



Product designation Product type designation			Power contactor BF18
Contact characteristics			Birlo
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 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	18
	AC-4 (400V)	А	8.5
Rated operational power AC-3 (T≤55°C)			
	230V	kW	4
	400V	kW	7.5
	415V	kW	9
	440V	kW	9
	500V	kW	10
	690V	kW	10
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 1 poles in series			
	≤24V	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
IFC may autrent to in DC1 with 1/D < 1ma with 2 males in a min	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	~0 M /	۸	22
	≤24V	A	22
	48V 75V	A	22
		A	20 16
	110V	А	16

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	220V	А	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	22
	48V	А	22
	75V	A	20
	110V	A	18
	220V		
	2200	A	13
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			
	≤24V	A	12
	48V	Α	11
	75V	Α	11
	110V	А	2
	220V	А	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	А	15
	48V	A	13
	75V	A	13
	110V	А	8
	220V	А	2
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series			
	≤24V	А	18
	48V	А	18
	75V	A	16
	110V	A	12
	220V	A	6
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series		_	
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	А	13
	220V	A	8
Short-time allowable current for 10s (IEC/EN60947-1)	2201	A	200
Protection fuse		~	200
		Λ	22
	gG (IEC)	A	32
	aM (IEC)	A	20
Making capacity (RMS value)		Α	180
Breaking capacity at voltage			
	440V	А	144
	500V	A	120
	690V	A	94
Posistanco por polo (avorago valuo)	000 v	mΩ	2.5
Resistance per pole (average value)		11122	2.0
Power dissipation per pole (average value)	·		
	lth	W	2.6
	AC-3	W	0.8
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	Παλ		1.0
		NL	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8

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Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section			INI.	2
	AWG/Kcmil			
	AWO/ACIIII	max		10
	Flexible w/o lug conductor section	max		10
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Device to make all a mate				IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rai
				35mm
Weight			g	492
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			A	10
IEC/EN 60947-5-1 de	•			A600 - P600
Operating current AC	15			
		230V	А	3
		400V	A	1.9
		500V	A	1.4
Operating current DC	12			
		110V	A	5.7
	10			
Operating current DC	13			
Operating current DC	15	24V	А	5.7
Operating current DC	13	48V	А	2.9
Operating current DC	13	48V 60V	A A	2.9 2.3
Operating current DC	13	48V 60V 110V	A A A	2.9 2.3 1.25
Operating current DC	13	48V 60V 110V 125V	A A A A	2.9 2.3 1.25 1.1
Operating current DC	13	48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
	13	48V 60V 110V 125V	A A A A	2.9 2.3 1.25 1.1
Operations	13	48V 60V 110V 125V 220V	A A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life		48V 60V 110V 125V 220V	A A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operations Mechanical life Electrical life Safety related data	13 10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data	0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data Performance level B1	0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operations Mechanical life Electrical life Safety related data Performance level B1	0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000

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					0.4
DC rated control voltage	je			V	24
DC operating voltage	niek un				
	pick-up		min	%Us	70
			max	%Us	125
	drop-out		Παλ	/003	125
			min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C			,	
5 1			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency			J		
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			
			min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
			max	ms	28
		Opening NC			7
			min	ms	7 18
	in DC		max	ms	10
	III DC	Closing NO			
		Closing NO	min	ms	54
			max	ms	66
		Opening NO	тах	mo	00
		e per mig i te	min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA)	for three-phase AC	motor			
. ,	-		at 480V	А	14
			at 600V	А	17
Yielded mechanical pe	rformance				
	for single-phase A	C motor			
			110/120V	HP	1
			230V	HP	3
	for three-phase AC	c motor			
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	10
<u> </u>			575/600V	HP	15
General USE					
	Contactor				
	A 111		AC current	A	32
	Auxiliary contacts				600
			AC voltage	V	600
			AC current	A	10

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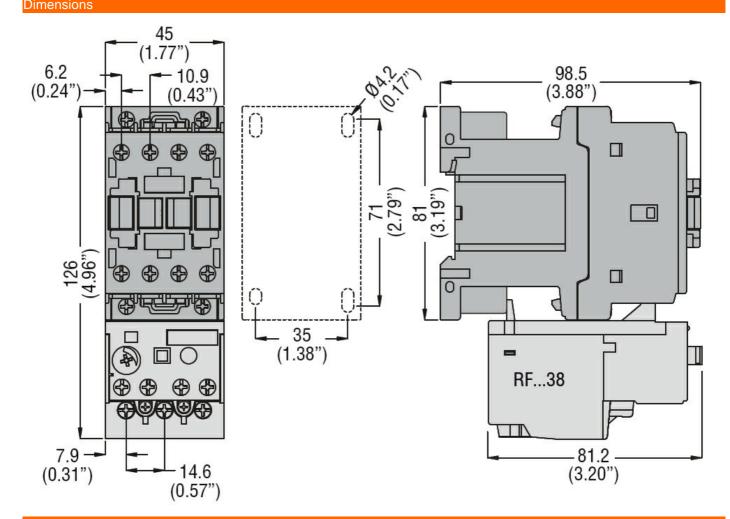


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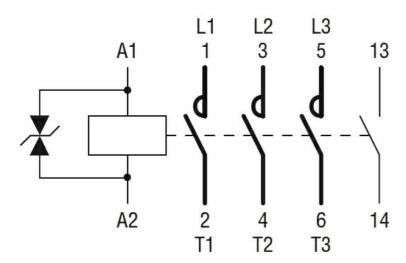
		DC voltage	V	250
		DC current	А	1
Short-circuit protecti	ion fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	А	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	80
Contact rating of aux	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ction			
Pollution degree				3
Dimensions				



## Wiring diagrams

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## Certifications and compliance

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	
	CCC
	cULus
	EAC
ETIM classification	

ETIM 8.0

EC000066 -Power contactor, AC switching

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