



Product designation Product type designation			Power contactor BF25
Contact characteristics			DFZO
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated insulation voltage of IEC/EN Rated impulse withstand voltage Uimp		kV	6
- · · · · · · · · · · · · · · · · · · ·		ΚV	0
Operational frequency	min	U⇒	25
	min	Hz	25
IFC Conventional free air the recal assure at the	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le	10.4 (44000)		00
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
,	≤24V	Α	23
	48V	A	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			•
	≤24V	Α	23
	324 V 48 V	A	23
	40 V		
	75\/	Λ	23
	75V 110V	A A	23 18



	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.01		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/(= 10me mai) poise in come	≤24V	Α	_
	48V	Α	_
	75V	A	_
	110V	A	_
	220V		-
Object times allowed a summer to a 40s (IEO/ENCO047.4)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		lbin	1.5
Tightoning torque for coil terminal	max	ווטוו	1.0
Tightening torque for coil terminal	t.·	NI	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1410 (16 II			
	AWG/Kcmil			4.0
	Flevible w/e lug conductor coetien	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIdx	111111	0
	Tiexible 6/W tag conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r textele with mediated space rag conductor coolien	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	490
Conductor section				
	AWG/kcmil conductor section			
		max		10
		max		
Auxiliary contact char	acteristics	Пах		
Thermal current Ith		Пих	A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation	max	Α	
Thermal current Ith	esignation			10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation :15	230V	A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation :15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation :15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V	A A A	10 A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 212 213	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation :15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 212 213 210 according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 210 according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



December Pick-up Pi	DC rated control voltage	1 e			V	12
min		, -				
Max Mus 10 Mus Mus Mus 10 Mus Mus 10 Mus Mus 10 Mus Mus Mus 10 Mus Mus Mus 10 Mus Mus Mus Mus 10 Mus M		pick-up				
Average coll consumption ≤20°C min min mus min mus min mus min mus min mus				min		
Max Mus 10 Mus Mus 10 Mus Mus 10 Mus Mus Mus 10 Mus Mus Mus 10 Mus Mus 10 Mus Mus 10 Mus				max	%Us	125
Max		drop-out				
Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 Max cycles frequency Max cycles frequency Max cycles frequency Mechanical operation Operating times Average time for Us control In AC						
Max cycles frequency Mechanical operation Mechanical operation	A	tion <00°C		max	%US	40
Max cycles frequency	Average con consump	11011 ≥20 C		in-ruch	۱۸/	5.4
Max cycles frequency Cycles/h 3600 Mechanical operation cycles/h 3600 Operating times In AC Imax <						
Mechanical operation	Max cycles frequency			riolaling	VV	5.4
Closing NO					cvcles/h	3600
Average time for Us control In AC Closing NO Min Min					.,	
Closing NO		ontrol				
Min		in AC				
Opening NO			Closing NO			
Opening NO				min	ms	
Closing NC				max	ms	24
Closing NC			Opening NO			40
Closing NC						
Opening NC Min Ms 14 Max Ms 28 Ms Ms 28 Ms Ms Ms Ms Ms Ms Ms M			Closing NC	IIIax	1115	20
Opening NC			Closing NC	min	ms	14
Opening NC min ms 7 ms 7 ms 18 min ms 7 ms 18 min ms 7 ms 18 min ms 18 min ms 18 min ms 18 min ms 54 max ms 66 min ms 66 min ms 14 max ms 17 min ms 24 max ms 30 min ms 30 min ms 30 min ms 30 min ms 57 m						
Min max ms 7 max ms 18 min ms 7 max ms 18 min ms 18 min ms 54 max ms 66 max ms 66 max ms 66 max ms 17 max ms 30 min ms 24 max ms 30 min ms 47 max ms 57			Opening NC			
In DC			, ,	min	ms	7
Closing NO min ms 54 max ms 66 Opening NO min ms 14 max ms 17 Closing NC min ms 24 max ms 30 Opening NC min ms 24 max ms 30 Opening NC min ms 47 max ms 57 UL technical data max ms 57 UL technical data Tull-load current (FLA) for three-phase AC motor at 480V A 21 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 10 10 10 10 10 10 10				max	ms	18
Min		in DC				
Opening NO min ms 14 max ms 17			Closing NO			
Opening NO min ms 14 max ms 17						
Min ms 14 max ms 17			Opening NO	max	ms	66
Closing NC min ms 24 max ms 30			Opening NO	min	me	1.4
Closing NC min ms 24 max ms 30 Opening NC min ms 47 max ms 57 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 21 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15						
Min ms 24 max ms 30			Closing NC	max	1110	• •
Opening NC Min ms 47 max ms 57			-	min	ms	24
Min ms 47 max ms 57						
Max ms 57			Opening NC			
Comparison of Continuous Pull-load current (FLA) for three-phase AC motor State						
Full-load current (FLA) for three-phase AC motor at 480V A 21 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15				max	ms	57
At 480V A 21 at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15		(, , t)				
at 600V A 17 Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15	Full-load current (FLA)	tor three-phase AC n	notor	at 1001/	۸	24
Yielded mechanical performance for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15						
for single-phase AC motor 110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15	Yielded mechanical ne	rformance		at 000 V		11
110/120V HP 2 230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15	nolucu medianicai pe		motor			
230V HP 3 for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15		.or origio priaso AO		110/120V	HP	2
for three-phase AC motor 200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15						
200/208V HP 7.5 220/230V HP 7.5 460/480V HP 15		for three-phase AC	motor			
460/480V HP 15		·		200/208V	HP	7.5
575/600V HP 15						
				575/600V	HP	15

