

Product designation				Auxiliary contactor
Product type designation				BG09
Contact characteristics				
Number of poles		Nr.	4	
Rated insulation voltage U_i IEC/EN		V	690	
Rated impulse withstand voltage U_{imp}		kV	6	
Operational frequency		min	Hz	25
		max	Hz	400
IEC Conventional free air thermal current I_{th}		A	20	
Operational current I_e				
	AC-1 ($\leq 40^\circ\text{C}$)	A	20	
	AC-1 ($\leq 55^\circ\text{C}$)	A	18	
	AC-1 ($\leq 70^\circ\text{C}$)	A	15	
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	9	
	AC-4 (400V)	A	4	
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)				
	230V	kW	8	
	400V	kW	14	
	500V	kW	16	
	690V	kW	22	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series				
	$\leq 24\text{V}$	A	12	
	48V	A	10	
	75V	A	4	
	110V	A	3	
	220V	A	–	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series				
	$\leq 24\text{V}$	A	15	
	48V	A	14	
	75V	A	9	
	110V	A	8	
	220V	A	–	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series				
	$\leq 24\text{V}$	A	16	
	48V	A	16	
	75V	A	10	
	110V	A	10	
	220V	A	2	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series				
	$\leq 24\text{V}$	A	16	
	48V	A	16	
	75V	A	10	
	110V	A	10	
	220V	A	2	
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series				
	$\leq 24\text{V}$	A	7	
	48V	A	6	
	75V	A	2	
	110V	A	1	
	220V	A	–	
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series				

	≤24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
<hr/>			
IEC max current I_e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
<hr/>			
IEC max current I_e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
<hr/>			
Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	10
<hr/>			
Making capacity (RMS value)		A	92
<hr/>			
Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	72
<hr/>			
Resistance per pole (average value)		mΩ	10
<hr/>			
Power dissipation per pole (average value)	I _{th}	W	4
	AC3	W	0.8
<hr/>			
Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.6
	max	I _{bin}	0.7
<hr/>			
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	Prodotti finiti
	max	I _{bin}	Prodotti finiti
<hr/>			
Max number of wires simultaneously connectable		Nr.	2
<hr/>			
Conductor section	Flexible w/o lug conductor section		
	min	mm ²	0.8
	max	mm ²	2.5
	Flexible c/w lug conductor section		
	min	mm ²	1.5
	max	mm ²	2.5
	Flexible with insulated spade lug conductor section		
	min	mm ²	1.5
	max	mm ²	2.5
<hr/>			
Power terminal protection according to IEC/EN 60529			IP20

Mechanical features

Operating position

	normal allowable	Vertical plan $\pm 30^\circ$
Fixing		Screw / DIN rail 35mm

Weight	g	200
--------	---	-----

Auxiliary contact characteristics

Thermal current I _{th}	A	10
---------------------------------	---	----

IEC/EN 60947-5-1 designation		A600
------------------------------	--	------

Operations

Mechanical life	cycles	20000000
-----------------	--------	----------

Electrical life	cycles	500000
-----------------	--------	--------

Safety related data

Performance level B10d according to EN/ISO 13489-1

	rated load mechanical load	cycles	500000
		cycles	20000000

Mirror contacts according to IEC/EN 60947-4-1		YES
---	--	-----

EMC compatibility		YES
-------------------	--	-----

Rated AC voltage at 60Hz	V	24
--------------------------	---	----

AC coil operating

AC operating voltage

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 consumption at 20°C

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	3

of 60Hz coil powered at 60Hz

in-rush	VA	30
holding	VA	4

Dissipation at holding $\leq 20^\circ\text{C}$ 50Hz	W	0.9
---	---	-----

Max cycles frequency

Mechanical operation	cycles/h	3600
----------------------	----------	------

Operating times

Average time for U_s 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	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	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

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

m	3000
---	------

Resistance & Protection

Pollution degree

3

Dimensions

Wiring diagrams

Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 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