

Product designation			Power contactor
Product type designation Contact characteristics			BF09
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
oporational modulonoy	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	25
Operational current le			
•	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4.9
Rated operational power AC-3 (T≤55°C)	(/		
1 1 (/	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	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			·
I man a man a posse in control	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	15
			- •



electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 12VDC, 1NO AUXILIARY CONTACT **ENERGY AND AUTOMATION**

	220V	Α	10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		10
120 max outlone to in 201 with E/N = 1110 with 4 poles in series	≤24V	Α	20
	48V	A	20
	75V	A	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	Α	10
	110V	Α	7
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	15
	48V	Α	15
	75V	Α	13
	110V	Α	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	0 (150)		0.5
	gG (IEC)	A	25
Malina and a site (DMO control)	aM (IEC)	A	10
Making capacity (RMS value)		Α	90
Breaking capacity at voltage	44017	۸	70
	440V 500V	A A	72 72
	690V	A	72 71
Resistance per pole (average value)	090 V	mΩ	2.5
Power dissipation per pole (average value)		11122	2.5
i omoi dissipation poi poio (average value)	Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals	7.00	V V	J. <u>L</u>
ng.no.mig torquo for torrimidio	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal			
5 5 12 12 12 12 12 12 12 12 12 12 12 12 12	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	_		
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section		2	
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			4
		min	mm²	1
		max	mm²	4 ID20b a.a.
Power terminal prote	ection according to IEC/EN 60529			IP20 when properly wired
Mechanical features				property wired
Operating position				
Sporating position		normal		Vertical plan
		allowable		±30°
		anowabio		Screw / DIN rail
Fixing				35mm
Weight			g	492
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	215			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DO	212			
		110V	Α	5.7
Operating current DO	213			
		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
		220V	Α	0.55
			۸	0.2
		600V	Α	
_ ·		600V	A	
Mechanical life		600V	cycles	20000000
Mechanical life Electrical life		600V		
Operations Mechanical life Electrical life Safety related data		600V	cycles	20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	600V	cycles	20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	600V	cycles	20000000 2000000 2000000
Mechanical life Electrical life Safety related data	-		cycles cycles	20000000 2000000
Mechanical life Electrical life Safety related data Performance level B Mirror contats accord	-	rated load	cycles cycles	20000000 2000000 2000000
Mechanical life Electrical life Safety related data Performance level B	me	rated load	cycles cycles	2000000 2000000 2000000 20000000

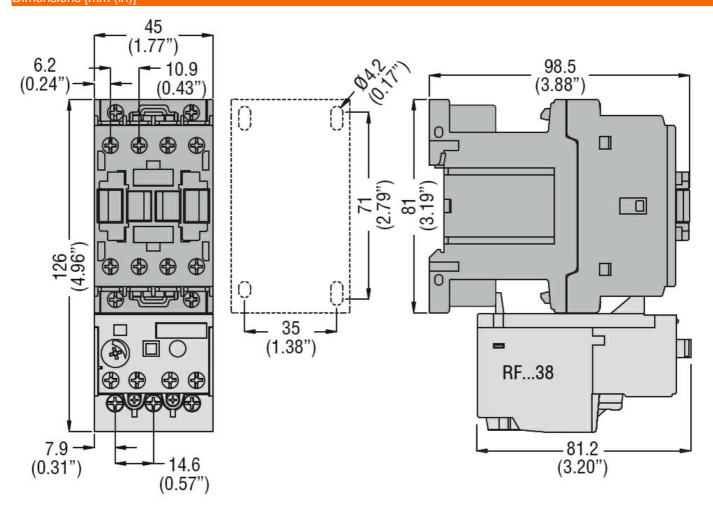


DC rated control voltage	ge			V	12
DC operating voltage					
	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out				
			min	%Us	10
 			max	%Us	40
Average coil consump	otion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					0000
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co					
	in AC				
		Closing NO	<u>.</u>		
			min	ms	8
		0	max	ms	24
		Opening NO	_		
			min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
			max	ms	28
		Opening NC			_
			min	ms	7
	. 50		max	ms	18
	in DC	Olaska NO			
		Closing NO			F 4
			min	ms	54
		On an in a NO	max	ms	66
		Opening NO			4.4
			min	ms	14
III taabuisal data			max	ms	17
UL technical data Full-load current (FLA)	\ for three phase	A.C. motor			
ruii-ioad current (FLA)) for three-phase	AC Motor	ot 490\/	۸	7.6
			at 480V at 600V	A A	7.6 0.375
Violded machanical no	rformanaa		at 000 v	A	0.373
Yielded mechanical pe	enormance for single-phas	o AC motor			
	ioi sirigie-prias	Se AC Motor	110/120\/	UD	0.75
			110/120V 230V	HP HP	0.75 2
	for three-phase	a AC motor	2301	пг	
	ioi unee-pnase	5 AC IIIOIOI	200/208V	HP	3
			200/208V 220/230V	HP HP	3
			460/480V	HP	5
			575/600V	пг HP	5 7.5
General USE			373/000 V	1115	7.5
General USE	Contactor				
	Contactor		AC aurrent	۸	0.5
	Auviliant asst-	oto	AC current	Α	25
	Auxiliary conta	UIS	A C	\/	600
			AC voltage	V	600
			AC current	Α	10