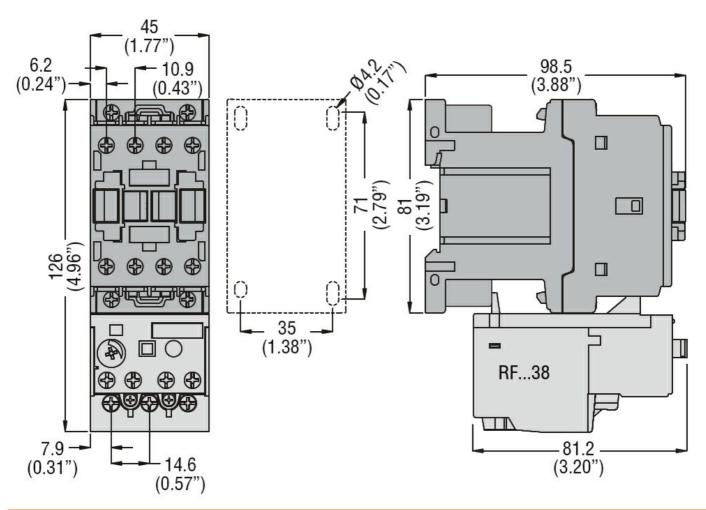




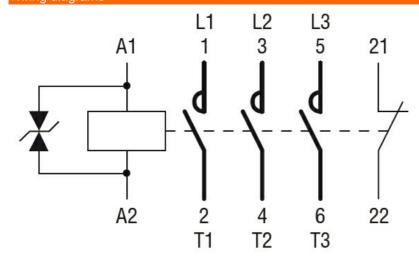
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	on fuse, 600V			
·	High fault			
	ŭ	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxi	liary contacts according to UL			A600 - P600
Ambient conditions	The state of the s			
Temperature				
	Operating temperature			
	operating temperature	min	°C	-50
		max	°C	70
	Storage temperature			. •
	Clorago temperature	min	°C	-60
		max	°C	80
Max altitude		Hida		3000
Resistance & Protect	ion		111	3000
Pollution degree				3
Dimensions [mm (in)]				J
ן ווווון פווטופוז טוווט				

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 12VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D012

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 12VDC, 1NC AUXILIARY CONTACT

CCC			
cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Product type designation		Power contactor BF25
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	32
Operational current le		
AC-1 (≤40°C)	Α	32
AC-1 (≤55°C)	Α	26
AC-1 (≤70°C)	Α	23
AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series		
≤24V	Α	20
48V	Α	18
75V	Α	18
110V	Α	6
	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		
≤24V	Α	23
48V	Α	23
75V	Α	23
110V	A	16
220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
≤24V	A	23
48V	Α	23
75V 110V	A A	23 18



BF2501D024

	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.01		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/(= 10me mai) poise in come	≤24V	Α	_
	48V	Α	_
	75V	A	_
	110V	A	_
	220V		-
Object times allowed a summer to a 40s (IEO/ENCO047.4)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		lbin	1.5
Tightoning torque for coil terminal	max	ווטוו	1.0
Tightening torque for coil terminal	t.·	NI	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1440 (144 - 11			
	AWG/Kcmil			4.0
	Flevible w/e lug conductor coetien	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIdx	111111	0
	r lexible c/w lug corrudctor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r ioxibio min modiatos opaso lag consucio cocion	min	mm²	1
		max	mm²	4
	"			IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	500
Conductor section				
	AWG/kcmil conductor section			
				4.0
		max		10
Auxiliary contact char	racteristics	max		
Thermal current Ith		max	А	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation	max	A	
Thermal current Ith	esignation			10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 215	230V	A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation 215	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 215 212	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V	A A A	10 A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 215 212 213	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 215 212	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



DC rated control volta	ge			V	24
DC operating voltage					
	pick-up				
			min	%Us	70
	duan and		max	%Us	125
	drop-out		min	%Us	10
			max	%Us	40
Average coil consump	otion ≤20°C		тих	7000	70
5			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us c					
	in AC	Clasing NO			
		Closing NO	min	ms	8
			max	ms	24
		Opening NO	max	5	
		, 5	min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
		On aning NC	max	ms	28
		Opening NC	min	ms	7
			max	ms	18
	in DC		· · · ·		
		Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
		Closing NC	max	ms	17
		Closing NC	min	ms	24
			max	ms	30
		Opening NC			
		-	min	ms	47
			max	ms	57
UL technical data		. •			
Full-load current (FLA) for three-phase	AC motor		Δ.	0.4
			at 480V	A	21
Yielded mechanical pe	erformance		at 600V	A	17
Tiologo medianical pi	for single-phase	e AC motor			
	ioi oiligio pilao	5 5 motor	110/120V	HP	2
			230V	HP	3
	for three-phase	AC motor			
	-		200/208V	HP	7.5
			220/230V	HP	7.5
			460/480V	HP HP	15 15
			575/600V		

