7GN1297U

electric ROTARY CAM SWITCH 7GN SERIES, AMMETER SWITCH 16A, FOR FRONT MOUNTING WITH BLACK HANDLE, FRONT PLATE 48X48MM

Rotary cam Product designation switches Product type designation 7GN12 General characteristics 97 - Ammeter Switching diagram switch N° of elements 5 U - Front Mounting form mounting with black handle Contact characteristics Rated insulation voltage Ui 690 IEC/EN V UL/CSA V 600 Rated impulse withstand voltage Uimp kV 6 Conventional free air thermal current Ith IEC/EN А 16 UL/CSA А 15 Rated operational voltage V 480 kV Rated operational impulse voltage 4 Maximum fuse size for short-circuit protection In (gG) 10kA А 16 15kA А 10 25kA А 10 Rated short time current Icw 200 А 1s Conductivity 10/5 mA/V Operational current le IEC/EN AC1/AC21A А 16 AC15 110V А 10 220/230V А 8 380/400V А 4 660/690V А 1.5 Rated operational power in AC Three-phase AC-3 220/230V kW 2.5 380/440V kW 4 500/690V kW 5.5 Single-phase AC-3 110V kW 0.8 220/230V kW 1.5 380/440V kW 2.2 Three-phase AC23A 220/230V kW 3 380/440V kW 5.5 500/690V kW 7.5 Single-phase AC23A 110V kW 0.8 220/230V kW 1.7 380/440V kW 3

Rated operational current in DC

ENERGY AND AUTOMATION

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DC21A

7GN1297U electric ROTARY CAM SWITCH 7GN SERIES, AMMETER SWITCH 16A, FOR FRONT MOUNTING WITH BLACK HANDLE, FRONT PLATE 48X48MM

