



# ROTARY CAM SWITCH 7GN SERIES, MULTI-STEP 0-1-2-3, 3 POLES 20A, FOR REAR MOUNTING WITH BLACK HANDLE, FRONT PLATE 48X48MM

| Product designation                                    |                      |          | Rotary cam switches                       |
|--|----------------------|----------|---|
| Product type designation                               |                      |          | 7GN20                                     |
| General characteristics                                |                      |          |   |
| Switching diagram                                      |                      |          | 136 - Multi-step<br>0-1-2-3 3 poles       |
| N° of elements   |                      |          | 5   |
| Mounting form  |                      |          | O - Rear<br>mounting with<br>black handle |
| Contact characteristics                                |                      |          | Diagramana                                |
| Rated insulation voltage Ui                            |                      |          |   |
|  | IEC/EN               | V        | 690                                       |
|  | UL/CSA               | V        | 600                                       |
| Rated impulse withstand voltage Uimp                   |                      | kV       | 6   |
| Conventional free air thermal current Ith              |                      |          |   |
|  | IEC/EN               | Α        | 20  |
|  | UL/CSA               | A        | 20  |
| Rated operational voltage                              |                      | V        | 480                                       |
| Rated operational impulse voltage                      |                      | kV       | 4   |
| Maximum fuse size for short-circuit protection In (gG) | 401-4                | Δ.       | 00  |
|  | 10kA<br>15kA         | A<br>A   | 20<br>16                                  |
|  | 25kA                 | A        | 16  |
| Rated short time current lcw                           | 2017                 |          | 10  |
| Table dilect and earliest lew                          | 1s                   | kA       | 250                                       |
| Conductivity   |                      |          | 10/5 mA/V                                 |
| Operational current le IEC/EN                          |                      |          |   |
| AC1/AC21A  |                      |          |   |
|  |                      | Α        | 20  |
| AC15   |                      |          |   |
|  | 110V                 | Α        | 10  |
|  | 220/230V             | Α        | 8   |
|  | 380/400V             | Α        | 6   |
|  | 660/690V             | Α        | 1.5                                       |
| Rated operational power in AC                          |                      |          |   |
| Three-phase AC-3                                       | 000/0001/            |          | •   |
|  | 220/230V<br>380/440V | kW<br>kW | 3   |
|  | 500/440V<br>500/690V | kW       | 5.5<br>5.5                                |
| Single-phase AC-3                                      | 300/090 V            | KVV      | 5.5                                       |
| Single-phase AC-3                                      | 110V                 | kW       | 0.8                                       |
|  | 220/230V             | kW       | 2.2                                       |
|  | 380/440V             | kW       | 3   |
| Three-phase AC23A                                      |                      | <u> </u> |   |
| •  | 220/230V             | kW       | 5   |
|  | 380/440V             | kW       | 7.5                                       |
|  | 500/690V             | kW       | 7.5                                       |
| Single-phase AC23A                                     |                      |          |   |
|  | 110V                 | kW       | 0.8                                       |
|  | 220/230V             | kW       | 2.5                                       |
| Rated operational current in DC                        | 380/440V             | kW       | 3.7                                       |





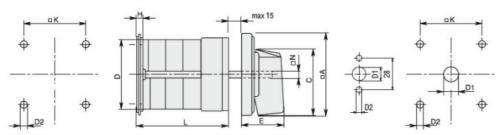
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|  | DC21A   |  |                            |  |  |
|--|---|--|----------------------------|--|--|
|  | DOZIA   | 48V  | Α                          | 20   |  |
|  |   | 60V  | A                          | 20   |  |
|  |   | 110V   | A                          | 4  |  |
|  |   | 220V   | A                          | 0.6  |  |
|  |   | 440V   |                            | 0.6  |  |
|  | DC22A (nolog in coriog)   | 440 V  | Α                          | 0.25   |  |
|  | DC23A (poles in series)   | 241/   | ۸                          | 20 (4)   |  |
|  |   | 24V  | A                          | 20 (1)   |  |
|  |   | 48V  | A                          | 20 (2)   |  |
|  |   | 60V  | A                          | 20 (3)   |  |
|  |   | 110V   | Α                          | 10 (3)   |  |
|  |   | 220V   | Α                          | 8 (4)  |  |
|  | DC13  | 201  |                            |  |  |
|  |   | 24V  | Α                          | 20   |  |
|  |   | 48V  | Α                          | 16   |  |
|  |   | 60V  | Α                          | 12   |  |
|  |   | 110V   | Α                          | 1  |  |
|  |   | 220V   | Α                          | 0.4  |  |
|  |   | 440V   | Α                          | 0.15   |  |
| Power dissipation                          |   |  | W                          | 0.8  |  |
| Mechanical features                        |   |  |                            |  |  |
| Terminals screw                            |   |  |                            | M3   |  |
| Tightening torque for te                   | erminals max  |  | Nm                         | 0.5  |  |
| Conductor size                             |   |  |                            |  |  |
|  | AWG - Rigid cable   |  |                            |  |  |
|  | , o   | min  | AWG                        | 20   |  |
|  |   | Max  | AWG                        | 12   |  |
|  | AWG - Flexible cable  | Max  | 7,,,,                      |  |  |
|  | AVVO T TEXIBLE GABLE  | min  | AWG                        | 20   |  |
|  |   | Max  | AWG                        | 14   |  |
|  | Conductor size (IEC) Flexible coble   | IVIAX  | AWG                        | 14   |  |
|  | Conductor size (IEC) - Flexible cable   |  |                            | 0.5  |  |
|  |   | min  | mm²                        | 0.5  |  |
|  |   | Max  | mm²                        | 2.5  |  |
|  | Conductor size (IEC) - Rigid cable  |  |                            |  |  |
|  | Conductor size (IEC) - Rigid cable  |  |                            |  |  |
|  | Conductor Size (IEO) Trigid cable   | min  | mm²                        | 0.5  |  |
|  | Trigid cable  | min<br>Max                                   | mm²                        | 2.5  |  |
| Mechanical life                            | Trigid cable  |  |                            |  |  |
| UL technical data                          |   |  | mm²                        | 2.5  |  |
|  | -on-line control  |  | mm²                        | 2.5  |  |
| UL technical data                          |   | Max  | mm²<br>cycles              | 2.5<br>5x10 <sup>6</sup>                                       |  |
| UL technical data                          | -on-line control  | Max<br>120V                                  | mm² cycles                 | 2.5<br>5x10 <sup>6</sup>                                       |  |
| UL technical data                          | -on-line control  | 120V<br>240V                                 | mm² cycles HP              | 2.5<br>5x10°<br>1.5<br>3                                       |  |
| UL technical data                          | -on-line control  | Max<br>120V                                  | mm² cycles                 | 2.5<br>5x10 <sup>6</sup>                                       |  |
| UL technical data                          | -on-line control  | 120V<br>240V                                 | mm² cycles HP              | 2.5<br>5x10°<br>1.5<br>3                                       |  |
| UL technical data                          | -on-line control  | 120V<br>240V<br>480V                         | mm² cycles  HP HP HP       | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5                    |  |
| UL technical data                          | -on-line control<br>for three-phase motor   | 120V<br>240V<br>480V                         | mm² cycles  HP HP HP       | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5                    |  |
| UL technical data                          | -on-line control<br>for three-phase motor   | 120V<br>240V<br>480V<br>600V                 | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data                          | -on-line control<br>for three-phase motor   | 120V<br>240V<br>480V<br>600V                 | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data Motor power for direct-  | -on-line control<br>for three-phase motor   | 120V<br>240V<br>480V<br>600V                 | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data  Motor power for direct- | -on-line control for three-phase motor  for single-phase motor                        | 120V<br>240V<br>480V<br>600V                 | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data  Motor power for direct- | -on-line control<br>for three-phase motor   | 120V<br>240V<br>480V<br>600V                 | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data  Motor power for direct- | -on-line control for three-phase motor  for single-phase motor                        | 120V<br>240V<br>480V<br>600V<br>120V<br>240V | mm² cycles  HP HP HP HP HP | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10<br>0.75<br>2 |  |
| UL technical data Motor power for direct-  | -on-line control for three-phase motor  for single-phase motor  Operating temperature | 120V<br>240V<br>480V<br>600V<br>120V<br>240V | mm² cycles  HP HP HP HP    | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10              |  |
| UL technical data  Motor power for direct- | -on-line control for three-phase motor  for single-phase motor                        | 120V<br>240V<br>480V<br>600V<br>120V<br>240V | mm² cycles  HP HP HP HP HP | 2.5<br>5x10 <sup>6</sup><br>1.5<br>3<br>7.5<br>10<br>0.75<br>2 |  |