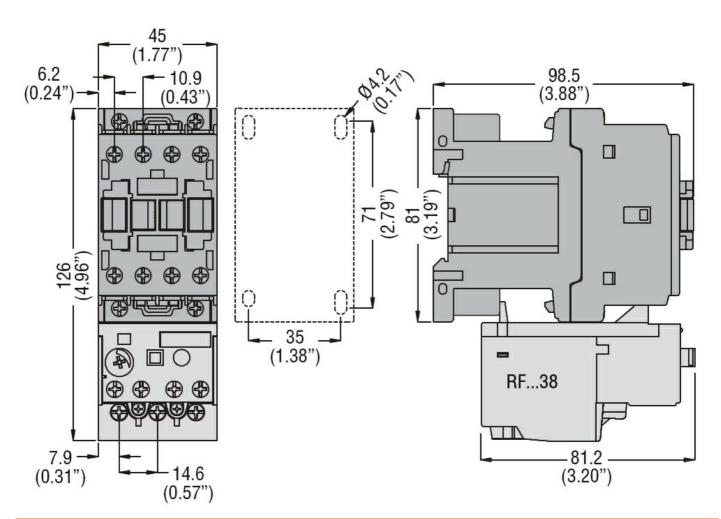




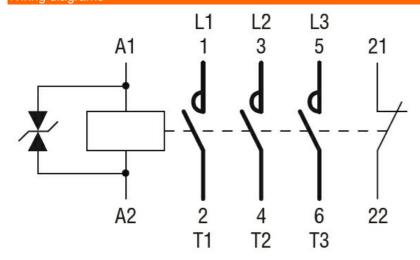
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
_	liary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature		0.0	22
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	lion			
Pollution degree				3
Dimensions [mm (in)]				

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 24VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 24VDC, 1NC AUXILIARY CONTACT

CCC			
cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Product type designation		Power contactor BF25
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	32
Operational current le		
AC-1 (≤40°C)	Α	32
AC-1 (≤55°C)	Α	26
AC-1 (≤70°C)	Α	23
AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series		
≤24V	Α	20
48V	Α	18
75V	Α	18
110V	Α	6
	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		
≤24V	Α	23
48V	Α	23
75V	Α	23
110V	A	16
220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
≤24V	A	23
48V	Α	23
75V 110V	A A	23 18





	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				_
	≤24V	Α	15	
	48V	Α	13	
	75V	Α	13	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	Α	18	
	48V	Α	18	
	75V	A	16	
	110V	Α	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 0	,,		
TEO HIEX GUITOR TO IT DOG DOG WILL ETT = TOTAL WILL O POLOS III SCHOO	≤24V	Α	22	
	48V	A	22	
	75V	A	18	
	110V	A	15	
	220V	A	8	
IFC may augrent to in DC2 DC5 with L/D < 15mg with 4 notes in corios	220 V	Α	0	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	۸		
	≤24 V 48 V	A	_	
	46 V 75 V	A	_	
		A	_	
	110V 220V	A	_	
Chart time allowable compart for 40 - (IFO/FNC0047.4)	220 V	A	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	. (150)	Δ.	50	
	gG (IEC)	A	50	
	aM (IEC)	Α	25	
Making capacity (RMS value)		Α	250	
Breaking capacity at voltage				
	440V	Α	200	
	500V	Α	184	
	690V	Α	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	W	1.6	
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	A1A/O/I/C:I			
	AWG/Kcmil	may		10
	Florible w/e lug conductor section	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max	111111	0
	Trexible 6/W rag corradotor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	. Ionale man mediated opere rag contactor coolien	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	496
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
			Λ.	4.0
			Α	10
IEC/EN 60947-5-1 de			A	A600 - P600
IEC/EN 60947-5-1 de			A	A600 - P600
IEC/EN 60947-5-1 de		230V	A	A600 - P600 3
IEC/EN 60947-5-1 de		400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V	A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Electrical life Safety related data	12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13 Iod according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000
Mirror contats accord	12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000 20000000 yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13 Iod according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000



DC rated control volta	ge			V	48
DC operating voltage					
	pick-up			0/11	70
			min	%Us	70
	drop-out		max	%Us	125
	drop-out		min	%Us	10
			max	%Us	40
Average coil consump	otion ≤20°C				-
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us c					
	in AC	Closing NO			
		Closing NO	min	ms	8
			max	ms	24
		Opening NO		_	
			min	ms	10
			max	ms	20
		Closing NC	_		
			min	ms	14
		Opening NC	max	ms	28
		Opening NC	min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			4.4
			min	ms	14 17
		Closing NC	max	ms	17
		Closing NC	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
			max	ms	57
UL technical data) for the con-	A.O			
Full-load current (FLA) for three-phase	AC MOTOR	at 400V	٨	24
			at 480V at 600V	A A	21 17
Yielded mechanical po	erformance		at 000 V		11
	for single-phas	se AC motor			
	g.2 pao		110/120V	HP	2
			230V	HP	3
	for three-phase	e AC motor			
			200/208V	HP	7.5
			000/0001/		7 -
			220/230V	HP	7.5
			220/230V 460/480V 575/600V	HP HP HP	7.5 15 15



