CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, BFK TYPE electric (INCLUDING LIMITING RESISTORS), MAXIMUM IEC OPERATIONAL POWER 400V = 7.5KVAR, **ENERGY AND AUTOMATION** 400VAC 50/60HZ



Product designation		Power contactor
Product type designation		BFK09
Contact characteristics		
Number of poles	nr.	3
Rated insulation voltage Ui	V	690
Rated impulse withstand voltage Uimp	kV	6
Operating frequency		
Operational frequency min	Hz	25
Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	25
Operating current		
Operational current AC3 (≤440V ≤55°C)	Α	9
Operational current AC4 (400V)	A	4.9
Short-time allowable current for 10s (IEC/EN60947-1)	Α	150
Protection fuse		
gG (IEC)	Α	25
aM (IEC)	Α	10
Making capacity (RMS value)	Α	90
Breaking capacity at voltage		
Breaking capacity 440V	Α	72
Breaking capacity 500V	Α	72
Breaking capacity 690V	Α	71
Resistance per pole (average value)	mΩ	2.5
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	1.6
AC3	W	0.2
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	mm²	1
max —	mm²	6
Flexible c/w lug conductor section		



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Power terminal protection according to IEC/EN 60529 Text					
Plexible with insulated spade lug conductor section min mm² max max			min	mm²	1
Min			max	mm²	4
Pewer terminal protection according to IEC/EN 60529 Pezo		Flexible with insulated spade lug conductor section			
Paus					
Auxiliary contact characteristics			max	mm²	
Type of contact					IP20
Thermal current lith		cteristics			1 N/A
EC/EN 60947-5-1 designation				Λ	· · · · · · · · · · · · · · · · · · ·
Parabient conditions Parabient conditions		ignation			
Page		ignation			71000
Capability Cap					
Max		Operating temperature			
Storage temperature min			min	°C	-50
Max altitude			max	°C	70
Max altitude max °C 80 Operating position normal allowable "Certical plan 430" Mounting Screw / DIN rail 330mm Weight g 0.367 Operations Cycles 20,000,000 Belectrical life Cycles 20,000,000 Electrical life Cycles 20,000,000 Billion of the contasts according to IEC/EN 609474-4-1 Yes EMC compatibility yes AC operating Immax V 12 Rated AC voltage at 50/60Hz, 60Hz Immax V 12 AC operating voltage Immax Wus 80 AC operating voltage Immax Wus 110 drop-out Immax Wus 20 max Wus 20 110 drop-out Immax Wus 20 max Wus 20 110 drop-out Immax Wus 20 max Wus 110 110 d		Storage temperature			
Max altitude m 3,000 Operating position normal allowable ±30° Mounting Screw / DIN rail 35mm Weight g 0.367 Operations Cycles 20,000,000 Blechrical life Cycles 20,000,000 Safety related data Yes EMC compatibility Yes AC coil operating Test contact secording to IEC/EN 609474-4-1 Yes EMC compatibility Test contact secording to IEC/EN 609474-4-1 Yes AC coil operating Test contact secording to IEC/EN 609474-4-1 Test contact secording to IEC/EN 609474-4-1 Rated AC voltage at 50/60Hz, 60Hz Test contact secording to IEC/EN 609474-4-1 Test contact secording to IEC/EN 609474-4-1 AC operating voltage Test contact secording to IEC/EN 609474-4-1 Test contact secording to IEC/EN 609474-4-1 AC operating voltage Test contact secording to IEC/EN 609474-4-1 Test contact secording to IEC/EN 609474-4-1 AC operating voltage Test contact secording to IEC/EN 609474-4-1 Test contact secording to IEC/EN 609474-4-1 AC operating voltage Test contact secording to IEC/EN 609474-4-1 Test cont			min		
Normal allowable Normal allo			max	°C	
Nounting Nounting				m	3,000
Mounting Screw / DIN rail 35mm Weight g 0.367 Operations Cycles 20,000,000 Electrical life Cycles 20,000,000 Electrical life Cycles 20,000,000 Safety related data yes Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating yes Rated AC voltage at 50/60Hz, 60Hz min V 12 AC operating voltage min %Us 10 AC operating voltage min %Us 110 AC operating voltage min %Us 20 AC operating voltage	Operating position				
Mounting Screw / DIN rail 35mm Weight g 0.367 Operations Screw / DIN rail 35mm Mechanical life Cycles 20,000,000 Electrical life Cycles 2000000 Safety related data Yes EMC compatibility Yes AC coil operating Yes Rated AC voltage at 50/60Hz, 60Hz min V 12 max V 600 AC operating voltage min %Us 80 max %Us 110 AC operating voltage 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 pick-up pick-up min %Us 40 max %Us 55					•
Mounting 35mm Weight g 0.367 Operations Mechanical life Cycles 20,000,000 Electrical life Cycles 20000000 Safety related data Mirror contats according to IEC/EN 609474-4-1 Yes EMC compatibility Yes AC coil operating Immany V 12 max AC coil operating voltage Immany V 12 max AC operating voltage Immany V 600 AC operating voltage Fick-up Immany VUS 80 max AC operating voltage Fick-up Immany VUS 80 max AC operating voltage Fick-up Imminy %US 80 max Mirror contates according to IEC/EN 609474-4-1 Imminy %US 80 max AC operating Imminy %US 80 max AC operating Imminy %US 85 max	-		allowable		
Weight g 0.367 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 min %Us 80 min %Us 80 max %Us 110 drop-out min %Us 85 min %Us 85 max %Us 110 drop-out min %Us 85 min %Us 85 max %Us 10 max	Mounting				
Operations 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 Immin V 12 max V 600 Rated AC voltage at 50/60Hz, 60Hz Immin V 12 max V 600 AC operating voltage Immin WUS 80 max WUS 110 AC operating voltage Immin WUS 80 max WUS 110 AC operating voltage Immin WUS 55 of 50/60Hz coil powered at 60Hz pick-up Immin WUS 85 max WUS 110 AC operating voltage Immin WUS 40 max WUS 110 AC operating voltage Immin WUS 40 max WUS 55 Of 50/60Hz coil powered at 60Hz pick-up Immin WUS 40 max WUS 55 Of 60Hz coil powered at 60Hz pick-up Immin WUS 80 max WUS 55	Weight			α	
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 Image: Properties of the properties of 50/60Hz coil powered at 50Hz pick-up Image: Properties of 50/60Hz coil powered at 50Hz pick-up Image: Properties of 50/60Hz coil powered at 60Hz pick-up Image: Properties of 60Hz coil powered at 60Hz pick-up Image: Properties of 60Hz coil powered at 60Hz pick-up Image: Properties of 60Hz coil powered at 60Hz pick-up Image: Properties of 60Hz coil powered at 60Hz pick-up Image: Properties of 60Hz pick-up Image: P				9	0.007
Electrical life	•			Cycles	20,000,000
Mirror contats according to IEC/EN 609474-4-1 Yes EMC compatibility Yes AC coil operating Temperature Rated AC voltage at 50/60Hz, 60Hz min V 12 max V 600 AC operating voltage min WUs 80 max WUs 110 AC operating voltage min WUs 80 max WUs 110 drop-out min WUs 20 max WUs 55 of 50/60Hz coil powered at 60Hz pick-up min WUs 85 max WUs 110 drop-out min WUs 40 max WUs 55 of 60Hz coil powered at 60Hz pick-up min WUs 40 max WUs 55	Electrical life				
## Cooli operating Rated AC voltage at 50/60Hz, 60Hz	Safety related data				
Rated AC voltage at 50/60Hz, 60Hz min		ng to IEC/EN 609474-4-1			Yes
Rated AC voltage at 50/60Hz, 60Hz min V 12 max V 600 AC operating voltage					Yes
Min					
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 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 40 max %Us 55					
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	A O		max	V	600
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 85 max %Us 85 max %Us 80	AC operating voltage	of FO/COLIZ and provinced at FOLIZ			
Min %Us 80 max %Us 110		•			
Max %Us 110		ριοκ-αρ	min	%Us	80
drop-out min %Us 20 max %Us 55					
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		drop-out			-
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		·	min	%Us	20
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	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 drop-out min %Us 40 max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80		pick-up			
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		dana and	max	%Us	110
max %Us 55 of 60Hz coil powered at 60Hz pick-up min %Us 80		arop-out	min	0/110	40
of 60Hz coil powered at 60Hz pick-up min %Us 80					
pick-up min %Us 80		of 60Hz coil powered at 60Hz	IIIaX	/005	
min %Us 80					
		r	min	%Us	80



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	drop-out			
	·	min	%Us	20
		max	%Us	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
S: : (' () ()	**************************************	holding	VA	9
Dissipation at holding			W	2.5
lax cycles frequency			0	0.000
Mechanical operations	5		Cycles/h	3,600
perating times	- atual			
verage time for Us c				
	in AC			
	Closing NO	min	ma	8
			ms	o 24
	Opening NO	max	ms	24
	Opening NO	min	ms	10
		max	ms	20
	Closing NC	Παλ	1113	20
	0.00mg 110	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
	0 : 110	max	ms	30
	Opening NC		,	47
		min	ms	47 57
II toobnical data		max	ms	57
JL technical data) for three phase AC meter			
uii-ioau current (FLA) for three-phase AC motor	o+ 400V	٨	7.6
		at 480V	A A	7.6
ielded mechanical pe	orformanco	at 600V	А	9
reided mechanical pe				
	for single-phase AC motor	at 110/120V	hn	0.75
		at 110/120V at 230V	hp hp	0.75 2
	for three-phase AC motor	ai 230V	hp	
	ioi tiliee-pilase AC Illotoi	at 200/208V	hn	3
		ai 200/200V	hp	J



CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, BFK TYPE Electric (INCLUDING LIMITING RESISTORS), MAXIMUM IEC OPERATIONAL POWER 400V = 7.5KVAR, 400VAC 50/60HZ

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at 220/230V	hp	3	
at 460/480V	hp	5	
at 575/600V	hp	7.5	

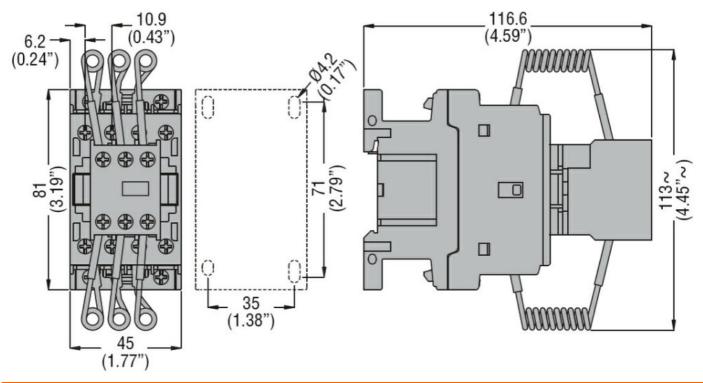
SI - A600 Contact rating of auxiliary contacts according to UL

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	

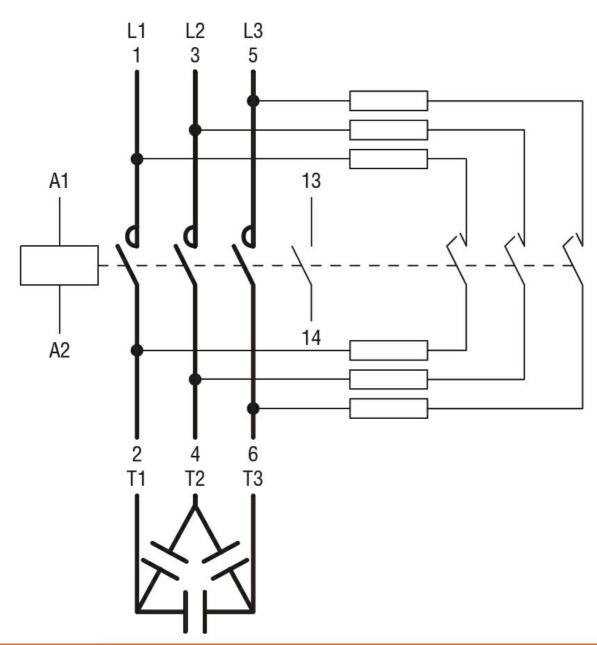
Dimensions



Wiring diagrams

CONTACTOR FOR POWER FACTOR CORRECTION WITH AC CONTROL CIRCUIT, BFK TYPE

electric (INCLUDING LIMITING RESISTORS), MAXIMUM IEC OPERATIONAL POWER 400V = 7.5KVAR, **ENERGY AND AUTOMATION** 400VAC 50/60HZ



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