



Product designation Product type designation			Power contactor BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	15
	48V	Α	14
	75V	Α	9
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC max current le in DC3-D	OC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	7
		48V	Α	6
		75V	Α	2
		110V	Α	1
		220V	Α	_
IFC may current le in DC3-F	DC5 with L/R ≤ 15ms with 2 poles in series		- , ,	
ilo max current le in bos-l	700 With E/TC = 10ths with 2 poles in selles	≤24V	۸	0
			A	8
		48V	Α	8
		75V	Α	5
		110V	Α	4
		220V	Α	_
IEC max current le in DC3-D	DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	A	6
		110V		5
			A	
150	205 111 1 15 1 15	220V	Α	0,8
IEC max current le in DC3-E	OC5 with L/R ≤ 15ms with 4 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable current	for 10s (IEC/EN60947-1)	2201	A	96
	101 103 (IEC/E1100947-1)			90
Protection fuse		0 (150)		0.0
		gG (IEC)	Α	20
		aM (IEC)	Α	10
Making capacity (RMS value)		Α	92
Breaking capacity at voltage				
		440V	Α	72
		500V	Α	72
		690V	Α	72
Resistance per pole (averag	e value)	0001	mΩ	10
			11122	10
Power dissipation per pole (a	average value)	141	107	
		lth	W	4
		AC3	W	0.81
Tightening torque for termina	als			
		min	Nm	0.8
		max	Nm	1
		min	Ibin	9
		max	Ibin	9
Tightoning torque for soil tor	minal	IIIdx	10111	3
Tightening torque for coil ter	IIIIIIai		k 1.	0.0
		min	Nm	0.8
		max	Nm	1
		min	Ibin	9
		max	lbin	9
Max number of wires simulta	aneously connectable		Nr.	2
Conductor section	•			
	G/Kcmil			
~~~	O/MONIII	may		12
FI:	diblo w/o lug oopdiistar aastia:-	max		14
Flex	cible w/o lug conductor section			0.75
		min	mm²	0.75



	TOUR-FOLL CONTACTOR, AC COIL 30/00112, 24VAC
NERGY AND ALITOMATION	

_		max	mm²	2.5
F	Flexible c/w lug conductor section			4.5
		min max	mm² mm²	1.5 2.5
_ 	Flexible with insulated spade lug conductor			
	3	min	mm²	1.5
		max	mm²	2.5
Power terminal protection	n according to IEC/EN 60529			IP20 when properly wired
Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
Fixing		иномиыс		Screw / DIN rail 35mm
Weight			g	178
Conductor section				
A	AWG/kcmil conductor section			
		max		12
Auxiliary contact characte	eristics		^	4.0
Thermal current Ith	ypation		A	10 A600
IEC/EN 60947-5-1 desig Operations	mation			Abuu
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10d	according to EN/ISO 13489-1			
		rated load	cycles	500000
		mechanical load	cycles	20000000
Mirror contats according	to IEC/EN 609474-4-1			yes
EMC compatibility  AC coil operating				yes
Rated AC voltage at 50/6	60Hz		V	24
AC operating voltage	20112			24
	of 50/60Hz coil powered at 50Hz pick-up			
		min	%Us	75
		max	%Us	115
	drop-out			
		min	%Us	20
<del>-</del>	of FO/GOLL7 goil powered at COLL7	max	%Us	55
C	of 50/60Hz coil powered at 60Hz pick-up			
		min	%Us	80
	المراجعة الم	max	%Us	115
	drop-out	min	%Us	20
		max	%Us	55
AC average coil consum	ption at 20°C			<del>_</del>
	of 50/60Hz coil powered at 50Hz			
	·	in-rush	VA	30
<u>-</u>		holding	VA	4
(	of 50/60Hz coil powered at 60Hz		_	
	01 007 001 12 0011 powerou at 001 12	in-rush	VA	25



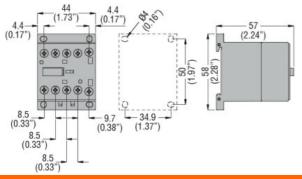
		holding	VA	3
	of 60Hz coil powered at 60Hz			
		in-rush	VA	30
		holding	VA	4
Dissipation at holding ≤	20°C 50Hz		W	0.95
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ntrol			
	in AC			
	Closing NO			
		min	ms	12
		max	ms	21
	Opening NO			
		min	ms	9
		max	ms	18
	Closing NC			
	·	min	ms	17
		max	ms	26
	Opening NC			
		min	ms	7
		max	ms	17
	in DC			
	Closing NO			
	_	min	ms	18
		max	ms	25
	Opening NO			
		min	ms	2
		max	ms	3
	Closing NC			
		min	ms	3
		max	ms	5
	Opening NC			
		min	ms	11
		max	ms	17
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	7.6
		at 600V	Α	6.1
Yielded mechanical per	formance			
•	for single-phase AC motor			
		110/120V	HP	0.5
		230V	HP	1.5
	for three-phase AC motor			
	-	200/208V	HP	2
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	5
General USE				
	Contactor			
		AC current	Α	20
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100

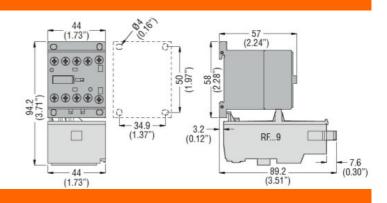


		Fuse rating	Α	30
		Fuse class		J
	Standard fault			_
		Short circuit current	kA	5
		Fuse rating	Α	30
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	+70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000
Resistance & Protection	on			

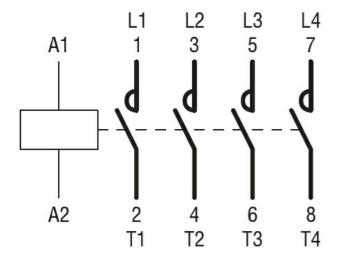
Pollution degree 3

# **Dimensions**





#### Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates





FOUR-POLE CONTACTOR, AC COIL 50/60HZ, 24VAC

cULus			
FΔC			

ETIM classification

ETIM 8.0





Product designation Product type designation			Power contactor BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
9	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40 AV /	•	4.5
	≤24V	A	15
	48V	A	14
	75V	A	9
	110V	A	8
IFC many assument to im DC4 with L/D < 4 man with 2 males in paging	220V	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<0.417	۸	4.0
	≤24V	A	16
	48V 75V	A	16
	110V	A A	10 10
	220V	A	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	2200	А	۷
ILO max current le in DOT with L/K > mis with 4 poles in series	≤24V	٨	16
	≤24V 48V	A ^	16
	46 V 75 V	A A	10
	110V	A	10
	220V	A	2
	220 V	^	<b>~</b>



IEC max current le in DC3-DC5 with L/R < 15ms with 1 noles in series

IEC max current le in DC3-DC5 with L/R	≤ 15ms with 1 poles in series		
	≤24V	Α	7
	48V	Α	6
	75V		2
	110V		1
	220V		' _
IFO		^	_ <b>_</b>
IEC max current le in DC3-DC5 with L/R			
	≤24V		8
	48V		8
	75V	Α	5
	110V	Α	4
	220V	Α	_
IEC max current le in DC3-DC5 with L/R			
120 max carrent to in 200 200 man 271	≤24V	Α	10
	48V		
			10
	75V		6
	110V		5
	220V	Α	0,8
IEC max current le in DC3-DC5 with L/R	≤ 15ms with 4 poles in series		
	≤24V	Α	10
	48V	Α	10
	75V		6
	110V		5
-	220V	A	0,8
Short-time allowable current for 10s (IEC	C/EN60947-1)	Α	96
Protection fuse			
	gG (IEC)	Α	20
	aM (IEC)	Α	10
Making capacity (RMS value)	, ,	Α	92
Breaking capacity at voltage			
Broaking capacity at voltage	440V	Α	72
	500V	A	72
	690V	A	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average valu	ue)		
	Ith	W	4
	AC3	W	0.81
Tightening torque for terminals			
5	min	Nm	0.8
		Nm	
	max		1
	min	Ibin	9
	max	Ibin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	9
	max	Ibin	9
Max number of wires simultaneously con		Nr.	2
	ii lootabilo	141.	