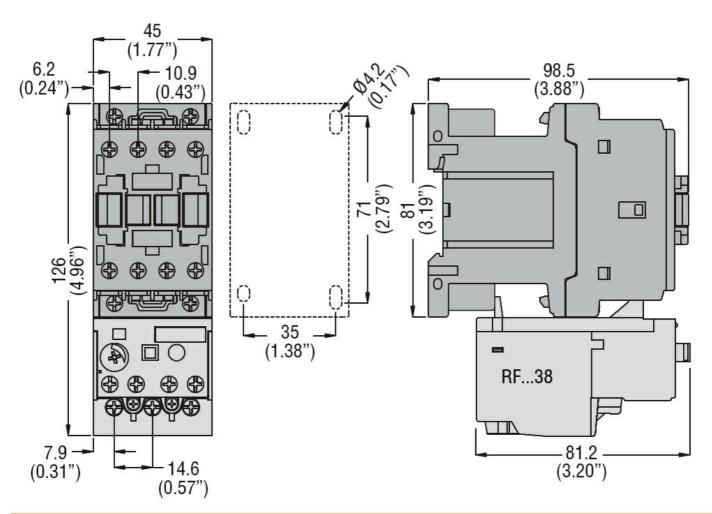


General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
·	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxili	ary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protecti	on			
Pollution degree				3
Dimensions [mm (in)]				

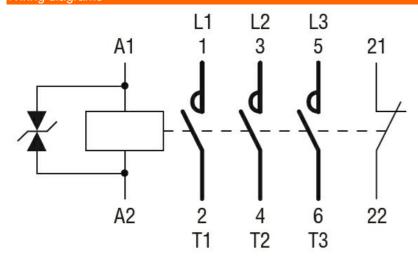


ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 48VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 48VDC, 1NC AUXILIARY CONTACT

CCC			
cULus		_	_
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Product type designation		Power contactor BF25
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	32
Operational current le		
AC-1 (≤40°C)	Α	32
AC-1 (≤55°C)	Α	26
AC-1 (≤70°C)	Α	23
AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series		
≤24V	Α	20
48V	Α	18
75V	Α	18
110V	Α	6
	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		
≤24V	Α	23
48V	Α	23
75V	Α	23
110V	A	16
220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
≤24V	A	23
48V	Α	23
75V 110V	A A	23 18



	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.01		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/(= 10me mai) poise in come	≤24V	Α	_
	48V	Α	_
	75V	A	_
	110V	A	_
	220V		-
Object times allowed a summer to a 40s (IEO/ENCO047.4)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		lbin	1.5
Tightoning torque for coil terminal	max	ווטוו	1.0
Tightening torque for coil terminal	t.·	NI	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1410 (16 11			
	AWG/Kcmil			40
	Flevible w/e lug conductor coetion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIax	111111	0
	Tiexible of wind conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r toxible with inculated opade tag conductor coolien	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	496
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		А	10 A600 - P600
Thermal current Ith	esignation			A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation :15		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation :15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation :15	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 212 213	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation :15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 212 213 210 according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000 12000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 212 213 210 according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000



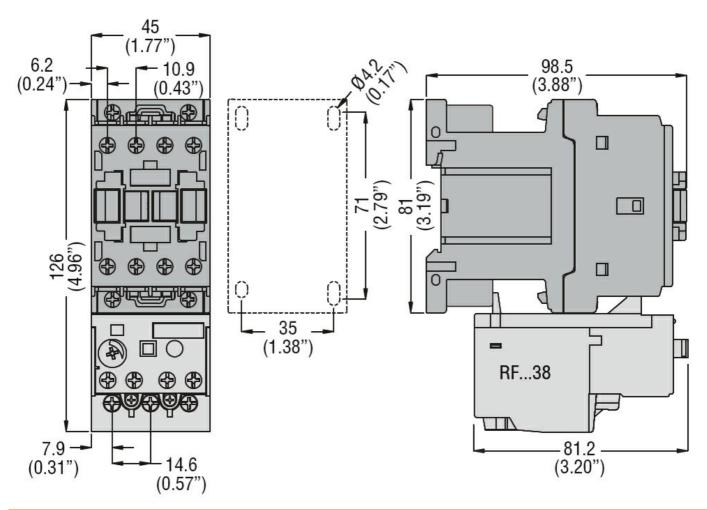
DC rated control voltage	је			V	60
DC operating voltage					
	pick-up			0/11	70
			min	%Us	70 125
	drop-out		max	%Us	120
	arop out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times Average time for Us co	ntrol				
Average line for US CC	in AC				
		Closing NO			
		g	min	ms	8
			max	ms	24
		Opening NO			
			min	ms	10
		01 : 110	max	ms	20
		Closing NC	min	m .a	4.4
			min max	ms ms	14 28
		Opening NC	max	1113	20
		oponing ito	min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	54
		Opening NO	max	ms	66
		Opening NO	min	ms	14
			max	ms	17
		Closing NC			
		-	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
UL technical data			max	ms	57
Full-load current (FLA)	for three-phase	AC motor			
. an load outfolk (I LA)	.or ando phase /	TO MOTO	at 480V	Α	21
			at 600V	Α	17
Yielded mechanical pe	erformance				
	for single-phase	e AC motor			
			110/120V	HP	2
			230V	HP	3
	for three-phase	AC motor	000/0001	UD	7.5
			200/208V 220/230V	HP HP	7.5 7.5
			460/480V	HP	7.5 15
			575/600V	HP	15
				• • • •	· •



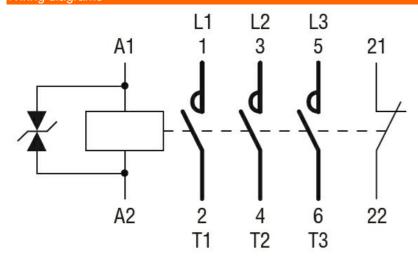


General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	on fuse, 600V			
·	High fault			
	ŭ	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxi	liary contacts according to UL			A600 - P600
Ambient conditions	The state of the s			
Temperature				
	Operating temperature			
	operating temperature	min	°C	-50
		max	°C	70
	Storage temperature			. •
	Clorago temperature	min	°C	-60
		max	°C	80
Max altitude		Hida		3000
Resistance & Protect	ion		111	3000
Pollution degree				3
Dimensions [mm (in)]				J
ן ווווון פווטופוז טוווט				





Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 60VDC, 1NC AUXILIARY CONTACT

CCC				
cULus	_		_	
EAC				

ETIM classification

ETIM 8.0

BF2501D060

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF25
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	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	A	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max carron to in 200 200 with E/X = Tome with 1 poloc in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
IFO	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	10.43.4	•	4.0
	≤24V	A	18
	48V	A	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	A	_
Short-time allowable current for 10s (IEC/EN60947-1)	220 V		200
			200
Protection fuse	~O (IFO)	۸	50
	gG (IEC)	A	50
The state of the s	aM (IEC)	<u>A</u>	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC3	W	1.6
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	HUX		
Tigitto ining to iquo for confictininal	min	Nm	0.8
		Nm	0.6 1
	max		
	min	lbin	8.0



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1410 (14 II			
	AWG/Kcmil			40
	Florible w/o live conductor costice	max		10
	Flexible w/o lug conductor section	min	mama ²	4
		min	mm² mm²	1 6
	Flexible c/w lug conductor section	max	111111	0
	r lexible c/w lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	oa.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a	min	mm²	1
		max	mm²	4
D (IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	492
Conductor section	ANAIG (I			
	AWG/kcmil conductor section			4.0
Auviliant contact char	a eta vieti ca	max		10
Auxiliary contact char Thermal current Ith	acteristics		А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	•			7,000 1 000
oporating carroint / to		230V	Α	3
		400V	A	1.9
		500V	Α	1.4
Operating current DC	:12	500V	A	1.4
Operating current DC	:12	500V 110V	<u>А</u> А	5.7
Operating current DC Operating current DC				
		110V 24V 48V	А	5.7 5.7 2.9
		110V 24V 48V 60V	A A	5.7 5.7 2.9 2.3
		110V 24V 48V 60V 110V	A A A A	5.7 5.7 2.9 2.3 1.25
		110V 24V 48V 60V 110V 125V	A A A A	5.7 5.7 2.9 2.3 1.25 1.1
		110V 24V 48V 60V 110V 125V 220V	A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC		110V 24V 48V 60V 110V 125V	A A A A	5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		110V 24V 48V 60V 110V 125V 220V	A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		110V 24V 48V 60V 110V 125V 220V	A A A A A A Cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life		110V 24V 48V 60V 110V 125V 220V	A A A A A A	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	213	110V 24V 48V 60V 110V 125V 220V	A A A A A A Cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data		110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000
Operating current DC Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000

DC rated control voltage	1e			V	110
DC operating voltage	, ,			<u>*</u>	
	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out				
			min	%Us	10
			max	%Us	40
Average coil consumpt	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency				l/-	2000
Mechanical operation				cycles/h	3600
Operating times Average time for Us co	ontrol				
Average time for 05 cc	in AC				
	шдо	Closing NO			
		Clouding 110	min	ms	8
			max	ms	24
		Opening NO			
		, ,	min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
			max	ms	28
		Opening NC	_		_
			min	ms	7
	i- DO		max	ms	18
	in DC	Closing NO			
		Closing NO	min	ms	54
			max	ms	66
		Opening NO	max	1110	00
		opog . to	min	ms	14
			max	ms	17
		Closing NC			
		-	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
			max	ms	57
UL technical data	for the second second	-4			
Full-load current (FLA)	tor three-phase AC m	otor	- (400) /	^	24
			at 480V	A A	21
Yielded mechanical pe	rformance		at 600V	А	17
пешей теспапісаі ре	for single-phase AC	motor			
	ioi sirigie-priase AC	motor	110/120V	HP	2
			230V	HP	3
	for three-phase AC r	motor	2001		
			200/208V	HP	7.5
			220/230V	HP	7.5
			460/480V	HP	15
			575/600V	HP	15



