



Deschief designation			Danier and atan
Product designation			Power contactor
Product type designation			BG09
Contact characteristics		N I.e	2
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4
	415V	kW	4.3
	440V	kW	4.5
	500V	kW	5
	690V	kW	5
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	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
120 max canoncio in 201 mai 2/1 = 1me mai 2 perso in conce	≤24V	Α	15
	48V	Α	14
	75V	A	9
	110V	A	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	ZZU V		
TEO THAN GUITERING HT DO T WITH LIN > THIS WITH 3 POIES IT SELIES	≤24V	٨	16
		A	
	48V	A	16 10
	75V 110V	A	10
		A	10
IEC may current le in DC1 with L/R < 1ms with 4 notes in series	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-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	7
	48V	Α	6
	75V	Α	2
	110V	Α	1
	220V	A	<u>-</u>
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
120 max current le in 200-200 with 2/10 13 with 2 poles in series	≤24V	Α	8
	48V	A	8
	75V		
		A	5
	110V	A	4
150 DOO DOO 111 L/D 145 111 0 1 1 1	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	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	Α	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)	a (.20)	A	92
Breaking capacity at voltage			
breaking capacity at voltage	440V	Α	72
	500V	A	72 72
	690V		
Desigtance normale (average value)	090 V	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
	max	Nm	1
	min	lbin	9
	max	lbin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	lbin	9
Max number of wires simultaneously connectable		Nr.	2
			_





Conductor section			
	AWG/Kcmil max		12
	Flexible w/o lug conductor section		12
	min	mm²	0.75
	max	mm²	2.5
	Flexible c/w lug conductor section		
	min		1.5
	max	mm²	2.5
	Flexible with insulated spade lug conductor section min	mm²	1.5
	max	•	2.5
D (IP20 when
	tion according to IEC/EN 60529		properly wired
Mechanical features			
Operating position			Ventical -1
	normal allowable		Vertical plan ±30°
Fixing	allowable		Screw / DIN rail 35mm
Weight		g	177
Conductor section			
	AWG/kcmil conductor section		
	max		12
Auxiliary contact chara	acteristics		
Thermal current Ith		Α	10
IEC/EN 60947-5-1 des Operating current AC1	-		A600 - Q600
Operating current AC	230V	Α	3
	400V		1.9
	500V	Α	1.4
Operating current DC1	12		
	110V	Α	2.9
Operating current DC1		_	
	24V		2.9
	48V		1.4
	60V 110V		1.2 0.6
	125V		0.55
	220V		0.3
	600V		0.1
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
Safety related data			
Performance level B1	0d according to EN/ISO 13489-1		500000
	rated load	•	500000
Mirror contate accordi	mechanical load	cycles	20000000
EMC compatibility	ng to IEC/EN 609474-4-1		yes
AC coil operating			yes
Rated AC voltage at 5	0/60Hz	V	48
	44.4	•	

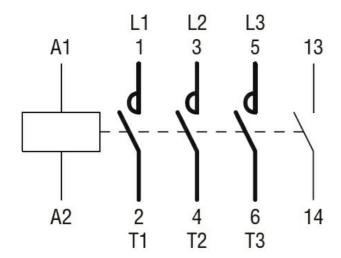




	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	75
		max	%Us	115
	drop-out			
		min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	115
	drop-out			
	·	min	%Us	20
		max	%Us	55
AC average coil consu	mption at 20°C			
	of 50/60Hz coil powered at 50Hz			
	2. 2.5, 202 25 ponorou at 001/2	in-rush	VA	30
		holding	VA	4
	of 50/60Hz coil powered at 60Hz	riolality	V/ \	•
	of 50/001 12 con powered at our 12	in-rush	VA	25
		holding	VA	3
	of 60Hz coil powered at 60Hz	Holding	V/\	<u> </u>
	of our 12 coil powered at our 12	in-rush	VA	30
			VA VA	4
Dissipation at halding	200°C EOLI-	holding	W	
Dissipation at holding ≤	20 C 50H2		VV	0.95
Max cycles frequency Mechanical operation				
Mechanical oberation			a, , a l a a /la	2000
-			cycles/h	3600
Operating times	ntrol		cycles/h	3600
-			cycles/h	3600
Operating times	in AC		cycles/h	3600
Operating times				
Operating times	in AC	min	ms	12
Operating times	in AC Closing NO	min max		
Operating times	in AC	max	ms ms	12 21
Operating times	in AC Closing NO	max min	ms ms	12 21 9
Operating times	in AC Closing NO Opening NO	max	ms ms	12 21
Operating times	in AC Closing NO	max min max	ms ms ms	12 21 9 18
Operating times	in AC Closing NO Opening NO	max min max min	ms ms ms ms	12 21 9 18
Operating times	in AC Closing NO Opening NO Closing NC	max min max	ms ms ms	12 21 9 18
Operating times	in AC Closing NO Opening NO	max min max min max	ms ms ms ms	12 21 9 18 17 26
Operating times	in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms	12 21 9 18 17 26
Operating times	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max	ms ms ms ms	12 21 9 18 17 26
Operating times	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms	12 21 9 18 17 26
Operating times	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7
Operating times	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7
Operating times	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC in DC Closing NO Opening NO	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO	min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC in DC Closing NO Opening NO	min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC in DC Closing NO Opening NO	min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC in DC Closing NO Opening NO	min max	ms ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC Closing NO Opening NO Closing NC Opening NC In DC Closing NO Opening NO Closing NO Closing NO	min max	ms ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17