48V

А

12

110V A 4 220V A 0.6 440V A 0.25 DC23A (poles in series) 24V A 10 (1) 48V A 10 (2) 60V A 5 (3) 220V A 5 (4) 220V A 10 (2) DC13 24V A 10 60V A 8 110V A 1 220V A 10 60V A 8 DC13 24V A 10 60V A 8 110V A 1 220V A 0.4 440V A 0.5 5 5 Mechanical features W W N 0.5 5 Conductor size AWG - Rigid cable Min MWG 20 Max AWG 12 AWG 14 Conductor size (IEC) - Flexible cable min <mm²< td=""> 2.5 Conductor size (IEC) - Rigid cable min<m²< td=""> 0.5</m²<></mm²<>			60V	А	12
220V A 0.6 440V A 0.25 DC23A (poles in series) 24V A 10 (1) 48V A 10 (2) 60V A 10 (3) 110V A 5 (3) 220V A 5 (4) DC13 22V A 12 48V A 10 60V A 1 220V A 14 12 48V A 10 60V A 8 110V A 1 220V A 0.4 440V A 0.5 1 220V A 0.4 440V A 0.15 1 220V A 0.4 440V A 0.5 1 1 220V A 0.4 440V A 0.5 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 2					
440V A 0.25 DC23A (poles in series) 24V A 10 (1) 48V A 10 (2) 60V A 10 (3) 110V A 5 (3) 220V A 5 (4) DC13 24V A 12 48V A 10 (3) 60V A 8 110V A 12 24V A 12 48V A 10 60V A 8 110V A 0.4 440V A 0.4 440V A 0.4 440V A 0.4 440V A 0.5 6 6 7 Conductor size MG - Rigid cable Min AWG - 12 7 AWG - Flexible cable min AWG - 20 Max 7 2.5 Conductor size (IEC) - Flexible cable min mm² 2.5 6 14 Conductor size (IEC) - Rigid cable min< mm² 2.5<					
DC23A (poles in series) 24V A 10 (1) 48V A 10 (2) 60V A 10 (3) 10V A 5 (3) 220V A 5 (4) DC13 24V A 12 48V A 10 (3) 24V A 12 48V A 10 60V A 8 110V A 1 220V A 0.4 48V A 10 60V A 8 110V A 1 220V A 0.4 440V A 0.4 440V A 0.5 Conductor size MG Rigit cable M3 1 Tightening torque for terminals max Nm 0.5 1 Conductor size AWG - Rigid cable min AWG 20 Max MWG 20 Max mm² 2.5 1 Conductor size (IEC) - Flexible cable min <mm² 2.5<="" td=""> 1</mm²>			440V	А	
48V A 10 (2) 60V A 10 (3) 110V A 5 (3) 220V A 5 (3) 220V A 12 48V A 10 60V A 8 10V A 12 48V A 10 60V A 8 10V A 12 48V A 10 60V A 8 10V A 12 48V A 10 60V A 8 10V A 12 48V A 10 60V A 8 10V A 10 10V A 10 10V A 10 10V A 10 10V 10 10V		DC23A (poles in series)			
$\begin{tabular}{ c c c c c c c } & 48V & A & 10 (2) \\ & 60V & A & 5 (3) \\ & 220V & A & 5 (3) \\ & 220V & A & 12 \\ & 48V & A & 12 \\ & 48V & A & 10 \\ & 60V & A & 8 \\ & 110V & A & 1 \\ & 220V & A & 0.4 \\ & 44VV & A & 0.15 \\ \hline & 44VV & A & 0.15 \\ \hline & 44VV & A & 0.15 \\ \hline & & & & & & & & & & & & & & & & & &$			24V	А	10 (1)
600' A 10(3) 110' A 5 (3) 220' A 5 (4) DC13 24V A 12 48V A 10 60V A 8 100' A 1 20V A 12 48V A 10 60V A 8 100' A 1 220V A 0.4 40V A 1.5 0.4 440V A 1.5 Power dissipation W 0.8 0.4 440V A 0.5 Mechanical features W 0.8 0.4 440V A 0.5 Conductor size M MS 70 0.5 0.4 14 0.5 Conductor size MWG - Rigid cable min AWG 20 Max MWG 20 Max MWG - Flexible cable min mm² 0.5 14 0.5 12 14			48V	А	
Intervention Intervention Intervention Intervention DC13 24V A 5 (4) DC13 24V A 12 48V A 10 60V A 8 110V A 1 220V A 0.4 48V A 0.0 A 0.15 Power dissipation W 0.3 0.4 AVOV A 0.15 Power dissipation W 0.3 0.4 AVOV A 0.5 Conductor size Machanical features Nm 0.5 Conductor size Max AWG 12 AWG - Rigid cable Min AWG 20 Max MWG 12 AWG - Flexible cable min AWG 14 Conductor size (IEC) - Flexible cable Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 2.5 Max MW2 2.5 Motor power for direct-on-ine control for single-phase motor			60V	А	
Image: book state 220V A 5 (4) DC13 24V A 12 48V A 10 60V A 8 110V A 1 220V A 0.4 48V A 10 60V A 8 110V A 1 220V A 0.4 40V A 0.15 0.4 40V A 0.15 Power dissipation W 0.8 0.4 40V A 0.5 Conductor size M Nm 0.5 0.5 0.4 0.4 Methanical features Min AWG 20 Max AWG 12 AWG - Flexible cable min AWG 20 Max MWG 20 Methanical life Conductor size (IEC) - Flexible cable min mm² 0.5 Methanical life Cycles 3x10* 0.5 3x10* 0.5 UL technical data In			110V	А	
