



Sample image

## Datasheet

**Article number:** 70010822

**Designation:** KG41.T103/D-A087.KL11V

**Description:** Switch

|                                                                                                                                                                                                                                                                                                        |                          |                                          |                                                                     |              |                           |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------------------------------------------------|--------------|---------------------------|--------------------------|
| IEC 60947-3 EN 60947-3, VDE 0660 Teil 107                                                                                                                                                                                                                                                              |                          |                                          |                                                                     |              |                           |                          |
| Rated insulation voltage Ui                                                                                                                                                                                                                                                                            |                          |                                          |                                                                     |              |                           |                          |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| 690 AC                                                                                                                                                                                                                                                                                                 |                          |                                          |                                                                     |              |                           |                          |
| Rated uninterrupted current Iu/Ith                                                                                                                                                                                                                                                                     |                          |                                          |                                                                     |              |                           |                          |
| Current (A)                                                                                                                                                                                                                                                                                            | Ambient temperature (°C) |                                          | Peak temperature (°C) additional requirements                       |              |                           |                          |
| 40                                                                                                                                                                                                                                                                                                     | 50                       |                                          | 55 Ambient temperature +50°C during 24 hours with peaks up to +55°C |              |                           |                          |
| Rated operational current Ie                                                                                                                                                                                                                                                                           |                          |                                          |                                                                     |              |                           |                          |
| Utilization category                                                                                                                                                                                                                                                                                   |                          |                                          | Voltage (V)                                                         |              |                           | Current (A)              |
| AC-32A                                                                                                                                                                                                                                                                                                 |                          |                                          | 20 - 400                                                            |              |                           | 40                       |
| Rated operational power                                                                                                                                                                                                                                                                                |                          |                                          |                                                                     |              |                           |                          |
| Utilization category                                                                                                                                                                                                                                                                                   | Voltage (V)              |                                          | No. of phases                                                       |              | No. of poles              | Power (kW)               |
| AC-3                                                                                                                                                                                                                                                                                                   | 220 - 240                |                                          | 3                                                                   |              | 3                         | 7,50                     |
| AC-3                                                                                                                                                                                                                                                                                                   | 380 - 440                |                                          | 3                                                                   |              | 3                         | 11                       |
| AC-3                                                                                                                                                                                                                                                                                                   | 660 - 690                |                                          | 3                                                                   |              | 3                         | 11                       |
| AC-23A                                                                                                                                                                                                                                                                                                 | 220 - 240                |                                          | 3                                                                   |              | 3                         | 7,50                     |
| AC-23A                                                                                                                                                                                                                                                                                                 | 380 - 440                |                                          | 3                                                                   |              | 3                         | 15                       |
| AC-23A                                                                                                                                                                                                                                                                                                 | 660 - 690                |                                          | 3                                                                   |              | 3                         | 15                       |
| Max Fuse Rating IEC                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| Fuse characteristic                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     | No. of Fuses |                           | Current (A)              |
| gG                                                                                                                                                                                                                                                                                                     |                          |                                          |                                                                     | 1            |                           | 50                       |
| UL60947-4-1 , UL508                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| Nominal Voltage                                                                                                                                                                                                                                                                                        |                          |                                          |                                                                     |              |                           |                          |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| 600 AC                                                                                                                                                                                                                                                                                                 |                          |                                          |                                                                     |              |                           |                          |
| Rated insulation voltage Ui                                                                                                                                                                                                                                                                            |                          |                                          |                                                                     |              |                           |                          |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| 600 AC                                                                                                                                                                                                                                                                                                 |                          |                                          |                                                                     |              |                           |                          |
| Rated thermal current                                                                                                                                                                                                                                                                                  |                          |                                          |                                                                     |              |                           |                          |
| Current (A)                                                                                                                                                                                                                                                                                            |                          | Ambient temperature (°C) Additional Text |                                                                     |              |                           |                          |
