

|   |  |     |           |
|---|--|-----|-----------|
| Product designation                                       | Rotary cam switches  |     |           |
| Product type designation                                  | 7GN20  |     |           |
| <b>General characteristics</b>                            |  |     |           |
| Switching diagram   | 12 - Star-delta motor starter switch   |     |           |
| N° of elements  | 4  |     |           |
| Mounting form   | O98 - Rear mounting with red/yellow handle padlockable in 0, door coupling and protection covers |     |           |
| <b>Contact characteristics</b>                            |  |     |           |
| Rated insulation voltage $U_i$                            | IEC/EN   | V   | 690       |
|   | UL/CSA   | V   | 600       |
| Rated impulse withstand voltage $U_{imp}$                 |  | kV  | 6         |
| Conventional free air thermal current $I_{th}$            | IEC/EN   | A   | 20        |
|   | UL/CSA   | A   | 20        |
| Rated operational voltage                                 |  | V   | 480       |
| Rated operational impulse voltage                         |  | kV  | 4         |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA   | A   | 20        |
|   | 15kA   | A   | 16        |
|   | 25kA   | A   | 16        |
| Rated short time current $I_{cw}$                         |  | A   | 250       |
|   | 1s   | A   | 250       |
| Conductivity  |  |     | 10/5 mA/V |
| Operational current $I_e$ IEC/EN                          | AC1/AC21A  |     |           |
|   |  | A   | 20        |
| AC15  | 110V   | A   | 10        |
|   | 220/230V   | A   | 8         |
|   | 380/400V   | A   | 6         |
|   | 660/690V   | A   | 1.5       |
|   |  |     |           |
| Rated operational power in AC                             | Three-phase AC-3   |     |           |
|   | 220/230V   | kW  | 3         |
|   | 380/440V   | kW  | 5.5       |
|   | 500/690V   | kW  | 5.5       |
|   | Single-phase AC-3  |     |           |
|   | 110V   | kW  | 0.8       |
|   | 220/230V   | kW  | 2.2       |
|   | 380/440V   | kW  | 3         |
|   | Three-phase AC23A  |     |           |
|   | 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               |
|  | 380/440V | kW              | 3.7               |
| <hr/>                                  |          |                 |                   |
| Rated operational current in DC        |          |                 |                   |
| DC21A                                  |          |                 |                   |
|  | 48V      | A               | 20                |
|  | 60V      | A               | 20                |
|  | 110V     | A               | 4                 |
|  | 220V     | A               | 0.6               |
|  | 440V     | A               | 0.25              |
| <hr/>                                  |          |                 |                   |
| DC23A (poles in series)                |          |                 |                   |
|  | 24V      | A               | 20 (1)            |
|  | 48V      | A               | 20 (2)            |
|  | 60V      | A               | 20 (3)            |
|  | 110V     | A               | 10 (3)            |
|  | 220V     | A               | 8 (4)             |
| <hr/>                                  |          |                 |                   |
| DC13                                   |          |                 |                   |
|  | 24V      | A               | 20                |
|  | 48V      | A               | 16                |
|  | 60V      | A               | 12                |
|  | 110V     | A               | 1                 |
|  | 220V     | A               | 0.4               |
|  | 440V     | A               | 0.15              |
| <hr/>                                  |          |                 |                   |
| Power dissipation                      |          | W               | 0.8               |
| <b>Mechanical features</b>             |          |                 |                   |
| Terminals screw                        |          |                 | M3                |
| Tightening torque for terminals max    |          | Nm              | 0.5               |
| <hr/>                                  |          |                 |                   |
| Conductor size                         |          |                 |                   |
| AWG - Rigid cable                      |          |                 |                   |
|  | min      | AWG             | 20                |
|  | Max      | AWG             | 12                |
| <hr/>                                  |          |                 |                   |
| AWG - Flexible cable                   |          |                 |                   |
|  | min      | AWG             | 20                |
|  | Max      | AWG             | 14                |
| <hr/>                                  |          |                 |                   |
| Conductor size (IEC) - Flexible cable  |          |                 |                   |
|  | min      | mm <sup>2</sup> | 0.5               |
|  | Max      | mm <sup>2</sup> | 2.5               |
| <hr/>                                  |          |                 |                   |
| Conductor size (IEC) - Rigid cable     |          |                 |                   |
|  | min      | mm <sup>2</sup> | 0.5               |
|  | Max      | mm <sup>2</sup> | 2.5               |
| <hr/>                                  |          |                 |                   |
| Mechanical life                        |          | cycles          | 5x10 <sup>6</sup> |
| <b>UL technical data</b>               |          |                 |                   |
| Motor power for direct-on-line control |          |                 |                   |
| for three-phase motor                  |          |                 |                   |
|  | 120V     | HP              | 1.5               |
|  | 240V     | HP              | 3                 |
|  | 480V     | HP              | 7.5               |
|  | 600V     | HP              | 10                |
| <hr/>                                  |          |                 |                   |
| for single-phase motor                 |          |                 |                   |
|  | 120V     | HP              | 0.75              |
|  | 240V     | HP              | 2                 |
| <hr/>                                  |          |                 |                   |
| <b>Ambient conditions</b>              |          |                 |                   |
| Temperature                            |          |                 |                   |
| Operating temperature                  |          |                 |                   |

|                     |     |    |     |
|---------------------|-----|----|-----|
|                     | min | °C | -25 |
|                     | max | °C | +55 |
| <hr/>               |     |    |     |
| Storage temperature |     |    |     |

|     |    |     |
|-----|----|-----|
| min | °C | -40 |
| max | °C | +70 |

**Resistance & Protection**

Frontal IP degree IP40

Terminals IP degree IP00

**ETIM classification**

ETIM 8.0 EC001029 - Selector switch, complete