$\begin{tabular}{ c c c c c } \hline DC13 & & & & & & & & & & & & & & & & & & &$			220V	А	
48V A 10 60V A 8 110V A 1 220V A 0.4 440V A 0.15 Power dissipation W 0.8 Mechanical features W 0.8 Tightening torque for terminals max Nm 0.5 Conductor size MWG - Rigid cable min AWG 20 AWG - Flexible cable min AWG 20 Max AWG 20 AWG - Flexible cable min MWG 20 Max AWG 20 AWG - Flexible cable min mm² 0.5 Max mm² 2.5 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 2.5 Motor power for direct-on-line control mm² 0.5 Max mm² 2.5 S Motor power for direct-on-line control for single-phase motor 120V HP 1.5 VL technical data H 120V HP 3 1 Ambient conditions H 120V HP 1 1		DC13			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			24V	Α	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			48V	А	10
$\begin{tabular}{ c c c c c } \hline & & & & & & & & & & & & & & & & & & $			60V	А	8
$\begin{tabular}{ c c c c c } \hline \begin{tabular}{ c c c c } \hline \begin{tabular}{ c c } \hline$			110V	А	1
Power dissipation W 0.8 Mechanical features M3 Terminals screw M3 Tightening torque for terminals max Nm 0.5 Conductor size AWG - Rigid cable min AWG 20 AWG - Rigid cable Max AWG 12 AWG - Flexible cable min AWG 20 Max AWG 12 AWG 14 Conductor size (IEC) - Flexible cable min mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 2.5 Max mm² 2.5 Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 2.5 Max mm² 2.5 Max mm² 2.5 Max mm² 2.5 3x10° 120V UL technical data utertentical data utertentical data utertentical data Motor power for direct-on-line control for single-phase motor 120V HP 1.5 Ambient conditions max "C -25 max "C -25 Temperature<			220V	А	0.4
Mechanical features M3 Tightening torque for terminals max Nm 0.5 Conductor size AWG - Rigid cable min AWG 20 AWG - Rigid cable min AWG 12 AWG - Flexible cable min AWG 12 AWG - Flexible cable min AWG 14 Conductor size (IEC) - Flexible cable min mm² 0.5 Max AWG 14 0.5 14 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 0.5 14 14 Conductor size (IEC) - Rigid cable min mm² 0.5 Max mm² 2.5 14 14 UL technical life cycles 3x10* 12 UL technical data 15 15 for single-phase motor 120V HP 1.5 for single-phase motor 120V HP 0.5 240V HP 1 240V <t< td=""><td></td><td></td><td>440V</td><td>А</td><td>0.15</td></t<>			440V	А	0.15
Terminals screw M3 Tightening torque for terminals max Nm 0.5 Conductor size AWG - Rigid cable min AWG 20 Max AWG 12 AWG 12 AWG - Flexible cable min AWG 20 Max AWG 12 AWG - Flexible cable min AWG 20 Max AWG 14 20 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 2.5 5 5 Conductor size (IEC) - Rigid cable min mm² 2.5 Mechanical life cycles 3.10* 14 UL technical data mm² 2.5 15 Motor power for direct-on-line control for three-phase motor 120V HP 3.5 If or single-phase motor 120V HP 3.5 Ambient conditions r 120V HP 1.5 240V HP 1.5 240V HP	Power dissipation			W	0.8
Tightening torque for terminals max Nm 0.5 Conductor size AWG - Rigid cable min AWG 20 Max AWG 12 AWG - Flexible cable min AWG 20 Max AWG 1 AWG 12 AWG - Flexible cable min AWG 14 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 0.5 Max mm² 2.5 Mechanical life cycles 3x10° UL technical data um² 2.5 Motor power for direct-on-line control for three-phase motor for single-phase motor 120V HP 1.5 Autour to difference 120V HP 1.5 240V HP 1 Ambient conditions 120V HP 0.5 240V HP 1 Ambient conditions min °C -25 max °C +55 Storage temperature	Mechanical features				
