



Product designation			Power contactor
Product type designation			BF18
Contact characteristics		N la	4
Number of poles		Nr. V	4
Rated insulation voltage Ui IEC/EN			690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency	min		25
	min	Hz Hz	25 400
IEC Conventional free air thermal current Ith	max	<u>п</u> 2 А	32
Operational current le		A	32
Operational current le	AC-1 (≤40°C)	А	32
	AC-1 (≤40 C) AC-1 (≤55°C)	A	26
	AC-1 (≤35 C) AC-1 (≤70°C)	A	23
	AC-3 (≤440V ≤55°C)	A	18
	AC-3 (34407 353 C) AC-4 (400V)	A	8.5
Rated operational power AC-1 (T≤40°C)	AC-4 (400V)	Λ	0.0
	230V	kW	12
	200V 400V	kW	21
	400V 500V	kW	26
	690V	kW	36
Short-time allowable current for 10s (IEC/EN60947-1)		A	200
Protection fuse			200
	gG (IEC)	А	32
	aM (IEC)	A	20
Making capacity (RMS value)		A	180
Breaking capacity at voltage			
	440V	А	144
	500V	А	120
	690V	А	94
Resistance per pole (average value)		mΩ	2.5
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	lbin	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
Max number of wires simultaneously connectable		Nr.	2



2NO AND 2NC

ENERGY AND AUTOMATION

Mechanical features     property Wilet       Operating position     normal allowable     +30°       Fixing     Screw / DIN rallowable     +30°       Weight     g     500       Conductor section     max     10       Operations     max     10       Electrical life     cycles     2000000       Electrical life     cycles     1600000       Safety related data     Performance level B10d according to EN/ISO 13489-1     rated load     cycles     1600000       Mirror contats according to IEC/EN 609474-4-1     YES     20000000     1600000       Mirror contats according to IEC/EN 609474-4-1     YES     20000000       Color operating     yes     20000000     100       DC coil operating     yes     2000000     100       DC operating voltage     versition     xersition     125       drop-out     mina     %US     10       max     %US     10     10       Average time for Us control voltage     cycles/h     3600       Operating times     cycles/h     3600 <th></th> <th></th> <th></th> <th></th> <th></th>					
Imax         10           Flexible w/o lug conductor section         min         mm²         1           max         mm²         6           Flexible c/w lug conductor section         min         mm²         1           max         mm²         1         max         mm²         1           Flexible with insulated spade lug conductor section         min         mm²         1         1           Power terminal protection according to IEC/EN 60529         mm²         1         1         1         1           Mochanical features         Operating position         normal         Vertical plan         30°         10           Fixing	Conductor section				
Flexible w/o lug conductor section       min       mm²       1         max       mm²       1         Flexible c/w lug conductor section       min       mm²       1         max       mm²       1       max       mm²       6         Flexible with insulated spade lug conductor section       min       mm²       1       1         Power terminal protection according to IEC/EN 60529       mm²       1       1       1         Power terminal protection according to IEC/EN 60529       mm²       1		AWG/Kcmil	may		10
min         mm²         1           Flexible c/w lug conductor section         min         mm²         1           min         mm²         1         min         mm²         1           Flexible with insulated spade lug conductor section         min         mm²         1           Power terminal protection according to IEC/EN 60529         IP20 when property wited         IP20 when property wited           Mechanical features         omoral allowable         Vertical plan         Screw / DIN respective wited           Operating position         normal allowable         Screw / DIN respective wited         Screw / DIN respective wited           Fixing         g         500         Screw / DIN respective wited         Screw / DIN respective wited           Conductor section         g         500         Screw / DIN respective wited         Screw / DIN respective wited           Questions         g         500         Screw / DIN respective wited         Screw / DIN respective wited           Conductor section         g         500         Screw / DIN respective wited         Screw / DIN respective wited           Performance level B10d according to EN/ISO 13489-1         respective wited         Screw / DiN respective wited         Screw / DiN respective wited           DC catred control voltage         V         1		Elevible w/o lug conductor section	IIIdX		10
max         mm²         6           Flexible c/w lug conductor section         min         mm²         1           max         mm²         4           Flexible with insulated spade lug conductor section         min         mm²         4           Power terminal protection according to IEC/EN 60529         min         mm²         4           Power terminal protection according to IEC/EN 60529         mormal         Vertical plan           Machanical features         vertical plan         son           Operating position         mormal         Vertical plan           Biowable         son         son           Weight         g         500           Conductor section         max         10           Operations         mechanical load         cycles           Weight         cycles         20000000           Electrical life         cycles         1600000           Safety related data         yes         0           Performance level B10d according to EN/ISO 13489-1         rated load         cycles         1600000           Mirror contats according to IEC/EN 609474-4-1         yes         20000000         1600000           Colo operating voltage         pick-up         yes         10			min	mm²	1
Flexible c/w lug conductor section         min         mm²         1           Flexible with insulated spade lug conductor section         min         mm²         4           Power terminal protection according to IEC/EN 60529         min         mm²         4           Power terminal protection according to IEC/EN 60529         IP20 when property wired         Power terminal protection according to IEC/EN 60529         IP20 when property wired           Additional features         orresting         Screw / DIN resting         Screw / DIN resting           Operating position         g         500         Screw / DIN resting         Screw / DIN resting           Weight         g         500         Screw / DIN resting         Screw / DIN resting         Screw / DIN resting           Weight         g         500         Screw / DIN resting         Screw / DIN resting         Screw / DIN resting           Conductor section         max         10         Operations         To         Screw / DIN resting					
min         mm²         1           max         mm²         4           Pewer terminal protection according to IEC/EN 60529         IP20 when property wired           Mechanical features         IP20 when property wired           Operating position         normal         Vertical plan allowable           Meight         g         50°           Fixing         Screw / DIN re 35mm         Screw / DIN re 35mm           Weight         g         50°           Conductor section         max         10           Operating life         cycles         20000000           Electrical life         cycles         100000           State         cycles         100000           State         readel load         cycles         1600000           Electrical life         cycles         1600000         20000000           State         readel load         cycles         1600000           Mirror contats according to EIV/SO 13489-1         retad load         cycles         1600000           Mirror contats according to EIC/EN 609474-4-1         yes         20000000         20000000           DC cold operating         tested load         cycles         10           DC coperating voltage         V		Flexible c/w lug conductor section			