| 42                                                                                                                                                                                                                                                                                                     |                          | 0 - 40 --                                |                                                                     |              |                           |                          |
| Horsepower rating                                                                                                                                                                                                                                                                                      |                          |                                          |                                                                     |              |                           |                          |
| Across-the-Line Motor Starting                                                                                                                                                                                                                                                                         |                          | Voltage (V)                              | No. of phases                                                       | No. of poles | Power (HP)                | Ambient temperature [°C] |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 110 - 120                                | 1                                                                   | 2            | 2                         | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 220 - 240                                | 1                                                                   | 2            | 5                         | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 277 - 277                                | 1                                                                   | 2            | 7,50                      | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 415 - 415                                | 1                                                                   | 2            | 7,50                      | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 440 - 480                                | 1                                                                   | 2            | 10                        | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 550 - 600                                | 1                                                                   | 2            | 10                        | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 110 - 120                                | 3                                                                   | 3            | 5                         | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 220 - 240                                | 3                                                                   | 3            | 15                        | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 415 - 415                                | 3                                                                   | 3            | 15                        | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 440 - 480                                | 3                                                                   | 3            | 25                        | 40                       |
| DOL                                                                                                                                                                                                                                                                                                    |                          | 550 - 600                                | 3                                                                   | 3            | 30                        | 40                       |
| Pilot duty rating code                                                                                                                                                                                                                                                                                 |                          |                                          |                                                                     |              |                           |                          |
| Duty Code                                                                                                                                                                                                                                                                                              |                          |                                          |                                                                     |              |                           |                          |
| A600                                                                                                                                                                                                                                                                                                   |                          |                                          |                                                                     |              |                           |                          |
| SCCR / Max. fuse rating                                                                                                                                                                                                                                                                                |                          |                                          |                                                                     |              |                           |                          |
| Conditions of acceptability                                                                                                                                                                                                                                                                            |                          |                                          |                                                                     |              |                           |                          |
| This device is suitable for use on circuits capable of delivering not more than 10kA rms symmetrical amperes, 600V ac max. when protected by Type RK1 fuses.                                                                                                                                           |                          |                                          |                                                                     |              |                           |                          |
| Suitable for use on a circuit capable of delivering not more than 65000 rms symmetrical amperes 600V max., when protected by 60A Class J fuses.                                                                                                                                                        |                          |                                          |                                                                     |              |                           |                          |
| Temp. rating of wire                                                                                                                                                                                                                                                                                   |                          |                                          |                                                                     |              |                           |                          |
| Temperature rating (°C)                                                                                                                                                                                                                                                                                |                          |                                          | Current (A) Text                                                    |              |                           |                          |
| 60 - 75                                                                                                                                                                                                                                                                                                |                          |                                          | -- --                                                               |              |                           |                          |
| General Use                                                                                                                                                                                                                                                                                            |                          |                                          |                                                                     |              |                           |                          |
| AC / DC                                                                                                                                                                                                                                                                                                | Voltage (V)              | Current (A)                              | No. of phases                                                       | No. of poles | No. of contacts in series |                          |
| AC                                                                                                                                                                                                                                                                                                     | 277                      | 42                                       | 1                                                                   | 1            | 1                         |                          |
| AC                                                                                                                                                                                                                                                                                                     | 600                      | 42                                       | 1                                                                   | 2            | 1                         |                          |
| AC                                                                                                                                                                                                                                                                                                     | 600                      | 42                                       | 3                                                                   | 3            | 1                         |                          |
| General Information                                                                                                                                                                                                                                                                                    |                          |                                          |                                                                     |              |                           |                          |
| Text                                                                                                                                                                                                                                                                                                   |                          |                                          |                                                                     |              |                           |                          |
| - The operating handle and position indicating means to be used with these manual motor controllers should be provided from the manufacturer, or the operating handle and position indicating means to be used should have been previously evaluated in combination with the manual motor controllers. |                          |                                          |                                                                     |              |                           |                          |