Conductor size AWG - Rigid cable min AWG 20 Max AWG 12 AWG 12 AWG - Flexible cable min AWG 20 Max AWG 14 Conductor size (IEC) - Flexible cable min mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 2.5 Conductor size (IEC) - Rigid cable Mechanical life cycles 3x10° UL technical data cycles 3x10° Motor power for direct-on-line control for three-phase motor 120V HP 1.5 Advov HP 3 for single-phase motor 120V HP 1 Ambient conditions Temperature min °C -25 max °C -25 Storage temperature min °C -25 max °C -25 Max max °C -25 max °C -25 Motor power for direct-on-line control for single-phase motor 120V HP 1 Ambient conditions max °C -25 max °C -25 Max max <t< td=""><td>Terminals screw</td><td></td><td></td><td></td><td>M3</td></t<>	Terminals screw				M3
AWG - Rigid cablemin MaxAWG AWG20 MaxAWG - Flexible cablemin MaxAWG12AWG - Flexible cablemin MaxAWG14Conductor size (IEC) - Flexible cablemin mm² $mm²$ 0.5 MaxConductor size (IEC) - Rigid cablemin Maxmm²2.5Conductor size (IEC) - Rigid cablemin Maxmm²2.5Mechanical lifecycles3x10°0.5 Max10°UL technical datacycles3x10°0.5 Max10°UL technical datacycles3x10°10°Motor power for direct-on-line control for three-phase motor120V 	Tightening torque for te	erminals max		Nm	0.5
$\begin{tabular}{ c c c c } \hline min & AWG & 20 & & & & & & & & & & & & & & & & & $	Conductor size				
Max AWG 12 AWG - Flexible cable min AWG 20 Max Max AWG 20 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 2.5 0.5 0.5 Conductor size (IEC) - Rigid cable mm² 2.5 0.5 Mechanical life cycles 3x10* 0.5 UL technical data cycles 3x10* 0.5 Motor power for direct-on-line control cycles 3x10* 0.5 If or single-phase motor 120V HP 1.5 Atwois of three-phase motor 120V HP 1.5 If or single-phase motor 120V HP 1 Atwois of three-phase motor 120V HP 1 If or single-phase motor		AWG - Rigid cable			
AWG - Flexible cable min AWG 20 Max AWG 14 Conductor size (IEC) - Flexible cable min mm² 0.5 Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 0.5 Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 0.5 Max mm² 2.5 Mechanical life cycles 3x10° UL technical data cycles 3x10° UL technical data response motor 120V HP 1.5 240V HP 3 for single-phase motor 120V HP 0.5 Ambient conditions 120V HP 0.5 240V HP 1 Ambient conditions 120V HP 1 1 1 Ambient conditions min °C -25 240V HP 1 Ambient conditions min °C -25 1 1 Ambient conditions min °C -25 1 1 </td <td></td> <td>-</td> <td>min</td> <td>AWG</td> <td>20</td>		-	min	AWG	20
$\begin{tabular}{ c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $			Max	AWG	12
$\begin{tabular}{ c c c c } \hline Max & AWG & 14 \\ \hline Conductor size (IEC) - Flexible cable & $$min$ $$mm^2$ $$0.5$ \\ \hline Max & mm^2 $$2.5$ \\ \hline Conductor size (IEC) - Rigid cable & $$min$ $$mm^2$ $$0.5$ \\ \hline Max & mm^2 $$2.5$ \\ \hline Mechanical life & $$cycles$ $$3x10^6$ \\ \hline UL technical data & $$cycles$ $$3x10^6$ \\ \hline UL technical data & $$triangle - $$phase motor $$ $$for three-phase motor $$ $$for three-phase motor $$ $$for single-phase motor $$$for single-phase motor $$$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$		AWG - Flexible cable			
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			min	AWG	20
$\begin{tabular}{ c c c c } \hline min & mm^2 & 0.5 \\ \hline Max & mm^2 & 2.5 \\ \hline \hline Conductor size (IEC) - Rigid cable & & & & \\ \hline min & mm^2 & 0.5 \\ \hline Max & mm^2 & 2.5 \\ \hline Mechanical life & & & & & \\ \hline Max & mm^2 & 2.5 \\ \hline \hline Mechanical data & & & & & \\ \hline \hline UL technical data & & & & & \\ \hline UL technical data & & & & & \\ \hline \hline UL technical data & & & & & \\ \hline Motor power for direct-on-line control & & & & \\ \hline for three-phase motor & & & & \\ \hline for single-phase motor & & & & \\ \hline for single-phase motor & & & \\ \hline for single-phase motor & & & \\ \hline for single-phase motor & & & \\ \hline \hline Remperature & & & \\ \hline Temperature & & & \\ \hline Poperating temperature & & & \\ \hline min & ^{\circ}C & -25 \\ \hline max & ^{\circ}C & +55 \\ \hline Storage temperature & & \\ \hline min & ^{\circ}C & -40 \\ \hline \end{tabular}$			Max	AWG	14
Max mm² 2.5 Conductor size (IEC) - Rigid cable min mm² 0.5 Max mm² 2.5 Mechanical life cycles 3x10° UL technical data cycles 3x10° Motor power for direct-on-line control r 120V HP 1.5 240V HP 3 3 1 1 Ambient conditions r 120V HP 0.5 240V HP 1 1 1 Ambient conditions r 1 1 1 Temperature Operating temperature r -25 1 Max °C -25 1 -25 Storage temperature min °C -25 -25		Conductor size (IEC) - Flexible cable			
$\begin{tabular}{ c c c c c c } \hline Conductor size (IEC) - Rigid cable & min mm^2 & 0.5 & Max & mm^2 & 2.5 & Max & Mm^2 & Mm^2$			min	mm²	0.5
$\begin{array}{c c c c c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $			Max	mm²	2.5
Max mm² 2.5 Mechanical life cycles 3x10° UL technical data Motor power for direct-on-line control for three-phase motor 120V HP 1.5 240V HP 3 for single-phase motor 120V HP 0.5 240V HP 1 Ambient conditions Temperature Operating temperature min °C -25 Storage temperature min °C +55		Conductor size (IEC) - Rigid cable			
Mechanical life cycles 3x10° UL technical data Motor power for direct-on-line control for three-phase motor 120V HP 1.5 240V HP 3 120V HP 3 for single-phase motor 120V HP 0.5 240V HP 1 120V HP 1 Ambient conditions 120V HP 1 1 Temperature Operating temperature min °C -25 Max °C +55 5 5 5			min	mm²	0.5
UL technical data Motor power for direct-on-line control for three-phase motor for three-phase motor 120V HP 1.5 240V HP 3 for single-phase motor 120V HP 0.5 240V HP 1 Ambient conditions 120V HP 1 Temperature Operating temperature min °C -25 Max °C +55 -55 Storage temperature min °C -40			Max	mm²	2.5
Motor power for direct-on-line control for three-phase motor 120V HP 1.5 240V HP 3 for single-phase motor 120V HP 0.5 240V HP 1 Ambient conditions 120V HP 1 Temperature Operating temperature min °C -25 Max °C +55 +55 Storage temperature min °C -40	Mechanical life			cycles	3x10°
for three-phase motor $ \begin{array}{ccccccccccccccccccccccccccccccccccc$	UL technical data				
120V HP 1.5 240V HP 3 for single-phase motor 120V HP 0.5 240V HP 1 Ambient conditions 240V HP 1 Temperature 0 1 1 Model 1 1 1 Temperature 1 1 1 Storage temperature 1 1 1	Motor power for direct-	on-line control			
240VHP3for single-phase motor120VHP0.5120VHP1Ambient conditions1Temperature01Operating temperature11min°C-25max°C+55Storage temperature11min°C-40		for three-phase motor			
for single-phase motor 120V HP 0.5 240V HP 1 Ambient conditions Temperature Operating temperature Min °C -25 max °C +55 Storage temperature min °C -40				HP	1.5
120V 240VHP HP0.5 240VAmbient conditions0TemperatureOperating temperaturemin max°C °C-25 max *C+55Storage temperaturemin min *C-40			240V	HP	3
240V HP 1 Ambient conditions		for single-phase motor			
Ambient conditions Temperature Operating temperature min °C max °C Storage temperature min °C rest min °C rest Operating temperature min °C rest rest <tr< td=""><td></td><td></td><td>120V</td><td>HP</td><td>0.5</td></tr<>			120V	HP	0.5
Temperature Min °C -25 max °C +55 Storage temperature min °C -40			240V	HP	1
Operating temperature min °C -25 max °C +55 Storage temperature min °C -40	Ambient conditions				
min °C -25 max °C +55 Storage temperature min °C -40	Temperature				
max °C +55 Storage temperature min °C -40		Operating temperature			
Storage temperature min °C -40			min		-25
min °C -40			max	°C	+55
		Storage temperature			
max °C +70			min		-40
			max	°C	+70

Resistance & Protection

ova

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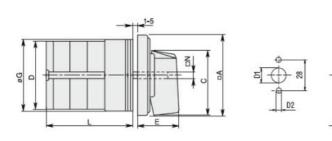
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ENERGY AND AUTOMATION

Frontal IP degree



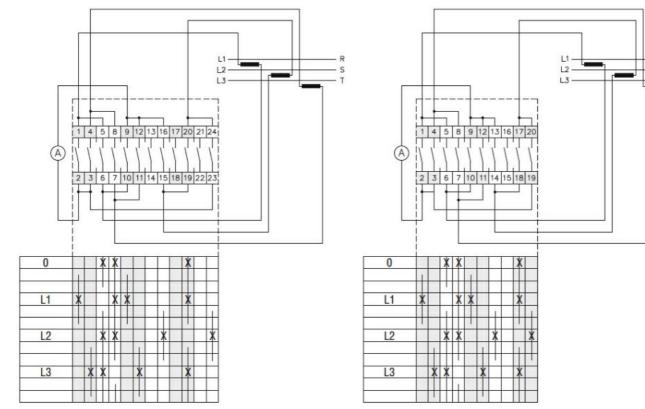
IP40 IP00



Standard drillings for 7GN125. Drillings on request for 4 screws fixing (4V version).

Series	Dimensions							L Number of elements													
Series	ΠA	С	ØD	ØD1	ØD2	Е	ØG	□K	ΠN	1	2	3	4	5	6	7	8	9	10	11	12
7GN12	48	39.5	39	12	5	26.5	38	36	6	36.1	45.8	55.5	65.2	74.9	84.6	94.3	104	113.7	123.4	133.1	142.8
7GN20	48	39.5	39	12	5	26.5	38	36	6	36.1	45.8	55.5	65.2	74.9	84.6	94.3	104	113.7	123.4	133.1	142.8
7GN25	48	39.5	43	12	5	26.5	38	36	6	40.5	54.1	67.7	81.3	94.9	108.5	122.1	135.7	147.3	162.9	176.5	190.1
7GN32	65	53	58	14	5	34.5	58.5	48	7	46.5	61.6	76.7	91.8	106.9	122	137.1	152.2	167.3	182.4	197.5	212.6
7GN40	65	53	58	14	5	34.5	58.5	48	7	46.5	61.6	76.7	91.8	106.9	122	137.1	152.2	167.3	182.4	197.5	212.6
7GN63	65	53	62	14	5	34.5	58.5	48	7	50.3	68.4	86.5	104.6	122.7	140.8	158.9	177	195.1	213.2	231.3	249.4
7GN125	90	70.5	86	16	6	41.5	84	68	9	67.3	96.4	125.5	154.6	183.7	220.3	249.4	278.5	307.6	336.7	365.8	394.9

Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 14	
EC/EN/BS 60947-1	
EC/EN/BS 60947-3	
EC/EN/BS 60947-5-1	
JL60947-4-1	

7GN1297U



ENERGY AND AUTOMATION

Certificates		
	cCSAus	
	EAC	
	UL	
ETIM classifica	tion	
		EC001029 -
ETIM 8.0		Selector switch,

Selector switch, complete

7GN1297U