Flexible with insulated spade lug conductor section       min       mm²       1         max       mm²       1       max       mm²       4         Power terminal protection according to IEC/EN 60529       IP20 when properly wired       Properly wired       Properly wired         Mechanical features       normal       Vertical plan       allowable       ±30°         Fixing       g       500       Screw / DIN re       Screw / DIN re         Weight       g       500       Conductor section       Screw / DIN re         AWG/kcmil conductor section       max       10       Operations         Mechanical life       cycles       20000000       Electrical life       cycles       1600000         Safety related data       mechanical load       cycles       1600000       mechanical load       cycles       1600000         Mirror contats according to EN/ISO 13489-1       rated load       cycles       1600000       cycles       1600000         Mirror contats according to IEC/EN 609474-4-1       VES       VES       Scores       10         DC coll operating       pick-up       min       %US       10       max       10         Col operating voltage       V       110       To       Scares		, i i i i i i i i i i i i i i i i i i i	min	mm²	1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			max	mm²	4
max         mm²         4           Power terminal protection according to IEC/EN 60529         IP20 when property wired           Mechanical features         normal allowable         40°           Operating position         normal allowable         Vertical plan 430°           Fixing         Screw / DIN ra 35mm           Weight         g         500           Conductor section         max         10           Operations         rated load         cycles         2000000           Electrical life         cycles         2000000         2000000           Electrical life         cycles         1600000         2000000           Stafety related data         cycles         1600000         20000000           Miror contats according to EN/ISO 13489-1         rated load         cycles         1600000           Miror contats according to IEC/EN 609474-4-1         YES         YES         20000000           Contoreating         pick-up         min         %US         10           DC rated control voltage         V         110         10           DC operating voltage         V         10         10           DC control torlage         V         10         10           Mechanical operatin		Flexible with insulated spade lug conductor section			
Power terminal protection according to IEC/EN 60529  Mechanical features Operating position  IP20 when properly Wired  Mechanical features  Vertical plan allowable  Screw / DIN ra 35mm Weight  g 500 Conductor section  AWG/kcmil conductor section  Mechanical life  Cycles 2000000  Electrical life  Cycles 1600000  Safety related data Performance level B10d according to EN/ISO 13489-1  rated load  Cycles 1600000  Mirror contats according to IEC/EN 609474-4-1  FKC compatibility  Contact control voltage  pick-up  pick-up  pick-up  pick-up  pick-up  pick-up  Max %US 10 max %US 10 max %US 10 max %US 10 max %US 40  Average coil consumption ≤20°C  in-rush W 5.4 holding W 5.4 Notation  Closing NO  min ms 8			min		1
Power terminal protection according to IEU/EN 60529  Mechanical features  Vertical plan allowable  Vertical plan allowable  Vertical plan allowable  Screw / DIN re 3500  Conductor section  Weight  g 500  Conductor section  WWG/kcmil conductor section  Wechanical life  cycles 2000000  Electrical life  cycles 2000000  Electrical life  cycles 2000000  Electrical life  cycles 160000  mechanical lead  VES  EMC compatibility  yes  Conductor section  Compatibility  yes  Conductor section  Compatibility  V  Screw  N  Screw  Screw Screw  Screw  Screw Screw Screw  Screw Screw Screw  Screw Screw Screw Screw Screw  Screw Screw Screw Sc			max	mm²	
Mechanical features Operating position	Power terminal protect	ction according to IEC/EN 60529			
normal allowable     Vertical plan ±30°       Fixing     Screw / DIN ra 35mm       Weight     g       Conductor section     g       AWG/kcmil conductor section     max       Mechanical life     cycles       Conductor section     cycles       Mechanical life     cycles       Performance level B10d according to EN/ISO 13489-1     rated load       Control to ELC/EN 609474-4-1     YES       EMC compatibility     yes       DC rated control voltage     V       DC rated control voltage     V       pick-up     min       min     %US       fdrop-out     min       max     %US       Average coil consumption ≤20°C     in-rush       Max cycles frequency     in-rush       Max cycles frequency     in-rush       Max cycles frequency     in-rush       Max cycles frequency     in AC       Closing NO     min	Mechanical features				,
allowable     ±30°       Fixing     Screw / DIN rr 35mm       Weight     g       Conductor section     allowable       AWG/kcmil conductor section     max       10     max       Operations     rated load       Electrical life     cycles       2000000       Staty related data       Performance level B10d according to EN/ISO 13489-1       rated load     cycles       2000000       Mirror contats according to IEC/EN 609474-4-1     YES       EMC compatibility     yes       DC coll operating     yes       DC coll operating     yes       DC coll operating     yes       DC coll operating     yes       DC coll operating voltage     V       pick-up     min< %/US	Operating position				
Fixing       Screw / DIN ra         Weight       g       500         Conductor section       max       10         Operations       max       10         Mechanical life       cycles       2000000         Electrical life       cycles       1600000         Safety related data       rated load       cycles       1600000         Performance level B10d according to EN/ISO 13489-1       rated load       cycles       1600000         Mirror contats according to IEC/EN 609474-4-1       YES       VES       20000000         Mirror contats according to IEC/EN 609474-4-1       YES       VES       20000000         DC coil operating       yes       V       110       2000000         DC coil operating       yes       V       110       VES         DC coil operating       yes       V       110       VES         DC operating voltage       v       110       max       %US       125         drop-out       min<%US					
Fxmg 35mm Weight g 500 Conductor section AWG/kcmil conductor section Mechanical life cycles 2000000 Electrical life cycles 160000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 160000 Mirror contats according to EN/ISO 13489-1 rated load cycles 160000 Mirror contats according to EN/ISO 13489-1 VES EMC compatibility yes DC coll operating DC rated control voltage V 110 DC operating voltage pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coll consumption ≤20°C in-rush W 5.4 holding W 5.4 Max cycles frequency Max cycles frequency Average time for Us control in AC Closing NO Min ms 8			allowable		
