





Product designation Power contactor Product type designation **BF18** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k۷ Rated impulse withstand voltage Uimp 6 Operational frequency min Нъ 25 Hz 400 max IEC Conventional free air thermal current Ith 32 Α 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 18 AC-4 (400V) 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 ≤ 1ms with 1 poles in series ≤24V Α 17 48V Α 15 75V Α 15 110V Α 6 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 20 48V Α 20 75V Α 20 110V Α 13 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 22 22 48V Α 75V Α 20 110V 16





	220V	Α	11	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	22	
	48V	Α	22	
	75V	Α	20	
	110V	Α	18	
	220V	A	13	
IFC may current to in DC2 DC5 with L/D < 15mg with 1 notes in parise	220 V	Α	13	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		_		
	≤24V	Α	12	
	48V	Α	11	
	75V	Α	11	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
120 113A 33H 31H 3 H 2 G 3 E 3 H 1 H 2 H 2 H 2 H 2 H 2 H 2 H 2 H 2 H 2	≤24V	Α	15	
	48V	Α	13	
	75V	A	13	
	110V	Α	8	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	12	
	220V			
150	2201	Α	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_		
	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	13	
	220V	Α	8	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse				
Totalian ruda	aG (IEC)	۸	32	
	gG (IEC)	A		
N. II. (D110 1)	aM (IEC)	Α .	20	
Making capacity (RMS value)		Α	180	
Breaking capacity at voltage				
	440V	Α	144	
	500V	Α	120	
	690V	Α	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
Tomor dissipation per pere (average value)	Ith	W	2.6	
The factor to the factor of th	AC-3	W	0.8	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
		Ibin		
	min	ווטו	8.0	





AWG/Kcmil Max			max	Ibin	0.74
AWG/Kcmil Flexible w/o lug conductor section Flexible c/w lug conductor section Flexible with insulated spade lug conductor section Flexib		simultaneously connectable		Nr.	2
Plexible w/o lug conductor section	Conductor section	ANA 0.11			
Flexible w/o lug conductor section		AWG/Kcmil			4.0
Flexible c/w lug conductor section min		Florible/s los conductos costico	max		10
Flexible c/w lug conductor section		Flexible w/o lug conductor section	min	mm²	1
Flexible c/w lug conductor section					
Place		Flevible c/w lug conductor section	IIIax	111111	U
Flexible with insulated spade lug conductor section min max mm² 1 max 1 max mm² 1 max mm² 1 max mm² 1 max mm² 1 max		Tickible 6/Wildy conductor section	min	mm²	1
Flexible with insulated spade lug conductor section min mm² mm² 4					
Main		Flexible with insulated spade lug conductor section			•
Power terminal protection according to IEC/EN 60529 Power terminal protection according to IEC/EN 60529 Power terminal protection according to IEC/EN 60529 Power terminal protection allowable \$30°			min	mm²	1
Property wired Prop			max	mm²	4
Mechanical features Operating position normal allowable Vertical plan ±30° Fixing Screw / DIN rail 35mm Weight g 500 Conductor section max 10 Auxiliary contact characteristics 3 10 Thermal current lth A 10 10 IEC/EN 60947-5-1 designation A000 - P600 P600 Operating current AC15 230V A 3 3 Operating current DC12 110V A 5.7 4 Operating current DC13 24V A 5.7 5.7 Operating current DC13 24V A 5.7 2.9 Auxiliary contact characteristics 4.0 4.0 2.9 Applications A 10 1.0 4.0<	Power terminal protect	ction according to IEC/EN 60520			IP20 when
Operating position normal allowable Vertical plan allowable 430° Fixing g 500 Weight g 500 Conductor section max 10 AUX/liary contact characteristics w 10 IEC/EN 60947-5-1 designation A 10 Operating current AC15 230V A 3 A 600 - P600 Operating current DC12 230V A 1.9 A 5.7 Operating current DC12 110V A 5.7 A 5.7 Operating current DC13 24V A 5.7 A 5.7 Operating current DC13 48V A 2.9 A 2.3 Applications A 1.1 A 1.25 Applications A 1.25 A 1.1 Applications A 1.25 A 1.1 Applications A 1.25 A 1.1 Applications A 1.25 A 1.25 Applications A 1.25		Stion according to IEC/EIN 00329			properly wired
Normal allowable Normal 130	Mechanical features				
Pixing Screw N DIN rail 35mm	Operating position				
Screw / DIN rail 35mm					
Simple S			allowable		
Weight g 500 Conductor section AWG/kcmil conductor section Max 10 Auxiliary contact characteristics Thermal current Ith A 00 BEECH 60947-5-1 designation A600 - P600 Operating current AC15 230V A 3 400V A 1.9 500V A 1.4 Operating current DC12 110V A 5.7 Operating current DC13 24V A 5.7 48V A 2.9 60V A 2.3 110V A 1.25 125V A 1.1 220V A 0.55 600V A 0.2 Operations Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data <tr< td=""><td>Fixing</td><td></td><td></td><td></td><td></td></tr<>	Fixing				
AWG/kcmil conductor section max	Maight				
AWG/kcmil conductor section max 10 Auxiliary contact characteristics Thermal current lth A 10 IEC/EN 60947-5-1 designation A600 - P600 Operating current AC15 230V A 3 400V A 1,4 Coperating current DC12 110V A 5,7 Operating current DC13 24V A 5,7 Operating current DC13 24V A 5,7 Operating current DC13 48V A 2,9 60V A 1,25 60V A 2,3 60V A 2,3 60V A 1,25 60V A 1,				9	500
Max 10 Auxiliary contact characteristics	Conductor Section	AWG/kemil conductor section			
Auxiliary contact characteristics		AVVG/Remiii conductor section	may		10
Thermal current Ith A 10 IEC/EN 60947-5-1 designation A600 - P600 Operating current AC15 230V A 3 400V A 1.9 500V A 1.4 Operating current DC12 110V A 5.7	Auxiliary contact char	acteristics	max		10
EC/EN 60947-5-1 designation				Α	10
Comparising current AC15 230V A 3 400V A 1.9 500V A 1.4		esignation			A600 - P600
230V					
S00V A 1.4 No			230V	Α	3
Operating current DC12			400V	Α	1.9
110V				۸	1 /
Operating current DC13			500V	A	1.4
24V A 5.7 48V A 2.9 60V A 2.3 110V A 1.25 125V A 1.1 1.25V A 0.55 600V A 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.2 0.3	Operating current DC	12	500V	Α	1.4
A8V A 2.9 60V A 2.3 110V A 1.25 125V A 1.1					
60V			110V		5.7
110V A 1.25 125V A 1.1 125V A 0.55 125V A 0.55 1220V A 0.55 1220V A 0.55 1220V A 0.2 1220V A 0.55 1220V A 0.2 1220V A 0.55 1220V A 0.5			110V 24V	A A	5.7
125V A 1.1 220V A 0.55 600V A 0.2			110V 24V 48V	A A A	5.7 5.7 2.9
220V A 0.55			110V 24V 48V 60V	A A A	5.7 5.7 2.9 2.3
Operations Cycles 20000000 Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes			110V 24V 48V 60V 110V	A A A A	5.7 5.7 2.9 2.3 1.25
Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes			110V 24V 48V 60V 110V 125V	A A A A	5.7 5.7 2.9 2.3 1.25 1.1
Mechanical life cycles 20000000 Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 cycles mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes			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
Electrical life cycles 1600000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes	Operating current DC		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
Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes	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
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes	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
rated load cycles 1600000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility rated load cycles 20000000 yes yes	Operations Mechanical life Electrical 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
mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes	Operating current DC Operations Mechanical life Electrical life Safety related data	113	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
Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes	Operating current DC Operations Mechanical life Electrical life Safety related data	113	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 1600000
EMC compatibility yes	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 1600000
· · · · · · · · · · · · · · · · · · ·	Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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 1600000 1600000 200000000
	Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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 1600000 1600000 20000000 yes