Conductor section			
AWG/Kcmil			
	max		12
Flexible w/o lug	conductor section		
	min	mm²	0.75



		max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
	E. 31 31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	max	mm²	2.5
	Flexible with insulated spade lug conductor		mm²	1.5
		min max	mm²	2.5
		тах	1010	IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30° Screw / DIN rail
Fixing				35mm
Weight			g	175
Conductor section	AMO (I			
	AWG/kcmil conductor section	Me are		12
Auxiliary contact chara	cteristics	max		12
Thermal current Ith	Ciensiles		Α	10
IEC/EN 60947-5-1 des	signation			A600
Operations	, <u>, , , , , , , , , , , , , , , , , , </u>			7.000
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10	od according to EN/ISO 13489-1			
		rated load	cycles	500000
Minnen anntata annualin	IFO/FN COO474 A A	mechanical load	cycles	20000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility AC coil operating				yes
Rated AC voltage at 50	0/60Hz		V	48
AC operating voltage				
, ,	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	75
	_	max	%Us	115
	drop-out		0/11-	20
		min	%Us %Us	20 55
	of 50/60Hz coil powered at 60Hz	max	/005	JJ
	pick-up			
	F. 20. 3F	min	%Us	80
		max	%Us	115
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu	•			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	30
		holding	VA VA	4
	of 50/60Hz coil powered at 60Hz	Holding	v A	r
		in-rush	VA	25



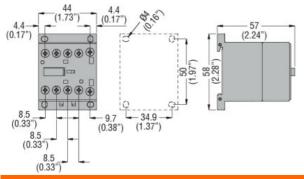
		holding	VA	3
	of 60Hz coil powered at 60Hz			
		in-rush	VA	30
		holding	VA	4
Dissipation at holding	≤20°C 50Hz		W	0.95
Max cycles frequency			1 //	0000
Mechanical operation			cycles/h	3600
Operating times	orter I			
Average time for Us co				
	in AC			
	Closing NO	min	ms	12
			ms	21
	Opening NO	max	1115	21
	Opening NO	min	ms	9
		max	ms	18
	Closing NC	Παλ	1113	10
	Closing NO	min	ms	17
		max	ms	26
	Opening NC	max	1110	20
	Opening 110	min	ms	7
		max	ms	17
	in DC	THOX		··
	Closing NO			
	G.66g . 10	min	ms	18
		max	ms	25
	Opening NO			
	3 -	min	ms	2
		max	ms	3
	Closing NC			
	· ·	min	ms	3
		max	ms	5
	Opening NC			
	· · ·	min	ms	11
		max	ms	17
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	7.6
		at 600V	Α	6.1
Yielded mechanical pe	erformance			
	for single-phase AC motor			
		110/120V	HP	0.5
		230V	HP	1.5
	for three-phase AC motor			
		200/208V	HP	2
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	5
General USE				
	Contactor			
		AC current	Α	20
Short-circuit protection				
	High fault			
		Short circuit current	kA	100

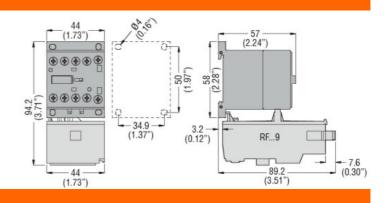


		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	30
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	+70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000
Resistance & Protection	on			

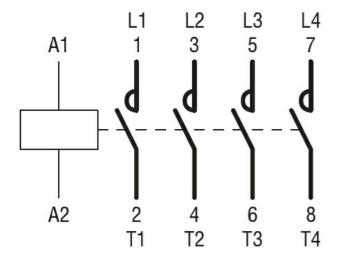
Pollution degree 3

# **Dimensions**





#### Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates



# **BG09T4A048**

50/60HZ, 48VAC

	11
electric	FOUR-POLE CONTACTOR, AC COIL S
ENERGY AND AUTOMATION	

ETIM classification

cULus EAC

ETIM 8.0





Product designation Product type designation		Power contactor BG09
Contact characteristics		БСОЭ
Number of poles	Nr.	4
Rated insulation voltage Ui IEC/EN	V	690
Rated impulse withstand voltage Uimp	kV	6
Operational frequency	ΚV	<u> </u>
min	Hz	25
	Hz	400
IEC Conventional free air thermal current Ith	A	20
Operational current le	Α	20
·	۸	20
AC-1 (≤40°C)	A	20
AC-1 (≤55°C)	A	18
AC-1 (≤70°C)	A	15
AC-3 (≤440V ≤55°C)	A	9
AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)		_
230V	kW	8
400V	kW	14
500V	kW	16
690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		
≤24V	Α	12
48V	Α	10
75V	Α	4
110V	Α	3
220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		
≤24V	Α	15
48V	Α	14
75V	Α	9
110V	Α	8
220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
≤24V	Α	16
48V	Α	16
75V	Α	10
110V	Α	10
220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series		
≤24V	Α	16
48V	Α	16
75V	Α	10
110V	A	10
220V	A	2
2200	, ,	<del>-</del>



IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	7
	48V	Α	6
	75V	Α	2
	110V	Α	1
	220V	Α	· _
IEC may current to in DC2 DC5 with L/D < 15mg with 2 polog in coriog	220 V		
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.43.7		•
	≤24V	Α	8
	48V	Α	8
	75V	Α	5
	110V	Α	4
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	10
	48V	A	
			10
	75V	Α	6
	110V	Α	5
	220V	Α	0,8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	10
	48V	Α	10
	75V	A	6
	110V	Α	5
	220V	A	0,8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	96
Protection fuse			
	gG (IEC)	Α	20
	aM (IEC)	Α	10
Making capacity (RMS value)	()	Α	92
Breaking capacity at voltage		- ' '	
breaking capacity at voltage	440\/	۸	70
	440V	A	72
	500V	Α	72
	690V	Α	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			
	Ith	W	4
	AC3	W	0.81
Tightening torque for terminals			
	min	Nm	0.8
	max	Nm	1
	min	lbin	9
	max	lbin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	9
		lbin	
May number of uiros simultaneously seem estable	max		9
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		12
Flexible w/o lug conductor section			
Ŭ	min	mm²	0.75
	•		



		max	mm²	2.5
	Flexible c/w lug conductor section	IIIdX	111111	2.5
	r loxuble 6/11 lag contactor cocitem	min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor	or section		
		min	mm²	1.5
		max	mm²	2.5
Power terminal protect	tion according to IEC/EN 60529			IP20 when
Mechanical features	-			properly wired
Operating position				
operating position		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	181
Conductor section				
	AWG/kcmil conductor section			
		max		12
Auxiliary contact chara	cteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 des	signation			A600
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data	0d according to EN/ISO 13489-1			
Periormance level bit	od according to EN/13O 13469-1	rated load	cycles	500000
		mechanical load	cycles	2000000
Mirror contats according	ng to IEC/EN 609474-4-1		0,0.00	yes
EMC compatibility	<u> </u>			yes
AC coil operating				
Rated AC voltage at 5	0/60Hz		V	110
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	75
	dran aut	max	%Us	115
	drop-out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	max	,,,,	
	pick-up			
	·	min	%Us	80
		max	%Us	115
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu	·			
	of 50/60Hz coil powered at 50Hz		١/٨	20
		in-rush	VA	30
	of 50/60Hz coil powered at 60Hz	holding	VA	4
	or 50/00112 con powered at 00112	in-rush	VA	25
		III-IUSII	٧٨	20



		holding	VA	3
	of 60Hz coil powered at 60Hz			
		in-rush	VA	30
		holding	VA	4
Dissipation at holding ≤	20°C 50Hz		W	0.95
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co	ntrol			
	in AC			
	Closing NO			
		min	ms	12
		max	ms	21
	Opening NO			
		min	ms	9
		max	ms	18
	Closing NC			
	·	min	ms	17
		max	ms	26
	Opening NC			
		min	ms	7
		max	ms	17
	in DC			
	Closing NO			
	-	min	ms	18
		max	ms	25
	Opening NO			
		min	ms	2
		max	ms	3
	Closing NC			
		min	ms	3
		max	ms	5
	Opening NC			
		min	ms	11
		max	ms	17
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	7.6
		at 600V	Α	6.1
Yielded mechanical per	formance			
•	for single-phase AC motor			
		110/120V	HP	0.5
		230V	HP	1.5
	for three-phase AC motor			
	-	200/208V	HP	2
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	5
General USE				
	Contactor			
		AC current	Α	20
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100

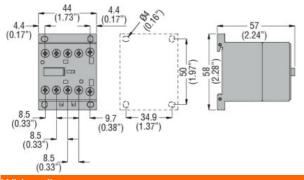


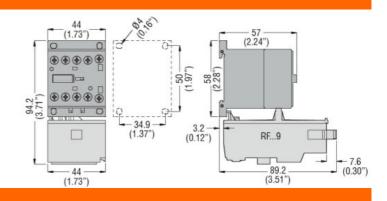
ENERGY AND A	NOITAMOTUA
--------------	------------

		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	30
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	on			

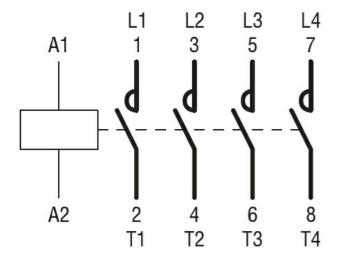
Pollution degree 3

# **Dimensions**





#### Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates



# 11BG09T4A110

FOUR-POLE CONTACTOR, AC COIL 50/60HZ, 110VAC

cULus			
EAC			

ETIM classification

ETIM 8.0





Product designation Product type designation			Power contactor BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
9	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40 AV /	•	4.5
	≤24V	A	15
	48V	A	14
	75V	A	9
	110V	A	8
IFC many assument to im DC4 with L/D < 4 man with 2 males in paging	220V	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<0.417	۸	4.0
	≤24V	A	16
	48V 75V	A	16
	110V	A A	10 10
	220V	A	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	2200	А	۷
ILO max current le in DOT with L/K > mis with 4 poles in series	≤24V	٨	16
	≤24V 48V	A ^	16
	46 V 75 V	A A	10
	110V	A	10
	220V	A	2
	220 V	^	<b>~</b>



IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series ≤24V Α 7 6 48V Α 75V 2 110V 1 Α 220V IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series ≤24V Α 8 48V Α 8 75V 5 Α 110V 4 Α 220V Α IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series ≤24V Α 10 48V Α 10 75V 6 Α 110V Α 5 220V Α 8,0 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series ≤24V Α 10 48V Α 10 75V 6 Α 5 110V Α 220V Α 0.8 Short-time allowable current for 10s (IEC/EN60947-1) 96 Protection fuse Α 20 gG (IEC) aM (IEC) Α 10 Making capacity (RMS value) Α 92 Breaking capacity at voltage 440V Α 72 500V Α 72 690V Α 72 Resistance per pole (average value)  $m\Omega$ 10 Power dissipation per pole (average value) W lth 4 AC3 W 0.81 Tightening torque for terminals min Nm 0.8 max Nm 1 min Ibin 9 max Ibin 9 Tightening torque for coil terminal Nm 0.8 min max Nm 1 min Ibin 9 9 max Ibin Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil 12 max Flexible w/o lug conductor section mm²

0.75

min



		max	mm²	2.5
	Flexible c/w lug conductor section			
	Š	min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
				IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
51 51	nc	ormal		Vertical plan
		vable		±30°
	4			Screw / DIN rail
Fixing				35mm
Weight			g	183
Conductor section			9	100
Conductor Section	AWG/kcmil conductor section			
	AVVG/KCITIII COTIQUCTOT Section	may		12
Auviliany contact chara	ctoristics	max		1 4
Auxiliary contact chara	CIETISTICS		^	10
Thermal current Ith			A	10
IEC/EN 60947-5-1 des	signation			A600
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
	rated	load	cycles	500000
	mechanical	load	cycles	20000000
Mirror contats according	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50	0/60Hz		V	230
AC operating voltage				
, ,	of 50/60Hz coil powered at 50Hz			
	pick-up			
	b.s.s.sb	min	%Us	75
		max	%Us	115
	drop-out		,,,,,	
	arop out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	max	7000	
	pick-up			
	pick up	min	%Us	80
			%Us	115
	dron-out	max	/005	110
	drop-out	min	0/110	20
		min	%Us %Us	20 55
AC average asil assess	umption at 20°C	max	/0US	JJ
AC average coil consu	•			
	of 50/60Hz coil powered at 50Hz			0.0
		-rush	VA	30
		lding	VA	4
	of 50/60Hz coil powered at 60Hz			
	in	-rush	VA	25

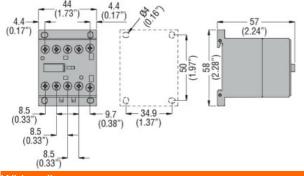


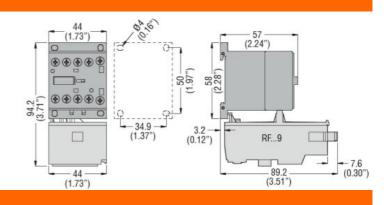
1
Molding   S20°C 50Hz   W   0.95
Dissipation at holding ≤20°C 50Hz
Mac cycles frequency           Mechanical operation         cycles/h         3600           Operating times           Average time for Us control         min ms 12 max ms 21           Opening NO         min ms 9 max ms 18           Closing NC         min ms 17 max ms 26           Opening NC         min ms 7 max ms 17           in DC         Closing NO           Closing NO         min ms 18 max ms 25           Opening NO         min ms 2 ms 25           Opening NO         min ms 3 ms 25           Opening NC         min ms 3 ms 5           Closing NC         min ms 3 ms 5           Opening NC         min ms 3 ms 5           Ut technical data         min ms 11 ms 11 ms 17           Ut technical data         min ms 17
Mechanical operation
Average time for Us control   in AC
Average time for Us control in AC  Closing NO  min ms 12 max ms 21  Opening NO  min ms 9 max ms 18  Closing NC  min ms 17 max ms 26  Opening NC  min ms 7 max ms 17  in DC  Closing NO  min ms 7 max ms 17  in DC  Closing NO  min ms 17 max ms 26  Opening NO  min ms 7 max ms 17  in DC  Closing NO  min ms 18 max ms 25  Opening NO  min ms 18 max ms 25  Opening NO  min ms 3 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC  min ms 11 max ms 17
in AC  Closing NO  min ms 12 max ms 21  Opening NO  min ms 9 max ms 18  Closing NC  min ms 17 max ms 26  Opening NC  min ms 7 max ms 17  in DC  Closing NO  min ms 17 max ms 26  Opening NO  min ms 17 max ms 25  Opening NO  min ms 18 max ms 25  Opening NO  min ms 18 max ms 25  Opening NO  min ms 18 max ms 3  Closing NO  min ms 2 max ms 3  Closing NC  min ms 3 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC  min ms 3 max ms 5  Opening NC  min ms 15  max ms 5  Opening NC  min ms 15  max ms 5
Closing NO
Opening NO
Opening NO
Opening NO
Min   Min
Closing NC
Closing NC
Min ms 17 max ms 26   Min ms 7 ms 17 max ms 17 max ms 26   Min ms 7 ms 17 max ms 18 max ms 25   Min ms 25   Min ms 25   Min ms 3 ms 3 max ms 3   Min ms 3 max ms 5   Min max ms 5   Min max ms 5   Min max ms 5   Min max ms 17   Min max ms 18   Mi
Opening NC    min ms 7 max ms 17 max ms 17 max ms 17 max ms 17 max ms 18 max ms 25 max ms 3 max ms 3   Closing NO min ms 2 max ms 3 max ms 3 max ms 5
Min ms 7 max ms 17
Max ms 17
In DC
Closing NO
Min   Ms   18   Max   Ms   25
Opening NO    max ms 25
Opening NO           min         ms         2           max         ms         3           Closing NC         min         ms         3           max         ms         5           Opening NC         min         ms         11           max         ms         17           UL technical data         Full-load current (FLA) for three-phase AC motor         Full-load current (FLA)
min ms 2 max ms 3   Closing NC
Max   ms   3
Closing NC
min   ms   3   max   ms   5
Opening NC    Max   ms   5
Opening NC  min ms 11 max ms 17  UL technical data  Full-load current (FLA) for three-phase AC motor
min ms 11 max ms 17  UL technical data  Full-load current (FLA) for three-phase AC motor
UL technical data Full-load current (FLA) for three-phase AC motor
UL technical data Full-load current (FLA) for three-phase AC motor
Full-load current (FLA) for three-phase AC motor
at 600V A 6.1
Yielded mechanical performance
for single-phase AC motor
110/120V HP 0.5
230V HP 1.5
for three-phase AC motor
200/208V HP 2
220/230V HP 3
460/480V HP 5
575/600V HP 5
General USE
Contactor
AC current A 20
Short-circuit protection fuse, 600V
High fault
Short circuit current kA 100



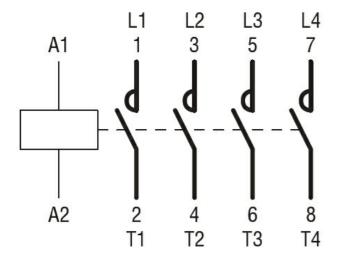
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	30
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	+70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000
Resistance & Protecti	on			
Pollution degree				3

# **Dimensions**





# Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates





# FOUR-POLE CONTACTOR, AC COIL 50/60HZ, 230VAC

NERGY AND AUTOMATION				
	cULus			
	EAC			

ETIM classification

ETIM 8.0





Product designation Product type designation			Power contactor BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
9	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40 AV /	•	4.5
	≤24V	A	15
	48V	A	14
	75V	A	9
	110V	A	8
IFC many assument to im DC4 with L/D < 4 man with 2 males in position	220V	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<0.417	۸	4.0
	≤24V	A	16
	48V 75V	A	16
	110V	A A	10 10
	220V	A	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	2200	А	۷
ILO max current le in DOT with L/K > mis with 4 poles in series	≤24V	٨	16
	≤24V 48V	A ^	16
	46 V 75 V	A A	10
	110V	A	10
	220V	A	2
	220 V	^	<b>~</b>



IEC max current le in [	DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	7
		48V	Α	6
		75V	Α	2
		110V	Α	_ 1
		220V	Α	<u>.</u>
IFC may current le in I	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V	, , ,	
ILO IIIAX CUITEIILIE III I	DC3-DC3 With L/IX = 13/118 With 2 poles in series	<04)/	۸	0
		≤24V	A	8
		48V	A	8
		75V	Α	5
		110V	Α	4
		220V	Α	_
IEC max current le in I	DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	A	5
		220V	A	0,8
IEC may aurrent to in I	DC2 DC5 with L/P < 15mg with 1 males in cories	2201	^	0,0
IEC IIIax current le In I	DC3-DC5 with L/R ≤ 15ms with 4 poles in series	-0.43 t	Δ.	4.0
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable c	eurrent for 10s (IEC/EN60947-1)		Α	96
Protection fuse				
		gG (IEC)	Α	20
		aM (IEC)	Α	10
Making capacity (RMS	valua	aivi (ILO)		92
	· · · · · · · · · · · · · · · · · · ·			92
Breaking capacity at vo	onage	4.401.4		
		440V	Α	72
		500V	Α	72
		690V	Α	72
Resistance per pole (a	average value)		$m\Omega$	10
Power dissipation per	pole (average value)			
	, , , <u>-</u>	Ith	W	4
		AC3	W	0.81
Tightening torque for to	erminals	,,,,,		
gorang torquo for to		min	Nm	0.8
		max	Nm	1
		min	lbin 	9
		max	lbin	9
Tightening torque for c	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	lbin	9
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section				<del>-</del>
Conductor Socilon	AWG/Kemil			
	AWG/Kcmil			40
	<del></del>	max		12
	Flexible w/o lug conductor section		-	
		min	mm²	0.75



	FOUR-POLE CONTACTOR, AC COIL 50/60HZ, 400VAC
ENERGY AND AUTOMATION	

	max	mm²	2.5
	Flexible c/w lug conductor section		
	min	mm²	1.5
	max	mm²	2.5
	Flexible with insulated spade lug conductor section		
	min	mm²	1.5
	max	mm²	2.5
Power terminal protect	tion according to IEC/EN 60529		IP20 when properly wired
Mechanical features			property who
Operating position			
operating position	normal		Vertical plan
	allowable		±30°
_	<u> </u>		Screw / DIN rail
Fixing			35mm
Weight		g	180
Conductor section			
	AWG/kcmil conductor section		
	max		12
Auxiliary contact chara			· <del>-</del>
Thermal current Ith		Α	10
IEC/EN 60947-5-1 de	signation		A600
Operations	oightaion		71000
Mechanical life		cycles	20000000
Electrical life		cycles	500000
Safety related data		Oyolos	000000
•	0d according to EN/ISO 13489-1		
T OTTOTTHATIOO TOVOL DT	rated load	cycles	500000
	mechanical load	cycles	20000000
Mirror contats accordi	ng to IEC/EN 609474-4-1	0,0.00	yes
EMC compatibility	19 10 12 0/211 000 17 1 1 1		yes
AC coil operating			yes
Rated AC voltage at 5	0/60Hz	V	400
AC operating voltage	0/00/12	· ·	400
710 operating voltage	of 50/60Hz coil powered at 50Hz		
	pick-up		
	pick-up min	%Us	75
	max	%Us	115
	drop-out	7003	113
	min	%Us	20
	max	%Us	55
	of 50/60Hz coil powered at 60Hz	7003	
	pick-up		
	min	%Us	80
	111111		115
	may	ءا ا%	1 1 ( )
	drop-out max	%Us	113
	drop-out		
	drop-out min	%Us	20
AC average coil consu	drop-out min max		
AC average coil consu	drop-out min max umption at 20°C	%Us	20
AC average coil consu	drop-out min max umption at 20°C of 50/60Hz coil powered at 50Hz	%Us %Us	20 55
AC average coil const	drop-out min max umption at 20°C of 50/60Hz coil powered at 50Hz in-rush	%Us %Us	20 55 30
AC average coil consu	drop-out min max umption at 20°C of 50/60Hz coil powered at 50Hz	%Us %Us	20 55



	. ( 0011	holding	VA	3
	of 60Hz coil powered at 60Hz	in ruch	١/٨	20
		in-rush holding	VA VA	30 4
Dissipation at holding :	<20°C 50Hz	Holding	W	0.95
Max cycles frequency	220 O 30112		VV	0.95
Mechanical operation			cycles/h	3600
Operating times			e y 0.00,	
Average time for Us co	ontrol			
· ·	in AC			
	Closing NO			
		min	ms	12
		max	ms	21
	Opening NO			
		min	ms	9
	0	max	ms	18
	Closing NC		,	47
		min	ms	17
	Opening NC	max	ms	26
	Opening NC	min	ms	7
		max	ms	17
	in DC	IIIdx	1113	
	Closing NO			
	Closhing IVE	min	ms	18
		max	ms	25
	Opening NO			
	, -	min	ms	2
		max	ms	3
	Closing NC			
		min	ms	3
		max	ms	5
	Opening NC			
		min	ms	11
III toobaical data		max	ms	17
UL technical data	for three-phase AC motor			
i uli-load current (FLA)	TOT THEE-PHASE AC HIOTOI	at 480V	Α	7.6
		at 600V	A	6.1
Yielded mechanical pe	erformance	at 000 V		0.1
Holded Medianical pe	for single-phase AC motor			
	is. single phase No motor	110/120V	HP	0.5
		230V	HP	1.5
	for three-phase AC motor			
	•	200/208V	HP	2
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	5
General USE				
	Contactor			
		AC current	Α	20
Short-circuit protection				
	High fault			
		Short circuit current	kA	100

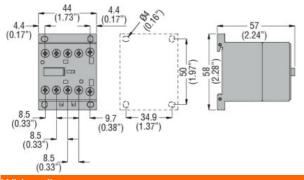


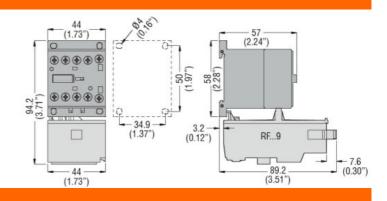
	<b>ITOMATIO</b>	

		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	30
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			

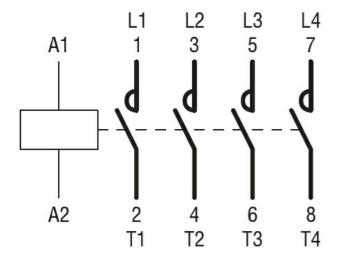
Pollution degree 3

# **Dimensions**





#### Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates



# 11BG09T4A400

L 50/60HZ, 400VAC

Lovato	
electric	FOUR-POLE CONTACTOR, AC COI
ENERGY AND AUTOMATION	

ETIM classification

cULus EAC

ETIM 8.0





Product designation			Auxiliary contactor
Product type designation			BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	A	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			_
	230V	kW	8
	400V	kW	14
	500V	kW	16
150	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40.414	Δ.	40
	≤24V	A	12
	48V	A	10
	75V 110V	A	4
	220V	A	3
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	Z20 V	A	<del>-</del>
TEC max current le in DCT with L/K = This with 2 poles in series	≤24V	Α	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	A	<del>-</del>
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		,,	
sanoni le in Be i mai Erit = inte mai e potee in conte	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series		<u> </u>	
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC may ourrent to in E	OC2 DC5 with L/D < 15mg with 1 pales in series			
IEC max current le in L	0C3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	Α	7
		48V	A	6
		75V	A	2
		110V	A	1
		220V	A	-
IEC may ourrent to in E	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
IEC max current le in L	C3-DC3 with L/R \square 15ms with 2 poles in series	≤24V	۸	0
		≤24∨ 48V	A	8
		46 V 75 V	A A	8 5
		110V		4
		220V	A	
IFO	000 D05 with 1/D < 45 with 0 1- in with	2200	Α	
IEC max current le in L	0C3-DC5 with L/R ≤ 15ms with 3 poles in series	40 AV /		4.0
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
IEC max current le in D	0C3-DC5 with L/R ≤ 15ms with 4 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable cu	urrent for 10s (IEC/EN60947-1)		Α	96
Protection fuse				_
		gG (IEC)	Α	20
		aM (IEC)	Α	10
Making capacity (RMS	value)		Α	92
Breaking capacity at vo	Itage			
	•	440V	Α	72
		500V	Α	72
		690V	Α	72
Resistance per pole (av	verage value)		mΩ	10
Power dissipation per p				
		Ith	W	4
		AC3	W	0.8
Tightening torque for te	erminals			
J 3 15. 940 101 10		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	Ibin	9
Tightening torque for co	nil terminal	Παλ	10111	
riginoming torque for to	Si Cimilia	min	Nm	0.8
			Nm	0.8 1
		max min	Ibin	9
			Ibin	
May number of wires of	multaneously connectable	max	Nr.	9 2
	multaneously connectable		INI.	
Conductor section	ANA(O/IZ			
	AWG/Kcmil			4.0
	<del></del>	max		12
	Flexible w/o lug conductor section	_	_	
		min	mm²	0.8



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	max	mm²	2.5
	Flexible c/w lug conductor section		
	min	mm²	1.5
	max	mm²	2.5
	Flexible with insulated spade lug conductor section	2	4.5
	min	mm² mm²	1.5 2.5
Power terminal protect	ion according to IEC/EN 60529	IIIII-	IP20
Mechanical features	ion according to 120/214 00020		11 20
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	200
Conductor section			
	AWG/kcmil conductor section		
	max		12
Auxiliary contact characteristics and contact characteristics.  Thermal current Ith	cteristics	٨	10
	vignation	Α	10 A600
IEC/EN 60947-5-1 des Operations	signation		A000
Mechanical life		cycles	20000000
Electrical life		cycles	500000
Safety related data		0,0.00	
·	0d according to EN/ISO 13489-1		
	rated load	cycles	500000
	mechanical load	cycles	20000000
Mirror contats according	ng to IEC/EN 609474-4-1		YES
EMC compatibility			YES
AC coil operating			
Rated AC voltage at 60	)Hz	V	24
AC operating voltage	of COLLE and recovered at COLLE		
	of 60Hz coil powered at 60Hz pick-up		
	ρισκ-αρ min	%Us	75
	max	%Us	115
	drop-out	,	-
	min	%Us	20
	max	%Us	55
AC average coil consu			
	of 50/60Hz coil powered at 50Hz		
	in-rush	VA	30
	holding	VA	4
	of 50/60Hz coil powered at 60Hz in-rush	VA	25
	holding	VA VA	3
	of 60Hz coil powered at 60Hz	٧,١	
	in-rush	VA	30
	holding	VA	4
Dissipation at holding s		W	0.9
Max cycles frequency			
Mechanical operation		cycles/h	3600



Operating times					
Average time for Us co	ntrol				
	in AC				
		Closing NO			
			min	ms	12
			max	ms	21
		Opening NO			
			min	ms	9
			max	ms	18
		Closing NC			
			min	ms	17
			max	ms	26
		Opening NC			_
			min	ms	7
	. 50		max	ms	17
	in DC	Olaska NO			
		Closing NO	•		4.0
			min	ms	18
		Opening NO	max	ms	25
		Opening NO	min	me	2
			min	ms ms	2 3
		Closing NC	max	ms	3
		Closing NC	min	ms	3
			max	ms	5
		Opening NC	Παλ	1113	3
		opening 140	min	ms	11
			max	ms	17
UL technical data			THOU .		
Full-load current (FLA)	for three-phase AC	motor			
,	·		at 480V	Α	7.6
			at 600V	Α	6.1
Yielded mechanical per	rformance				
·	for single-phase A	C motor			
			110/120V	HP	0.5
				ПГ	0.5
			230V	HP	1.5
	for three-phase AC	C motor			
	for three-phase AC	C motor			
	for three-phase AC	C motor	230V	HP	1.5
	for three-phase AC	C motor	230V 200/208V 220/230V 460/480V	HP HP	2
	for three-phase AC	C motor	230V 200/208V 220/230V	HP HP HP	1.5 2 3
General USE	for three-phase AC	C motor	230V 200/208V 220/230V 460/480V	HP HP HP	1.5 2 3 5
General USE	for three-phase AC	C motor	230V 200/208V 220/230V 460/480V	HP HP HP	1.5 2 3 5
General USE	*	C motor	230V 200/208V 220/230V 460/480V	HP HP HP	1.5 2 3 5
General USE  Short-circuit protection	Contactor	C motor	230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP	1.5 2 3 5 5
	Contactor	C motor	230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP	1.5 2 3 5 5
	Contactor fuse, 600V	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP	1.5 2 3 5 5 5
	Contactor fuse, 600V	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating	HP HP HP HP	1.5 2 3 5 5 5 20
	Contactor fuse, 600V High fault	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP	1.5 2 3 5 5 5
	Contactor fuse, 600V	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class	HP HP HP HP	1.5 2 3 5 5 5 20 100 30 J
	Contactor fuse, 600V High fault	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP	1.5 2 3 5 5 5 20 100 30 J
Short-circuit protection	Contactor fuse, 600V High fault	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class	HP HP HP HP	1.5 2 3 5 5 5 20 100 30 J
	Contactor fuse, 600V High fault	C motor	230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP	1.5 2 3 5 5 5 20 100 30 J



# Operating temperature

	min	°C	-50
	max	°C	+70
Storage temperature			
	min	°C	-60
	max	°C	+80
		m	3000

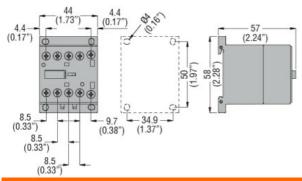
# Resistance & Protection

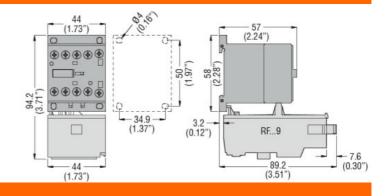
Pollution degree

3

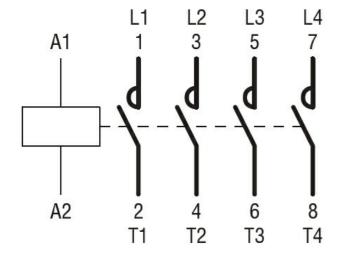
#### Dimensions

Max altitude





### Wiring diagrams



# Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

# ETIM classification

**ETIM 8.0** 





Product designation			Auxiliary contactor
Product type designation			BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			_
	230V	kW	8
	400V	kW	14
	500V	kW	16
150	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40.414	۸	40
	≤24V	A	12
	48V	A	10
	75V 110V	A	4
	220V	A	3
IEC may current to in DC1 with L/D < 1 mg with 2 notes in series	Z20 V	A	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	Α	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	A	<del>-</del>
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		- , ,	
sanoni le in Be i mai Erit = inte mai e potee in conte	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC max current le in DC3-D	DC5 with L/R ≤ 15ms with 1 poles in series				
	•	≤24V	Α	7	
		48V	Α	6	
		75V	Α	2	
		110V	A	1	
		220V	A	- -	
IEC may current to in DC2 F	OC5 with L/P < 15ms with 2 pales in series	2201			
ieo max current le in DC3-L	DC5 with L/R ≤ 15ms with 2 poles in series	-0.43 f	Α.	0	
		≤24V	Α	8	
		48V	Α	8	
		75V	Α	5	
		110V	Α	4	
		220V	Α	_	
IEC max current le in DC3-E	DC5 with L/R ≤ 15ms with 3 poles in series				
	·	≤24V	Α	10	
		48V	Α	10	
		75V	A	6	
		110V	A	5	
IFO	005 with 1/D < 45	220V	A	0,8	
IEC max current le in DC3-L	DC5 with L/R ≤ 15ms with 4 poles in series				
		≤24V	Α	10	
		48V	Α	10	
		75V	Α	6	
		110V	Α	5	
		220V	Α	0,8	
Short-time allowable current	t for 10s (IEC/EN60947-1)		Α	96	
Protection fuse					
		gG (IEC)	Α	20	
Molding agraphs (DMA)	A	aM (IEC)	A	10	
Making capacity (RMS value	•		Α	92	
Breaking capacity at voltage					
		440V	Α	72	
		500V	Α	72	
		690V	Α	72	
Resistance per pole (average	ge value)		mΩ	10	
Power dissipation per pole (	•				
		Ith	W	4	
		AC3	W	0.8	
Tightoning torque for torque	olo	AUS	V V	0.0	
Tightening torque for termina	alo			0.0	
		min	Nm	0.8	
		max	Nm	1	
		min	lbin	9	
		max	lbin	9	
Tightening torque for coil ter	minal				
· ·		min	Nm	0.8	
		max	Nm	1	
		min	lbin	9	
			Ibin	9	
May number of wires significant	anagualy connectable	max		2	
Max number of wires simulta	aneously connectable		Nr.		
Conductor section					
AW	G/Kcmil				
		max		12	
Flex	kible w/o lug conductor section				
	Č	min	mm²	0.8	
			· -		



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		max	mm²	2.5
	Flexible c/w lug conductor section	max		2.0
		min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor section			
	·	min	mm²	1.5
		max	mm²	2.5
Power terminal protect	tion according to IEC/EN 60529			IP20
Mechanical features				
Operating position				
		normal		Vertical plan
	8	allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	200
Conductor section				
	AWG/kcmil conductor section			
		max		12
Auxiliary contact chara	cteristics			10
Thermal current Ith			A	10
IEC/EN 60947-5-1 des	signation			A600
Operations				0000000
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data	2d according to FN//CO 42400 4			
Performance level B10	Od according to EN/ISO 13489-1	ated load	ovoloo	500000
		ical load	cycles cycles	2000000
Mirror contats according	ng to IEC/EN 609474-4-1	iicai ioau	Cycles	YES
EMC compatibility	ig to 120/214 00047 4 4 1			YES
AC coil operating				120
Rated AC voltage at 60	)Hz		V	48
AC operating voltage				
The opening remage	of 60Hz coil powered at 60Hz			
	pick-up			
	·	min	%Us	75
		max	%Us	115
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	30
	of F0/001  = acil acust == d =+ 001  =	holding	VA	4
	of 50/60Hz coil powered at 60Hz	in ruck	١/٨	25
		in-rush	VA VA	25 3
	of 60Hz coil powered at 60Hz	holding	VA	<u> </u>
	or our iz con powered at our iz	in-rush	VA	30
		holding	VA	4
Dissipation at holding	≤20°C 50Hz	noiding	W	0.9
Max cycles frequency			• •	
Mechanical operation			cycles/h	3600
			,	



**ENERGY AND AUTOMATION** Operating times Average time for Us control in AC Closing NO 12 min ms max ms 21 Opening NO 9 min ms max ms 18 Closing NC 17 min ms max ms 26 Opening NC min ms 7 17 max ms in DC Closing NO 18 min ms max ms 25 Opening NO min ms 2 max ms 3 Closing NC min ms 3 max ms 5 Opening NC min 11 ms max ms 17 UL technical data Full-load current (FLA) for three-phase AC motor at 480V Α 7.6 at 600V Α 6.1 Yielded mechanical performance for single-phase AC motor 110/120V HP 0.5 HP 230V 1.5 for three-phase AC motor 200/208V HP 2 220/230V HP 3 460/480V 5 HP HP 5 575/600V General USE Contactor AC current 20 Α Short-circuit protection fuse, 600V High fault Short circuit current 100 kΑ 30 Fuse rating Α Fuse class J Standard fault 5 Short circuit current kΑ 30 Fuse rating Α

## Ambient conditions

Temperature



### Operating temperature

	min	°C	-50
	max	°C	+70
Storage temperature			
	min	°C	-60
	max	°C	+80
		m	3000

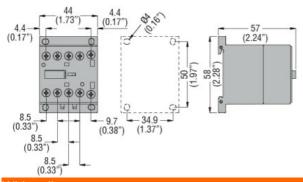
### Resistance & Protection

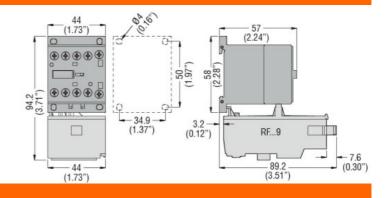
Pollution degree

3

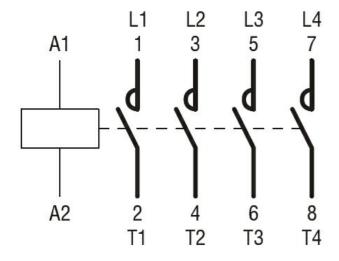
#### Dimensions

Max altitude





#### Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

## ETIM classification

**ETIM 8.0** 





Product designation Product type designation			Power contactor BG09
Contact characteristics			
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	15
	48V	Α	14
	75V	Α	9
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC max current le in D	C3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	7
		48V	Α	6
		75V	Α	2
		110V	Α	_ 1
		220V	A	_
IFO	000 D05 with 1/D < 45 with 0 1 in ni	220 V	^	<u>–</u>
IEC max current le in L	0C3-DC5 with L/R ≤ 15ms with 2 poles in series			
		≤24V	Α	8
		48V	Α	8
		75V	Α	5
		110V	Α	4
		220V	Α	_
IFC may current le in C	OC3-DC5 with L/R ≤ 15ms with 3 poles in series		- , ,	
ILC IIIAX CUITEIILIE III L	703-DC3 with L/R = 13ms with 3 poles in series	40.4V	^	4.0
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
IFC max current le in Γ	DC3-DC5 with L/R ≤ 15ms with 4 poles in series			-,-
ILO MAX current le III L	703-D03 With L/R = 13ms With 4 poles in series	<b>-211</b> /	۸	40
		≤24V	A	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable cu	urrent for 10s (IEC/EN60947-1)		Α	96
Protection fuse	211011(101 100 (120/211000 17 1)		,,	
Flotection luse		. 0 (150)	^	0.0
		gG (IEC)	Α	20
		aM (IEC)	Α	10
Making capacity (RMS)	value)		Α	92
Breaking capacity at vo	Itage			
<b>5</b> . ,		440V	Α	72
		500V	Α	72
		690V		72
Designation of the second of t		690 v	Α	
Resistance per pole (av			mΩ	10
Power dissipation per p	oole (average value)			
		Ith	W	4
		AC3	W	0.81
Tightening torque for te	erminals			
		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	Ibin	9
Tightening torque for co	pil terminal			
- ·		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	Ibin	9
	multaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		12
	Florible w/e lug conductor acetics	Παλ		14
	Flexible w/o lug conductor section			0.75
		min	mm²	0.75



FOUR-FOLE CONTACTOR, AC COIL BORZ, 120VAC

		max	mm²	2.5
	Flexible c/w lug conductor section	min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor se	ection		
		min	mm²	1.5
		max	mm²	2.5 IP20 when
Power terminal protecti	on according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	180
Conductor section	ANACO (In considerate and an anacomic of			
	AWG/kcmil conductor section	may		12
Auxiliary contact charac	teristics	max		12
Thermal current Ith	on the second se		Α	10
IEC/EN 60947-5-1 des	ignation			A600
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10	d according to EN/ISO 13489-1			
		rated load	cycles	500000
		mechanical load	cycles	20000000
	g to IEC/EN 609474-4-1			yes
EMC compatibility  AC coil operating				yes
Rated AC voltage at 60	H7		V	120
AC operating voltage	112		•	120
7.0 operating vertage	of 60Hz coil powered at 60Hz			
	, pick-up			
		min	%Us	75
		max	%Us	115
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consur				
	of 50/60Hz coil powered at 50Hz	in-rush	VA	30
		holding	VA VA	4
	of 50/60Hz coil powered at 60Hz	riolaling	V/\	
	5. 55/55/12 55/1 powered at 50/12	in-rush	VA	25
		holding	VA	3
	of 60Hz coil powered at 60Hz	<u> </u>		
	•	in-rush	VA	30
		holding	VA	4
Dissipation at holding ≤	20°C 50Hz		W	0.95
Max cycles frequency				
Mechanical operation			cycles/h	3600



Operating times						
Average time for Us co	ontrol					
	in AC					
		Closing NO				
			min	ms	12	
			max	ms	21	
		Opening NO	•		0	
			min	ms	9	
		Closing NC	max	ms	18	
		Closing NC	min	ms	17	
			max	ms	26	
		Opening NC				
		3 -	min	ms	7	
			max	ms	17	
	in DC					
		Closing NO				
			min	ms	18	
			max	ms	25	
		Opening NO	•		0	
			min	ms	2	
		Closing NC	max	ms	3	
		Closing NC	min	ms	3	
			max	ms	5	
		Opening NC	max	1110	Ü	
		- i - · · · · · · · · · · · · · · · · ·	min	ms	11	
			max	ms	17	
UL technical data						
Full-load current (FLA)	for three-phase AC	motor				
	for three-phase AC	motor	at 480V	A	7.6	
Full-load current (FLA)		motor	at 480V at 600V	A A	7.6 6.1	
	erformance					
Full-load current (FLA)			at 600V	А	6.1	
Full-load current (FLA)	erformance		at 600V 110/120V	A HP	0.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V	А	6.1	
Full-load current (FLA)	erformance	C motor	at 600V 110/120V 230V	A HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V	HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V 220/230V	A HP HP	0.5 1.5 2 3	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V	HP HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase A	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase A for three-phase AC	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase Ar for three-phase AC  Contactor	C motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	0.5 1.5 2 3 5 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase Ar for three-phase AC  Contactor	C motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5 20	
Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating Fuse class	A HP HP HP HP A  kA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP KA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Full-load current (FLA)  Yielded mechanical per  General USE  Short-circuit protection	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating Fuse class	A HP HP HP HP A  kA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Full-load current (FLA)  Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP KA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	





## Operating temperature

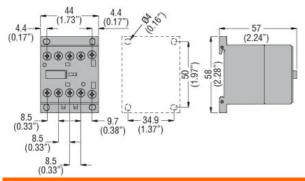
		min	°C	-50
		max	°C	+70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

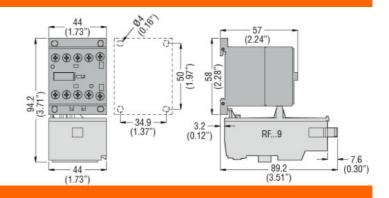
### Resistance & Protection

Pollution degree

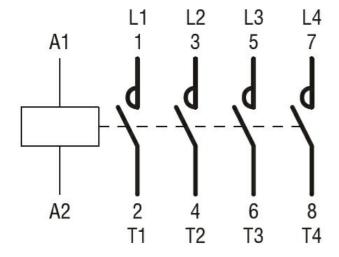
3

#### Dimensions





#### Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

## ETIM classification

ETIM 8.0





Product designation Product type designation			Power contactor BG09
Contact characteristics			BG09
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
150	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40 AV /		4.0
	≤24V	A	12
	48V	A	10
	75V	A	4
	110V 220V	A	3
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V	A	
TEC max current le in DCT with E/1\(\frac{1}{2}\) mis with 2 poles in series	≤24V	Α	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
120 max can shi to in 201 min 2/112 min man c poloc in conce	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC max current le in I	DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	7
		48V	Α	6
		75V	Α	2
		110V	Α	_ 1
		220V	Α	_
IFC may current le in l	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
ILO IIIAX CUITEIR IE III I	DC0-DC3 With L/TC = 101113 With 2 poles in series	<241/	٨	0
		≤24V	A	8
		48V	A	8
		75V	Α	5
		110V	Α	4
		220V	Α	_
IEC max current le in I	DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	A	5
		220V	A	0,8
IEC may aurrent le :- !	DC2 DC5 with L/P < 15mg with 1 males in cories	2201	^	0,0
IEC IIIax current le In I	DC3-DC5 with L/R ≤ 15ms with 4 poles in series	-0.41	Α.	4.0
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable c	eurrent for 10s (IEC/EN60947-1)		Α	96
Protection fuse				
		gG (IEC)	Α	20
		aM (IEC)	A	10
Making capacity (RMS	valua	aivi (ILO)		92
	· · · · · · · · · · · · · · · · · · ·		A	92
Breaking capacity at vo	orrage	4.401.4		
		440V	Α	72
		500V	Α	72
		690V	Α	72
Resistance per pole (a	average value)		$m\Omega$	10
Power dissipation per	pole (average value)			
	- · ·	lth	W	4
		AC3	W	0.81
Tightening torque for to	erminals	,,,,,		3.0.
gc ig torque for t		min	Nm	0.8
		min		
		max	Nm	1
		min	lbin	9
		max	Ibin	9
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	lbin	9
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section				<del>-</del>
Conductor Scotlon	AWG/Kemil			
	AWG/Kcmil			40
	<del></del>	max		12
	Flexible w/o lug conductor section		_	
		min	mm²	0.75



ENERGY AND AUTOMATION	

		max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
	<del></del>	max 	mm²	2.5
	Flexible with insulated spade lug conductor se		mana ²	1 E
		min max	mm² mm²	1.5 2.5
		IIIax	111111	IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	185
Conductor section				
	AWG/kcmil conductor section			40
Auviliary contact chare	otoriotics	max		12
Auxiliary contact chara Thermal current Ith	Clensucs		Α	10
IEC/EN 60947-5-1 des	signation			A600
Operations	ngriculori			7,000
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10	0d according to EN/ISO 13489-1			
		rated load	cycles	500000
		mechanical load	cycles	20000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility AC coil operating				yes
Rated AC voltage at 60	NHz		V	220
AC operating voltage	<u> </u>		v	
, to operating remage				
	of 60Hz coil powered at 60Hz			
	of 60Hz coil powered at 60Hz pick-up			
	of 60Hz coil powered at 60Hz pick-up	min	%Us	75
	pick-up	min max	%Us %Us	
	•	max	%Us	75 115
	pick-up	max min	%Us %Us	75 115 20
AC average coil concu	pick-up drop-out	max	%Us	75 115
AC average coil consu	pick-up drop-out mption at 20°C	max min	%Us %Us	75 115 20
AC average coil consu	pick-up drop-out	max min max	%Us %Us %Us	75 115 20 55
AC average coil consu	pick-up drop-out mption at 20°C	max min	%Us %Us	75 115 20
AC average coil consu	pick-up drop-out mption at 20°C	max min max in-rush	%Us %Us %Us	75 115 20 55
AC average coil consu	pick-up drop-out mption at 20°C of 50/60Hz coil powered at 50Hz	max min max in-rush	%Us %Us %Us	75 115 20 55
AC average coil consu	pick-up  drop-out  mption at 20°C  of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz	max min max in-rush holding	%Us %Us %Us VA VA	75 115 20 55 30 4
AC average coil consu	pick-up drop-out mption at 20°C of 50/60Hz coil powered at 50Hz	max min max in-rush holding in-rush holding	%Us %Us %Us VA VA	75 115 20 55 30 4 25 3
AC average coil consu	pick-up  drop-out  mption at 20°C  of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz	max min max  in-rush holding in-rush holding in-rush	%Us %Us %Us VA VA VA VA VA	75 115 20 55 30 4 25 3
	drop-out  Imption at 20°C of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz  of 60Hz coil powered at 60Hz	max min max in-rush holding in-rush holding	%Us %Us %Us VA VA VA VA VA VA	75 115 20 55 30 4 25 3
Dissipation at holding s	drop-out  Imption at 20°C of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz  of 60Hz coil powered at 60Hz	max min max  in-rush holding in-rush holding in-rush	%Us %Us %Us VA VA VA VA VA	75 115 20 55 30 4 25 3
	drop-out  Imption at 20°C of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz  of 60Hz coil powered at 60Hz	max min max  in-rush holding in-rush holding in-rush	%Us %Us %Us VA VA VA VA VA VA	75 115 20 55 30 4 25 3 30 4 0.95



Average time for Us control  in AC  Closing NO  min ms 12  max ms 21  Opening NO  min ms 9  max ms 18  Closing NC  min ms 17  max ms 26  Opening NC  min ms 77  max ms 26  Opening NC  min ms 77  max ms 26  Opening NC  min ms 77  max ms 27  In DC  Closing NO  min ms 18  max ms 25  Opening NO  min ms 2  max ms 25  Opening NO  min ms 3  Closing NC  min ms 3  Closing NC  min ms 3  Closing NC  min ms 3  max ms 5  Opening NC  min ms 17  The Closing NC  min ms 18  max ms 5  Opening NC  min ms 17  The Closing NC  min ms 18  The Closing NC  max ms 25  The Closing NC  max ms 17  The Closing NC  max ms 18  The Closing NC  max ms 17  The Closing NC  max ms 18  The Closing NC  max ms 17  The Closing NC  max ms 18  The Closing NC  max ms 17  The Closing NC  max ms 18  The Closing NC  max ms 17  The Closing NC  max ms 18  The Closing N	Operating times					
Closing NO	Average time for Us co	ontrol				
Closing NO	-	in AC				
Max			Closing NO			
Opening NO			J	min	ms	12
Opening NO						
Max			Opening NO			
Closing NC			opolinig o	min	ms	9
Closing NC						
Min			Closing NC	max	1110	. •
Opening NC			Clocking 140	min	ms	17
Opening NC						
Min			Opening NC	max	1110	20
Max			Opening No	min	me	7
In DC						
Closing NO		in DC		Παλ	1113	17
Min ms   18 max ms   25		III DC	Closing NO			
Opening NO			Ciosing NO	min	mo	10
Opening NO						
Min			Opening NO	max	ពាទ	20
Closing NC			Opening NO	and the		2
Closing NC						
Opening NC    Min ms   3 max ms   5 max ms   5 max ms   5 max ms   11 max ms   17 max ms   18 max ms			01. 1. 1.0	max	ms	3
Opening NC    min ms   11 max ms   17			Closing NC			
Opening NC						
Min max ms   11 max ms   17				max	ms	5
Max			Opening NC			
UL technical data   Full-load current (FLA) for three-phase AC motor				min	ms	
Full-load current (FLA) for three-phase AC motor  at 480V A 7.6 at 600V A 6.1  Yielded mechanical performance for single-phase AC motor  110/120V HP 0.5 230V HP 1.5  for three-phase AC motor  200/208V HP 2 220/230V HP 3 460/480V HP 5 575/600V HP 5  General USE  Contactor  AC current A 20  Short-circuit protection fuse, 600V High fault  Short circuit current KA 100 Fuse rating A 30 Fuse class J  Standard fault  Short circuit current KA 5 Fuse rating A 30 Ambient conditions				max	ms	17
At 480V   A   7.6   at 600V   A   6.1						
At 600V   A   6.1	Full-load current (FLA)	) for three-phase AC n	notor			
Yielded mechanical performance           for single-phase AC motor         110/120V         HP         0.5           230V         HP         1.5           for three-phase AC motor         200/208V         HP         2           220/230V         HP         3         460/480V         HP         5           General USE         Contactor         AC current         A         20           Short-circuit protection fuse, 600V         High fault         Short circuit current         kA         100           Fuse rating         A         30         Fuse class         J           Standard fault         Short circuit current         kA         5           Fuse rating         A         30           Ambient conditions         A         30						
for single-phase AC motor    110/120V				at 600V	Α	6.1
110/120V	Yielded mechanical pe	erformance				
230V HP 1.5		for single-phase AC	motor			
For three-phase AC motor   200/208V				110/120V	HP	0.5
200/208V   HP   2   220/230V   HP   3   460/480V   HP   5   575/600V   HP   5   575/				230V	HP	1.5
200/208V   HP   2   220/230V   HP   3   460/480V   HP   5   575/600V   HP   5   575/		for three-phase AC	motor			
220/230V		•		200/208V	HP	2
460/480V   HP   5   575/600V   HP   5						
Standard fault   Short circuit current   KA   5						
Contactor   AC current   A   20						
Contactor   AC current   A   20	General USE			3.3.3.3.3.		
AC current A 20  Short-circuit protection fuse, 600V High fault  Short circuit current kA 100 Fuse rating A 30 Fuse class J  Standard fault  Short circuit current kA 5 Fuse rating A 30 Fuse rating A 30  Ambient conditions		Contactor				
Short-circuit protection fuse, 600V High fault  Short circuit current kA 100 Fuse rating A 30 Fuse class J  Standard fault  Short circuit current kA 5 Fuse rating A 30  Ambient conditions		Jonado		AC current	Δ	20
High fault  Short circuit current kA 100 Fuse rating A 30 Fuse class J  Standard fault  Short circuit current kA 5 Fuse rating A 30  Ambient conditions	Short-circuit protection	n fuse 600\/		/ to current	, ,	
Short circuit current kA 100 Fuse rating A 30 Fuse class J  Standard fault Short circuit current kA 5 Fuse rating A 30 Ambient conditions	Chort-oncort protection					
Fuse rating A 30 Fuse class J  Standard fault  Short circuit current kA 5 Fuse rating A 30  Ambient conditions		nigiriault		Short aircuit aurrant	LΛ	100
Standard fault  Short circuit current kA 5 Fuse rating A 30  Ambient conditions						
Standard fault Short circuit current kA 5 Fuse rating A 30 Ambient conditions					А	
Short circuit current kA 5 Fuse rating A 30 Ambient conditions				FIICA CIACC		J
Fuse rating A 30 Ambient conditions		0. 1		i use class		
Ambient conditions		Standard fault				
		Standard fault		Short circuit current		5
Temperature		Standard fault		Short circuit current		5
	Ambient conditions	Standard fault		Short circuit current		5





### Operating temperature

	min	°C	-50	
	max	°C	+70	
Storage temperature		,		
	min	°C	-60	
	max	°C	+80	
		m	3000	

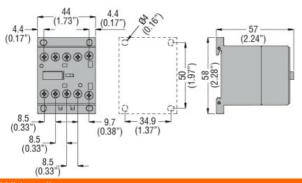
### Resistance & Protection

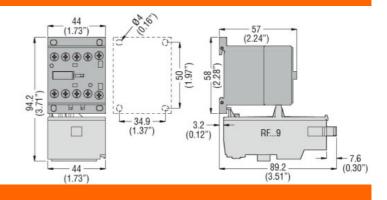
Pollution degree

3

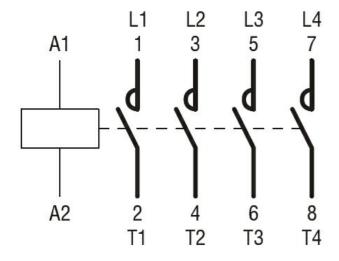
#### Dimensions

Max altitude





#### Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

## ETIM classification

**ETIM 8.0** 





Product designation Product type designation			Power contactor BG09
Contact characteristics			ВООЭ
Number of poles		Nr.	4
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	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-1 (T≤40°C)			
	230V	kW	8
	400V	kW	14
	500V	kW	16
150	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	40 AV /		4.0
	≤24V	A	12
	48V	A	10
	75V	A	4
	110V 220V	A	3
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V	A	
TEC max current le in DCT with E/1\(\frac{1}{2}\) mis with 2 poles in series	≤24V	Α	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
120 max can shi to in 201 min 2/112 min man c poloc in conce	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC max current le in I	DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	7
		48V	Α	6
		75V	Α	2
		110V	Α	_ 1
		220V	Α	<u>.</u>
IFC may current le in l	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
ILO IIIAX CUITEIR IE III I	DC0-DC3 With L/TC = 101113 With 2 poles in series	<241/	٨	0
		≤24V	A	8
		48V	A	8
		75V	Α	5
		110V	Α	4
		220V	Α	_
IEC max current le in I	DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	A	5
		220V	A	0,8
IEC may aurrent le :- !	DC2 DC5 with L/P < 15mg with 1 males in cories	2201	^	0,0
IEC IIIax current le In I	DC3-DC5 with L/R ≤ 15ms with 4 poles in series	-0.41	Α.	4.0
		≤24V	Α	10
		48V	Α	10
		75V	Α	6
		110V	Α	5
		220V	Α	0,8
Short-time allowable c	eurrent for 10s (IEC/EN60947-1)		Α	96
Protection fuse				
		gG (IEC)	Α	20
		aM (IEC)	A	10
Making capacity (RMS	valua	aivi (ILO)		92
	· · · · · · · · · · · · · · · · · · ·		A	92
Breaking capacity at vo	orrage	4.401.4		
		440V	Α	72
		500V	Α	72
		690V	Α	72
Resistance per pole (a	average value)		$m\Omega$	10
Power dissipation per	pole (average value)			
	- ·	lth	W	4
		AC3	W	0.81
Tightening torque for to	erminals	,,,,,		3.0.
gc ig torque for t		min	Nm	0.8
		min		
		max	Nm	1
		min	lbin	9
		max	Ibin	9
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	9
		max	lbin	9
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section				<del>-</del>
Conductor Scotlon	AWG/Kemil			
	AWG/Kcmil			40
	<del></del>	max		12
	Flexible w/o lug conductor section		_	
		min	mm²	0.75



		max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor se		m. m. 2	1 E
		min max	mm² mm²	1.5 2.5
		max	111111	IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	190
Conductor section				
	AWG/kcmil conductor section			
A cuality as a second of the area	ata viation	max		12
Auxiliary contact chara Thermal current Ith	cteristics		Α	10
IEC/EN 60947-5-1 des	signation		A	A600
Operations	ngriation			A000
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B10	0d according to EN/ISO 13489-1			
		rated load	cycles	500000
		mechanical load	cycles	20000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility  AC coil operating				yes
Rated AC voltage at 60	OHz		V	230
AC operating voltage	3.12		•	200
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	75
	_	max	%Us	115
	drop-out	uun ton	%Us	20
		min max	%Us %Us	20 55
AC average coil consu		IIIax	7003	
S arerage con consu				
	of 30/00FIZ coll powered at 30FIZ			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	30
		in-rush holding	VA VA	30 4
	of 50/60Hz coil powered at 60Hz	holding	VA	4
		holding in-rush	VA VA	25
	of 50/60Hz coil powered at 60Hz	holding	VA	4
		holding in-rush holding	VA VA VA	25 3
	of 50/60Hz coil powered at 60Hz	holding in-rush holding in-rush	VA VA VA	25 3 30
Dissipation at holding	of 50/60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz	holding in-rush holding	VA VA VA VA VA	25 3 30 4
Dissipation at holding s	of 50/60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz	holding in-rush holding in-rush	VA VA VA	25 3 30
Dissipation at holding :  Max cycles frequency  Mechanical operation	of 50/60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz	holding in-rush holding in-rush	VA VA VA VA VA	25 3 30 4 0.95



Operating times						
Average time for Us co	ontrol					
	in AC					
		Closing NO				
			min	ms	12	
			max	ms	21	
		Opening NO	•		0	
			min	ms	9	
		Closing NC	max	ms	18	
		Closing NC	min	ms	17	
			max	ms	26	
		Opening NC				
		3 -	min	ms	7	
			max	ms	17	
	in DC					
		Closing NO				
			min	ms	18	
			max	ms	25	
		Opening NO	•		0	
			min	ms	2	
		Closing NC	max	ms	3	
		Closing NC	min	ms	3	
			max	ms	5	
		Opening NC	max	1110	Ü	
		- i - · · · · · · · · · · · · · · · · ·	min	ms	11	
			max	ms	17	
UL technical data						
Full-load current (FLA)	for three-phase AC	motor				
	for three-phase AC	motor	at 480V	A	7.6	
Full-load current (FLA)		motor	at 480V at 600V	A A	7.6 6.1	
	erformance					
Full-load current (FLA)			at 600V	А	6.1	
Full-load current (FLA)	erformance		at 600V 110/120V	A HP	0.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V	А	6.1	
Full-load current (FLA)	erformance	C motor	at 600V 110/120V 230V	A HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V	HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V 220/230V	A HP HP	0.5 1.5 2 3	
Full-load current (FLA)	erformance for single-phase A	C motor	at 600V 110/120V 230V 200/208V	HP HP HP	0.5 1.5	
Full-load current (FLA)	erformance for single-phase A	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase A	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase A for three-phase AC	C motor	200/208V 220/230V 460/480V	HP HP HP HP	0.5 1.5 2 3 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase Ar for three-phase AC  Contactor	C motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	0.5 1.5 2 3 5 5	
Full-load current (FLA)  Yielded mechanical pe	erformance for single-phase Ar for three-phase AC  Contactor	C motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5 20	
Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current	HP HP HP HP HP	6.1 0.5 1.5 2 3 5 5	
Yielded mechanical pe	for single-phase Action for three-phase Action Contactor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating Fuse class	A HP HP HP HP A  kA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP KA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Full-load current (FLA)  Yielded mechanical per  General USE  Short-circuit protection	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current Fuse rating Fuse class	A HP HP HP HP A  kA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	
Full-load current (FLA)  Yielded mechanical pe	for single-phase Affor three-phase Affor	C motor	at 600V  110/120V 230V  200/208V 220/230V 460/480V 575/600V  AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP HP HP KA A	6.1 0.5 1.5 2 3 5 5 20 100 30 J	



# Operating temperature

, ,	min	°C	-50
	max	°C	+70
Storage temperature			
	min	°C	-60
	max	°C	+80
		m	3000

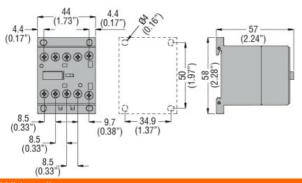
### Resistance & Protection

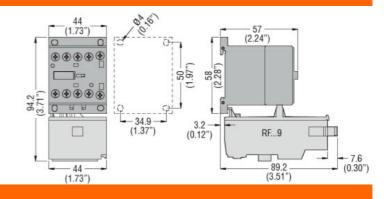
Pollution degree

3

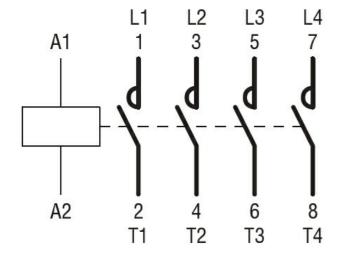
#### Dimensions

Max altitude





#### Wiring diagrams



## Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

## ETIM classification

**ETIM 8.0** 





Supplemental Contact Hype designation   Sup	Product designation			Power contactor BG09
Number of poles         Nr.         4           Rated insulation voltage Ui IEC/EN         V         690           Rated insulation voltage Uimp         kV         6           Operational frequency         min         Hz         25           max         Hz         400         1           IEC Conventional free air thermal current Ith         A         20           Operational current Ie         AC-1 (s40°C)         A         18           AC-1 (s45°C)         A         18         AC-1 (s70°C)         A         18           AC-3 (s4400 v55°C)         A         18         AC-1 (s70°C)         A         15           AC-3 (s4400 v55°C)         A         9         AC-4 (400v)         A         4           Rated operational power AC-1 (T≤40°C)         230V         kW         8           400v         kW         14         500V         kW         14           500v         kW         14         500V         kW         12         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14 </td <td>Product type designation Contact characteristics</td> <td></td> <td></td> <td>БСОЭ</td>	Product type designation Contact characteristics			БСОЭ
Rated insulation voltage U iEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           IEC Conventional free air thermal current lth         A         20           Operational current le         AC-1 (≤40°C)         A         20           AC-1 (≤70°C)         A         15         A         15           AC-3 (≤4400 ≤55°C)         A         9         A         4           Rated operational power AC-1 (T≤40°C)         230V         kW         4           Rated operational power AC-1 (T≤40°C)         230V         kW         8           400V         kW         16         690V         kW         16           690V         kW         16         690V         kW         12           IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         \$24V         A         12           48V         A         10         75V         A         4           IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series         \$24V         A         15           48V         A         16         48V         A         16           75V <t< td=""><td></td><td></td><td>Nr</td><td>Δ</td></t<>			Nr	Δ
Rated impulse withstand voltage Uimp				
Operational frequency         min max by Hz max         Hz max Hz hz max         400           IEC Conventional free air thermal current lth         A 20           Operational current le           AC-1 (≤40°C) A 20 AC-1 (≤55°C) A 18 AC-1 (≤55°C) A 15 AC-3 (≤440V) ≤55°C) A 9 AC-3 (≤440V) ≤55°C) A 9 AC-4 (400V) A 4           Rated operational power AC-1 (T≤40°C)           230V kW 8 A00V kW 14 500V kW 14 500V kW 16 690V kW 22           IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series           ≤24V A 12 48V A 10 75V A 4 110V A 3 220V A -           IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series           ≤24V A 15 48V A 15 48V A 15 75V A 9 110V A 8 220V A -           IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series           ≤24V A 16 48V A 16 75V A 10 110V A 10           1EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series           ≤24V A 16 6 48V A 16 75V A 10 110V A 10           1EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series           ≤24V A 16 6 48V A 16 75V A 10 10           110V A 16 48V A 16 75V A 10 10           110V A 16 48V A 16 75V A 10 10           110V A 16 6 48V A 16 75V A 10 10           110V A 16 6 48V A 16 75V A 10				
Min			100	
EC Conventional free air thermal current lith	operational frequency	min	Hz	25
EC Conventional free air thermal current lth				
Operational current le         AC-1 (≤40°C)       A       20         AC-1 (≤55°C)       A       18         AC-1 (≤70°C)       A       15         AC-3 (≤4400√ ≤55°C)       A       9         AC-4 (4000√)       A       4         Rated operational power AC-1 (T≤40°C)         230V       kW       8         400V       kW       14         500V       kW       14         500V       kW       14         690V       kW       22         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         ≤24V       A       15         48V       A       14         75V       A       9         110V       A       8         220V       A       -         IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series         ≤24V       A       16         48V       A       16         75V       A       10         110V       A       10         120V       A       2         IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series       ≤24V       A	IEC Conventional free air thermal current Ith			
AC-1 (≤40°C)				
AC-1 (≤55°C)		AC-1 (≤40°C)	Α	20
AC-1 (≤70°C)				
AC-3 (≤440V ≤55°C)   A   9     AC-4 (400V)   A   4     Rated operational power AC-1 (T≤40°C)     230V   kW   8     400V   kW   14     500V   kW   16     690V   kW   22     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series     524V   A   12     48V   A   10     75V   A   4     110V   A   8     220V   A   7     110V   A   8     220V   A   7     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series     524V   A   15     48V   A   14     75V   A   9     110V   A   8     220V   A   -     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series     524V   A   16     48V   A   16     48V   A   16     75V   A   10     110V   A   10     220V   A   2     IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series     524V   A   16     48V   A   10		,		
Rated operational power AC-1 (T≤40°C)   230V kW 8   400V kW 14   500V kW 16   690V kW 22				
Rated operational power AC-1 (T≤40°C)  230V kW 14 500V kW 14 500V kW 16 699V kW 22  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 12 48V A 10 75V A 4 110V A 3 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 15 48V A 14 75V A 9 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 15 48V A 14 75V A 9 110V A 8 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 16 48V A 16 75V A 10 110V A 10 220V A 2  IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series  ≤24V A 16 75V A 10 110V A 10 220V A 2		,	Α	
230V   kW   8   400V   kW   14   500V   kW   16   690V   kW   22	Rated operational power AC-1 (T≤40°C)	,		
SOOV   kW   16   690V   kW   22		230V	kW	8
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   ≤24V		400V	kW	14
Section   Sec		500V	kW	16
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		690V	kW	22
	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		≤24V	Α	12
110V   A   3   220V   A   -		48V	Α	10
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   S24V   A   15		75V	Α	4
SEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   S24V		110V	Α	3
		220V	Α	_
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
T5V   A   9   110V   A   8   220V   A   -		≤24V	Α	15
110V   A   8   220V   A   -		48V	Α	14
EC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series   $\leq$ 24V   A   16   48V   A   16   75V   A   10   110V   A   10   220V   A   2     EC max current le in DC1 with L/R $\leq$ 1ms with 4 poles in series   $\leq$ 24V   A   16   48V   A   16   48V   A   16   75V   A   10   110V   A   10   10V   A   10   10V		75V	Α	9
Section   Sec		110V	Α	8
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			Α	16
110V   A   10   220V   A   2			Α	
EC max current le in DC1 with L/R $\leq$ 1ms with 4 poles in series   $\leq$ 24V   A   16   48V   A   16   75V   A   10   110V   A   10			Α	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series  ≤24V A 16 48V A 16 75V A 10 110V A 10				
≤24V A 16 48V A 16 75V A 10 110V A 10		220V	Α	2
48V A 16 75V A 10 110V A 10	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75V A 10 110V A 10				
110V A 10				
220V A 2				
		220V	Α	2



IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	7
	48V	Α	6
	75V		2
		A	
	110V	Α	1
	220V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	8
	48V	Α	8
	75V	Α	5
	110V	Α	4
	220V	Α	_
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	<0417	۸	4.0
	≤24V	A	10
	48V	Α	10
	75V	Α	6
	110V	Α	5
	220V	Α	0,8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
•	≤24V	Α	10
	48V	A	10
	75V		
		A	6
	110V	Α	5
	220V	Α	0,8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	96
Protection fuse			
	gG (IEC)	Α	20
	aM (IEC)	Α	10
Making capacity (RMS value)	( - /	Α	92
Breaking capacity at voltage			
broaking dapatory at voltage	440V	Α	72
	500V	Α	72
	690V	A	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			
	Ith	W	4
	AC3	W	0.81
Tightening torque for terminals			
	min	Nm	0.8
		Nm	
	max		1
	min	Ibin	9
	max	Ibin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	9
	max	Ibin	9
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			40
	max		12
Flexible w/o lug conductor section			
	min	mm²	0.75



		max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
Power terminal protect	tion according to IEC/EN 60529			IP20 when
	tion according to 120/214 00020			properly wired
Mechanical features				
Operating position				
		rmal		Vertical plan
	allow	able		±30°
Fixing				Screw / DIN rail
·				35mm
Weight			g	183
Conductor section				
	AWG/kcmil conductor section			40
		max		12
Auxiliary contact chara	CTEPISTICS		^	10
Thermal current Ith			Α	10
IEC/EN 60947-5-1 des	signation			A600
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data	N			
Performance level B10	Od according to EN/ISO 13489-1			
	rated		cycles	500000
	mechanical	load	cycles	20000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				100
Rated AC voltage at 60	JHZ		V	460
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up		0/11	
		min	%Us	75
		max	%Us	115
	drop-out	min	0/116	20
		min	%Us %Us	20 55
AC average coil consu		max	/oUS	<u> </u>
AC average con consu	•			
	of 50/60Hz coil powered at 50Hz	rush	VA	30
		ding	VA	4
		uirig	VA	4
	of 50/60Hz coil powered at 60Hz	rush	VA	25
		ding	VA VA	3
	of 60Hz coil powered at 60Hz	unig	٧٨	
	·	rush	VA	30
		ding	VA	4
Dissipation at holding		<u>۳۱۱۱9</u>	W	0.95
Max cycles frequency			V V	
Mechanical operation			cycles/h	3600
- Wiconamodi operation			Jy Ji Joj Ji I	



Operating times					
Average time for Us co	ontrol				
Average time for 03 cc	in AC				
	III AO	Closing NO			
		Glooming 110	min	ms	12
			max	ms	21
		Opening NO			
			min	ms	9
			max	ms	18
		Closing NC			
			min	ms	17
			max	ms	26
		Opening NC			_
			min	ms	7
	DO		max	ms	17
	in DC	Clasing NO			
		Closing NO	min	ms	18
			max	ms	25
		Opening NO	Шах	1113	20
		- Politing 110	min	ms	2
			max	ms	3
		Closing NC			
		· ·	min	ms	3
			max	ms	5
		Opening NC			
			min	ms	11
			max	ms	17
UL technical data	for the contract A O	and a			
Full-load current (FLA)	for three-phase AC	motor	ot 400\/	۸	7.6
			at 480V at 600V	A A	7.6 6.1
Yielded mechanical pe	rformance		at 000 v		0.1
•	for single-phase A	C motor			
	ioi siligie-pliase A	C motor	110/120V	HP	0.5
			230V	HP	1.5
	for three-phase A	C motor	2001		
			200/208V	HP	2
					3
			220/230V	HP	O
			220/230V 460/480V	HP	5
General USE			460/480V	HP	5
General USE	Contactor		460/480V 575/600V	HP HP	5 5
			460/480V	HP	5
General USE  Short-circuit protection	fuse, 600V		460/480V 575/600V	HP HP	5 5
			460/480V 575/600V AC current	HP HP	5 5 20
	fuse, 600V		460/480V 575/600V  AC current  Short circuit current	HP HP A	5 5 20
	fuse, 600V		460/480V 575/600V  AC current  Short circuit current Fuse rating	HP HP	5 5 20 100 30
	fuse, 600V High fault		460/480V 575/600V  AC current  Short circuit current	HP HP A	5 5 20
	fuse, 600V		AC current  Short circuit current Fuse rating Fuse class	HP HP A kA A	5 5 20 100 30 J
	fuse, 600V High fault		AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP A kA A	5 5 20 100 30 J
Short-circuit protection	fuse, 600V High fault		AC current  Short circuit current Fuse rating Fuse class	HP HP A kA A	5 5 20 100 30 J
	fuse, 600V High fault		AC current  Short circuit current Fuse rating Fuse class  Short circuit current	HP HP A kA A	5 5 20 100 30 J





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
ETIM classification			
ETIM 8.0			EC000066 - Power contactor, AC switching