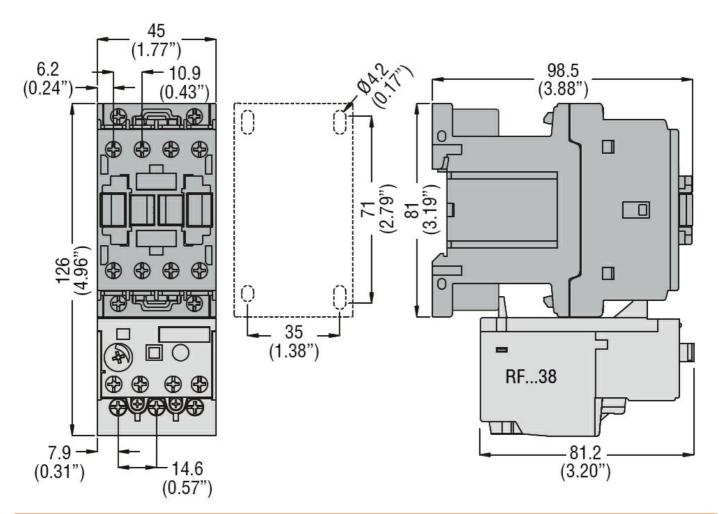


ENERGY AND AUTOMATION

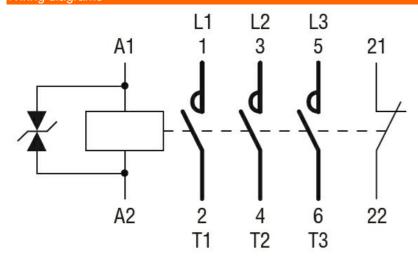
General USE			
Contactor			
	AC current	Α	32
Auxiliary contacts			
·	AC voltage	V	600
	AC current	Α	10
	DC voltage	V	250
	DC current	Α	1
Short-circuit protection fuse, 600V			
High fault			
-	Short circuit current	kA	100
	Fuse rating	Α	60
	Fuse class		J
Standard fault			
	Short circuit current	kA	5
	Fuse rating	Α	100
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
· · ·	min	°C	-50
	max	°C	70
Storage temperature			
Ŭ i	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions [mm (in)]			

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 110VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 110VDC, 1NC AUXILIARY CONTACT

CCC	
cULus	
EAC	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product type designation Contact characteristics Number of poles Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Operational frequency	min max AC-1 (≤40°C)	Nr. V kV Hz Hz A	3 690 6 25 400
Number of poles Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp	max	V kV Hz Hz	690 6 25 400
Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp	max	V kV Hz Hz	690 6 25 400
Rated impulse withstand voltage Uimp	max	kV Hz Hz	6 25 400
	max	Hz Hz	25 400
Operational frequency	max	Hz	400
	max	Hz	400
	AC-1 (≤40°C)	Α	
IEC Conventional free air thermal current Ith	AC-1 (≤40°C)		32
Operational current le	AC-1 (≤40°C)		
		Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
AC-	-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	A	6
150 H : DO4 31 1 /D 44 31 0 1 1 1	220V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		_	
	≤24V	A	23
	48V	A	23
	75V	A	23
	110V	A	16
IEC may autrent to in DC1 with 1/D < 4 may with 0 males in action	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	20 A) I	Δ	00
	≤24V	A	23
	48V	A	23
	75V 110V	A A	23
	1100	~	18



	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.0.4		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/(= 10me mai 1 perso in come	≤24V	Α	_
	48V	A	_
	75V	A	_
	110V	A	_
	220V		-
Object times allowed a summer to a 40s (IEO/ENCO047.4)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	lth	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		Ibin	1.5
Tightoning torque for coil terminal	max	וווטו	1.0
Tightening torque for coil terminal	t. ·	N I	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



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		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	ANAC/Komil			
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	r lexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		<u> </u>
	Troductor of Wilag confederal coolien	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			<u> </u>
	The second secon	min	mm²	1
		max	mm²	4
D				IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	493
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auviliany contact char	racteristics			
•				
Thermal current Ith			Α	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		Α	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	2001		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 do Operating current AC	esignation 215		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC	esignation 215	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 do Operating current AC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation C15 C12 C13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Thermal current Ith IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation C15 C12 C13 C10	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000
Thermal current Ith IEC/EN 60947-5-1 do Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	esignation C15 C12 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 12000000
	esignation C15 C12 C13 C10	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000

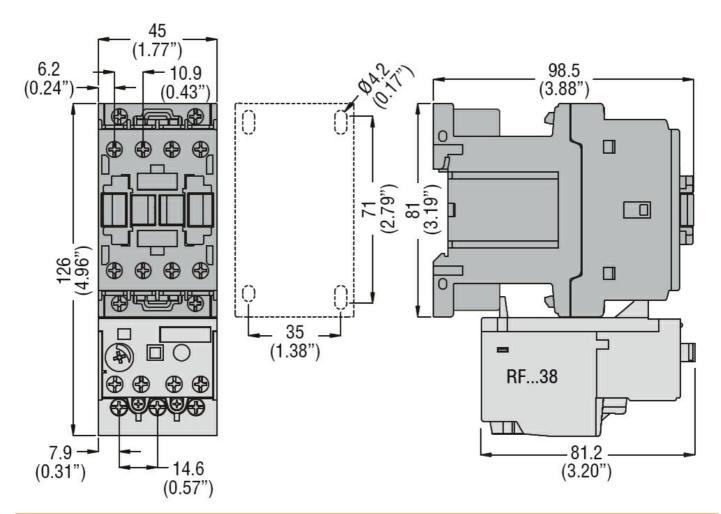
DC rated control voltage	1 e			V	125
DC operating voltage	, -				
	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out				
			min	%Us	10
A	tion <20°C		max	%Us	40
Average coil consumpt	11011 ≥20 C		in-rush	W	5.4
			holding	W	5.4
Max cycles frequency			Holding	VV	5.4
Mechanical operation				cycles/h	3600
Operating times				, , , , ,	
Average time for Us co	ontrol				
	in AC				
		Closing NO			
			min	ms	8
		•	max	ms	24
		Opening NO			40
			min	ms	10
		Closing NC	max	ms	20
		Closing NO	min	ms	14
			max	ms	28
		Opening NC			
		, ,	min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	54
		Opening NO	max	ms	66
		Opening NO	min	ms	14
			max	ms	17
		Closing NC	ПОХ	1110	.,
		o rouning i ro	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
			max	ms	57
UL technical data	for the control of the				
Full-load current (FLA)	tor three-phase AC m	notor	ct 400V	۸	24
			at 480V at 600V	A A	21 17
Yielded mechanical pe	rformance		at 000 V		11
nolucu medianicai pe	for single-phase AC	motor			
	.or onigio priaso Ao		110/120V	HP	2
			230V	HP	3
	for three-phase AC	motor			_
	•		200/208V	HP	7.5
			220/230V	HP	7.5
			460/480V	HP	15
			575/600V	HP	15



