

### General characteristics

|                   |   |
|-------------------|---|
| Switching diagram | 13 - Dahlander motor control switch 1-0-2 |
| N° of elements    | 4   |
| Mounting form     | P - Plastic enclosure with black handle   |

### Contact characteristics

|   |                               |    |           |
|---|-------------------------------|----|-----------|
| 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 $I_{cw}$                         | 1s                            | kA | 250       |
|   |                               |    | 10/5 mA/V |
| Conductivity  |                               |    |           |
| 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       |
| 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               |
| <hr/>                                  |      |                 |                   |
| <b>Resistance &amp; Protection</b>     |      |                 |                   |

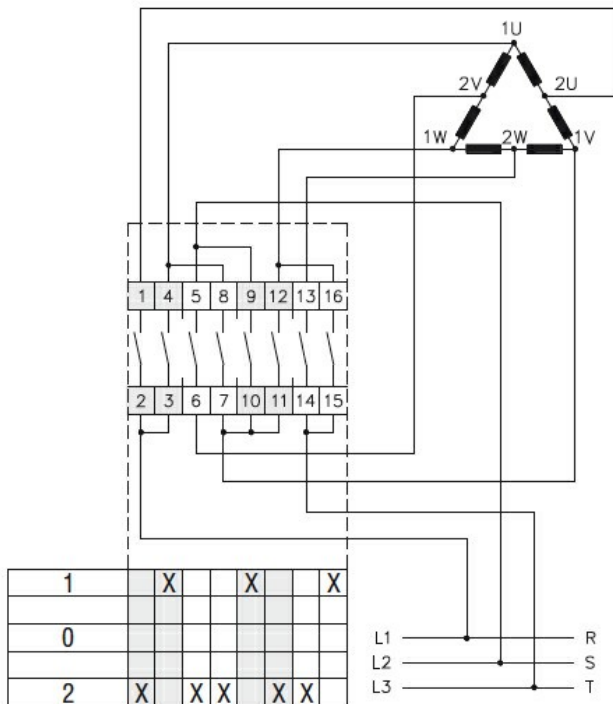
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP65 |
| Terminals IP degree | IP00 |

**Dimensions**

| Series   | Enclosure size | Number of elements |     | Dimensions |     |     |     |     |    |    |      |       |                  | Cable entry | Protection degree |
|----------|----------------|--------------------|-----|------------|-----|-----|-----|-----|----|----|------|-------|------------------|-------------|-------------------|
|          |                | L                  | L1  | A          | A1  | C   | C1  | D   | F  | M  | N    | L     | L1               |             |                   |
| 7GN12Ⓟ   | 75x75Ⓟ         | 1-2                | 3-4 | 75         | 75  | 50  | 64  | 4.5 | 19 | 14 | 28   | 57.5  | 79.8             | 4xPG13.5    | IP65              |
| 7GN20Ⓟ   |                | 1-2                | 3-4 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN25Ⓟ   |                | 1                  | 2-3 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN12Ⓟ   | 90x90          | 1-3                | 4-6 | 90         | 90  | 79  | 63  | 4.5 | 25 | 19 | 30   | 71.3  | 98.3             | 4xPG16      | IP65              |
| 7GN20Ⓟ   |                | 1-3                | 4-6 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN25Ⓟ   |                | 1-2                | 3-4 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN32    |                | 1                  | 2-3 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN40    |                | 1                  | 2-3 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN12    |                | 1-4                | 5-8 |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN20    | 1-4            | 5-8                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN25    | 1-3            | 4-5                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN32Ⓟ   | 1-2            | 3-5                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN40Ⓟ   | 1-2            | 3-5                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN63    | 1-2            | 3-4                | 125 | 175        | 146 | 112 | 5.5 | 32  | 21 | 68 | 84.3 | 118.3 | 4xPG21<br>2xPG11 | IP65        |                   |
| 7GN32Ⓟ   | 1-2            | 3-4                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN40Ⓟ   | 1-2            | 3-4                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN125   | 1              | 2                  |     |            |     |     |     |     |    |    |      |       |                  |             | 198               |
| 7GN32    | -              | 1-7                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN40    | -              | 1-7                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN63Ⓟ   | -              | 1-6                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |
| 7GN125ⓅⓅ | -              | 1-4                |     |            |     |     |     |     |    |    |      |       |                  |             |                   |

- Ⓟ Standard dimensions for cam switch in plastic enclosure with black handle (P).
- ⓅⓅ Standard dimensions for cam switch in plastic enclosure with red/yellow handle padlockable in 0 (P25).

**Wiring diagrams**



**Certifications and compliance**

**Compliance**

- IEC/EN/BS 60947-1
- IEC/EN/BS 60947-3
- IEC/EN/BS 60947-5-1

**Certificates**

- EAC

**ETIM classification**

ETIM 8.0

EC001029 -  
Selector switch,  
complete