Conductor section          AWG/kcmil conductor section       max       10         Operations       max       10         Mechanical life       cycles       2000000         Electrical life       cycles       160000         Safety related data       rated load       cycles       1600000         Performance level B10d according to EN/ISO 13489-1       rated load       cycles       1600000         Mirror contats according to IEC/EN 609474-4-1       YES       20000000         Mirror contats according to IEC/EN 609474-4-1       YES       20000000         Coll operating       yes       20000000         DC rated control voltage       V       110         DC operating voltage       v       110         DC operating voltage       v       10         min< %Us	Fixing				Screw / DIN rail 35mm
AWG/kcmil conductor section         max         10           Operations	Weight			g	500
max         10           Operations	Conductor section				
Operations		AWG/kcmil conductor section			
Mechanical life         cycles         2000000           Electrical life         cycles         160000           Safety related data			max		10
Electrical life cycles 160000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 160000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes DC coil operating DC rated control voltage V 110 DC operating voltage pick-up min %Us 70 max %Us 72 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 Max cycles frequency Mechanical operation Closing NO min ms 8				·	
Safety related data       rated load       cycles       1600000         mechanical load       cycles       1600000       20000000         Mirror contats according to IEC/EN 609474-4-1       YES       20000000         DC coil operating       yes       DC coil operating       yes         DC coil operating       V       110       DC operating voltage       V       110         DC operating voltage       pick-up       min       %Us       70       70         max       %Us       10       125       10       10         Average coil consumption ≤20°C       in-rush       W       5.4       10         Max cycles frequency       min - s       8       600       00         Operating times       Closing NO       min - s       8				-	
Performance level B10d according to EN/ISO 13489-1         rated load         cycles         1600000           Mirror contats according to IEC/EN 609474-4-1         YES         20000000           EMC compatibility         yes         2000000           DC coil operating         V         110           DC operating voltage         V         10           min         %US         70           max         %US         125           drop-out         min         %US         10           max         %US         40         40           Average coil consumption ≤20°C         in-rush         W         5.4           Max cycles frequency         in-rush         W         5.4           Max cycles frequency         V         5.4           Mechanical operation         cycles/h         3600           Operating times         V         5.4           Average time for Us control in AC         in AC         Kosing NO				cycles	1600000
rated load mechanical loadcycles160000 2000000Mirror contats according to IEC/EN 609474-4-1YESEMC compatibilityyesDC coil operatingyesDC rated control voltageVpick-upminmin%Us70maxwdrs70max%Us125drop-outminmin%Us40Average coil consumption ≤20°CMax cycles frequencyMax cycles frequencyMechanical operationcycles/h3600Operating timesAverage time for Us control in ACin ACClosing NOminms8					
mechanical load       cycles       2000000         Mirror contats according to IEC/EN 609474-4-1       YES         EMC compatibility       yes         DC coil operating       V       110         DC operating voltage       V       110         DC operating voltage       v       110         DC operating voltage       min       %Us       70	Performance level B1	Ud according to EN/ISO 13489-1	rotod lood	avalaa	160000
Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes DC coil operating DC rated control voltage V 110 DC operating voltage pick-up pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 Max cycles frequency Mechanical operation Closing NO min ms 8					
EMC compatibility yes DC coil operating DC rated control voltage V 110 DC operating voltage pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 Max cycles frequency Mechanical operation Closing NO min ms 8	Mirror contats accordi			Cycles	
DC coil operating DC rated control voltage DC operating voltage pick-up					
DC rated control voltage pick-up pick-up pick-up pick-up pick-up pick-up pick-up pick-up pick-up min %Us 70 max %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 Nax cycles frequency Mechanical operation Cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8					yes
DC operating voltage pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤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 control in AC Closing NO min ms 8		ae		V	110
pick-up 		5		-	-
min%Us70 maxdrop-outmin%Us125drop-outmin%Us10 maxAverage coil consumption ≤20°Cin-rush in-rush holdingW5.4 S.4Max cycles frequencyMax cycles frequencycycles/h3600Operating timescycles/h3600Average time for Us control in ACclosing NOminms8		pick-up			
drop-outmin%Us10max%Us40Average coil consumption ≤20°Cin-rushW5.4Max cycles frequencyw5.4Mechanical operationcycles/h3600Operating timesw5.4Average time for Us controlin ACwClosing NOminms8			min	%Us	70
min%Us10 maxAverage coil consumption ≤20°Cin-rush holdingW5.4 holdingW5.4Max cycles frequencyV5.4Mechanical operationcycles/h3600Operating timesVVAverage time for Us control in ACVSMinms8			max	<u>%U</u> s	125
max%Us40Average coil consumption ≤20°Cin-rush holdingW5.4in-rush holdingW5.4Max cycles frequencyW5.4Mechanical operationcycles/h3600Operating timesSSAverage time for Us control in ACSSClosing NOminms8		drop-out			
Average coil consumption ≤20°C       in-rush W 5.4         in-rush W 5.4       bolding W 5.4         Max cycles frequency       wether the second seco			min		
in-rush W 5.4 holding W 5.4 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8			max	%Us	40
holding W 5.4 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8	Average coil consump	ption ≤20°C		_	
Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8					
Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC Closing NO min ms 8			holding	VV	5.4
Operating times Average time for Us control in AC Closing NO min ms 8				ovolaa //	2600
Average time for Us control in AC Closing NO min ms 8				cycles/h	3000
in AC Closing NO min ms 8		control			
Closing NO min ms 8	Average une IOF US C				
min ms 8					
			min	ms	8
max ms 24			max	ms	24

BF18T2D110



		Opening NO			
		opening No	min	ms	10
			max	ms	20
		Closing NC	ind,	me	20
		0.00g	min	ms	14
			max	ms	28
		Opening NC			
		515 5	min	ms	7
			max	ms	18
	in DC				
		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	47
			max	ms	57
UL technical data					
Full-load current (FLA)	) for three-phase AC mo	tor			
			at 480V	А	14
			at 600V	Α	17
Yielded mechanical pe					
	for single-phase AC m	notor			
			110/120V	HP	1
			230V	HP	3
	for three-phase AC me	otor			
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	10
			575/600V	HP	15
General USE					
	Contactor				
			AC current	А	32
Ambient conditions					
Temperature					
	Operating temperature	e			
			min	°C	-50
	<u>-</u>		max	°C	70
	Storage temperature			• ~	00
			min	°C	-60
Marcall			max	°C	80
Max altitude				m	3000
Resistance & Protection	on				
Pollution degree Dimensions					3

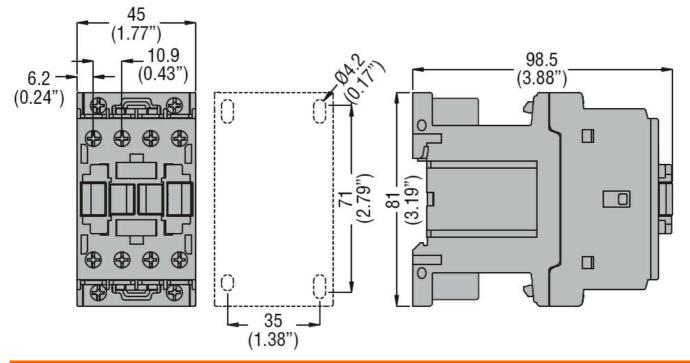
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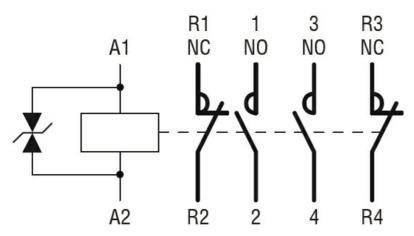


FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 32A, DC COIL, 110VDC,

2NO AND 2NC



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