



Product designation			Power contactor
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)	A	45
	AC-1 (≤55°C) with 16mm² wire and fork end	lugA	0
	AC-1 (≤70°C)	A	40
	AC-1 (≤70°C) with 16mm <sup>2</sup> wire and fork end	lugA	0
	AC-3 (≤440V ≤55°C)	А	32
	AC-4 (400V)	Α	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 ≤ 1ms wi	•		
	≤24V	A	30
	48V	A	26
	75V	Α	22
	110V	A	8
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms wi		-	
	≤24V	A	32
	48V	A	32
	75V	A	28
	110V	A	25
	220V	A	3
IEC max current le in DC1 with L/R ≤ 1ms wi			
	≤24V	A	32

ENERGY AND AUTOMATION

**BFS3222A024** THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 2NO+2NC AUXILIARY CONTACT

	401/	•		
	48V	A	32	
	75V	А	32	
	110V	А	27	
	220V	Α	23	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	-	
	48V	А	_	
	75V	A	_	
	110V	A		
			-	
	220V	A	-	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 1 poles in series				
	≤24V	А	20	
	48V	А	17	
	75V	Α	15	
	110V	А	2,5	
	220V	А	-	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				—
	≤24V	А	25	
	48V	A		
			22	
	75V	A	20	
	110V	А	15	
	220V	A	3	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 3 poles in series				
	≤24V	А	30	
	48V	А	28	
	75V	А	28	
	110V	A	20	
	220V	A	23	
IFC may surrent to in DC2 DC5 with L/D < 15ms with 4 nation in series	220 V	~	20	—
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series	10 M I			
	≤24V	A	-	
	48V	A	-	
	75V	А	-	
	110V	Α	-	
	220V	Α	-	
Short-time allowable current for 10s (IEC/EN60947-1)		А	320	
Protection fuse				
	gG (IEC)	А	63	
	aM (IEC)	A	32	
Making appaaity (DMS value)				
Making capacity (RMS value)		Α	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)				
	Ith	W	6	
	AC-3	W	2	
Tightoning targue for terminals	AU-3	٧V	۷	
Tightening torque for terminals			0.5	
	min	Nm	2.5	
	max	Nm	3	
	min	lbin	1.8	
	max	lbin	2.2	
Tightoning torque for coil terminal				

## Tightening torque for coil terminal



**BFS3222A024** THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 2NO+2NC AUXILIARY CONTACT

	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	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
	max	mm²	10
	Flexible with insulated spade lug conductor section		
	min	mm²	1
	max	mm²	10
Power terminal prote	ction according to IEC/EN 60529		IP20 when
			properly wired
Cable stripping lengh			0
	main circuit	mm	0
	command circuit	mm	0
	auxiliary circuit	mm	0
Mechanical features			
Operating position			Mantinal alar
	normal		Vertical plan
	allowable		±30° Screw / DIN ra
Fixing			35mm
Neight		g	432
Auxiliary contact chai	racteristics	9	102
Type of contact			0
Thermal current Ith		А	0
EC/EN 60947-5-1 d	esignation		A600 - Q600
Operating current AC	215		
Operating current AC		А	3
Operating current AC	230V	A A	3 1.9
Operating current AC	230V 400V	А	1.9
	230V 400V 500V		
Operating current AC	230V 400V 500V	A A	1.9 1.4
	230V 400V 500V 212 24V	A A A	1.9 1.4 0
	230V 400V 500V	A A	1.9 1.4 0 0
	230V 400V 500V 212 24V 48V	A A A	1.9 1.4 0 0 0
	230V 400V 500V 212 24V 48V 60V 125V	A A A A A A	1.9 1.4 0 0 0 0
	230V 400V 500V 212 24V 48V 60V 125V 220V	A A A A A A	1.9 1.4 0 0 0 0 0 0
Operating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V	A A A A A A	1.9 1.4 0 0 0 0
Operating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V	A A A A A A A	1.9 1.4 0 0 0 0 0 0
Operating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V 213	A A A A A A A A	1.9 1.4 0 0 0 0 0 0 0 0 0 0 0
Dperating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V	A A A A A A A	1.9 1.4 0 0 0 0 0 0
Dperating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V 213	A A A A A A A A A	1.9 1.4 0 0 0 0 0 0 0 0 0 0 0 0 0
Operating current DC	230V 400V 500V 212 24V 48V 60V 125V 220V 600V 213	A A A A A A A A	1.9 1.4 0 0 0 0 0 0 0 0 0 0 0



## THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 2NO+2NC AUXILIARY CONTACT

		rated load	cycles	1600000
EMC compatibility		mechanical load	cycles	20000000 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	24
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/11-	0.0
		min	%Us	80
	drop out	max	%Us	110
	drop-out	min	%Us	20
		max	%Us %Us	20 55
	of 50/60Hz coil powered at 60Hz	Παλ	/000	
	pick-up			
	E.e et	min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu	Imption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz	· · · · ·		70
		in-rush	VA	70
	of COLIZ and powered at COLIZ	holding	VA	6.5
	of 60Hz coil powered at 60Hz	in-rush	VA	75
		holding	VA VA	9
Dissipation at holding	<20°C 50Hz	noiding	W	2.5
DC coil operating			vv	2.0
DC operating voltage				
	pick-up			
		min	%Us	0
		max	%Us	0
	drop-out			
		min	%Us	0
		max	%Us	0
Average coil consump	tion ≤20°C			
		in-rush	W	0
Max and the former		holding	W	0
Max cycles frequency			evels - //	2000
Mechanical operation			cycles/h	3600
Operating times	ontrol			
Average time for Us co	in AC			
	IN AC Closing NO			
		min	ms	8
		11111	1113	0



THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 2NO+2NC AUXILIARY CONTACT

			max	ms	24
			Тах	mo	21
		Opening NO			_
			min	ms	5
			max	ms	15
		Closing NC			
		g	min	ms	9
			max	ms	20
		Opening NC			
			min	ms	9
			max	ms	17
			Шах	1113	17
	in DC				
		Closing NO			
			min	ms	0
			max	ms	0
			max	1110	0
		Opening NO			-
			min	ms	0
			max	ms	0
		Closing NC			
				<b>m</b> a	0
			min	ms	0
			max	ms	0
		Opening NC			
			min	ms	0
			max	ms	0
UL technical data					
Rated operational vol	tage AC (UL)			V	600
Full-load current (FLA	) for three-phase AC r	notor			
	,		at 480V	А	27
				~	21
					07
			at 600V	А	27
Yielded mechanical p	erformance				27
Yielded mechanical p		c motor			27
Yielded mechanical p	erformance for single-phase AC	c motor	at 600V	A	
Yielded mechanical p		C motor	at 600V 110/120V	A HP	3
Yielded mechanical p	for single-phase AC		at 600V	A	
Yielded mechanical p			at 600V 110/120V	A HP	3
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V	A HP HP	3 7.5
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V 200/208V	A HP HP HP	3 7.5 10
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V	A HP HP HP HP	3 7.5 10 10
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	3 7.5 10 10 20
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V	A HP HP HP HP	3 7.5 10 10
	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	3 7.5 10 10 20
Yielded mechanical p	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	3 7.5 10 10 20
	for single-phase AC		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A HP HP HP HP HP	3 7.5 10 10 20 25
General USE	for single-phase AC for three-phase AC Contactor		at 600V 110/120V 230V 200/208V 220/230V 460/480V	A HP HP HP HP HP	3 7.5 10 10 20
	for single-phase AC for three-phase AC Contactor		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A HP HP HP HP HP	3 7.5 10 10 20 25
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A HP HP HP HP HP	3 7.5 10 10 20 25
General USE	for single-phase AC for three-phase AC Contactor		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	A HP HP HP HP HP	3 7.5 10 10 20 25 55
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current	A HP HP HP HP HP A	3 7.5 10 10 20 25 55 100
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	A HP HP HP HP HP	3 7.5 10 10 20 25 55
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current	A HP HP HP HP HP A	3 7.5 10 10 20 25 55 100
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Short circuit current Fuse rating	A HP HP HP HP HP A	3 7.5 10 10 20 25 55 55
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class	A HP HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 J
General USE	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault		at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 J 5
General USE Short-circuit protectio	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class	A HP HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125
General USE Short-circuit protectio	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault	motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 J 5
General USE Short-circuit protectio	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125
General USE Short-circuit protectio Contact rating of auxil Ambient conditions	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125
General USE Short-circuit protectio	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	g to UL	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125
General USE Short-circuit protectio Contact rating of auxil Ambient conditions	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	g to UL	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current Fuse rating	A HP HP HP HP HP A KA A KA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125 A600 - Q600
General USE Short-circuit protectio Contact rating of auxil Ambient conditions	for single-phase AC for three-phase AC Contactor n fuse, 600V High fault Standard fault	g to UL	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A HP HP HP HP A kA A	3 7.5 10 10 20 25 55 55 100 100 100 J 5 125

BFS3222A024

max

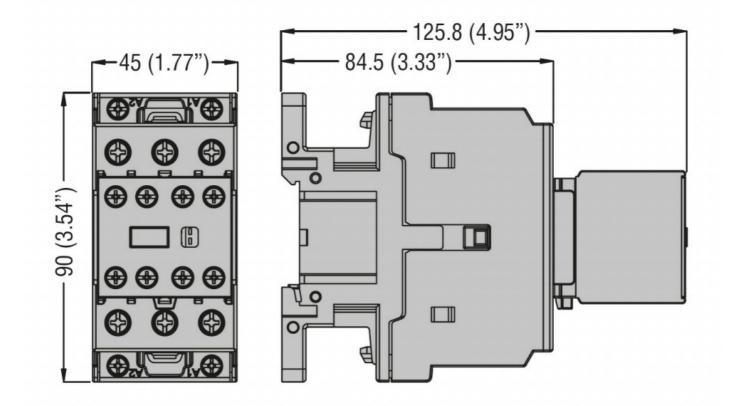
°C

70



BFS3222A024 THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 2NO+2NC AUXILIARY CONTACT

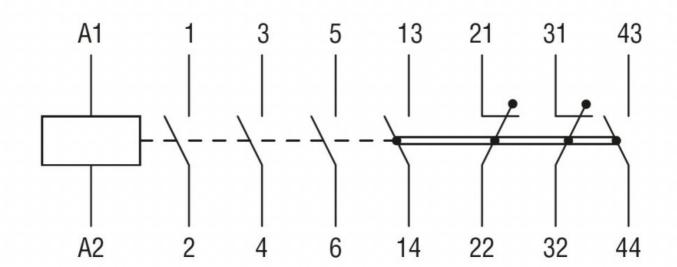
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Impact resistance			0
Vibration resistance			0
Special thermic treatments			0
Pollution degree			3
Resistance to flame (GWT)			0
Flame retardant according to UL94			0
Dimensions			



Wiring diagrams



THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 32A, AC COIL 50/60HZ, 24VAC, 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