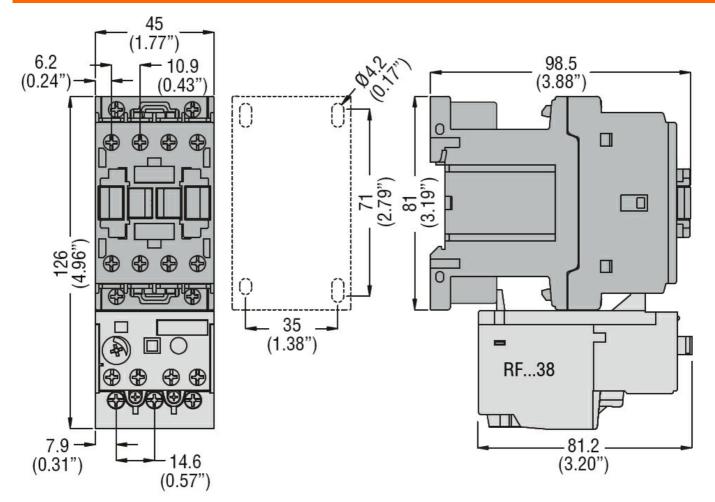




50				.,	0.4
DC rated control voltage	ge			V	24
DC operating voltage	minle con				
	pick-up		min	%Us	80
			max	%Us %Us	110
	drop-out		IIIdx	/603	110
	drop-out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C			7000	
3 1			in-rush	W	2.4
			holding	W	2.4
Max cycles frequency			J		
Mechanical operation				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
		01 1 110	max	ms	20
		Closing NC			4.4
			min	ms	14
		Opening NC	max	ms	28
		Opening NC	min	me	7
			max	ms ms	18
	in DC		max	1110	10
	111 20	Closing NO			
		0.00g 0	min	ms	75
			max	ms	91
		Opening NO			
			min	ms	15
			max	ms	19
UL technical data					
Full-load current (FLA)	for three-phase AC	motor			
			at 480V	Α	14
			at 600V	Α	17
Yielded mechanical pe					
	for single-phase A0	C motor			
			110/120V	HP	1
	-		230V	HP	3
	for three-phase AC	motor			_
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP HD	10
General USE			575/600V	HP	15
General USE	Contactor				
	COMICACION		AC current	Α	32
	Auxiliary contacts		AC Current	^	J <u>Z</u>
	Administry Cornacts		AC voltage	V	600
			AC current	A	10
			, to duriont		. •

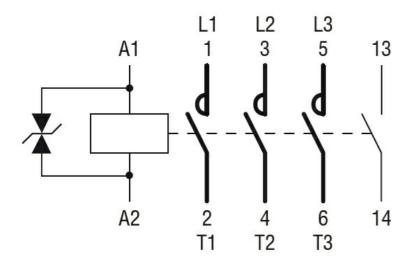


		DC voltage	V	250
		DC current	Α	1
Short-circuit protecti	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	80
Contact rating of aux	kiliary contacts according to UL			A600 - P600
Ambient conditions				
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





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

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching