



Product designation			Power contacto
Product type designation			BFS32
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	56
Operational current le			
	AC-1 (≤40°C)	А	56
	AC-1 (≤40°C) with 16mm² wire and fork end	lugA	0
	AC-1 (≤55°C)	Α	45
	AC-1 (≤55°C) with 16mm² wire and fork end		0
	AC-1 (≤70°C)	Α	40
	AC-1 (≤70°C) with 16mm² wire and fork end	-	0
	AC-3 (≤440V ≤55°C)	А	32
	AC-4 (400V)	A	13.5
Rated operational power AC-3 (T≤55°C)			
	230V	kW	8.8
	400V	kW	16
	415V	kW	17
	440V	kW	17
	500V	kW	20
	690V	kW	22
Rated operational power AC-1 (T≤40°C)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
IEC max current le in DC1 with $L/R \le 1$ ms w	•		
	≤24V	A	30
	48V	A	26
	75V	A	22
	110V	A	8
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms w	•		
	≤24V	A	32
	48V	A	32
	75V	A	28
	110V	A	25
	220V	A	3
IEC max current le in DC1 with $L/R \le 1$ ms w		-	
	≤24V	А	32

ENERGY AND AUTOMATION

**BFS3222A110** THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 110VAC, 2NO+2NC AUXILIARY CONTACT

	48V	А	32
	75V	A	32
	110V	A	27
	220V	A	23
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V	Λ	20
TEC max current le in DC1 with L/K = this with 4 poles in series	≤24V	۸	
		A	-
	48V	A	_
	75V	A	_
	110V	A	_
	220V	A	_
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			
	≤24V	А	20
	48V	А	17
	75V	А	15
	110V	А	2,5
	220V	Α	_
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 2 poles in series			
	≤24V	А	25
	48V	А	22
	75V	А	20
	110V	А	15
	220V	А	3
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	А	30
	48V	A	28
	75V	A	28
	110V	A	20
	220V	A	23
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	2201		20
	≤24V	А	_
	48V	A	
	48V 75V	A	_
	110V		-
		A	-
Object times allowed to surrent for 40s (IEO/ENCOD 47.4)	220V	<u>A</u>	_
Short-time allowable current for 10s (IEC/EN60947-1)		А	320
Protection fuse	o //==>		
	gG (IEC)	A	63
	aM (IEC)	A	32
Making capacity (RMS value)		A	320
Breaking capacity at voltage			
	440V	А	256
	500V	А	240
	690V	А	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	lth	W	6
	AC-3	W	2
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	Ibin	1.8
	max	Ibin	2.2
Tightoning torque for coil terminal	тих	10111	

## Tightening torque for coil terminal



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Safety related data		
Electrical life	cycles	1600000
Mechanical life	cycles	20000000
Operations	~	0.1
125∨ 600∨		0.55 0.1
perating current DC13	٨	0.55
600V	A	0
220\		0
125		0
60\		0
48\		0
24	А	0
Operating current DC12		
500\		1.4
400		1.9
230	А	3
operating current AC15		
EC/EN 60947-5-1 designation		A600 - Q600
hermal current lth	A	0
ype of contact		0
Veight Juxiliary contact characteristics	g	428
-	~	35mm
ixing		Screw / DIN ra
allowable		±30°
norma		Vertical plan
perating position		
lechanical features		
auxiliary circui	mm	0
command circui	mm	0
main circui	mm	0
Cable stripping lenght		
Power terminal protection according to IEC/EN 60529		properly wired
		IP20 when
ma>	_	10
riexible with insulated spade lug conductor section	mm²	1
max Flexible with insulated spade lug conductor section	111111-	10
mir		1 10
Flexible c/w lug conductor section		4
ma	mm²	16
mir		2.5
Flexible w/o lug conductor section		
ma>		6
AWG/Kcmil		
Conductor section		
lax number of wires simultaneously connectable	Nr.	2
max		0.74
mir		0.8
max	Nm	1
mir	Nm	0.8

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## THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 110VAC, 2NO+2NC AUXILIARY CONTACT

		rated load mechanical load	cycles cycles	1600000 20000000
EMC compatibility		mechanicarioau	Cycles	yes
Electrical characteristi	CS			yes
Operating current DC1				
		250V	А	0.27
		440V	А	0.15
		500V	А	0.13
AC coil operating				
Rated AC voltage at 5	0/60Hz		V	110
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
			%Us %Us	110
	drop-out	max	/005	110
		min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C		,	
5	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
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
DC coil operating				
DC operating voltage	a la la con			
	pick-up		0/11-	0
		min	%Us %Us	0 0
	drop-out	max	/005	U
		min	%Us	0
		max	%Us	0
Average coil consump	tion ≤20°C	max	,	~
		in-rush	W	0
		holding	W	0
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			-	
Average time for Us co	ontrol			
	in AC			
	Closing NO			
		min	ms	8

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THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 110VAC, 2NO+2NC AUXILIARY CONTACT