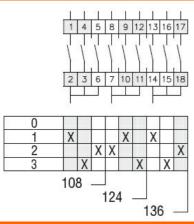
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|                         | max | °C | +70  |
|-------------------------|-----|----|------|
| Resistance & Protection |     |    |      |
| Frontal IP degree       |     |    | IP40 |
| Terminals IP degree     |     |    | IP00 |
| Dimensions              |     |    |      |



| Series | Dimensions |      |    |     |      |     |    | L Number of elements |      |       |      |       |       |       |       |       |       |       |       |       |
|--------|------------|------|----|-----|------|-----|----|----------------------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Series | □A         | С    | ØD | ØD2 | Е    | Н   | □K | □N                   | 1    | 2     | 3    | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
| 7GN12  | 48         | 39.5 | 39 | 5   | 26.5 | 5   | 36 | 6                    | 38.1 | 47.8  | 57.5 | 67.2  | 76.9  | 86.6  | 96.3  | 106   | 115.7 | 125.4 | 135.1 | 144.8 |
| 7GN20  | 48         | 39.5 | 39 | 5   | 26.5 | 5   | 36 | 6                    | 38.1 | 47.8  | 57.5 | 67.2  | 76.9  | 86.6  | 96.3  | 106   | 115.7 | 125.4 | 135.1 | 144.8 |
| 7GN25  | 48         | 39.5 | 43 | 5   | 26.5 | 5   | 36 | 6                    | 42.5 | 56.1  | 69.7 | 83.3  | 96.9  | 110.5 | 124.1 | 137.7 | 151.3 | 164.9 | 178.5 | 192.1 |
| 7GN32  | 65         | 53   | 58 | 5   | 34.5 | 5.5 | 48 | 7                    | 48.5 | 63.6  | 78.7 | 93.8  | 108.9 | 124   | 139.1 | 154.2 | 169.3 | 184.4 | 199.5 | 214.6 |
| 7GN40  | 65         | 53   | 58 | 5   | 34.5 | 5.5 | 48 | 7                    | 48.5 | 63.6  | 78.7 | 93.8  | 108.9 | 124   | 139.1 | 154.2 | 169.3 | 184.4 | 199.5 | 214.6 |
| 7GN63  | 65         | 53   | 62 | 6   | 34.5 | 7.5 | 68 | 7                    | 53.3 | 71.4  | 89.5 | 107.6 | 125.7 | 143.8 | 161.9 | 180   | 198.1 | 216.2 | 234.3 | 252.4 |
| 7GN125 | 90         | 70.5 | 86 | 6   | 41.4 | 7.5 | 68 | 9                    | 74.8 | 103.9 | 133  | 162.1 | 191.2 | 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

IEC/EN/BS 60947-1

IEC/EN/BS 60947-3

IEC/EN/BS 60947-5-1

UL60947-4-1

Certificates

cCSAus

EAC

UL

ETIM classification

**ETIM 8.0** 

EC001029 -Selector switch, complete