



Power contactor
with surge
suppressor
BG06

Product designation

Product type designation

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	16
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 16
	AC-1 ($\leq 55^\circ\text{C}$)	A 14
	AC-1 ($\leq 70^\circ\text{C}$)	A 12
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A 6
	AC-4 (400V)	A 3.3
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 1.5
	400V	kW 2.2
	415V	kW 2.4
	440V	kW 2.5
	500V	kW 3
	690V	kW 3
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW 6
	400V	kW 10
	500V	kW 13
	690V	kW 18
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 9
	48V	A 8
	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 12
	48V	A 11
	75V	A 7
	110V	A 6
	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 14
	48V	A 14
	75V	A 8

	110V	A	8
	220V	A	1
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IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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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	6
	48V	A	5
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	7
	48V	A	7
	75V	A	4
	110V	A	3
	220V	A	–
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IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	A	9
	48V	A	9
	75V	A	5
	110V	A	4
	220V	A	0,5
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IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	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	16
	aM (IEC)	A	6
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Making capacity (RMS value)		A	92
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Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	72
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Resistance per pole (average value)		m Ω	10
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Power dissipation per pole (average value)	I _{th}	W	2.6
	AC-3	W	0.36
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1

	min	lbin	9
	max	lbin	9
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil	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 properly wired
Mechanical features			
Operating position	normal allowable	Vertical plan ±30°	
Fixing			Screw / DIN rail 35mm
Weight			g 212
Conductor section			
AWG/kcmil conductor section	max		12
Auxiliary contact characteristics			
Thermal current I _{th}	A	10	
IEC/EN 60947-5-1 designation	A600 - Q600		
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	1.2
	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	cycles	500000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1	yes		
EMC compatibility	yes		

DC coil operating

DC rated control voltage	V	24
DC operating voltage		
pick-up	min	%Us 75
	max	%Us 115
drop-out	min	%Us 10
	max	%Us 25
Average coil consumption ≤20°C		
	in-rush	W 3.2
	holding	W 3.2

Max cycles frequency

Mechanical operation	cycles/h	3600
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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	4.8
	at 600V	A	3.9
Yielded mechanical performance			
for single-phase AC motor			
	110/120V	HP	0.3
	230V	HP	1
for three-phase AC motor			
	200/208V	HP	1.5
	220/230V	HP	2
	460/480V	HP	3

		575/600V	HP	3
General USE				
Contactor		AC current	A	16
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

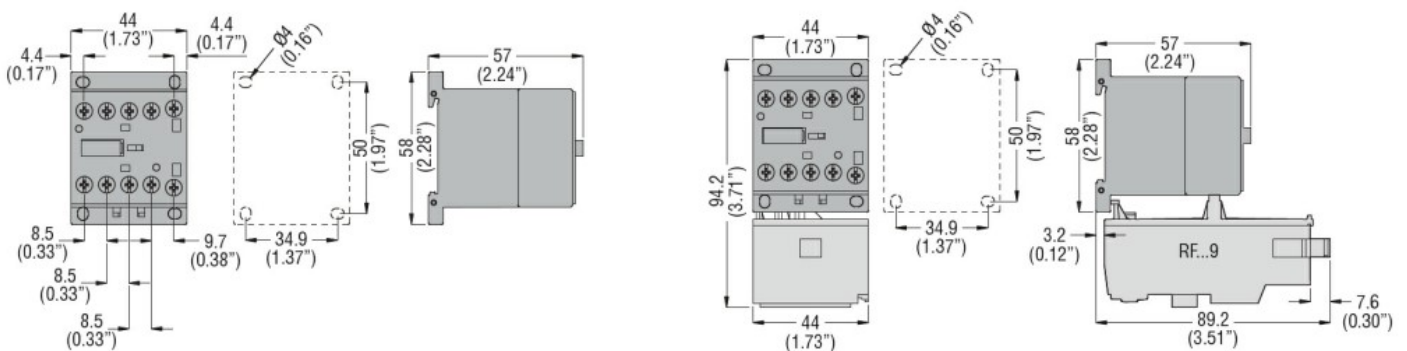
m	3000
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Resistance & Protection

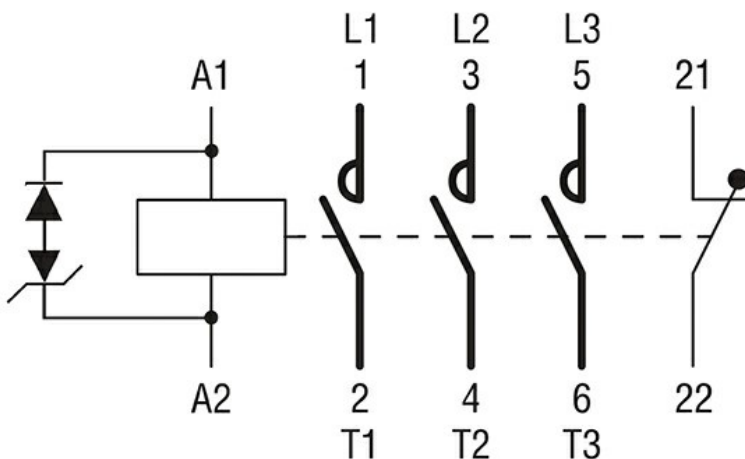
Pollution degree

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