



Product designation				
Number of poles Nimber of	Product designation			Power contactor
Number of poles Nimber of	Product type designation			BF09
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 25 Operational current Ie AC-1 (≤40°C) A 25 AC-1 (≤70°C) A 18 AC-3 (≤4400 ≤55°C) A 9 AC-3 (≤4400 ≤55°C) A 9 AC-4 (4000) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 4.9 AC-4 (4000) A 4.9 Rated operational power AC-3 (T≤40°C) 230V kW 4.5 4.40V kW 4.5 440V kW 4.5 4.40V kW 4.5 4.40V kW 4.5 500V kW 5.5 690V kW 7.5 5.5 690V kW 7.5 5.5 690V kW 7.5 7.5 7.5 A 1.0 4.0 4.0 4.0 4.0 4.0 4.0				
Rated impulse withstand voltage Uimp	Number of poles		Nr.	3
Operational frequency min max by Hz max Hz max Hz hz doo IEC Conventional free air thermal current lth A 25 Operational current le AC-1 (≤40°C) A 25 AC-1 (≤55°C) A 20 AC-1 (≤75°C) A 18 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 415V kW 4.2 415V kW 4.5 440V kW 4.8 500V kW 7.5 Action of the property of the prop	Rated insulation voltage Ui IEC/EN		V	690
Min	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current lth	Operational frequency			
EC Conventional free air thermal current lith		min	Hz	25
Operational current le AC-1 (≤40°C) A 25 AC-1 (≤55°C) A 20 AC-1 (≤70°C) A 18 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series \$24V A 15 48V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series \$24V A 18 48V A 12 220V		max	Hz	400
AC-1 (s40°C)	IEC Conventional free air thermal current Ith		Α	25
AC-1 (≤55°C) A 20 AC-1 (570°C) A 18 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 415V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 27 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 75V A 17 1110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 18 48V A 18 75V A 17 1110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	Operational current le			
AC-1 (≤70°C)		AC-1 (≤40°C)	Α	25
AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 415V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 48V A 18 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	20
Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 415V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 16 500V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 75V A 18 48V A 18 75V A 17 110V A 18 48V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤70°C)	Α	18
Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.5 440V kW 4.5 4440V kW 4.8 500V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 16 500V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 48V A 18 75V A 17 110V A 12 220V A 1 110V A 2 220V A 1 110V A 12 220V A 1 110V A 2 220V A 1 110V A 12 220V A 1		AC-3 (≤440V ≤55°C)	Α	9
230V kW 2.2 400V kW 4.2 415V kW 4.5 440V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5		AC-4 (400V)	Α	4.9
400V kW 4.2 415V kW 4.5 440V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5	Rated operational power AC-3 (T≤55°C)			
415V		230V	kW	2.2
A40V kW 4.8 500V kW 5.5 690V kW 7.5		400V	kW	4.2
Soov kW 5.5		415V	kW	4.5
Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 21 690V kW 27 27 27		440V	kW	4.8
Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 75V A 18 48V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 20 48V A 20 48V A 20 75V A 20		500V	kW	5.5
		690V	kW	7.5
	Rated operational power AC-1 (T≤40°C)			
Soov kW 21 690V kW 27		230V	kW	9.5
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	16
Section Sec		500V	kW	21
		690V	kW	27
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V A 12 110V A 6 220V A -		≤24V	Α	15
		48V	Α	13
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 18 48V A 18 75V A 17 110V A 12 220V A 1 1 1 1 1 1 1 1 1		75V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 20 48V A 20 75V A 20		110V	Α	6
		220V	Α	_
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	18
		48V	Α	18
		75V	Α	17
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 20 48V A 20 75V A 20		110V	Α	12
≤24V A 20 48V A 20 75V A 20		220V	Α	1
48V A 20 75V A 20	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 20		≤24V	Α	20
		48V	Α	20
110V A 15		75V	Α	20
		110V	Α	15



	220V	Α	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	20	
	48V	Α	20	
	75V	Α	20	
	110V	Α	16	
	220V	Α	12	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				
	≤24V	Α	10	
	48V	Α	9	
	75V	Α	8	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
	≤24V	Α	13	
	48V	Α	11	
	75V	A	10	
	110V	A	7	
	220V	A	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	22U V			
TEO MAX CUITERLIE III DOG-DOG WILLI LIN > 151115 WILLI 3 POLES III SELLES	ZOAV	۸	15	
	≤24V 48V	A	15 15	
		A	15	
	75V	A	13	
	110V	A	11	
	220V	Α	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_		
	≤24V	Α	15	
	48V	Α	15	
	75V	Α	15	
	110V	Α	12	
	220V	Α	7	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150	
Protection fuse				
	gG (IEC)	Α	25	
	aM (IEC)	Α	10	
Making capacity (RMS value)		А	90	
Breaking capacity at voltage				
	440V	Α	72	
	500V	Α	72	
	690V	Α	71	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)			-	
. The stocketton per pole (artifago raido)	Ith	W	1.6	
	AC-3	W	0.2	
Tightening torque for terminals	7.0 0	V V	V. <u>~</u>	
rightening torque for terminals	min	Nm	1.5	
	max	Nm Ibin	1.8	
	min	lbin Ibin	1.1	
Timbtonian towns for call towns - I	max	lbin	1.5	
Tightening torque for coil terminal			0.0	
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



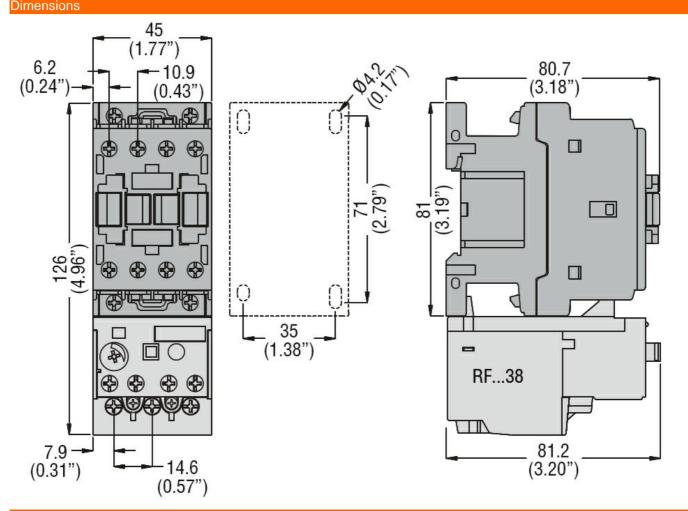
		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	FI 21 / 1 / 2	max		10
	Flexible w/o lug conductor section		2	4
		min	mm²	1
	Flexible c/w lug conductor section	max	mm²	6
	r lexible 6/w rug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	r ioxidia mitrimodiated opado rag contactor cociteri	min	mm²	1
		max	mm²	4
Davisa tamainal anata	ation according to IEO/EN COFOO			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 Conductor section			g	358
Conductor Section	AWG/kcmil conductor section			
	AVVG/KCITIII CONDUCTOR SECTION	max		10
Auxiliary contact chara	acteristics	max		10
•				
Thermal current Ith			Α	10
Thermal current lth IEC/EN 60947-5-1 de	signation		A	10 A600 - P600
Thermal current lth IEC/EN 60947-5-1 de Operating current AC			A	
IEC/EN 60947-5-1 de		230V	A	
IEC/EN 60947-5-1 de		230V 400V		A600 - P600
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V 500V	A A	3 1.9 1.4
Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	12	400V 500V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current DC	12	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
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
Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Operating current DC	12	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
Operating current ACCO	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
Operating current ACCO	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
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
Operating current ACCO	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 Operations	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 Mechanical 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 Operations Mechanical life 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 Operations Mechanical life 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 Operations Mechanical life Electrical life Safety related data	12 13 0d 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 20000000
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 0d 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 20000000
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 Od 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 20000000 20000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi	12 13 Od 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 20000000 20000000 yes



Rated AC voltage a				V	230
AC operating voltage	_				
	of 60Hz coil powered at 6				
	р	oick-up		0/11	
			min	%Us	80
	_	lt	max	%Us	110
	a	Irop-out		0/116	20
			min	%Us %Us	20
C average soil se	noumntion at 20°C		max	%US	55
C average con co	nsumption at 20°C	2011-			
	of 60Hz coil powered at 6	JUHZ	in-rush	VA	75
			holding	VA VA	9
Dissipation at haldi	ng <20°C FOLI-		noluling	W	
Dissipation at holdi	_			VV	2.5
Max cycles frequer				ovoloo/b	2600
Mechanical operati	Off			cycles/h	3600
Operating times	c control				
verage time for U					
	in AC	Nosina NO			
	C	Closing NO	!		0
			min	ms ms	8
		On an in a NO	max	ms	24
	C	Opening NO			40
			min	ms	10
		Nacina NC	max	ms	20
	C	Closing NC	min		4.4
			min	ms	14
		On an in a NC	max	ms	28
	C	Opening NC	min		7
			min	ms	7 18
JL technical data			max	ms	10
	LA) for three-phase AC motor				
dii-ioad current (F	LA) for timee-phase AC motor		at 480V	٨	7.6
			at 600V	A A	0.375
/ialdad machaniaa	l porformanco		at 000 v	A	0.373
'ielded mechanica	for single-phase AC moto	۲.			
	for single-phase AC mold	ונ	110/120V	HP	0.75
			230V	HP	2
	for three phase AC mater		230 V	ПГ	
	for three-phase AC motor	I	200/208V	HP	3
			200/208V 220/230V	HP	3
			460/480V	HP	3 5
			575/600V	HP HP	5 7.5
General USE			373/0000	ПР	1.5
DENEIAI UOE	Contactor				
	Contactor		AC current	٨	25
	Auxiliant contacts		AC current	Α	25
	Auxiliary contacts		A C	17	600
			AC voltage	V	600
			AC current	A	10
			DC voltage	V	250
Chart alreadt	tion from 600V		DC current	Α	1
Short-circuit protec					
	High fault				

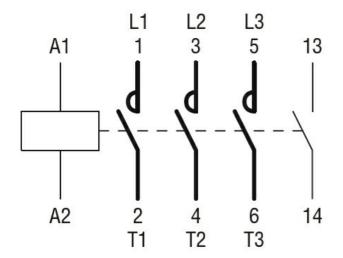


	Short circuit current	kA	100
	Fuse rating	Α	30
	Fuse class		J
Standard fault			
	Short circuit current	kA	5
	Fuse rating	Α	60
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
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 60335-1

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