Full-load current (FLA) for three-phase AC motor 1480V A 7.6 at 600V A 6.1			max	ms	17
At 480V A 7.6 at 600V A 6.1	UL technical data				
New Process New Part New Pa	Full-load current (FLA	A) for three-phase AC motor			
Yielded mechanical performance for single-phase AC motor 110/120V HP 0.5 230V HP 0.5 230V HP 1.5 For three-phase AC motor 200/208V HP 2 220/230V HP 3 4460/480V HP 5 575/600V HP 5 General USE Contactor AC current A 20 Short-circuit protection fuse, 600V High fault Fuse rating A 30 Fuse rating A 30 Fuse rating A 30 Fuse rating A 30 Standard fault Short circuit current kA 5 Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Max altitude Resistance & Protection Pollution degree Omensions					
For single-phase AC motor 110/120V HP 0.5 230V HP 1.5	-		at 600V	Α	6.1
110/120V	Yielded mechanical p	erformance			
230V HP 1.5		for single-phase AC motor			
For three-phase AC motor 200/208V HP 2 220/230V HP 3 460/480V HP 5 575/600V HP 5 5 575/600V HP 5 575/600V HP 5 575/600V HP 5 5 575/600V HP 5 575/600V HP 5 575/600V HP 5 5 575/600V HP 5 575/6				HP	
200/208V HP 2 220/230V HP 3 460/480V HP 5 575/600V HP 5			230V	HP	1.5
220/230V		for three-phase AC motor			
A60/480V HP 5			200/208V	HP	2
Standard fault Short circuit current Fuse rating Fuse rating A A A A A A A A A			220/230V	HP	3
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 Contact rating of auxiliary contacts according to UL Anbient conditions Temperature Operating temperature Operating temperature Min °C -50 max °C +70 Storage temperature Max altitude Resistance & Protection Pollution degree Omerating temperature Time of c -60 max °C +80 Dimensions			460/480V	HP	5
Contactor AC current A 20 Short-circuit protection fuse, 600V High fault Short circuit current Fuse rating A 30 Fuse class J Standard fault Short circuit current KA 5 Fuse rating A 30 Fuse rating A 30 Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude max °C +80 Max altitude max °C +80 Max altitude 3 3 Dimensions			575/600V	HP	5
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 class J Standard fault Short circuit current kA 5 Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude max °C +80 Max altitude Temperature Temperatu	General USE				
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 Contact rating of auxiliary contacts according to UL A600 - Q600 Ambient conditions Temperature Operating temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions		Contactor			
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 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C +70 Storage temperature Max altitude Resistance & Protection Pollution degree Oing A 30 A 600 - Q600 Amax °C -50 max °C -60 max °C -60 max °C +80 Resistance & Protection Pollution degree 3 Dimensions			AC current	Α	20
Short circuit current Fuse rating A 30 Fuse class J Standard fault Short circuit current Fuse rating A 30 Fuse class J Standard fault Short circuit current Fuse rating A 30	Short-circuit protectio	n fuse, 600V			
Fuse rating Fuse class J Standard fault Short circuit current kA 5 Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Storage 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		High fault			
Standard fault Short circuit current kA 5 Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Storage temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions			Short circuit current	kA	100
Standard fault Short circuit current Fuse rating A 30 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions			Fuse rating	Α	30
Short circuit current Fuse rating of auxiliary contacts according to UL A600 - Q600 Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions			Fuse class		J
Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions		Standard fault			
Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions			Short circuit current	kA	5
Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions			Fuse rating	Α	30
Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions A44 A44 A44 A44 A44 A44 A44 A	Contact rating of auxil	liary contacts according to UL			A600 - Q600
Operating temperature min	Ambient conditions				
min °C -50 max °C +70	Temperature				
min °C -50 max °C +70		Operating temperature			
Storage temperature min °C -60 max °C +80			min	°C	-50
min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions 4.4 (0.17) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38)			max	°C	+70
min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions 4.4 (0.17) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38) (0.38)		Storage temperature			_
Max altitude Resistance & Protection Pollution degree 3 Dimensions 44 (0.17") (0.33") (0.33") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30")		5 .	min	°C	-60
Max altitude Resistance & Protection Pollution degree 3 Dimensions 44 (0.17") (0.33") (0.33") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.38") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30") (0.30")			max	°C	+80
Resistance & Protection Pollution degree 3 Dimensions 4.4 (0.17") (0.33")	Max altitude				
Dimensions 44 (0.17") (0.17") (0.33") (0.38") (1.37") (0.38") (0.38") (1.37") (0.39") (0.30")	Resistance & Protect	ion			
Dimensions 44 (0.17") (0.17") (0.33") (0.38") (1.37") (0.38") (0.38") (1.37") (0.39") (0.30")	Pollution degree				3
(0.17")					
(0.17")	44 44		44 64.6		
8.5 (0.33") (0.38") (1.37") (0.38") (1.37") (0.38") (1.37") (0.30")	(0.17") (0.17") (0.17") (0.17")		0 0 0	(2	57
8.5 (0.33") (0.38") (1.37") (1.37") RF9		(1.97°) 5.5 (2.28°) چ	2.2 (1.1) (1.97)	G	
8.5	8.5 (0.33") 9.7	34.9 (1.37")		")	
	8.5		44	-	89.2 (0.30")
(0.33") (1.73") (3.51") Wiring diagrams			(1.73")		(3.51)





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

EC000066 -Power contactor, AC switching