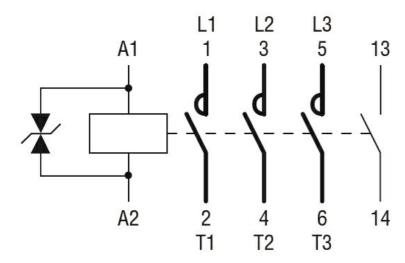
ENERGY AND AUTOMATION

		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	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 auxil	iary 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 & Protecti	on			
Pollution degree				3
Dimensions [mm (in)]				



Wiring diagrams

ENERGY AND AUTOMATION



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



Product designation Power contactor Product type designation **BF09** 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 max Hz 400 IEC Conventional free air thermal current Ith 25 Α Operational current le AC-1 (≤40°C) Α 25 AC-1 (≤55°C) Α 20 AC-1 (≤70°C) Α 18 AC-3 (≤440V ≤55°C) Α 9 AC-4 (400V) 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 Α 15 48V Α 13 75V Α 12 110V Α 6 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 18 48V Α 18 75V 17 Α 110V Α 12 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V 20 Α 20 48V Α 75V Α 20 15 110V Α



	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	A	11
	75V	Α	10
	110V	A	7
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		
ILO max current le in DO3-DO3 with L/N 3 13ms with 3 poles in series	≤24V	Α	15
	48V	A	15
	75V		13
		A	
	110V	A	11
IFO	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	10.43.4	•	4-
	≤24V	A	15
	48V	A	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)		Α	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)			
- · · · ·	lth	W	1.6
	AC3	W	0.2
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal	шал		
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	111111	15111	5.0



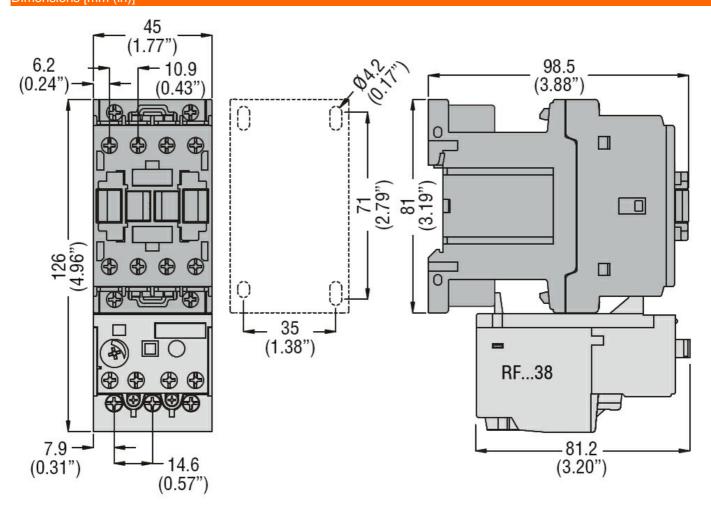
		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section			
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	_		
		min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
				properly wired
Mechanical features				
Operating position		n arm al		Vertical plan
		normal allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	490
Conductor section			9	430
Conductor Section	AWG/kcmil conductor section			
	AVVO/Remii conductor section	max		10
Auxiliary contact cha	racteristics	max		10
Thermal current Ith			А	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	•			
, ,		230V	Α	3
	····	230V 400V	A A	3 1.9
. •		400V	A A A	1.9
			Α	
		400V 500V	A A	1.9 1.4
Operating current DC	C12	400V	Α	1.9
Operating current DC	C12	400V 500V 110V	A A	1.9 1.4 5.7
Operating current DC	C12	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current DC	C12	400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
Operating current DC	C12	400V 500V 110V 24V 48V 60V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
Operating current DC	C12	400V 500V 110V 24V 48V 60V 110V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current DC	C12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC Operating current DC	C12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC Operating current DC	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC Operating current DC Operations Mechanical life	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	212 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operating current DO Operating current DO Operations Mechanical life Electrical life Safety related data Performance level B	212 213 10d 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	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 Operations Mechanical life Electrical life Safety related data Performance level B	212 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000



DC rated control volta	ge			V	24
DC operating voltage					
	pick-up			0/11	
			min	%Us	70
	drop out		max	%Us	125
	drop-out		min	%Us	10
			max	%Us	40
Average coil consump	ntion <20°C		IIIdx	/003	40
Average con consump	711011 = 20 0		in-rush	W	5.4
			holding	W	5.4
Max cycles frequency			riolanig	,,,	0.1
Mechanical operation				cycles/h	3600
Operating times				5,0100,11	
Average time for Us c	ontrol				
J	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			_
			min	ms	7
	in DO		max	ms	18
	in DC	Closing NO			
		Closing NO	min	ms	54
			max	ms	66
		Opening NO	max	1113	00
		opening 110	min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA) for three-phase	AC motor			
`			at 480V	Α	7.6
			at 600V	Α	0.375
Yielded mechanical po	erformance				
	for single-phas	se AC motor			
			110/120V	HP	0.75
			230V	HP	2
	for three-phase	e AC motor			
			200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5
General USE					
	Contactor			_	
			AC current	Α	25
	Auxiliary conta	cts			000
			AC voltage	V	600
			AC current	Α	10

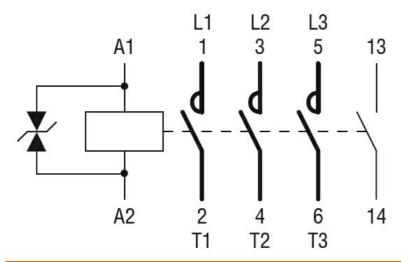
ENERGY AND AUTOMATION

		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	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 auxil	iary 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 & Protecti	on			
Pollution degree				3
Dimensions [mm (in)]				



Wiring diagrams

ENERGY AND AUTOMATION



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



Product designation			Power contactor
Product type designation Contact characteristics			BF09
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
oporational modulonoy	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	25
Operational current le			
•	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4.9
Rated operational power AC-3 (T≤55°C)	(/		
1 1 (/	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	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			·
I man a man a posse in control	≤24V	Α	20
	48V	Α	20
	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	A	20	
	75V	A	20	
	110V 220V	A	16	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	2200	Α	12	
TEC max current le in DC3-DC3 with L/R \(\) Toms with 1 poles in series	≤24V	Α	10	
	≥24 V 48 V	A	9	
	75V	A	8	
	110V	A	2	
	220V	A	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V			
TEO Max current le in 200-200 with E/TC = 10/1/3 with 2 poles in series	≤24V	Α	13	
	48V	A	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	220 V			
TEO THAN OUTTON TO IT DOO-DOO WILL LITE = TOTHS WILL O POICS IT SELICS	≤24V	Α	15	
	48V	A	15	
	75V	A	13	
	110V	A	11	
	220V	A	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V			
TEO HEAR OUT ON THE BOOK DOO WILL ETY = TOTALS WILL A POICE IN SOLICE	≤24V	Α	15	
	48V	A	15	
	75V	A	15	
	110V	A	12	
	220V	A	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)	()	Α	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)				
· · · · · · · · · · · · · · · · · · ·	Ith	W	1.6	
	AC3	W	0.2	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	_		
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section		2	
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			4
		min	mm²	1
		max	mm²	4 ID20b a.a.
Power terminal prote	ection according to IEC/EN 60529			IP20 when properly wired
Mechanical features				property wired
Operating position				
Sporating position		normal		Vertical plan
		allowable		±30°
		anowabio		Screw / DIN rail
Fixing				35mm
Weight			g	492
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	215			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DO	212			
		110V	Α	5.7
Operating current DO	213			
		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
		220V	Α	0.55
			۸	0.2
		600V	Α	
_ ·		600V	A	
Mechanical life		600V	cycles	20000000
Mechanical life Electrical life		600V		
Operations Mechanical life Electrical life Safety related data		600V	cycles	20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	600V	cycles	20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	600V	cycles	20000000 2000000 2000000
Mechanical life Electrical life Safety related data	-		cycles cycles	20000000 2000000
Mechanical life Electrical life Safety related data Performance level B Mirror contats accord	-	rated load	cycles cycles	20000000 2000000 2000000
Mechanical life Electrical life Safety related data Performance level B	me	rated load	cycles cycles	2000000 2000000 2000000 20000000

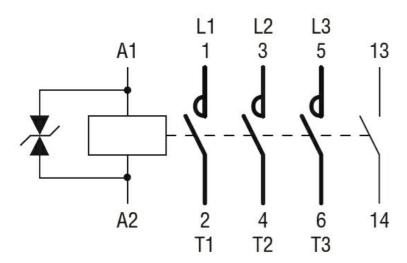


DC roted control volta				\ /	40
DC rated control voltage DC operating voltage	ge			V	48
DC operating voitage	niok un				
	pick-up		min	%Us	70
			max	%Us	125
	drop-out		IIIdx	7003	120
	arop out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C			,,,,,	
3			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
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			
			min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	54
		0 : 110	max	ms	66
		Opening NO			4.4
			min	ms	14
III. ta abuda al alata			max	ms	17
UL technical data	for three phase AC	motor			
Full-load current (FLA)	nor unee-phase AC	MOLUI	ot 400V	٨	7.6
			at 480V	A A	7.6 0.375
Yielded mechanical pe	arformance		at 600V	A	0.373
nelueu meunanicai pe	for single-phase <i>F</i>	\C motor			
	ioi sirigie-priase F	AO MIUIUI	110/120V	HP	0.75
			230V	HP	2
	for three-phase A	C motor	2307	ПР	
	ioi iiiiee-piiase A	O MOIOI	200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5
General USE			37 3/000 V	- 111	7.0
GOTICIAI OOL	Contactor				
	Ounation		AC current	Α	25
	Auxiliary contacts		AO GUITEIR		
	Administry Contacts		AC voltage	V	600
			AC voltage AC current	A	10
			, to duriont		. •

ENERGY AND AUTOMATION

		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	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 auxil	iary 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 & Protecti	on			
Pollution degree				3
Dimensions [mm (in)]				

ENERGY AND AUTOMATION



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



Product designation			Power contactor
Product type designation Contact characteristics			BF09
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency		IX V	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	THOS.	A	25
Operational current le			
	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	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	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	15

BF0910D060

electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 60VDC, 1NO AUXILIARY CONTACT **ENERGY AND AUTOMATION**

	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 > 101115 WILLI 3 POLES III SELLES	≤24V	Α	15
	48V	A	15
	75V	A	13
	110V	A	11
	220V	A	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)		Α	90
Breaking capacity at voltage			
- · · · · · · · · · · · · · · · · · · ·	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)	300.	mΩ	2.5
Power dissipation per pole (average value)		.1134	
Tomos dissipation per pero (average value)	Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals	AUS	v v	U.Z
rightening torque for terminals	min	Nim	1.5
	min	Nm Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
This is the state of the state	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	_		
		min	mm²	1
	=	max	mm²	6
	Flexible c/w lug conductor section		2	
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section		2	4
		min	mm²	1
		max	mm²	4 IP20 when
Power terminal prote	ection according to IEC/EN 60529			properly wired
Mechanical features				properly whed
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
		4		Screw / DIN rail
Fixing				35mm
Weight			g	496
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	C15			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DO	C12			
		110V	Α	5.7
Operating current DO	C13			
		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
		220V	Α	0.55
		600V	Α	0.2
Operations				
Mechanical life			cycles	20000000
			cycles	2000000
Electrical life Safety related data				
Safety related data	10d according to EN/ISO 13489-1			
Safety related data		rated load	cycles	2000000
Safety related data Performance level B	me	rated load echanical load	cycles cycles	2000000 20000000
Safety related data Performance level B Mirror contats accord			-	
Safety related data Performance level B	me		-	20000000



ENERGY AND AUTOMATION

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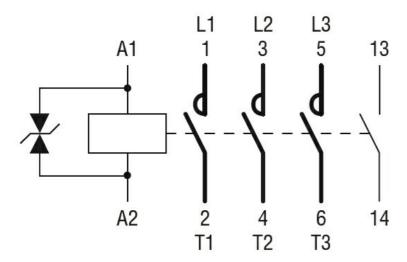
DC rated control voltage	70			V	60
DC rated control voltage DC operating voltage	<u>je</u>			V	60
Do operating voltage	pick-up				
	plott up		min	%Us	70
			max	%Us	125
	drop-out		max	7000	.20
	a. op 0 a.		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us 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	_		
			min	ms	7
			max	ms	18
	in DC	0			
		Closing NO			F 4
			min	ms	54
		Opening NO	max	ms	66
		Opening NO	min	mo	14
			min max	ms ms	17
UL technical data			IIIdx	1113	17
Full-load current (FLA)	for three-phase A	C motor			
i all load outlont (i LA)	nor unoc phase A	O MOTO	at 480V	Α	7.6
			at 600V	A	0.375
Yielded mechanical pe	erformance		at 000 v		3.0.0
	for single-phase	AC motor			
	.o. o.i.gio pilaso		110/120V	HP	0.75
			230V	HP	2
	for three-phase /	AC motor	2001		•
	,		200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5
General USE			-		
	Contactor				
			AC current	Α	25
	Auxiliary contacts	 S			
	,		AC voltage	V	600
			AC current	À	10

ENERGY AND AUTOMATION

		DC voltage	V	250
		DC current	Α	1
Short-circuit protectio	n fuse, 600V			
	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 auxil	•		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 & Protecti	on			
Pollution degree				3
Dimensions [mm (in)]				

6.2 (0.24") - (0.43") - (0

ENERGY AND AUTOMATION



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







Product designation			Power contactor
Product type designation			BF09
Contact characteristics		Nle	3
Number of poles		Nr. V	
Rated insulation voltage Ui IEC/EN			690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			0.5
	min	Hz	25
1500	max	Hz	400
IEC Conventional free air thermal current Ith		Α	25
Operational current le		_	
	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	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	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	20
	48V	Α	20
	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 > 101115 WILLI 3 POLES III SELLES	≤24V	Α	15
	48V	A	15
	75V	A	13
	110V	A	11
	220V	A	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)		Α	90
Breaking capacity at voltage			
- · · · · · · · · · · · · · · · · · · ·	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)	300.	mΩ	2.5
Power dissipation per pole (average value)		.1134	
Tomos dissipation per pero (average value)	Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals	AUS	v v	U.Z
rightening torque for terminals	min	Nim	1.5
	min	Nm Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
This is the state of the state	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



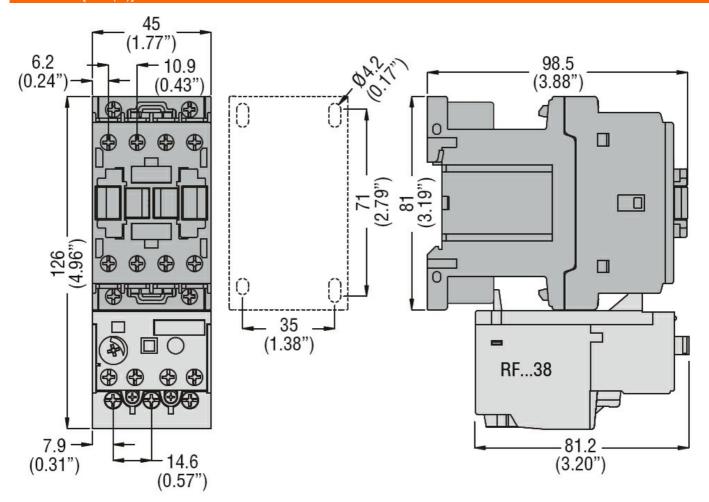


_		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMA (14 1)			
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug colluctor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		<u> </u>
	1 10/10/10 0/ W rug corrugation accuses	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	, ,	min	mm²	1
		max	mm²	4
Power terminal protect	ction according to IEC/EN 60529			IP20 when
	ction according to IEC/EN 00329			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
Maight			~	35mm 495
Weight Conductor section			g	495
Conductor section	AWG/kcmil conductor section			
	AVVG/RCITIII COTIQUCTOT Section	max		10
Auxiliary contact char	acteristics	IIIax		10
	actoriction		۸	10
Thermal current Ith			A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		Α	10 A600 - P600
IEC/EN 60947-5-1 de	_ •		A	A600 - P600
	_ •	230V	A	
IEC/EN 60947-5-1 de	_ •	230V 400V		A600 - P600
IEC/EN 60947-5-1 de	_ •		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	3 1.9 1.4
Operating current DC	15	400V 500V 110V 24V	A A A	3 1.9 1.4
Operating current DC	15	400V 500V 110V 24V 48V	A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Operating current DC	15	400V 500V 110V 24V 48V 60V	A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Operating current DC	15	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 DC	15	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 DC	15	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 Operating current DC Operating current DC	15	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 DC	15	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	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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	15	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	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	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	15	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 Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	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 B	112 113 10d 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 BC Mirror contats accord	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	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 20000000 yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	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



DC roted control voltes				W	440
DC rated control voltage DC operating voltage	је			V	110
DC operating voltage	pick-up				
	ріск-ир		min	%Us	70
			max	%Us	125
	drop-out		Пих	7000	120
	arop out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤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 co	ontrol				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			
			min	ms	10
		Observe NO	max	ms	20
		Closing NC	!		4.4
			min	ms	14
		Opening NC	max	ms	28
		Opening NC	min	ms	7
			max	ms	, 18
	in DC		max		
	20	Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA)	for three-phase AC	motor			
			at 480V	Α	7.6
			at 600V	Α	0.375
Yielded mechanical pe					
	for single-phase A	AC motor	44044000		0.75
			110/120V	HP	0.75
	for the second second	O matar	230V	HP	2
	for three-phase A	C MOTOR	200/2007	UD	2
			200/208V 220/230V	HP HP	3
			460/480V	HP	3 5
			575/600V	HP	7.5
General USE			37 3/000 V	1 11	7.0
Contra COL	Contactor				
	Jonado		AC current	Α	25
	Auxiliary contacts		7.0 Guildit	,,	
	. taxiiiai y ooi itaoto		AC voltage	V	600
			AC current	Å	10
					-