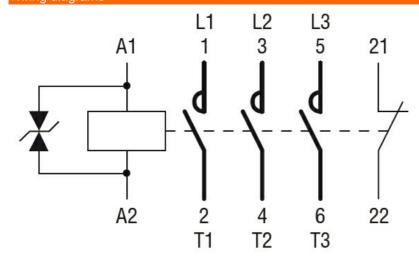


Contactor AC current					
AC current	General USE				
Auxiliary contacts AC voltage		Contactor			
AC voltage			AC current	Α	32
AC current A 10 DC voltage V 250 DC current A 1 10 DC voltage DC current A 1 DC Current Eligible Fuse rating A 60 Fuse rating A 60 Fuse class J Standard fault Short circuit current Eligible Fuse rating A 100 DC Contact rating of auxiliary contacts according to UL A600 - P600 DC Contact rating of auxiliary contacts according to UL A600 - P600 DC Contact rating of auxiliary contacts according to UL A600 - P600 DC CONTACT CONTAC		Auxiliary contacts			
DC voltage V 250 DC current			_	V	
DC current					
Short-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Fuse rating A 100 Standard fault Short circuit current kA 5 Standard fault Short circuit current kA Standard fault Short circuit current Standard fault Short				V	250
High fault			DC current	Α	1
Short circuit current KA 100 Fuse rating A 60 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 100	Short-circuit protection	on fuse, 600V			
Fuse rating		High fault			
Standard fault Short circuit current kA 5 Fuse rating A 100 Contact rating of auxiliary contacts according to UL A600 - P600 Combient conditions Emperature Operating temperature Min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude Max altitude Pollution degree Standard fault Short circuit current kA 5 Fuse rating A 100 A600 - P600			Short circuit current	kA	100
Standard fault Short circuit current Fuse rating A 100			Fuse rating	Α	60
Short circuit current Fuse rating A 100 Contact rating of auxiliary contacts according to UL A600 - P600 Imbient conditions Comperature Operating temperature Min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude Max altitude Resistance & Protection Pollution degree Short circuit current kA 5 Fuse rating kA 100 A600 - P600 A600 - P60			Fuse class		J
Fuse rating A 100		Standard fault			
Contact rating of auxiliary contacts according to UL			Short circuit current	kA	5
Operating temperature Operating temperature min °C -50 max °C 70			Fuse rating	Α	100
Operating temperature Operating temperature min °C -50 max °C 70	Contact rating of auxi	liary contacts according to UL			A600 - P600
Operating temperature	Ambient conditions	· ·			
Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3	Temperature				
min °C -50 max °C 70	·	Operating temperature			
max °C 70		1 0 1	min	°C	-50
Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Second color of the color			max	°C	
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3		Storage temperature			
Max altitude m 3000 Resistance & Protection Pollution degree 3		O 	min	°C	-60
Max altitude m 3000 Resistance & Protection Pollution degree 3					
Resistance & Protection Pollution degree 3	Max altitude				
Pollution degree 3		tion			
<u> </u>					3
	Dimensions [mm (in)]				

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 125VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D125

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 125VDC, 1NC AUXILIARY CONTACT

CCC		
cULus		
EAC		

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation Product type designation			Power contactor BF25
Contact characteristics			DFZO
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
·		K V	0
Operational frequency	min	U⇒	25
	min	Hz	25
IFC Conventional free circle areas a surrout like	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le	AO 4 (<40°O)	^	00
	AC-1 (≤40°C)	A	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
•	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18
		•	



	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.0.4		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/(= 10me mai 1 perso in come	≤24V	Α	_
	48V	A	_
	75V	A	_
	110V	A	_
	220V		-
Object times allowed a summer to a 40s (IEO/ENCO047.4)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	lth	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		Ibin	1.5
Tightoning torque for coil terminal	max	וווטו	1.0
Tightening torque for coil terminal	t. ·	N I	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



