



Product designation Product type designation			Power contactor BFS12
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		Α	28
Operational current le			
	AC-1 (≤40°C)	Α	28
	AC-1 (≤40°C) with 16mm² wire and fork end	lugA	0
	AC-1 (≤55°C)	Α	23
	AC-1 (≤55°C) with 16mm² wire and fork end	lugA	0
	AC-1 (≤70°C)	Α	20
	AC-1 (≤70°C) with 16mm² wire and fork end		0
	AC-3 (≤440V ≤55°C)	Α	12
D. ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	AC-4 (400V)	Α	7.9
Rated operational power AC-3 (T≤55°C)	2001		
	230V	kW	3.2
	400V	kW	5.7
	415V	kW	6.2
	440V	kW	5.5
	500V	kW	5
Dated enerational newer AC 1 (T<10°C)	690V	kW	5
Rated operational power AC-1 (T≤40°C)	230V	kW	10
	400V	kW	10 18
	500V	kW	23
	690V	kW	32
IEC max current le in DC1 with L/R ≤ 1ms with		IXVV	<u> </u>
TEO MAX GOTTON TO IN DOT WITH EAX - THIS WIL	≤24V	Α	17
	48V	Α	15
	75V	Α	13
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with			
	` ≤24V	Α	20
	48V	Α	20
	75V	Α	18
	110V	Α	13
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with	h 3 poles in series		
	≤24V	Α	22





	48V	Α	22
	75V	Α	20
	110V	Α	16
	220V	Α	11
EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 7	,,	
neo max ouncil le in Bot with Ent = mio with 4 poles in sones	≤24V	Α	20
	48V	A	20
	75V	A	20
	110V	A	16
	220V	A	12
IFC may surrent to in DC2 DC5 with L/D < 15mg with 1 notes in series	2200	A	12
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	<b>-04</b> 1/	^	40
	≤24V	A	12
	48V	A	11
	75V	Α	10
	110V	Α	2
	220V	Α	_
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	8
	220V	Α	2
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	15
	110V	Α	12
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	15
	48V	A	15
	75V	Α	15
	110V	A	16
	220V	_	7
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A 	150
,		A	150
Protection fuse	0 (150)		
	gG (IEC)	A	32
	aM (IEC)	A	12
Making capacity (RMS value)		A	120
Breaking capacity at voltage			
	440V	Α	96
	500V	Α	96
	690V	Α	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	lth	W	2
	AC-3	W	0.4
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal			





		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	ANA/O/I/C 1			
	AWG/Kcmil	may		10
	Flovible w/e lug conductor acction	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIdA	111111	0
	r lexible 6/W lag corradion section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conduct			•
	Tionible Will indulated spade lag conduct	min	mm²	1
		max	mm²	4
		max		IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Cable stripping lengh	t			
5 5		main circuit	mm	0
		command circuit	mm	0
		auxiliary circuit	mm	0
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	358
Auxiliary contact char	acteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 de	esignation			A600 - Q600
Operating current AC	15			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC	12			
		24V	Α	0
		48V	Α	0
		60V	Α	0
		125V	Α	0
		220V	A	0
<del></del>	10	600V	Α	0
Operating current DC	13		_	
		110V	A	1.25
		125V	A	0.55
0		600V	Α	0.1
Operations				00000000
Mechanical life			cycles	20000000
Electrical life			cycles	2000000
Safety related data	Ind according to FN/ICO 42400 4			
Performance level B	0d according to EN/ISO 13489-1		ا ا ا	2000222
		rated load	cycles	2000000



		mechanical load	cycles	20000000
Mirror contats according	g to IEC/EN 609474-4-1			Yes
EMC compatibility				yes
Electrical characteristics				
Operating current DC13	3			
		250V	Α	0.27
		440V	Α	0.15
		500V	Α	0.13
AC coil operating	(001)		\	440
Rated AC voltage at 50	/60Hz		V	110
AC operating voltage	- £ 50/001       + 501  -			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		min max	%Us	110
	drop-out	IIIax	/ <sub>0</sub> US	110
	diop-out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	тих	7000	
	pick-up			
	prox ap	min	%Us	85
		max	%Us	110
	drop-out			
	·	min	%Us	20
		max	%Us	55
AC average coil consur	nption at 20°C			
	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
<del></del>	2000 5011	holding	VA	9
Dissipation at holding ≤	20°C 50Hz		W	2.5
DC coil operating				
DC operating voltage	niek un			
	pick-up	min	%Us	0
			%Us	0
	drop-out	max	/005	0
	arop out	min	%Us	0
		max	%Us	0
Average coil consumpti	ion ≤20°C	· · · · · · · · · · · · · · · · · · ·	,,,,,	
G = = = = 3020p.u		in-rush	W	0
		holding	W	0
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us con	ntrol			
	in AC			
	Closing NO			
		min	ms	8



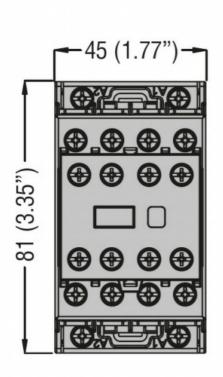


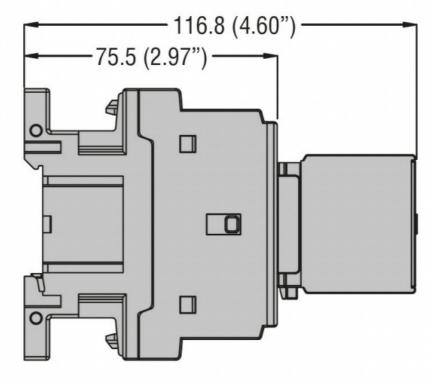
			max	ms	24
		Opening NO			
			min	ms	10
			max	ms	20
		Closing NC			
		- · · · · · · · · · · · · · · · · · · ·	min	ms	14
			max	ms	28
		Opening NC			
		5 p 5 m 19 m 2	min	ms	7
			max	ms	18
	in DC				
	20	Closing NO			
		Glooming 110	min	ms	0
			max	ms	0
		Opening NO	max	1110	v
		Oponing 110	min	ms	0
			max	ms	0
		Closing NC	παλ	1113	<del>-</del>
		Ciosing 140	min	ms	0
			max	ms	0
		Opening NC	ιιιαλ	1113	J
		Opening NC	min	ms	0
			max	ms	0
UL technical data			Παλ	1115	U
Rated operational volta	age AC (III )			V	600
Full-load current (FLA)		otor		v	
T dii load carrett (i LA)	Tor timee phase Ao III	Otol	at 480V	Α	11
			at 600V	A	11
Yielded mechanical pe	rformanco		at 000 v		
rielded friedriafildar pe	for single-phase AC	motor			
	ioi siligie-pilase Ao	motor	110/120V	HP	1
			230V	HP	2
	for three-phase AC n	ootor	230 V	1115	
	ioi tillee-pilase AC li	ilotoi	200/2081/	UD	E
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	7.5
Conoral LICE			575/600V	HP	10
General USE	Cantastar				
	Contactor		٨٥	۸	20
	Amillagerage		AC current	A	28
	Auxiliary contacts		A 🔿 10		000
			AC ourrent	V	600
			AC current	A	10
			DC voltage	V	250
Object also it is at all	f 0001/		DC current	Α	
Short-circuit protection fuse, 600V					
	High fault				100
			Short circuit current	kA	100
			Fuse rating	Α	30
	0. 1.1.		Fuse class		J
	Standard fault		01		_
			Short circuit current	kA	5
O		6. 111	Fuse rating	Α	70
Contact rating of auxilia	ary contacts according	to UL			A600 - Q600

**ENERGY AND AUTOMATION** 

THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 110VAC, 2NO+3NC AUXILIARY CONTACT

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			

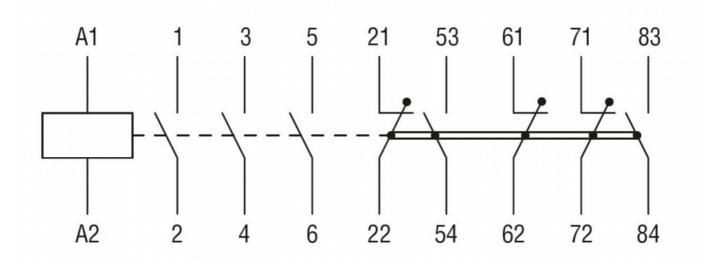




Wiring diagrams

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THREE-POLE SAFETY CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 50/60HZ, 110VAC, 2NO+3NC AUXILIARY CONTACT



## Certifications and compliance

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

cUL us

UL listed for USA and Canada

## ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching