²flexible c/w lug conductor sectionmaxmm²	Tightening torque for t	terminals			
min maxIbin lbin1.8 2.2Tightening torque for coil terminalminNm0.8 			min	Nm	2.5
maxIbin2.2Tightening torque for coil terminalminNm0.8maxNm1min10minIbin0.59maxIbin0.74Max number of wires simultaneously connectableNr.22Conductor sectionMWG/Kcmilmax6Flexible w/o lug conductor sectionminmm²2.5Flexible c/w lug conductor sectionminmm²16			max	Nm	3
Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 0.59 max Ibin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² Flexible c/w lug conductor section min mm² Flexible c/w lug conductor section min mm²			min	lbin	1.8
min Nm 0.8 max Nm 1 min lbin 0.59 max lbin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil AWG/Kcmil Flexible w/o lug conductor section Flexible c/w lug conductor section			max	lbin	2.2
max Nm 1 min lbin 0.59 max lbin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section Nr. 2 AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² Max min mm² 16 Flexible c/w lug conductor section Flexible c/w lug conductor section 16	Tightening torque for	coil terminal			
min lbin 0.59 max lbin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil 6 Flexible w/o lug conductor section max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 Flexible c/w lug conductor section Flexible c/w lug conductor section 16			min	Nm	0.8
max lbin 0.74 Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil			max	Nm	1
Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 Flexible c/w lug conductor section Flexible c/w lug conductor section			min	lbin	0.59
Conductor section AWG/Kcmil max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 Flexible c/w lug conductor section Flexible c/w lug conductor section			max	lbin	0.74
AWG/Kcmil max 6 Flexible w/o lug conductor section min mm ² 2.5 max mm ² 16 Flexible c/w lug conductor section	Max number of wires	simultaneously connectable		Nr.	2
max 6 Flexible w/o lug conductor section min mm² 2.5 max mm² 16 Flexible c/w lug conductor section	Conductor section				
Flexible w/o lug conductor section min mm ² 2.5 max mm ² 16 Flexible c/w lug conductor section		AWG/Kcmil			
min mm ² 2.5 max mm ² 16 Flexible c/w lug conductor section			max		6
max mm ² 16 Flexible c/w lug conductor section		Flexible w/o lug conductor section			
Flexible c/w lug conductor section			min	mm²	2.5
			max	mm²	16
		Flexible c/w lug conductor section			
			min	mm²	1

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BFK3800A12060



CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 30KVAR, COIL 120VAC 60HZ

		2	4.0
	Max	mm²	10
	Flexible with insulated spade lug conductor section		4
	min max	mm² mm²	1 10
		111111	IP20 when
· .	ion according to IEC/EN 60529		properly wired
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	400
Conductor section			
	AWG/kcmil conductor section		
	max		6
Operations			
Mechanical life		cycles	2000000
Electrical life		cycles	1400000
Safety related data			
Performance level B10	d according to EN/ISO 13489-1		
	rated load	cycles	400000
	mechanical load	cycles	2000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 60)Hz	V	120
AC operating voltage			
	of 60Hz coil powered at 60Hz		
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out	0/11-	0.0
	min	%Us	20
	max	%Us	55
AC average coil consu	•		
	of 60Hz coil powered at 60Hz	VA	75
	in-rush holding	VA VA	75 9
Dissipation at holding ≤		W	<u>9</u> 2.5
Max cycles frequency		vv	2.0
Max cycles frequency Mechanical operation		cycles/h	3600
Operating times		0,000/11	
Average time for Us co	ntrol		
	in AC		
	Closing NO		
	min	ms	8
	max	ms	24
	Opening NO	-	
	min	ms	5
	max	ms	15
	Closing NC		
	min	ms	9
	max	ms	20
UL technical data	max	ms	20

UL technical data

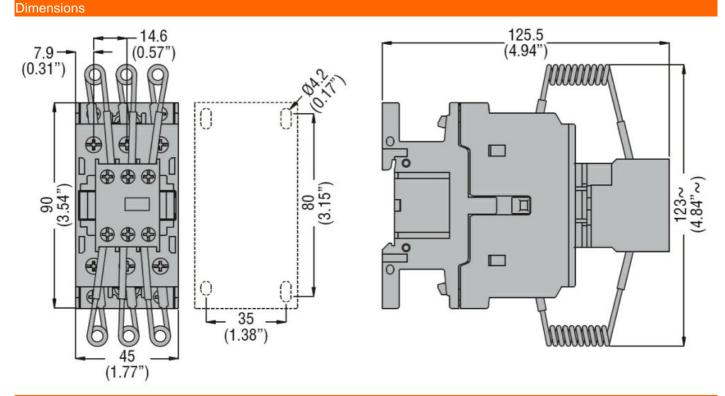
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ENERGY AND AUTOMATION

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 30KVAR, COIL 120VAC 60HZ

General USE

	Contactor			
		AC current	А	56
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ion			
Pollution degree				3



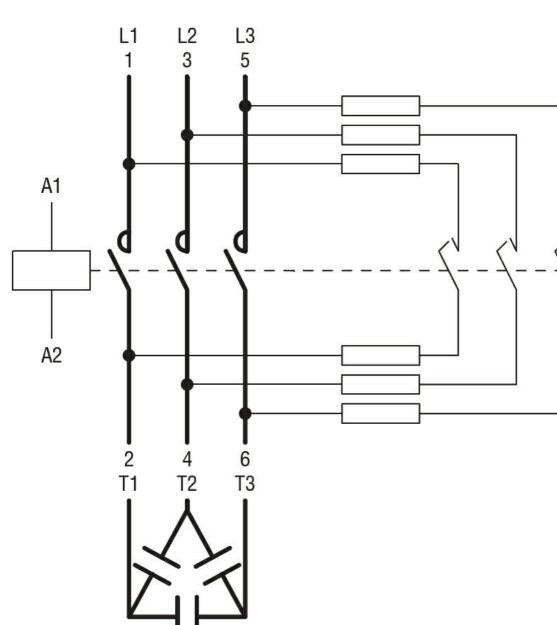
Wiring diagrams

BFK3800A12060

BFK3800A12060



CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, INCLUDING LIMITING RESISTORS, MAXIMUM IEC OPERATIONAL POWER 400V = 30KVAR, COIL 120VAC 60HZ



Certifications and compliance

oliance

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