





Product designation Power contactor Product type designation **BG12** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k۷ Rated impulse withstand voltage Uimp 6 Operational frequency Нъ 25 min Hz 400 max IEC Conventional free air thermal current Ith 20 Α Operational current le AC-1 (≤40°C) Α 20 AC-1 (≤55°C) Α 18 AC-1 (≤70°C) Α 15 AC-3 (≤440V ≤55°C) Α 12 AC-4 (400V) 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 le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 12 48V Α 10 75V Α 4 110V 3 Α 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 15 48V Α 14 75V Α 9 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V Α 16 48V Α 16 75V Α 10 110V 10





	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
·	≤24V	Α	7
	48V	Α	6
	75V	Α	2
	110V	Α	_ 1
	220V	A	<u>.</u>
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
TEO Max current le in 600-600 with 6/1/ 2 10/1/3 with 2 poles in series	≤24V	Α	0
	48V	A	8
	48 V 75 V	A	8 5
	110V	A	4
150	220V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	. 		4.0
	≤24V	A	10
	48V	Α	10
	75V	Α	6
	110V	Α	5
	220V	Α	0,8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
Short-time allowable current for 10s (IEC/EN60947-1)		Α	96
Protection fuse			
	gG (IEC)	Α	20
	aM (IEC)	Α	16
Making capacity (RMS value)	()	Α	120
Breaking capacity at voltage		,,	
	440V	Α	96
	500V	A	72
	690V	A	72 72
Posistance per pole (average value)	0901		
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)	1.1	147	4
	Ith	W	4
	AC-3	W	1.44
Tightening torque for terminals			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	Ibin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	9



		max	Ibin	9
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		12
	Flexible w/o lug conductor section			
		min	mm²	0.75
	=	max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor section		2	
		min	mm²	1.5
		max	mm²	2.5
Power terminal prote	ction according to IEC/EN 60529			IP20 when
	<u> </u>			properly wired
Mechanical features				
Operating position		normal		Vertical plan
		normal allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight				180
Conductor section			g	100
Conductor Section	AWG/kcmil conductor section			
	AVVG/kcmii conductor section	may		12
Auxiliary contact char	ractoristics	max		12
Auxiliary Cortiact Criar	aciensiles			
Thermal current Ith			Δ	10
Thermal current Ith	esignation		A	10 A600 - O600
IEC/EN 60947-5-1 de	-		A	10 A600 - Q600
	-	230\/		A600 - Q600
IEC/EN 60947-5-1 de	-	230V	A	A600 - Q600 3
IEC/EN 60947-5-1 de	-	400V	A A	A600 - Q600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - Q600 3
IEC/EN 60947-5-1 de	15	400V 500V	A A A	A600 - Q600 3 1.9 1.4
Operating current AC	15	400V	A A	A600 - Q600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V	A A A	A600 - Q600 3 1.9 1.4 2.9
Operating current AC	15	400V 500V 110V 24V	A A A	A600 - Q600 3 1.9 1.4 2.9
Operating current DC	15	400V 500V 110V 24V 48V	A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4
Operating current DC	15	400V 500V 110V 24V 48V 60V	A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55
Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3
Operating current DC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1
Operating current DC Operations Mechanical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1
Operating current DC Operations Mechanical life Electrical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1
Operating current DC Operations Mechanical life Electrical life Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1 20000000 500000
Operating current DC Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1 20000000 500000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1 20000000 500000 500000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level BC Mirror contats accord	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1 20000000 500000 500000 500000 yes
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	115 112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - Q600 3 1.9 1.4 2.9 2.9 1.4 1.2 0.6 0.55 0.3 0.1 20000000 500000 500000





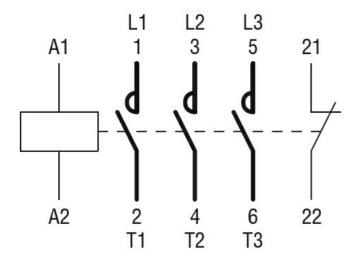
Rated AC voltage at				V	120
AC operating voltage		. 1 . 1 0011			
	of 60Hz coil power				
		pick-up		0/116	7.5
			min	%Us	75
		dram acut	max	%Us	115
		drop-out		0/116	20
			min	%Us	20
A C			max	%Us	55
AC average coil cons		5011			
	of 50/60Hz coil pov	vered at 50HZ		١/٨	0.0
			in-rush	VA	30
	(50/0011 "		holding	VA	4
	of 50/60Hz coil pov	vered at 60Hz			0.5
			in-rush	VA	25
			holding	VA	3
	of 60Hz coil powere	ed at 60Hz			0.0
			in-rush	VA	30
	.0000		holding	VA	4
Dissipation at holdinເ				W	0.95
Max cycles frequenc					
Mechanical operation)			cycles/h	3600
Operating times					
Average time for Us					
	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			
					11
			min	ms	11
			min max	ms	17
JL technical data					
	A) for three-phase AC	motor			
	A) for three-phase AC	motor			



Tor single-phase AC motor	Yielded mechanical	I performance			
110/120V					
230V HP 1.5		3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	110/120V	HP	0.5
For three-phase AC motor 200/208V HP 3 220/230V HP 3 3 460/480V HP 7.5 575/600V HP 10 10 10 10 10 10 10 1				HP	1.5
200/208V		for three-phase AC motor			
220/230V HP 3 460/480V HP 7.5 575/600V HP 10			200/208V	HP	3
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 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Timin °C -50 max °C +70 Storage temperature Max altitude max °C +80 Max altitude max °C +80 Max altitude max °C +80 Max altitude 3 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Timin °C -60 max °C +80 Max altitude max °C +80 Max altitude 3 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Timin °C -60 max °C +80 Max altitude Timin °C -60 Timin of C -60 T					
Seneral USE Contactor AC current A 20					
Contactor AC current A 20 Short-circuit protection fuse, 600V High fault Short circuit current Fuse rating A 30 Fuse class Standard fault Short circuit current Fuse rating A 30 Fuse class Standard fault Short circuit current Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature The conditions The conditions Temperature The conditions The conditio					
Contactor AC current A 20 Short-circuit protection fuse, 600V High fault Short circuit current Fuse rating A 30 Fuse class J Standard fault Short circuit current Fuse rating A 30 Fuse class Fuse rating A 30 Fuse class Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Interval 1377 Storage temperature Temperature Resistance & Protection Pollution degree 3 Storage temperature Resistance & Protection Pollution degree 3 Storage temperature Resistance & Protection Resistance & Protection Pollution degree 3 Storage temperature Resistance & Protection	General USE		3.3.33		
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 Fuse rating A 30 Fuse rating A 30 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Wax altitude Resistance & Protection Pollution degree 3 3 AC current A 20 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Femperature min °C -50 max °C +70 Storage temperature 3 Wax altitude Resistance & Protection Pollution degree 3 3		Contactor			
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 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Operating temperature Max °C +70 Storage temperature Max altitude Max altitude Odd Max altitude Operating temperature Operating temperature Min °C -50 Max °C +70 Operating temperature Min °C -60 Max °C +80 Max operating temperature			AC current	Α	20
High fault Short circuit current Fuse rating A 30 Fuse class J Standard fault Short circuit current Fuse rating A 30 Fuse class Fuse rating A 30 Fuse class Fuse rating A 30 Fuse class	Short-circuit protect	tion fuse. 600V			
Short circuit current RA 100 Fuse rating A 30 Fuse class J Standard fault Short circuit current RA 5 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL A600 - Q600 Ambient conditions Temperature Operating temperature Operating temperature Min °C -50 max °C +70 Storage temperature Min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Oliton degree 3 Dimensions	on our protoc				
Standard fault Short circuit current kA 5 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Tolution degree		g	Short circuit current	kΔ	100
Standard fault Short circuit current KA 5 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude max °C +80 Max altitude max °C -80 max °C -80 max °C -80 max °C -90 max °C					
Standard fault Short circuit current Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL 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 Oinensions			=	Α	
Short circuit current kA 5 Fuse rating A 30 Fuse class RK5 Contact rating of auxiliary contacts according to UL Ambient conditions Temperature Operating temperature Inin °C -50 max °C +70 Storage temperature Inin °C -60 max °C +80 Inin °C -60 max °C +80 Inin °C -60 max °C +80 Inin °C -60 max °C -80 Inin °C		Standard fault	1 430 01433		<u> </u>
Fuse rating Fuse class		Standard radit	Short circuit current	ĿΛ	5
Fuse class RK5 Contact rating of auxiliary contacts according to UL Anbient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions					
Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contacts according to UL About Project Contact rating of auxiliary contact rating of Contact ra			•	A	
Ambient conditions Temperature Operating temperature min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude max °C +80 Max altitude Resistance & Protection Pollution degree 3 Operating temperature min °C -60 max °C +80 Max altitude max °C +80 The storage temperature min °C -60 max	Contact rating of au	williams contacts according to LII	ruse ciass		
Operating temperature Min					A600 - Q600
Operating temperature min					
min °C -50 max °C +70 Storage temperature min °C -60 max °C +80 Max altitude m 3000 Resistance & Protection Pollution degree Dimensions 3 3 44 11.73* 1.37* 3.2 1.37* 3.2 1.37* 3.2 3.3 3.3 3.3 3.3 3.3 3.3 3.	remperature	Operating temperature			
Max °C +70		Operating temperature	min	°C	E0
Storage temperature min					
min °C -60 max °C +80 Max altitude Resistance & Protection Pollution degree 3 Dimensions 3 A44 (1.73") (0.17") (0.38") (1.37") (0.38") (1.37") (0.38") (1.37") (0.38") (1.37") (0.38") (1.37") (0.38") (0.38") (1.37") (0.38")		<u></u>	max		+70
Max altitude m 3000 Resistance & Protection Pollution degree 3 Dimensions 4.4 (0.17) (0.33)		Storage temperature		0.0	22
Max altitude Resistance & Protection Pollution degree 3 4.4 (0.17) (0.38)					
Resistance & Protection Pollution degree 3 Dimensions 3 44 (0.17") (0.33")			max	°C	
Pollution degree Dimensions 4.4 (0.17") (0.33")				m	3000
Dimensions (4.4 (0.17") (0.17") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.33") (0.31") (0.31")		ection			
4.4 (0.17")	Pollution degree				3
(0.17")	Dimensions				
(0.33") (0.33")	4.4 (0.17")	(2.24")	€ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	7 (2	57
(0.33°) (1.73°) (3.51)	8.5 (0.33") 8.5 (0.33") 8.5		3.2 (1.37") 3.2 (0.12	")	76
	(0.33") Wiring diagrams		(1.73")		(3.51)

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 12A, AC COIL 60HZ, 120VAC, 1NC AUXILIARY CONTACT



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