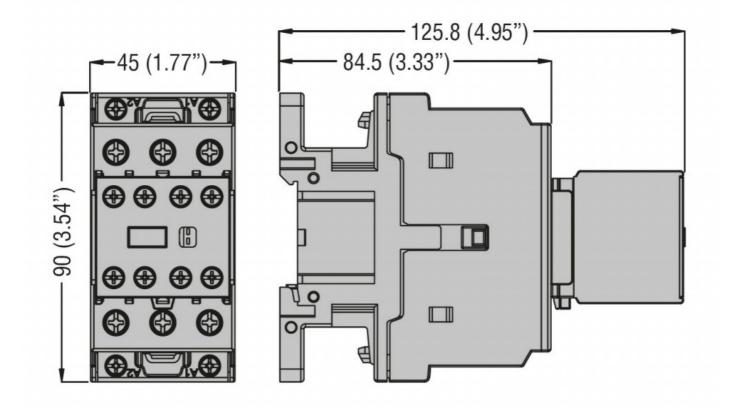
			max	ms	24
		Opening NO			
			min	ms	5
			max	ms	15
		Closing NC	min	me	9
			max	ms ms	9 20
		Opening NC	IIIdA	1115	20
		oponing No	min	ms	9
			max	ms	17
	in DC				
		Closing NO			
			min	ms	0
			max	ms	0
		Opening NO			
			min	ms	0
			max	ms	0
		Closing NC			
			min	ms	0
			max	ms	0
		Opening NC			0
			min	ms	0
UL technical data			max	ms	0
Rated operational volta	age AC (UL)			V	600
Full-load current (FLA)		otor		•	000
			at 480V	А	27
			at 600V	A	27
Y leided mechanical pe	erformance				
Yielded mechanical pe		motor			
Y leided mechanical pe	rformance for single-phase AC ۱	motor	110/120V	HP	3
Y leided mechanical pe		motor	110/120V 230V	HP HP	3 7.5
Y leided mechanical pe					
Y leided mechanical pe	for single-phase AC I		230V 200/208V		
Y leided mechanical pe	for single-phase AC I		230V 200/208V 220/230V	HP HP HP	7.5 10 10
Y leided mechanical pe	for single-phase AC I		230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 10 20
	for single-phase AC I		230V 200/208V 220/230V	HP HP HP	7.5 10 10
General USE	for single-phase AC r		230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 10 20
	for single-phase AC I		230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP	7.5 10 10 20 25
General USE	for single-phase AC m		230V 200/208V 220/230V 460/480V	HP HP HP HP	7.5 10 10 20
	for single-phase AC m for three-phase AC m Contactor		230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP	7.5 10 10 20 25
General USE	for single-phase AC m		230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	7.5 10 10 20 25 55
General USE	for single-phase AC m for three-phase AC m Contactor		230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	7.5 10 10 20 25 55 100
General USE	for single-phase AC m for three-phase AC m Contactor		230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	HP HP HP HP A	7.5 10 10 20 25 55 100 100
General USE	for single-phase AC r for three-phase AC rr Contactor fuse, 600V High fault		230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP A	7.5 10 10 20 25 55 100
General USE	for single-phase AC m for three-phase AC m Contactor		230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	HP HP HP HP A	7.5 10 10 20 25 55 100 100
General USE	for single-phase AC r for three-phase AC rr Contactor fuse, 600V High fault		230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class	HP HP HP A A	7.5 10 10 20 25 55 100 100 J
General USE Short-circuit protection	for single-phase AC m for three-phase AC m Contactor fuse, 600V High fault Standard fault	notor	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating Fuse class Short circuit current	HP HP HP A A kA A	7.5 10 10 20 25 55 100 100 J 5
General USE	for single-phase AC m for three-phase AC m Contactor fuse, 600V High fault Standard fault	notor	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating Fuse class Short circuit current	HP HP HP A A kA A	7.5 10 10 20 25 55 100 100 100 J 5 125
General USE Short-circuit protection	for single-phase AC m for three-phase AC m Contactor fuse, 600V High fault Standard fault	notor	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating Fuse class Short circuit current	HP HP HP A A kA A	7.5 10 10 20 25 55 100 100 100 J 5 125
General USE Short-circuit protection Contact rating of auxilia Ambient conditions	for single-phase AC m for three-phase AC m Contactor fuse, 600V High fault Standard fault	to UL	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating Fuse class Short circuit current	HP HP HP A A KA A KA A	7.5 10 10 20 25 55 100 100 100 100 J 5 125 A600 - Q600
General USE Short-circuit protection Contact rating of auxilia Ambient conditions	for single-phase AC m for three-phase AC m Contactor fuse, 600V High fault Standard fault	to UL	230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating Fuse class Short circuit current	HP HP HP A A kA A	7.5 10 10 20 25 55 100 100 100 J 5 125

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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Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Impact resistance			0
Vibration resistance			0
Special thermic treatments			0
Pollution degree			3
Resistance to flame (GWT)			0
Flame retardant according to UL94			0
Dimensions			

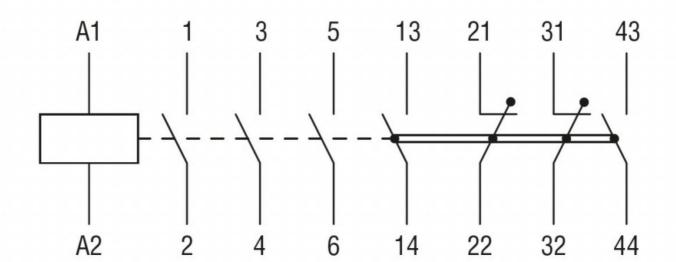


Wiring diagrams

## BFS3222A110



THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 110VAC, 2NO+2NC AUXILIARY CONTACT



Certifications and co	mpliance	
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		
		EC000066 -

ETIM 8.0

EC000066 -Power contactor, AC switching