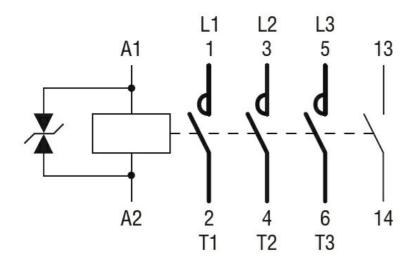
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection fuse, 600V				
High fault				
_		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
Standard f	ault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of auxiliary contacts	according to UL			A600 - P600
Ambient conditions				
Temperature				
Operating	temperature			
		min	°C	-50
		max	°C	70
Storage te	emperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions [mm (in)]				



Wiring diagrams

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 110VDC, 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





Product designation Product type designation			Power contactor BF09
Contact characteristics			
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		Α	25
Operational current le			
·	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	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	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	20
	48V	Α	20
	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			
The max surrounds in Boo Boo man give Tome man 2 person in somes	≤24V	Α	13
	48V	A	11
	75V	A	10
	110V	A	7
	220V	A	2
IEC many assert to in DC2 DC5 with L/D < 45 man with 2 males in agrica	220 V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	20AV	۸	4 E
	≤24V	A	15
	48V	A	15
	75V	Α	13
	110V	Α	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)		Α	90
Breaking capacity at voltage			
<u> </u>	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)	300.	mΩ	2.5
Power dissipation per pole (average value)		.1134	
Tomas dissipation per pero (average value)	Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals	AUS	v v	U.Z
rightening torque for terminals	min	Nim	1.5
	min	Nm 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	Ibin	0.8

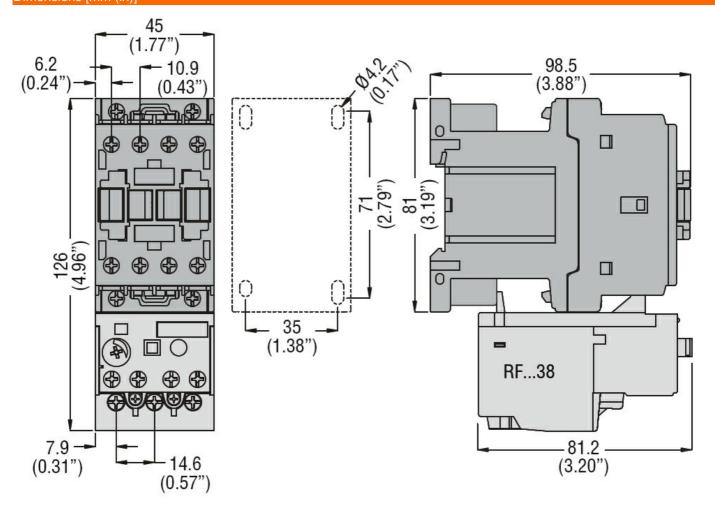


		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1410 (14			
	AWG/Kcmil			10
	Florible w/o live conductor coefficia	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIax	111111	0
	Tiexible GW lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		•
	r loxiloto mar integración opago rag corregion cocación	min	mm²	1
		max	mm²	4
	// / IFO/FN 00500			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	496
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char		max		
Auxiliary contact char Thermal current Ith	racteristics	max	A	10
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de	racteristics	max	А	
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de	racteristics			10 A600 - P600
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de	racteristics	230V	A	10 A600 - P600
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de	racteristics	230V 400V	A A	10 A600 - P600 3 1.9
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation C15	230V	A	10 A600 - P600
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation C15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 215	230V 400V	A A	10 A600 - P600 3 1.9
Auxiliary contact char Thermal current Ith 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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 215	230V 400V 500V 110V	A A A	10 A600 - P600 3 1.9 1.4 5.7
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 215	230V 400V 500V 110V 24V 48V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Auxiliary contact char 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
Auxiliary contact char 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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC 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 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
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Electrical 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
Auxiliary contact char Thermal current lth IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life 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
Auxiliary contact char Thermal current lth IEC/EN 60947-5-1 de Operating current DC 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 2000000
Auxiliary contact char Thermal current lth IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data	esignation 215 212 213 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 20000000
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	racteristics esignation 215 212 213 10d according to EN/ISO 13489-1 me	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 20000000 20000000
Auxiliary contact char Thermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B	esignation 215 212 213 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 20000000



