





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 Нъ 25 min 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 20 Α 110V Α 13 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V 22 Α 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	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	2201	- , ,	
neo max sarront le in 200 200 mai en e Tomo mai 2 poiss in sonos	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	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	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	A	8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse		- , ,	200
Total and Table	gG (IEC)	Α	32
	aM (IEC)	A	20
Making canacity (PMS value)	aivi (ILC)		180
Making capacity (RMS value) Breaking capacity at voltage		A	100
Breaking capacity at voltage	4.40)./		4.4.4
	440V	A	144
	500V	A	120
	690V	Α	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC-3	W	0.8
Tightening torque for terminals			
	min	Nm	1.5
	min max	Nm Nm	1.5 1.8
	max	Nm	1.8
	max min	Nm Ibin	1.8 1.1
Tightening torque for coil terminal	max	Nm	1.8
Tightening torque for coil terminal	max min max	Nm Ibin Ibin	1.8 1.1 1.5
Tightening torque for coil terminal	max min max min	Nm Ibin Ibin	1.8 1.1 1.5
Tightening torque for coil terminal	max min max	Nm Ibin Ibin	1.8 1.1 1.5





		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMO (14			
	AWG/Kcmil			4.0
	Florible 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 GW lug conductor Section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		•
	r loxiloto mar inculated opado lag 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	350
Conductor section				
	AWG/kcmil conductor section			
	7 TV C/TO/THI CONGRESSION			
		max		10
Auxiliary contact char		max		
Thermal current Ith	racteristics	max	A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation	max	A	
Thermal current Ith IEC/EN 60947-5-1 de	esignation			10 A600 - P600
· · · · · · · · · · · · · · · · · · ·	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 lth IEC/EN 60947-5-1 de Operating current AC	esignation 215	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 215	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	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	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 de Operating current AC Operating current DC	esignation 215	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 de Operating current AC Operating current DC	esignation 215	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 de Operating current AC Operating current DC	esignation 215	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	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 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation 215	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	esignation 215	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 lth 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	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 lth 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 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	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 1600000
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 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 1600000
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 1600000 16000000
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 1600000



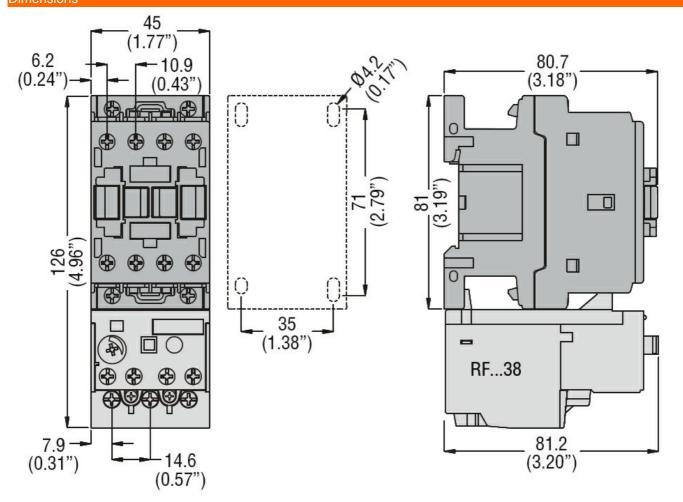


AC operating voltage  of 60Hz coil powered at 60Hz pick-up  drop-out  AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency Mechanical operation Operating times  Average time for Us control in AC  Closing NO	min max min max in-rush holding	%Us %Us %Us %Us VA VA VA W	80 110 20 55 75 9 2.5
pick-up  drop-out  AC average coil consumption at 20°C	max min max in-rush	%Us %Us %Us VA VA W	110 20 55 75 9 2.5
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Departing times  Average time for Us control in AC	max min max in-rush	%Us %Us %Us VA VA W	110 20 55 75 9 2.5
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Departing times  Average time for Us control in AC	max min max in-rush	%Us %Us %Us VA VA W	110 20 55 75 9 2.5
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Departing times  Average time for Us control in AC	min max in-rush	%Us %Us VA VA W	20 55 75 9 2.5
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Departing times  Average time for Us control in AC	max in-rush	%Us VA VA W	75 9 2.5
of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Departing times  Average time for Us control  in AC	max in-rush	%Us VA VA W	75 9 2.5
of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Operating times  Average time for Us control  in AC	in-rush	VA VA W	75 9 2.5
of 60Hz coil powered at 60Hz  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Operating times  Average time for Us control  in AC		VA W	9 2.5
Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Deprating times  Average time for Us control  in AC		VA W	9 2.5
Max cycles frequency Mechanical operation Operating times Average time for Us control in AC		VA W	9 2.5
Max cycles frequency  Mechanical operation  Operating times  Average time for Us control  in AC	notaing	W	2.5
Max cycles frequency  Mechanical operation  Operating times  Average time for Us control  in AC			
Mechanical operation  Operating times  Average time for Us control  in AC		cycles/h	3600
Operating times  Average time for Us control  in AC		cycles/fi	3600
Average time for Us control in AC			
in AC			
	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
	max	ms	18
UL technical data			
Full-load current (FLA) for three-phase AC motor	-1.400\/	Δ.	4.4
	at 480V	A	14
Wielded meet a missel newfermen wee	at 600V	A	17
Yielded mechanical performance			
for single-phase AC motor	110/120V	HP	1
	230V	HP	3
for three-phase AC motor	230 V	111	3
ioi dilee-pilase Ao Iliotol	200/208V	HP	5
	220/230V	HP	5
	460/480V	HP	10
	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 fuse, 600V		· <u> </u>	





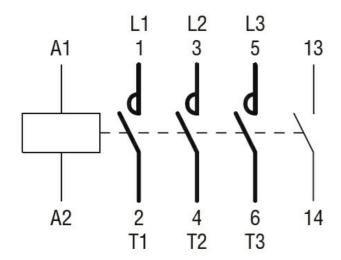
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
Standard	d fault			
		Short circuit current	kA	5
		Fuse rating	Α	80
Contact rating of auxiliary contact	ts according to UL			A600 - P600
Ambient conditions				
Temperature				
Operatir	ng temperature			
		min	°C	-50
		max	°C	70
Storage	temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching