



Auxiliary  
contactor  
BG12

Product designation

Product type designation

**Contact characteristics**

Number of poles	nr.	3
Rated insulation voltage $U_i$	V	690
Rated impulse withstand voltage $U_{imp}$	kV	6
Operating frequency	Operational frequency min	Hz 25
	Operational frequency max	Hz 400
Conventional free air thermal current $I_{th}$	A	20
Operating current	Operational current AC3 ( $\leq 440V \leq 55^\circ C$ )	A 12
	Operational current AC4 (400V)	A 4.8
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	Breaking capacity 440V	A 96
	Breaking capacity 500V	A 72
	Breaking capacity 690V	A 72
Resistance per pole (average value)		m $\Omega$ 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 0.59
	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 <sup>2</sup> 0.75
	max	mm <sup>2</sup> 2.5

Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
Flexible with insulated spade lug conductor section			
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
Power terminal protection according to IEC/EN 60529			IP20
<b>Auxiliary contact characteristics</b>			
Type of contact			1 NA
Thermal current I <sub>th</sub>			A 10
IEC/EN 60947-5-1 designation			A600
<b>Ambient conditions</b>			
Temperature			
Operating temperature			
	min	°C	-40
	max	°C	60
Storage temperature			
	min	°C	-55
	max	°C	70
Max altitude			m 3,000
Operating position			
	normal allowable		Vertical plan ±30°
Mounting			Screw / DIN rail 35mm
Weight			g 0.18
<b>Operations</b>			
Mechanical life			Cycles 20,000,000
Electrical life			Cycles 500000
<b>Safety related data</b>			
Mirror contacts according to IEC/EN 60947-4-1			Yes
EMC compatibility			Yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	12
	max	V	575
AC operating voltage			
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
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	75

		max	%Us	115
	drop-out	min	%Us	20
		max	%Us	55
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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
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Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz			W	0.95
<b>DC coil operating</b>				
DC rated control voltage		min	V	6
		max	V	250
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DC operating voltage				
	pick-up	min	%Us	75
		max	%Us	115
	drop-out	min	%Us	10
		max	%Us	20
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Average coil consumption $\leq 20^{\circ}\text{C}$		in-rush	W	3.2
		holding	W	3.2
<b>Max cycles frequency</b>				
Mechanical operations			Cycles/h	3,600
<b>Operating times</b>				
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

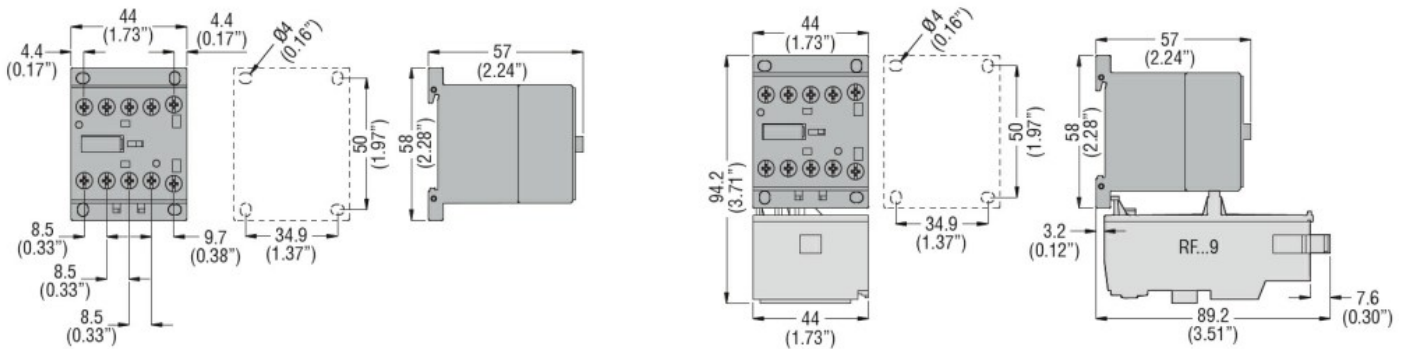
for single-phase AC motor

at 110/120V	hp	0.5
at 230V	hp	1.5

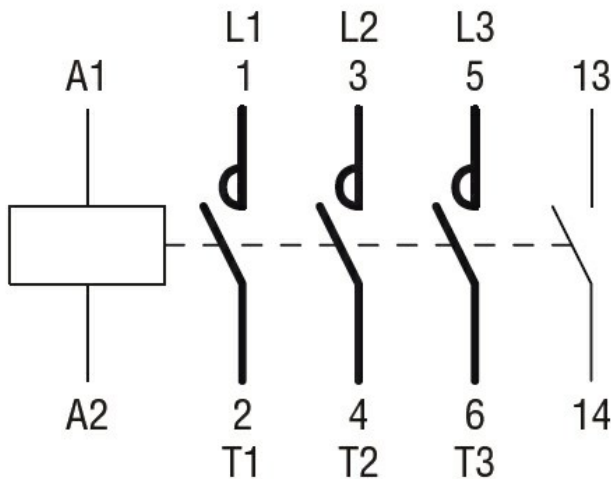
for three-phase AC motor

at 200/208V	hp	3
at 220/230V	hp	3
at 460/480V	hp	7.5
at 575/600V	hp	10

**Dimensions**



**Wiring diagrams**



**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

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EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching