

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



Product type designation Contact characteristics Number of poles Rated insulation voltage Ui Rated impulse withstand voltage Uimp	nr.	BFK12
Number of poles Rated insulation voltage Ui	nr.	
Rated insulation voltage Ui	111.	3
•	V	690
rated impaide witholand voltage only	kV	6
Operating frequency	IX V	
Operational frequency min	Hz	25
Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	28
Operating current		
Operational current AC3 (≤440V ≤55°C)	Α	12
Operational current AC4 (400V)	Α	7.9
Short-time allowable current for 10s (IEC/EN60947-1)	Α	150
Protection fuse		
gG (IEC)	Α	32
aM (IEC)	Α	12
Making capacity (RMS value)	Α	120
Breaking capacity at voltage		
Breaking capacity 440V	Α	96
Breaking capacity 500V	Α	96
Breaking capacity 690V	Α	94
Resistance per pole (average value)	mΩ	2.5
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	2
AC3	W	0.4
Tightening torque for terminals		
min	Nm	1.5
max	Nm	1.8
min	lbft	1.1
max max	lbft	1.5
Tightening torque for coil terminal	N I	0.0
min	Nm	0.8
max	Nm Ibft	1
min	lbft lbft	0.59
max number of wires simultaneously connectable	nr.	2
Conductor section	111.	
AWG		
min		16
max		10
Flexible w/o lug conductor section		
min	mm²	1
max	mm²	6
Flexible c/w lug conductor section		-





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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 85 max %Us 110 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 40 max %Us 55					
Flexible with insulated spade lug conductor section min max mm² 1 max mm² 4 1 max mm² 1 max mm² 1 max mm² 1 max max mm² 1 max mm² 1 max max			min	mm²	1
Max			max	mm²	4
Max		Flexible with insulated spade lug conductor section			
Power terminal protection according to IEC/EN 60529 IP20 Autoliary contact characteristics INA INA					
Auxiliary contact characteristics			max	mm²	
Type of contact Invalidation Thermal current lith A 10 EC/EN 60947-5-1 designation A600 Temperature					IP20
Thermal current Ith		cteristics			4.510
EC/EN 60947-5-1 designation					
Ambient conditions Temperature Coperating		to a set of the set of		А	
Temperature Operating temperature		signation			A600
Parameter Para					
Min	remperature	Operating temperature			
Storage temperature Storage temperature		Operating temperature	min	°C	-50
Storage temperature					
Max altitude		Storage temperature	IIIax		70
Max altitude max °C 80 Operating position m 3,000 Operating position normal allowable Vertical plan ±30° Mounting Screw / DIN rail 35mm Weight g 0,367 Operations Oycles 20,000,000 Beding the chanical life Cycles 20,000,000 Electrical life Cycles 20,000,000 Safety related data Wirror contats according to IEC/EN 609474-4-1 Yes EMC compatibility yes AC coli operating Test AC coli operating Immation of the coling of the coling operating to IEC/EN 609474-4-1 Test AC operating voltage Immation of the coling operating to IEC/EN 609474-4-1 Immation operating to IEC/EN 609474-4-1 Immation operating to IEC/EN 609474-4-1 IEC/EN 609474-4-1 IEC/EN 609474-4-1 IEC/EN 609474-4-1 IEC/EN 609474-4-1 IEC/EN 60947		Otorago temperature	min	°C	-60
Max altitude m 3,000 Operating position normal allowable Vertical plan 430° Mounting Screw / DIN rail 35mm Weight g 0.367 Operations Weight Cycles 20,000,000 Electrical life Cycles 200,000,000 Safety related data Wirror contats according to IEC/EN 609474-4-1 Yes EMC compatibility Yes AC coil operating Rated AC voltage at 50/60Hz, 60Hz Rated AC voltage at 50/60Hz, 60Hz min V 12 Max V 10 2 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %US 80 Max %US 20<					
Normal allowable Normal allo	Max altitude		max		
Nounting Nounting				111	5,000
Mounting Screw / DIN rail 35mm	Operating position		normal		Vertical plan
Mounting Screw / DIN rail 35mm					
Mounting 35mm Weight g 0.367 Operations Mechanical life Cycles 20,000,000 Safety related data Mirror contats according to IEC/EN 609474-4-1 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 min %Us 80 pick-up min %Us 80 Mirror ochtage min %Us 85 of 50/60Hz coil powered at 60Hz min %Us 85 pick-up min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz min <td></td> <td></td> <td><u> </u></td> <td></td> <td></td>			<u> </u>		
Operations Mechanical life Cycles 20,000,000 Electrical life Cycles 20,000,000 Safety related data Mirror contats according to IEC/EN 609474-4-1 Yes 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 min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 of 60Hz coil powered at 60Hz pick-up pick-up min %Us 55 </td <td>Mounting</td> <td></td> <td></td> <td></td> <td></td>	Mounting				
Operations Mechanical life Cycles 20,000,000 Electrical life Cycles 20,000,000 Safety related data Mirror contats according to IEC/EN 609474-4-1 Yes 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 min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 of 60Hz coil powered at 60Hz pick-up pick-up min %Us 55 </td <td>Weight</td> <td></td> <td></td> <td>g</td> <td>0.367</td>	Weight			g	0.367
Mechanical life Cycles 20,000,000 Electrical life Cycles 2000000 Safety related data Mirror contats according to IEC/EN 609474-4-1 Yes 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 min V 12 max V 600				Ţ,	
Safety related data	Mechanical life			Cycles	20,000,000
Mirror contats according to IEC/EN 609474-4-1 Yes 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 min %Us 80 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up pick-up	Electrical life			Cycles	2000000
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz Rated AC voltage at 50/60Hz, 60Hz min V 12 max V 600	Safety related data				
Rated AC voltage at 50/60Hz, 60Hz min	Mirror contats according	ng to IEC/EN 609474-4-1			Yes
Rated AC voltage at 50/60Hz, 60Hz min	EMC compatibility				Yes
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 85 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80	AC coil operating				
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 85 max %Us 110 drop-out min %Us 85 max %Us 110 drop-out min %Us 85 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80	Rated AC voltage at 50	0/60Hz, 60Hz			
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 85 max %Us 110 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 55			min		
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 85 max %Us 110 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 40 max %Us 55	-		max	V	600
Pick-up	AC operating voltage				
min %Us 80 max %Us 110					
Max %Us 110		pick-up			
drop-out min %Us 20 max %Us 55					
min max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max %Us 110 max %Us 110 max %Us 55 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80			max	%Us	110
max %Us 55 of 50/60Hz coil powered at 60Hz pick-up min %Us 85 max min %Us 110 drop-out min %Us 40 max of 60Hz coil powered at 60Hz pick-up min %Us 80		drop-out		0/11-	20
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					
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		of EO/GOLLa poil powered at COLLa	max	%US	55
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		ріск-ир	min	0/110	95
drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80					
min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80		dron-out	IIIaX	/005	110
of 60Hz coil powered at 60Hz pick-up max %Us 55 max %Us 55 min %Us 80		αιορ-οαι	min	%l le	40
of 60Hz coil powered at 60Hz pick-up min %Us 80					
pick-up min %Us 80		of 60Hz coil powered at 60Hz	παλ	,003	
min %Us 80					
		Prote de	min	%Us	80
1110A 7000 110			max	%Us	110



