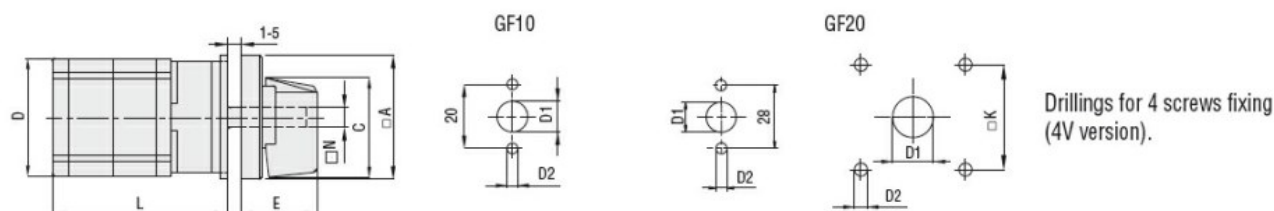


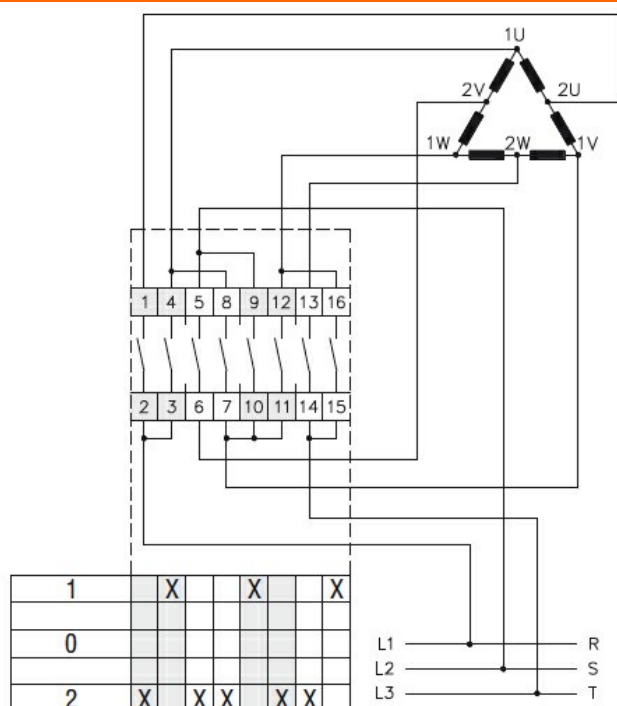
|                                                        |                                           |    |      |
|--------------------------------------------------------|-------------------------------------------|----|------|
| Product designation                                    | Rotary cam switches                       |    |      |
| Product type designation                               | GF20                                      |    |      |
| General characteristics                                |                                           |    |      |
| Switching diagram                                      | 13 - Dahlander motor control switch 1-0-2 |    |      |
| N° of elements                                         | 4                                         |    |      |
| Mounting form                                          | U - Front mounting with black handle      |    |      |
| Contact characteristics                                |                                           |    |      |
| Rated insulation voltage Ui                            | IEC/EN                                    | V  | 480  |
|                                                        | UL/CSA                                    | V  | 240  |
| Rated impulse withstand voltage Uimp                   |                                           | kV | 4    |
| Conventional free air thermal current Ith              | 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 In (gG) | 10kA                                      | A  | 20   |
|                                                        | 15kA                                      | A  | 20   |
|                                                        | 25kA                                      | A  | 20   |
| Rated short time current Icw                           | 1s                                        | kA | 250  |
| Conductivity                                           | 10/5 mA/V                                 |    |      |
| Operational current Ie 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  |
| Rated operational current in DC                        |                                           |    |      |
| DC21A                                                  | 48V                                       | A  | 20   |

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



| Series | Dimensions |      |    |     |     |      |    |    | L Number of elements |      |    |      |    |       |     |       |     |       |     |       |
|--------|------------|------|----|-----|-----|------|----|----|----------------------|------|----|------|----|-------|-----|-------|-----|-------|-----|-------|
|        | □A         | C    | D  | ØD1 | ØD2 | E    | □K | N  | 1                    | 2    | 3  | 4    | 5  | 6     | 7   | 8     | 9   | 10    | 11  | 12    |
| GF10   | 30         | 24   | 29 | 9   | 3.2 | 18.5 | —  | Ø5 | 40                   | 52   | 64 | 76   | 88 | 100   | 112 | 124   | —   | —     | —   | —     |
| GF20   | 48         | 39.5 | 36 | 12  | 5   | 26.5 | 36 | □6 | 44                   | 57.5 | 71 | 84.5 | 98 | 111.5 | 125 | 138.5 | 152 | 165.5 | 179 | 192.5 |

## 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