electric

Three-pole contactor, IEC operating current le (AC3) = 12A, AC coil 50/60Hz, 24VAC, 1NC auxiliary contact



Draduct decimation		•	Dawar santastar
Product designation			Power contactor
Product type designation  Contact characteristics			BG12
		N I.e	3
Number of poles		Nr.	
Rated insulation voltage Ui IEC/EN			690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			0.5
	min	Hz	25
1500	max	Hz	400
IEC Conventional free air thermal current Ith		Α	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	0
	AC-3 (≤440V ≤55°C)	Α	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 le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	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	Α	10
	220V	Α	2

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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	220 V	- / \	
TEO max current le in 200-200 with E/T = 15m3 with 1 poles in series	≤24V	۸	7
		A	7
	48V	Α	6
	75V	Α	2
	110V	Α	1
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	8
	48V	Α	8
	75V	Α	5
	110V	Α	4
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
120 max outrent to in 200 200 with Ert 2 Tollio with 6 poles in selles	≤24V	Α	10
	48V	A	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)		A	96
Protection fuse			
Trotection ruse	aC (IEC)	۸	20
	gG (IEC)	A	20
	aM (IEC)	A	16
Making capacity (RMS value)		Α	120
Breaking capacity at voltage			
	440V	Α	96
	500V	Α	72
	690V	Α	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	lth	W	4
	AC3	W	1.44
	AUS	V V	1.77
Tightoning targue for terminals			
Tightening torque for terminals		<b>.</b>	0.0
Tightening torque for terminals	min	Nm	0.8
Tightening torque for terminals	max	Nm	1
Tightening torque for terminals		Nm Ibin	1 9
Tightening torque for terminals	max	Nm	1
Tightening torque for terminals  Tightening torque for coil terminal	max min	Nm Ibin	1 9
	max min max	Nm Ibin Ibin	1 9 9
	max min max min	Nm Ibin Ibin	1 9 9 0.8
	max min max min max	Nm Ibin Ibin Nm Nm	1 9 9 0.8 1
	max min max min	Nm Ibin Ibin	1 9 9 0.8



Three-pole contactor, IEC operating current le (AC3) = 12A, AC coil 50/60Hz, 24VAC, 1NC auxiliary

May number of wires	simultaneously connectable		Nr.	2
Conductor section	Simultaneously connectable		INI.	
Conductor Cochon	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			
		min	mm²	1.5
Dower terminal protect	stion according to IEC/EN 60520	max	mm²	2.5 IP20 when wired
Mechanical features	ction according to IEC/EN 60529			IP20 when wired
Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		ao mabio		Screw / DIN rail
Fixing				35mm
Weight			g	177
Conductor section				
	AWG/kcmil conductor section			
		max		12
Auxiliary contact chara	acteristics			
Thermal current Ith			A	10
IEC/EN 60947-5-1 de	•			A600 - Q600
Operating current AC	15		_	
		230V	A	3
		400V 500V	A	1.9
Operating ourrent DC	12	5007	Α	1.4
Operating current DC	12	110V	Α	2.9
Operating current DC	12	1100	^	2.9
Operating current DC	15	24V	Α	2.9
		48V	A	1.4
		60V	A	1.2
		110V	A	0.6
		125V	Α	0.55
		220V	Α	0.3
		600V	Α	0.1
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1		_	
		rated load	cycles	500000
BAC		mechanical load	cycles	20000000
	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating	50/60H-		\/	24
Rated AC voltage at 5	DU/OUT/Z		V	24
AC operating voltage				

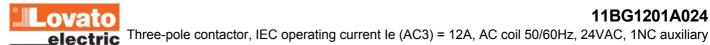


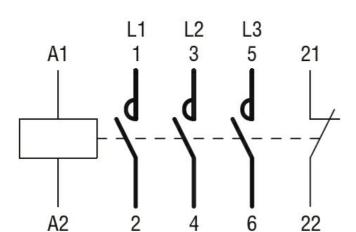
Three-pole contactor, IEC operating current le (AC3) = 12A, AC coil 50/60Hz, 24VAC, 1NC auxiliary contact

of 50/60Hz coil powered at 60Hz pick-up					
Max		of 50/60Hz coil powered at 50Hz			
Max   Mus   115   Mus   115   Mus   115   Mus   Mus   115   Mus		pick-up			
Acceptance   Ac			min	%Us	
Min			max	%Us	115
Max		drop-out			
of 50/60Hz coil powered at 60Hz pick-up    min			min	%Us	20
Pick-up   Min			max	%Us	55
Max		of 50/60Hz coil powered at 60Hz			
Max		pick-up			
AC average coil consumption at 20°C   of 50/60Hz coil powered at 50Hz   of 50/60Hz coil powered at 50Hz   of 50/60Hz coil powered at 60Hz   of 60Hz coil powered at 60Hz   of			min	%Us	80
Max   Multiple   Mul			max	%Us	115
AC average coil consumption at 20°C   of 50/60Hz coil powered at 50Hz		drop-out			
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz    In-rush   VA   30   Nolding   VA   4			min	%Us	20
of 50/60Hz coil powered at 50Hz    In-rush   VA   30     holding   VA   4     of 50/60Hz coil powered at 60Hz     In-rush   NA   25     holding   VA   3     holding   VA   3     In-rush   NA   30     holding   VA   3     In-rush   VA   30     holding   VA   3     In-rush   VA   30     holding   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   4     In-rush   VA   Santa     In-rush   VA   VA   Value     In-rush   VA   VA   Value     In-rush   VA   VA   Value     In-rush   VA   Value     In-rush   VA   Value     In-rus			max	%Us	55
of 50/60Hz coil powered at 50Hz    In-rush   VA   30     holding   VA   4     of 50/60Hz coil powered at 60Hz     In-rush   NA   25     holding   VA   3     holding   VA   3     In-rush   NA   30     holding   VA   3     In-rush   VA   30     holding   VA   3     In-rush   VA   30     holding   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   30     In-rush   VA   4     In-rush   VA   4     In-rush   VA   Santa     In-rush   VA   VA   Value     In-rush   VA   VA   Value     In-rush   VA   VA   Value     In-rush   VA   Value     In-rush   VA   Value     In-rus	AC average coil consu	nption at 20°C			
In-rush   VA   30   holding   VA   4   4   4   4   4   4   4   4   4	· ·				
Molding		•	in-rush	VA	30
of 50/60Hz coil powered at 60Hz    in-rush   VA   3   3     of 60Hz coil powered at 60Hz     in-rush   VA   3     of 60Hz coil powered at 60Hz     in-rush   VA   3     in-rush   VA   3     holding   VA   4     Dissipation at holding ≤20°C 50Hz   W   0.95     Max cycles frequency     Max cycles frequency     Mechanical operation   cycles/h   3600     Operating limes     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     in DC     Closing NO     min   ms   17     max   ms   17     max   ms   17     max   ms   17     max   ms   25     Opening NO     min   ms   18     max   ms   25     Opening NO     min   ms   2     max   ms   3     min   ms					
In-rush holding		of 50/60Hz coil powered at 60Hz			
Molding		01 00,001 12 0011 powerou at 001 12	in-rush	VA	25
of 60Hz coil powered at 60Hz    in-rush   VA   30     holding   VA   4     Dissipation at holding ≤20°C 50Hz   W   0.95     Max cycles frequency   W   0.95     Max ms   12     max ms   12     max ms   18     max ms   17     max ms   25     Opening NO   min ms   2     max ms   3     Closing NC   min ms   3     max ms   3     max ms   3     max ms   5     Opening NC   min ms   5     Opening NC   min ms   3     max ms   5     Opening NC   min ms   10     Opening NC   min					
In-rush   VA   30   holding   VA   4		of 60Hz coil powered at 60Hz	Tiolanig	• • • • • • • • • • • • • • • • • • • •	
Dissipation at holding ≤20°C 50Hz   W 0.95		of doffiz doil powered at doffiz	in-rush	\/Δ	30
Dissipation at holding ≤20°C 50Hz   W 0.95					
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         17           max         ms         26           Opening NC         min         ms         17           in DC         Closing NO         min         ms         18           Opening NO         min         ms         2           max         ms         3           Closing NC         min         ms         3           Closing NC         min         ms         3           max         ms         3         3           Closing NC         min         ms         3           max         ms         5           Opening NC         min         ms         5	Dissipation at holding s	20°C 50Hz	Holding		
Mechanical operation   Cycles/h   3600		20 0 301 12		VV	0.95
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  Closing NO  min ms 7 max ms 17  in DC  Closing NO  min ms 18 max ms 25  Opening NO  min ms 18 max ms 25  Closing NO  min ms 18 max ms 25  Opening NO  min ms 3 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC	moonamoar operation			cvcles/h	3600
Closing NO    Min   Ms   12				cycles/h	3600
Closing NO    min   ms   12   max   ms   21	Operating times	ntrol		cycles/h	3600
Min   Ms   12   Max   Ms   21	Operating times			cycles/h	3600
Opening NO    min   ms   9   max   ms   18	Operating times	in AC	nO	cycles/h	3600
Opening NO    min   ms   9   max   ms   18	Operating times	in AC			
Min   Ms   9   Max   Ms   18	Operating times	in AC	min	ms	12
Closing NC    min ms 17 max ms 26     Opening NC     min ms 7 max ms 17     max ms 17 max ms 17     max ms 17 max ms 17     max ms 17 max ms 17     max ms 25     Opening 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 3 max ms 5     min	Operating times	in AC Closing N	min max	ms	12
Closing NC    min   ms   17   max   ms   26	Operating times	in AC Closing N	min max NO	ms ms	12 21
Min   Ms   17   max   ms   26	Operating times	in AC Closing N	min max NO min	ms ms	12 21 9
Opening NC    min   ms   7   max   ms   17	Operating times	in AC  Closing N  Opening	min max NO min max	ms ms	12 21 9
Opening NC    min   ms   7   max   ms   17	Operating times	in AC  Closing N  Opening	min max NO min max	ms ms ms	12 21 9 18
min ms 7 max ms 17	Operating times	in AC  Closing N  Opening	min max NO min max IC	ms ms ms ms	12 21 9 18
Max ms 17	Operating times	in AC  Closing N  Opening I  Closing N	min max NO min max IC min max	ms ms ms ms	12 21 9 18
Closing NO    Min   Ms   18   max   ms   25	Operating times	in AC  Closing N  Opening I  Closing N	min max NO min max IC min max NC	ms ms ms ms	12 21 9 18 17 26
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	Operating times	in AC  Closing N  Opening I  Closing N	min max NO min max IC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26
min ms 18 max ms 25	Operating times	in AC  Closing N  Opening I  Closing N  Opening I	min max NO min max IC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26
Opening NO  min ms 2 max ms 25  Min ms 2 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC	min max NO min max IC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26
Opening NO  min ms 2 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC	min max NO min max IC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26 7
min ms 2 max ms 3  Closing NC  min ms 3 max ms 5  Opening NC	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC	min max NO min max IC min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26 7 17
Closing NC  min ms 3  max ms 3  min ms 3  max ms 5  Opening NC	Operating times	in AC  Closing N  Opening N  Closing N  Opening N  Opening N  Closing N  Closing N	min max NO min max IC min max NC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26 7 17
Closing NC  min ms 3  max ms 5  Opening NC	Operating times	in AC  Closing N  Opening N  Closing N  Opening N  Opening N  Closing N  Closing N	min max NO min max IC min max NC min max NO min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
min ms 3 max ms 5 Opening NC	Operating times	in AC  Closing N  Opening N  Closing N  Opening N  Opening N  Closing N  Closing N	min max NO min max IC min max NC min max NO min max NO min max NO min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
max ms 5 Opening NC	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC  Closing N  Opening I	min max NO min max IC min max NC min max NO min max NO min max NO min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Opening NC	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC  Closing N  Opening I	min max NO min max IC min max NC min max NO min max NO min max NO min max NO	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC  Closing N  Opening I	Min max NO  min max IC  min max NC  min max NO  min max IO  min max NO  min max NO  min max IC  min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
min ms 11	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC  Closing N  Opening I  Closing N  Closing N	Min max NO  min max C  min max NC  min max NO  min max C  min max  MO  min max MO  min max MO  min max MO  min max MO  min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC  Closing N  Opening I  Closing N  Opening I  in DC  Closing N  Opening I  Closing N  Closing N	Min max NO  min max IC  min max NC  min max NO  min max IC  min max NO  min max NO	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17 18 25 2 3 3 5

Three-pole contactor, IEC operating current le (AC3) = 12A, AC coil 50/60Hz, 24VAC, 1NC auxiliary

UL technical data		max	ms	17	
	A) for three-phase AC motor				
i dii-load carrent (i Li	A) for timee-phase AC motor	at 480V	Α	11	
		at 600V	A	11	
Yielded mechanical p	 performance	d: 000 v	- , ,		
riolada medilamear p	for single-phase AC motor				
	.e. eg.e pee / teete.	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	Α	20	
Short-circuit protection	on fuse, 600V				
	High fault				
		Short circuit current	kA	100	
		Fuse rating	Α	30	
		Fuse class		J	
	Standard fault				
		Short circuit current	kA	5	
		Fuse rating	Α	30	
	iliary contacts according to UL			A600 - Q600	)
Ambient conditions					
Temperature	_				
	Operating temperature				
		min	°C	-50	
		max	°C	+70	
	Storage temperature				
		min	°C	-60	
		min max	°C	+80	
Max altitude					
Resistance & Protect	tion		°C	+80 3000	
Resistance & Protection Pollution degree	tion		°C	+80	
Resistance & Protect Pollution degree Dimensions		max	°C	+80 3000	
Resistance & Protect Pollution degree Dimensions  44 (1.73") (0.17") (0.33") (0.38")	(2.24") (2.24") (3.92)	max  44 (1.73")  (1.37")  (1.37")  (1.37")  (1.37")  (1.37")  (1.37")  (1.37")  (1.37")	°C m	+80 3000 3	7.6 (0.30")
Resistance & Protect Pollution degree Dimensions  44 (1.73") (0.17") (0.17") (0.33") (0.33") (0.38")	(2.24") (2.24") (3.92)	max  44  (1.73")  (1.37")  (0.12"	°C m	+80 3000 3	-7.6 (0.30")





## 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