

Product designation				Auxiliary contactor
Product type designation				BG12
Contact characteristics				
Number of poles	Nr.			3
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 (≤40°C)	A	20	
	AC-3 (≤440V ≤55°C)	A	12	
	AC-4 (400V)	A	4.8	
Rated operational power AC-3 (T≤55°C)	230V	kW	3.2	
	400V	kW	5.7	
	415V	kW	6.2	
	440V	kW	5.5	
	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 I _e 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 I _e 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 I _e 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 I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A	–
48V		A	–	
75V		A	–	
110V		A	–	
220V		A	–	
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		≤24V	A	7

	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
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IEC max current Ie 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
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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Short-time allowable current for 10s (IEC/EN60947-1)		A	96
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Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	16
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Making capacity (RMS value)		A	120
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Breaking capacity at voltage	440V	A	96
	500V	A	72
	690V	A	72
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Resistance per pole (average value)		mΩ	10
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Power dissipation per pole (average value)	Ith	W	4
	AC3	W	1.4
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.6
	max	Ibin	0.7
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	Prodotti finiti
	max	Ibin	Prodotti finiti
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Max number of wires simultaneously connectable		Nr.	2
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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
Power terminal protection according to IEC/EN 60529			IP20

Mechanical features

Operating position	normal allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight		g 200

Auxiliary contact characteristics

Type of contact		1 NO
Thermal current I _{th}	A	10
IEC/EN 60947-5-1 designation		A600
Operating current AC15	230V	A 3
	400V	A 1.9
	500V	A 1.4

Operating current DC12	110V	A 2.9
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Operating current DC13	24V	A 2.9
	48V	A 1.4
	60V	A 1.2
	110V	A 0.6
	125V	A 0.55
	220V	A 0.3
	600V	A 0.1

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 48

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 ≤20°C 50Hz				
			W	0.9
Max cycles frequency				
Mechanical operation				cycles/h 3600
Operating times				
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	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	11
		at 600V	A	11
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	3
		220/230V	HP	3
		460/480V	HP	7.5
		575/600V	HP	10
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

A600 - Q600

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