



Product designation				Power 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	
Conventional free air thermal current I _{th} IEC/EN	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-1 (T≤40°C)	230V	kW	8	
	400V	kW	14	
	500V	kW	16	
	690V	kW	22	
Rated operational power AC-3 (T≤55°C)	230V	kW	3.2	
	400V	kW	57	
	415V	kW	6.2	
	440V	kW	5.5	
	500V	kW	5	
	690V	kW	5	
Short-time allowable current for 10s (IEC/EN60947-1)	A			96
Protection fuse	gG (IEC)	A	20	
	aM (IEC)	A	16	
Making capacity (RMS value)	A			120
Breaking capacity at voltage	440V	A	96	
	500V	A	72	
	690V	A	72	
Resistance per pole (average value)	mΩ			10
Power dissipation per pole (average value)	Power dissipation pole (average value) I _{th}	W	4	
	AC3	W	1.44	
Tightening torque for terminals	min	Nm	0.8	
	max	Nm	1	
	min	lbft	0.59	
	max	lbft	0.74	
Tightening torque for coil terminal				

	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
Max number of wires simultaneously connectable		nr.	2
Conductor section	AWG		
	min		18
	max		12
Flexible w/o lug conductor section	min	mm ²	0.75
	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 when wired		
Auxiliary contact characteristics			
Type of contact	1 NO		
Thermal current I _{th}	A	10	
IEC/EN 60947-5-1 designation	A600 - Q600		
Operational current I _e AC-1 (≤40°C)	A	20	
Operating current AC15	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12	110V	A	2.9
Operating current DC13	24V	A	2.9
	48V	A	1.4
	60V	A	1.1
	110V	A	Screw / DIN rail 35mm
	125V	A	0.3
	220V	A	0.1
	600V	A	0.6
Ambient conditions			
Temperature	Operating temperature		
	min	°C	-40
	max	°C	60
	Storage temperature		
	min	°C	-55
	max	°C	70
Max altitude		m	3000
Operational position	Operating position normal Operating position allowable		Vertical plan ±30°
Mounting	Screw / DIN rail 35mm		
Weight		g	0.18

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	Cicli Cicli	500000 20000000
Mirror contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes

AC coil operating

AC operating voltage

of 50/60Hz coil powered at 50Hz				
pick-up	min	%Us	0.75	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	
of 50/60Hz coil powered at 60Hz				
pick-up	min	%Us	0.8	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	
of 60Hz coil powered at 60Hz				
pick-up	min	%Us	0.75	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	

AC operating voltage

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	0.95

DC coil operating

DC rated control voltage

max	V	480
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DC operating voltage

Average coil consupcion ≤20°C

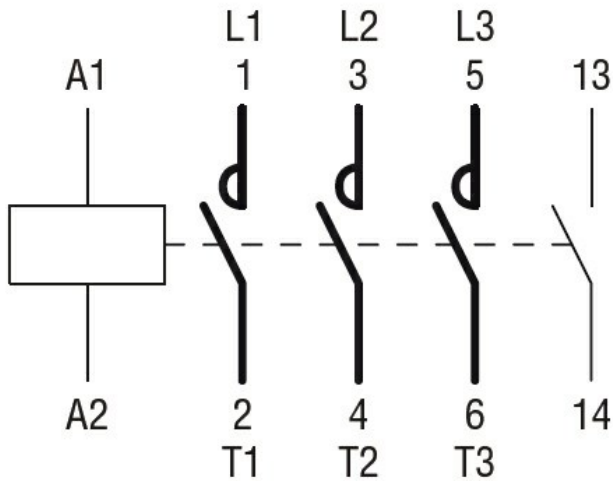
in-rush	W	3.2
holding	W	3.2

Max cycles frequency

Mechanical operations	Cycles/h	3600
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Operating times

Average time for Us control



Certifications and compliance

Certifications

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

Compliance

CCC

cULus

EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching