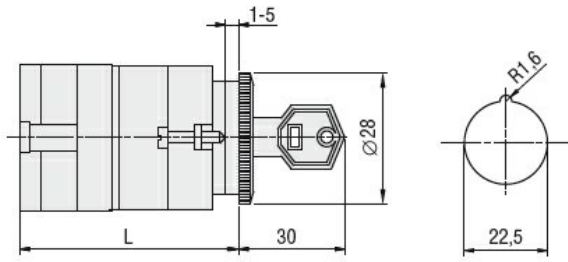


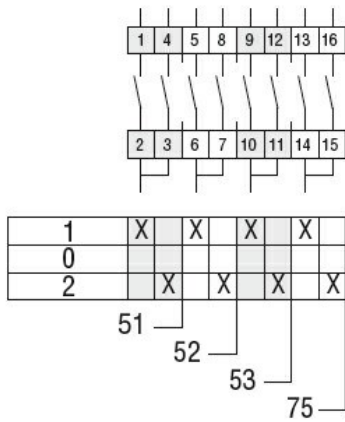
|   |  |    |           |
|---|--|----|-----------|
| Product designation                                       | Rotary cam switches  |    |           |
| Product type designation                                  | GF20   |    |           |
| <b>General characteristics</b>                            |  |    |           |
| Switching diagram   | 53 - Changeover switch 3 poles - 2 speed motor starting with separate windings         |    |           |
| N° of elements  | 3  |    |           |
| Mounting form   | U12 - Front mounting without front plate with key operation for hole diam. 22mm fixing |    |           |
| <b>Contact characteristics</b>                            |  |    |           |
| Rated insulation voltage $U_i$                            | IEC/EN   | V  | 480       |
|   | UL/CSA   | V  | 240       |
| Rated impulse withstand voltage $U_{imp}$                 |  | kV | 4         |
| Conventional free air thermal current $I_{th}$            | IEC/EN   | A  | 20        |
|   | UL/CSA   | A  | 15        |
| 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  | 20        |
|   | 25kA   | A  | 20        |
| Rated short time current $I_{cw}$                         | 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         |
| Rated operational power in AC                             | Three-phase AC-3   |    |           |
|   | 220/230V   | kW | 3         |
|   | 380/440V   | kW | 5         |
|   | Single-phase AC-3  |    |           |
|   | 110V   | kW | 0.5       |
|   | 220/230V   | kW | 1.5       |
|   | 380/440V   | kW | 2         |
|   | Three-phase AC23A  |    |           |
|   | 220/230V   | kW | 4         |
|   | 380/440V   | kW | 7.5       |
|   | Single-phase AC23A   |    |           |
|   | 110V   | kW | 0.75      |

|   |          |                 |                   |
|---|----------|-----------------|-------------------|
|   | 220/230V | kW              | 2                 |
|   | 380/440V | kW              | 2.5               |
| <b>Rated operational current in DC</b>        |          |                 |                   |
| <b>DC21A</b>                                  |          |                 |                   |
|   | 48V      | A               | 20                |
|   | 60V      | A               | 20                |
|   | 110V     | A               | 4                 |
|   | 220V     | A               | 0.7               |
|   | 440V     | A               | 0.2               |
| <b>DC13</b>                                   |          |                 |                   |
|   | 24V      | A               | 6                 |
|   | 48V      | A               | 6                 |
|   | 60V      | A               | 3                 |
|   | 110V     | A               | 1                 |
|   | 220V     | A               | 0.4               |
|   | 440V     | A               | 0.15              |
| <b>Power dissipation</b>                      |          | W               | 0.8               |
| <b>Mechanical features</b>                    |          |                 |                   |
| <b>Terminals screw</b>                        |          |                 | M3                |
| <b>Tightening torque for terminals max</b>    |          | Nm              | 0.5               |
| <b>Conductor size</b>                         |          |                 |                   |
| <b>AWG - Rigid cable</b>                      |          |                 |                   |
|   | min      | AWG             | 20                |
|   | Max      | AWG             | 12                |
| <b>AWG - Flexible cable</b>                   |          |                 |                   |
|   | min      | AWG             | 20                |
|   | Max      | AWG             | 12                |
| <b>Conductor size (IEC) - Flexible cable</b>  |          |                 |                   |
|   | min      | mm <sup>2</sup> | 0.5               |
|   | Max      | mm <sup>2</sup> | 2.5               |
| <b>Conductor size (IEC) - Rigid cable</b>     |          |                 |                   |
|   | min      | mm <sup>2</sup> | 0.5               |
|   | Max      | mm <sup>2</sup> | 2.5               |
| <b>Mechanical life</b>                        |          | cycles          | 1x10 <sup>6</sup> |
| <b>UL technical data</b>                      |          |                 |                   |
| <b>Motor power for direct-on-line control</b> |          |                 |                   |
| <b>for three-phase motor</b>                  |          |                 |                   |
|   | 240V     | HP              | 3                 |
| <b>for single-phase motor</b>                 |          |                 |                   |
|   | 240V     | HP              | 1                 |
| <b>Ambient conditions</b>                     |          |                 |                   |
| <b>Temperature</b>                            |          |                 |                   |
| <b>Operating temperature</b>                  |          |                 |                   |
|   | min      | °C              | -25               |
|   | max      | °C              | +55               |
| <b>Storage temperature</b>                    |          |                 |                   |
|   | min      | °C              | -40               |
|   | max      | °C              | +70               |
| <b>Resistance &amp; Protection</b>            |          |                 |                   |
| <b>Frontal IP degree</b>                      |          |                 | IP40              |
| <b>Terminals IP degree</b>                    |          |                 | IP20              |
| <b>Dimensions</b>                             |          |                 |                   |



| Series      | L    |    |       |     |
|-------------|------|----|-------|-----|
|             | 1    | 2  | 3...8 |     |
| <b>GF20</b> | 54.5 | 68 | 81.5  | 149 |

**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

cULus  
EAC

**ETIM classification**

ETIM 8.0

EC001029 -  
Selector switch,  
complete