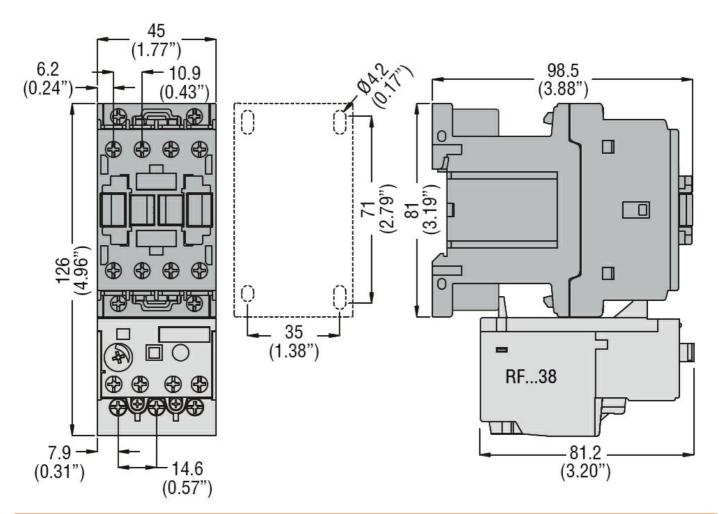
	max	Ibin	0.74
nultaneously connectable		Nr.	2
ANAC/Kamil			
AWG/Kcmil	may		10
Elevible w/o lug conductor section	max		10
Texible W/o lug conductor section	min	mm²	1
			6
Flexible c/w lug conductor section			
S	min	mm²	1
	max	mm²	4
Flexible with insulated spade lug conductor section			
	min	mm²	1
	max	mm²	4
n according to IEC/EN 60529			IP20 when
Traccording to IEO/EIV 00023			properly wired
			Vertical plan
	allowable		±30°
			Screw / DIN rail 35mm
			500
		y	500
AWG/kemil conductor section			
AVIG/Remii conductor section	may		10
eristics	IIIax		10
priotio0		Α	10
 unation			A600 - P600
			7.000
	230V	Α	3
	400V	Α	1.9
	500V	Α	1.4
	110V	Α	5.7
	24V	Α	5.7
	48V	Α	2.9
	60V	Α	2.3
	110V	Α	1.25
	125V	Α	1.1
	220V	Α	0.55
	600V	Α	0.2
			00000000
			20000000
		cycles	
		cycles cycles	1200000
according to FN/ISO 42400 4			
according to EN/ISO 13489-1	make discut	cycles	1200000
	rated load	cycles	1200000
me	rated load echanical load	cycles	1200000 1200000 20000000
		cycles	1200000
	Flexible w/o lug conductor section Flexible c/w lug conductor section Flexible with insulated spade lug conductor section n according to IEC/EN 60529 AWG/kcmil conductor section eristics nation	min max Flexible c/w lug conductor section Flexible with insulated spade lug conductor section min max Flexible with insulated spade lug conductor section min max n according to IEC/EN 60529 AWG/kcmil conductor section max eristics mation 230V 400V 500V 110V	min mm² max mm² Flexible c/w lug conductor section Flexible with insulated spade lug conductor section min mm² max mm² Flexible with insulated spade lug conductor section min mm² max mm² n according to IEC/EN 60529 AWG/kcmil conductor section max g Aunation 230V A 400V A 500V A 110V A 24V A 48V A 66V A 110V A 66V A 110V A

DC rated control voltage	ie			V	220
DC operating voltage	<i>,</i> -			•	
1 0 0	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out				_
			min	%Us	10
_			max	%Us	40
Average coil consumpt	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency				. "	0000
Mechanical operation				cycles/h	3600
Operating times	ntrol				
Average time for Us co	in AC				
	III AC	Closing NO			
		Closing NO	min	ms	8
			max	ms	24
		Opening NO	max	5	_ ·
		-	min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
			max	ms	28
		Opening NC			
			min	ms	7
			max	ms	18
	in DC	Ola aira a NO			
		Closing NO	min	mo	54
			max	ms ms	66
		Opening NO	Παλ	1113	00
		opening 140	min	ms	14
			max	ms	17
		Closing NC		-	
		Ŭ	min	ms	24
			max	ms	30
		Opening NC			
			min	ms	47
			max	ms	57
UL technical data					
Full-load current (FLA)	for three-phase AC m	otor		_	
			at 480V	A	21
Violded messbergiest	rformones		at 600V	Α	17
Yielded mechanical pe		motor			
	for single-phase AC	IIIUUI	110/120V	HP	2
			230V	HP	2 3
	for three-phase AC n	notor	230 V	1 11	
	ioi unoo piidoe Ao II	110.01	200/208V	HP	7.5
			220/230V	HP	7.5
			460/480V	HP	15
			575/600V	HP	15

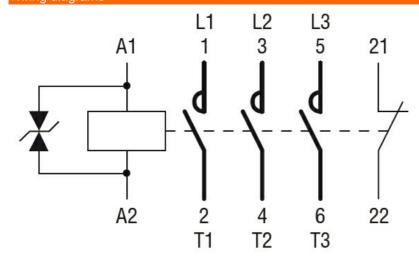


General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxili	ary contacts according to UL			A600 - P600
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	on			
Pollution degree				3
Dimensions [mm (in)]				
[()]				

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 220VDC, 1NC AUXILIARY CONTACT



Wiring diagrams



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

UL 60947-1

UL 60947-4-1

Certificates



BF2501D220

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, DC COIL, 220VDC, 1NC AUXILIARY CONTACT

CCC		
cULus		
EAC		

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching