

Product designation Product type designation			Power contactor BFS09
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		А	25
Operational current le			
	AC-1 (≤40°C)	А	25
	AC-1 (≤40°C) with 16mm ² wire and fork end	lugA	0
	AC-1 (≤55°C)	А	20
	AC-1 (≤55°C) with 16mm² wire and fork end	lugA	0
	AC-1 (≤70°C)	А	18
	AC-1 (≤70°C) with 16mm² wire and fork end		0
	AC-3 (≤440V ≤55°C)	A	9
	AC-4 (400V)	A	4.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4.2
	415V	kW	4.5
	440V	kW	4.8
	500V	kW	5.5
	690V	kW	7.5
Rated operational power AC-1 (T≤40°C)	0001/		0.5
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
IFC may aurrent to in DC1 with L/D < 1ma wi	690V	kW	27
IEC max current le in DC1 with $L/R \le 1$ ms wi	≤24V	۸	15
	≤24∨ 48V	A A	15 13
	48V 75V	A	13
	73V 110V	A	6
	220V	A	- -
IEC max current le in DC1 with L/R ≤ 1ms wi		~	
	≤24V	А	18
	48V	A	18
	40V 75V	A	17
	110V	A	12
	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms wi			•
	≤24V	А	20
	-211		

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	48V	А	20	
	75V	А	20	
	110V	A	15	
	220V	A	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	2201	7.	10	
	≤24V	А	20	
	48V	A	20	
	75V	A	20	
	110V	A	16	
	220V	A	12	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	A	10	
	48V	А	9	
	75V	А	8	
	110V	А	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 2 poles in series				
	≤24V	А	13	
	48V	А	11	
	75V	А	10	
	110V	А	7	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	А	15	
	48V	A	15	
	40V 75V	A	13	
	110V	A	13	
	220V	A	6	
IFC may surrent to in DC2 DCE with L/D < 15ms with 4 pales in series	2200	A	0	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series	-0.01	•	4 5	
	≤24V	A	15	
	48V	A	15	
	75V	Α	15	
	110V	A	12	
	220V	A	7	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150	
Protection fuse				
	gG (IEC)	Α	25	
	aM (IEC)	А	10	
Making capacity (RMS value)		А	90	
Breaking capacity at voltage				
	440V	А	72	
	500V	A	72	
	690V	A	71	
Resistance per pole (average value)	0001	mΩ	2.5	
Power dissipation per pole (average value)		11122	2.0	
r over alcopation per pole (average value)	lth	W	1.6	
Tink to size a tanana fan tananin i	AC-3	W	0.2	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
Tightening torque for coil terminal				

Tightening torque for coil terminal



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		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section			
	-	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug cond			•
		min	mm²	1
		max	mm²	4
		IIIax	111111	IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				property when
Operating position				
Operating position		n o rm ol		Vartical plan
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai
-				35mm
Weight			g	490
Auxiliary contact char	acteristics		•	1.0
Thermal current Ith			A	10
IEC/EN 60947-5-1 de	-			A600 - Q600
Operating current AC	15			
		230V	А	3
		400V	А	1.9
		500V	А	1.4
Operating current DC	13			
		110V	А	1.25
		125V	А	0.55
		600V	А	0.1
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	2000000
Safety related data			0,000	
	0d according to EN/ISO 13489-1			
		rated load	cycles	2000000
		mechanical load	•	2000000
Mirror ocatate	ing to IEC/EN 600474 4 4	mechanicarioad	cycles	
	ing to IEC/EN 609474-4-1			Yes
EMC compatibility				yes
Electrical characterist				
Operating current DC	13			
		250V	А	0.27
		440V	А	0.15
		500V	А	0.13

AC operating voltage

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of 50/60Hz coil powered at 50Hz drop-out

		diop-out	max	%Us	0
DC coil operating			Пах	/000	J. J
DC rated control voltage	je			V	24
DC operating voltage					
	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out			o (1 1	10
			min	%Us	10
	tion <20°C		max	%Us	40
Average coil consumpt	1011 SZU C		in-rush	W	5.4
			holding	W	5.4 5.4
Max cycles frequency			Tiolding	vv	5.4
Mechanical operation				cycles/h	3600
Operating times				,	
Average time for Us co	ontrol				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			4.0
			min	ms	10
		Closing NC	max	ms	20
			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	me	14
			min max	ms ms	14 17
		Closing NC	max	113	. /
		0.00	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
			max	ms	57
UL technical data					000
Rated operational volta		C motor		V	600
Full-load current (FLA)	for three-phase A		at 1001/	٨	7.6
			at 480V at 600V	A A	7.6 0.375
Yielded mechanical pe	rformance		ai 000 V	~	0.070
noidea meenamical pe	for single-phase	AC motor			
	. Si single phase		110/120V	HP	0.75
			230V	HP	2

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24VDC, 2NO+3NC AUXILIARY CONTACT	

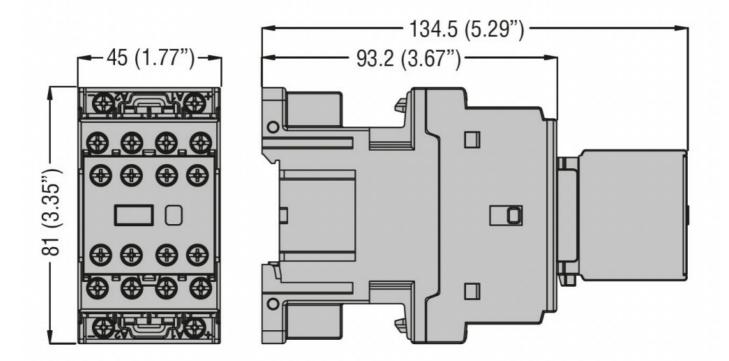
	for three-phase AC motor			
		200/208V	HP	3
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protect	tion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	60
Contact rating of au	ixiliary contacts according to UL			A600 - Q600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ection			
Impact resistance				
Pollution degree				3
Dimensions				

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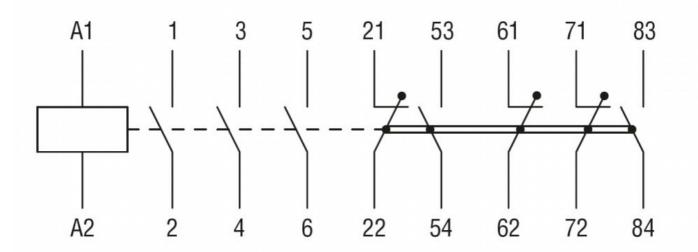
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Wiring diagrams



Certifications and compliance

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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
	IEC/EN/BS 60947-5-1
	UL 60947-1
	UL 60947-4-1
Certificates	
	cULus
	UL listed for USA and Canada
ETIM classification	

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

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ETIM 8.0

EC000066 -Power contactor, AC switching