



Product designation Product type designation			Power contactor BFS25
Contact characteristics			51 020
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	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤40°C) with 16mm <sup>2</sup> wire and fork end	lugA	0
	AC-1 (≤55°C)	А	26
	AC-1 (≤55°C) with 16mm <sup>2</sup> wire and fork end	lugA	0
	AC-1 (≤70°C)	А	23
	AC-1 (≤70°C) with 16mm <sup>2</sup> wire and fork end	lugA	0
	AC-3 (≤440V ≤55°C)	А	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with $L/R \le 1$ ms with			
	≤24V	A	20
	48V	A	18
	75V	A	18
	110V	A	6
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms with	•		
	≤24V	A	23
	48V	A	23
	75V	A	23
	110V	A	16
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with		-	
	≤24V	Α	23

ENERGY AND AUTOMATION

**BFS2523A024** THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 24VAC, 2NO+3NC AUXILIARY CONTACT

ENERGY AND AUTOMATION				
	48V	A	23	
	75V	А	23	
	110V	Α	18	
	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	_	
	48V	A	_	
	40V 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	A	15	
	48V	Α	13	
	75V	Α	13	
	110V	А	2	
	220V	А	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-			
	≤24V	۸	18	
		A		
	48V	A	18	
	75V	Α	16	
	110V	A	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	А	22	
	48V	А	22	
	75V	А	18	
	110V	A	15	
	220V	A	8	
IEC may surrent is in DC2 DCE with $1/D < 45$ may with 4 males in action	2201	A	0	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 4 poles in series				
	≤24V	A	_	
	48V	А	-	
	75V	А	-	
	110V	Α	-	
	220V	А	_	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	50	
	aM (IEC)	A	25	
Making appaaity (DMC value)				
Making capacity (RMS value)		A	250	
Breaking capacity at voltage		_		
	440V	A	200	
	500V	А	184	
	690V	А	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	Ith	W	2.6	
	AC-3	Ŵ	1.6	
Tightoning torque for terminale	70-0	vv	1.0	
Tightening torque for terminals		<b>N</b> 1.	4 5	
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
Tightoning torque for coll terminal				

## Tightening torque for coil terminal



		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
	s simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWG/Refill	max		10
	Flexible w/o lug conductor section	max		
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	Ũ	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug condu	ctor section		
		min	mm²	1
		max	mm²	4
Power terminal prot	ection according to IEC/EN 60529			IP20 when
-	-			properly wired
Cable stripping leng	ht			0
		main circuit	mm	0
		command circuit	mm	0
Mechanical features		auxiliary circuit	mm	0
Operating position				
oporating poolition		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra 35mm
Weight			g	366
Auxiliary contact cha	aracteristics		3	
Thermal current Ith			А	10
EC/EN 60947-5-1 (	designation			A600 - Q600
Operating current A	-			
		230V	А	3
		400V	А	1.9
		500V	А	1.4
Operating current D	C12			
		24V	А	0
		48V	А	0
		60V	А	0
		125V	А	0
		220V	А	0
		600V	Α	0
Operating current D	C13			
		110V	Α	1.25
		125V	Α	0.55
		600V	А	0.1
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1200000
Safety related data				
Performance level E	310d according to EN/ISO 13489-1			
		rated load	cycles	1200000

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		mechanical load	cycles	2000000
Mirror contats according	ng to IEC/EN 609474-4-1			Yes
EMC compatibility				yes
Electrical characteristi	cs			
Operating current DC1	3			
		250V	А	0.27
		440V	Α	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			
		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	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	Ŭ		
	·	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	<u>0</u>		
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
DC coil operating				210
DC operating voltage				
= e eperating voltage	pick-up			
	L Ab	min	%Us	0
		max	%Us	0
	drop-out	Πdλ	/003	~
		min	%Us	0
			%Us	0
Average coil consump	tion <20°C	max	/005	U
Average con consump		in-rush	W	0
			W	0
Max avalas frequences		holding	VV	0
Max cycles frequency			ovolaa/h	2600
Mechanical operation			cycles/h	3000
Operating times				
Average time for Us co				
	in AC			
	Closing NO			•
		min	ms	8

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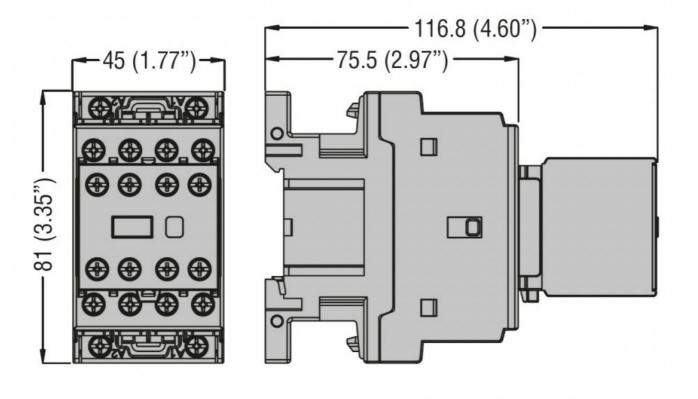
THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 24VAC, 2NO+3NC AUXILIARY CONTACT

			max	ms	24
		Opening NO			
			min	ms	10
			max	ms	20
			Шах	1115	20
		Closing NC			4.4
			min	ms	14
			max	ms	28
		Opening NC			
			min	ms	7
			max	ms	18
	in DC				
		Closing NO			
		eleegrie	min	ms	0
					0
			max	ms	0
		Opening NO			•
			min	ms	0
			max	ms	0
		Closing NC			
			min	ms	0
			max	ms	0
		Opening NC			-
		oponing ito	min	ms	0
I II. Contractor I. Inc.			max	ms	0
UL technical data					
Rated operational volta				V	600
Full-load current (FLA)	for three-phase AC mo	otor			
			at 480V	Α	21
			at 600V	Α	17
Yielded mechanical pe	erformance		at 600V	A	17
Yielded mechanical pe		notor	at 600V	A	17
Yielded mechanical pe	erformance for single-phase AC r	notor			
Yielded mechanical pe		notor	110/120V	HP	2
Yielded mechanical pe	for single-phase AC r				
Yielded mechanical pe			110/120V 230V	HP HP	2 3
Yielded mechanical pe	for single-phase AC r		110/120V 230V 200/208V	HP HP HP	2 3 7.5
Yielded mechanical pe	for single-phase AC r		110/120V 230V 200/208V 220/230V	HP HP HP HP	2 3 7.5 7.5
Yielded mechanical pe	for single-phase AC r		110/120V 230V 200/208V	HP HP HP	2 3 7.5
Yielded mechanical pe	for single-phase AC r		110/120V 230V 200/208V 220/230V	HP HP HP HP	2 3 7.5 7.5
Yielded mechanical pe	for single-phase AC r		110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	2 3 7.5 7.5 15
	for single-phase AC r		110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	2 3 7.5 7.5 15
	for single-phase AC r		110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	2 3 7.5 7.5 15 15
	for single-phase AC r for three-phase AC m Contactor		110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP HP	2 3 7.5 7.5 15
	for single-phase AC r		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	2 3 7.5 7.5 15 15 32
	for single-phase AC r for three-phase AC m Contactor		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage	HP HP HP HP HP A	2 3 7.5 7.5 15 15 32 600
	for single-phase AC r for three-phase AC m Contactor		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP A	2 3 7.5 7.5 15 15 32 600 10
	for single-phase AC r for three-phase AC m Contactor		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP A V A V	2 3 7.5 7.5 15 15 32 600 10 250
General USE	for single-phase AC m for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP A	2 3 7.5 7.5 15 15 32 600 10
	for single-phase AC m for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP A V A V	2 3 7.5 7.5 15 15 32 600 10 250
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP A V A V	2 3 7.5 7.5 15 15 32 600 10 250
General USE	for single-phase AC m for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP A V A V	2 3 7.5 7.5 15 15 32 600 10 250
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current	HP HP HP HP HP A V A V A V A	2 3 7.5 7.5 15 15 32 600 10 250 1 100
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current Short circuit current Fuse rating	HP HP HP HP HP V A V A	2 3 7.5 7.5 15 15 32 600 10 250 1 1 100 60
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current	HP HP HP HP HP A V A V A V A	2 3 7.5 7.5 15 15 32 600 10 250 1 100
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current Short circuit current Fuse rating Fuse class	HP HP HP HP HP A V A V A V A kA A	2 3 7.5 7.5 15 15 32 600 10 250 1 1 100 60 J
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts		110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current DC voltage DC current Fuse rating Fuse class Short circuit current	HP HP HP HP HP A V A V A V A kA A kA	2 3 7.5 7.5 15 15 32 600 10 250 1 100 60 J 5
General USE	for single-phase AC m for three-phase AC m Contactor Auxiliary contacts	notor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current Short circuit current Fuse rating Fuse class	HP HP HP HP HP A V A V A V A kA A	2 3 7.5 7.5 15 15 32 600 10 250 1 100 60 J 5 100
General USE	for single-phase AC r for three-phase AC m Contactor Auxiliary contacts	notor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage DC current DC voltage DC current Fuse rating Fuse class Short circuit current	HP HP HP HP HP A V A V A V A kA A kA	2 3 7.5 7.5 15 15 32 600 10 250 1 100 60 J 5



Ambient conditions Temperature

Operating temperature			
	min	°C	-50
	max	°C	70
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			



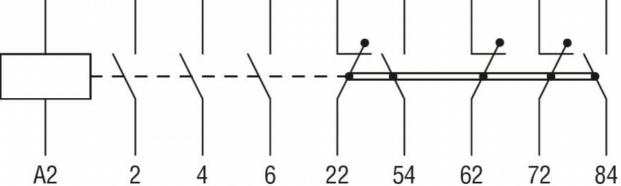
Wiring diagrams



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Certifications and c	ompliance	
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