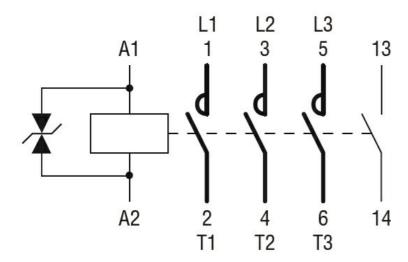
DC rated control volta				V	125
DC operating voltage					
	pick-up			0/11-	70
			min	%Us	70
	drop-out		max	%Us	125
	drop-out		min	%Us	10
			max	%Us	40
Average coil consump	otion ≤20°C		тах	7000	
5			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency			J		
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us c	control				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			
			min	ms	10
		01 : 110	max	ms	20
		Closing NC			4.4
			min	ms	14
		Opening NC	max	ms	28
		Opening NC	min	mc	7
			max	ms ms	18
	in DC		IIIdx	1113	10
	111 00	Closing NO			
		5.55g 5	min	ms	54
			max	ms	66
		Opening NO			
		, -	min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA) for three-phase AC	motor			
			at 480V	Α	7.6
			at 600V	Α	0.375
Yielded mechanical po					
	for single-phase A	AC motor			
			110/120V	HP	0.75
	fan the constitution	0	230V	HP	2
	for three-phase A	o motor	000/0001	UD	2
			200/208V 220/230V	HP HP	3
			460/480V	HP HP	3 5
			575/600V	HP	7.5
General USE			373/0007	1 11	7.0
Contra COL	Contactor				
	Contactor		AC current	Α	25
					_~
	Auxiliary contacts		710 00		
	Auxiliary contacts		AC voltage	V	600

		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	on fuse, 600V			
	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 auxi	liary 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	tion			
Pollution degree				3
Dimensions [mm (in)]				



ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 125VDC, 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





Series	Product designation			Power contactor
Number of poles	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 (\$55°C) A 20 AC-1 (\$55°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 4.00V kW 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 4.5 4.00V kW 4.5 440V kW 4.5 4.00V kW 4.5 4.00V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 4.00V kW 7.5 8 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 4.00V kW 2.1 6.00V 2.00V 2.0 2.00V 2.0			Nir	2
Rated impulse withstand voltage Ulimp				
Operational frequency min max Mz max Hz max Hz Mz 400 Mz IEC Conventional free air thermal current lth A 25 AC-1 (≤40°C) A 25 AC-1 (≤55°C) A 20 AC-1 (≤55°C) A 20 AC-1 (≤55°C) A 18 AC-3 (≤440V ≤55°C) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 4.5 440V kW 4.5 440V kW 4.5 500V kW 4.5 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 680V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 15 48V A 15 48V A 15 48V A 18 48V A 20 48V A 2	<u>-</u>			
Min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 25 Operational current Ie 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) AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) AC-4 (400V) A 4.9 AC-3 (440V ≤55°C) A 9 AC-4 (400V) A 4.9 AC-3 (440V ≤55°C) A 9 AC-4 (400V) A 4.9 AC-3 (440V ≤55°C) A 9 AC-4 (400V) A 4.9 AC-3 (5440V ≤55°C) A 9 AC-4 (400V) A 4.9 AC-3 (5440V ≤50°C) A 9 AC-4 (400V) A 4.5 A40V AV AV AV A40V			N.V.	0
EC Conventional free air thermal current Ith	Operational frequency	min	LJ	25
EC Conventional free air thermal current lth				
Operational current le AC-1 (≤40°C) A 25 AC-1 (≤55°C) A 20 AC-1 (≤70°C) A 18 AC-3 (≤4400∨ ≤55°C) A 9 AC-4 (4000V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 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 2.1 690V kW 2.1 100V A 1.2 220V A 1.2	IEC Conventional free air thermal current Ith	IIIdX		
AC-1 (≤40°C)			A	23
AC-1 (≤55°C)	Operational current le	AC 1 (<10°C)	۸	25
AC-1 (≤70°C)				
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 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 75V A 17 110V A 6 220V A 17 110V A 12 220V A 17 110V A 12 220V 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 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		` ,		
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 7.5		` ,		
Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.5 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 690V 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 48V A 18 48V A 18 17 110V A 18 48V A 18 17 110V A 18 18 19 10V A 18 10V A 18 110V A 12 110V A		•		
230V kW 2.2 440V kW 4.2 415V kW 4.5 440V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5	Data describer al resuma AO 2 /Testigo)	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 (1 \le 55 \cdot C)	0001/	1.147	0.0
415V				
A440V kW 4.8 500V kW 5.5 690V kW 7.5				
Soov kW 5.5 690V kW 7.5 7.5				
Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 16 500V kW 21 690V kW 27 27 27 27 27 27 27 27 27 27 27 27 27 27 27				
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 18 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				
		690V	KVV	7.5
A00V kW 16 500V kW 21 690V kW 27 27	Rated operational power AC-1 (T≤40°C)	2001/		
S00V kW 21 690V kW 27				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 15				
Section Sec				
		690V	KVV	27
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		_	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
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				
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V				6
	150	220V	A	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		_	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 20 48V A 20 75V A 20				
≤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				
110V A 15				
		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			
The max surrounds in Boo Boo man give Tome man 2 person in somes	≤24V	Α	13
	48V	Α	11
	75V	A	10
	110V	A	7
	220V	A	2
IEC many assert to in DC2 DC5 with L/D < 45 man with 2 males in agrica	220 V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	20AV	۸	4 E
	≤24V	A	15
	48V	A	15
	75V	Α	13
	110V	Α	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)		Α	90
Breaking capacity at voltage			
<u> </u>	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)	300.	mΩ	2.5
Power dissipation per pole (average value)		.1134	
Tomas dissipation per pero (average value)	Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals	AUS	v v	U.Z
rightening torque for terminals	min	Nim	1.5
	min	Nm 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	Ibin	0.8

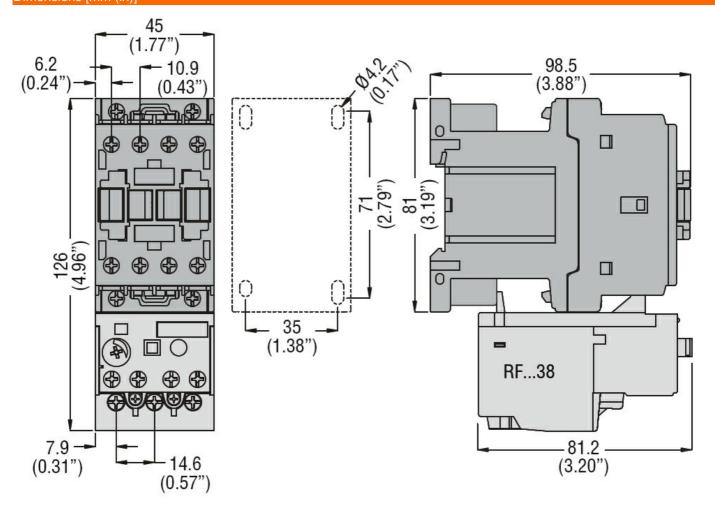


		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A.A.O. #4			
	AWG/Kcmil			4.0
	Clavible w/o lum conductor costice	max		10
	Flexible w/o lug conductor section	min	mm²	1
		min	mm² mm²	1 6
	Flexible c/w lug conductor section	max	111111	0
	r lexible 6/w lug corrudctor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r loxilote man inculation operate lag contraction coolien	min	mm²	1
		max	mm²	4
D	(''			IP20 when
Power terminal protec	etion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	500
Conductor section				
	AWG/kcmil conductor section			
A 11		max		10
Auxiliary contact chara	acteristics			
· · · · · · · · · · · · · · · · · · ·			۸	10
Thermal current Ith	aignation		Α	10
Thermal current Ith IEC/EN 60947-5-1 de	~		Α	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	~	2201/		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	~	230V 400V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	~	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	12	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	12	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	12	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	12	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	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
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	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC 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 Cycles	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 Operations Mechanical life Electrical life Safety related data	12	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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Electrical life Electrical life Safety related data Performance level B1	112 113 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC 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 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 20000000 yes
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	112 113 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



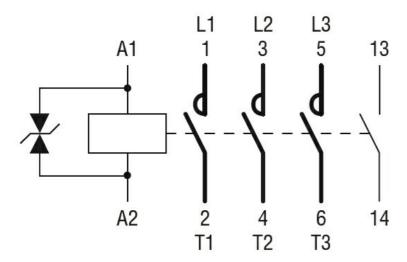
DC rated control voltage	ne.			V	220
DC operating voltage	,,,				
	pick-up				
			min	%Us	70
			max	%Us	125
	drop-out				
	•		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us 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			
			min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
			max	ms	17
UL technical data					
Full-load current (FLA)	for three-phase AC	motor			
			at 480V	Α	7.6
			at 600V	Α	0.375
Yielded mechanical pe	rformance				
	for single-phase A	C motor			
			110/120V	HP	0.75
			230V	HP	2
	for three-phase AC	C motor			
			200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5
General USE					
	Contactor				
			AC current	Α	25
	Auxiliary contacts				
	-		AC voltage	V	600
			AC current	Α	10

		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	on fuse, 600V			
	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 auxi	liary 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	tion			
Pollution degree				3
Dimensions [mm (in)]				



ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 220VDC, 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