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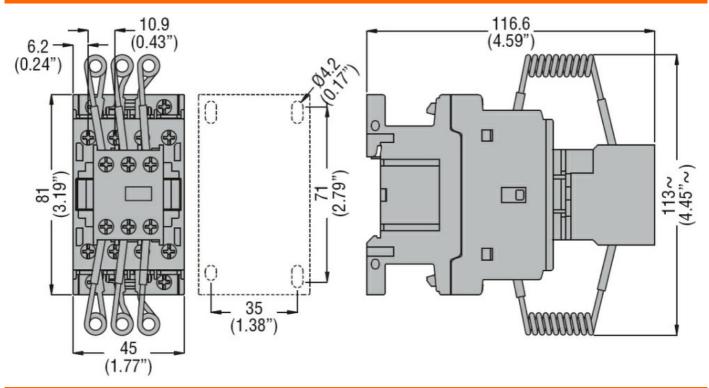
		drop-out			
		·	min	%Us	20
			max	%Us	55
AC operating voltage					
	of 50/60Hz coil p	owered at 50Hz			
			in-rush	VA	75
			holding	VA	9
	of 50/60Hz coil p	owered at 60Hz			
			in-rush	VA	70
			holding	VA	6.5
	of 60Hz coil pow	ered at 60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding	≤20°C 50Hz			W	2.5
Max cycles frequency					
Mechanical operations	3			Cycles/h	3,600
Operating times					
Average time for Us c					
	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 A	C motor			
			at 480V	Α	11
			at 600V	Α	11
Yielded mechanical pe	erformance			·	
	for single-phase	AC motor			
			at 110/120V	hp	1
			at 230V	hp	2
	for three-phase A	AC motor			
			at 200/208V	hp	5



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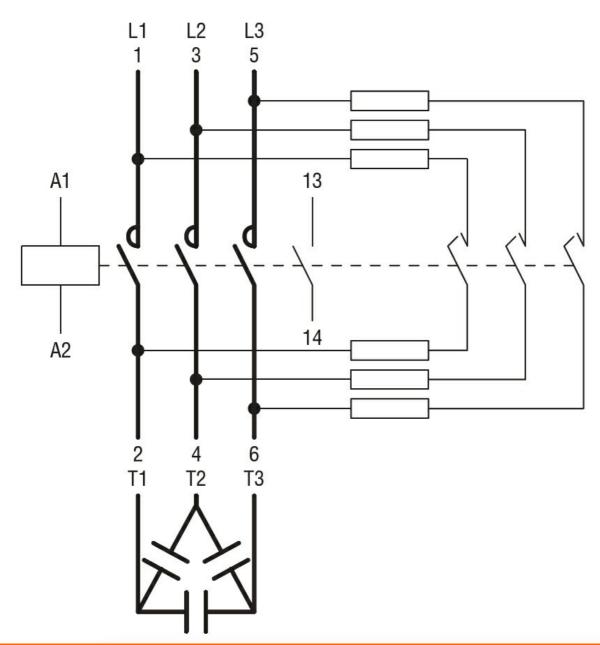
		at 220/230V	hp	5
		at 460/480V	hp	7.5
		at 575/600V	hp	10
Contact rating of a	uxiliary contacts according to UL			SI - A600
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1

Dimensions



Wiring diagrams

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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