|                                                                                                                                 |                   |                               |                                                                                     |              |                                                                                       |                          |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------|-------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------|--------------------------|
| General Information                                                                                                             |                   |                               |                                                                                     |              |                                                                                       |                          |
| Text                                                                                                                            |                   |                               |                                                                                     |              |                                                                                       |                          |
| - When intended for use as a motor disconnecter the device shall be provided with a method of being locked in the OFF-position. |                   |                               |                                                                                     |              |                                                                                       |                          |
| CSA                                                                                                                             |                   |                               |                                                                                     |              |                                                                                       |                          |
| Nominal Voltage                                                                                                                 |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | Voltage (V) AC / DC                                                                 |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | 600 AC                                                                              |              |                                                                                       |                          |
| Rated insulation voltage Ui                                                                                                     |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | Voltage (V) AC / DC                                                                 |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | 600 AC                                                                              |              |                                                                                       |                          |
| Rated thermal current                                                                                                           |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   | Current (A)                   | Ambient temperature (°C)                                                            |              | Additional Text                                                                       |                          |
|                                                                                                                                 |                   | 40                            | 0 - 40                                                                              |              | --                                                                                    |                          |
| Horsepower rating                                                                                                               |                   |                               |                                                                                     |              |                                                                                       |                          |
| Across-the-Line Motor Starting                                                                                                  |                   | Voltage (V)                   | No. of phases                                                                       | No. of poles | Power (HP)                                                                            | Ambient temperature [°C] |
| DOL                                                                                                                             |                   | 110 - 120                     | 1                                                                                   | 2            | 2                                                                                     | 40                       |
| DOL                                                                                                                             |                   | 220 - 240                     | 1                                                                                   | 2            | 5                                                                                     | 40                       |
| DOL                                                                                                                             |                   | 277 - 277                     | 1                                                                                   | 2            | 7,50                                                                                  | 40                       |
| DOL                                                                                                                             |                   | 415 - 415                     | 1                                                                                   | 2            | 7,50                                                                                  | 40                       |
| DOL                                                                                                                             |                   | 440 - 480                     | 1                                                                                   | 2            | 10                                                                                    | 40                       |
| DOL                                                                                                                             |                   | 550 - 600                     | 1                                                                                   | 2            | 10                                                                                    | 40                       |
| DOL                                                                                                                             |                   | 110 - 120                     | 3                                                                                   | 3            | 5                                                                                     | 40                       |
| DOL                                                                                                                             |                   | 220 - 240                     | 3                                                                                   | 3            | 15                                                                                    | 40                       |
| DOL                                                                                                                             |                   | 415 - 415                     | 3                                                                                   | 3            | 15                                                                                    | 40                       |
| DOL                                                                                                                             |                   | 440 - 480                     | 3                                                                                   | 3            | 25                                                                                    | 40                       |
| DOL                                                                                                                             |                   | 550 - 600                     | 3                                                                                   | 3            | 30                                                                                    | 40                       |
| Temp. rating of wire                                                                                                            |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   | Temperature rating (°C)       | Current (A)                                                                         |              | Text                                                                                  |                          |
|                                                                                                                                 |                   | 75                            |                                                                                     |              | -- --                                                                                 |                          |
| General Use                                                                                                                     |                   |                               |                                                                                     |              |                                                                                       |                          |
| AC / DC                                                                                                                         | Voltage (V)       | Current (A)                   | No. of phases                                                                       | No. of poles | No. of contacts in series                                                             |                          |
| AC                                                                                                                              | 277               | 40                            | 1                                                                                   | 1            | 1                                                                                     |                          |
| AC                                                                                                                              | 600               | 40                            | 1                                                                                   | 2            | 1                                                                                     |                          |
| AC                                                                                                                              | 600               | 40                            | 3                                                                                   | 3            | 1                                                                                     |                          |
| GENERAL TECHNICAL INFORMATION                                                                                                   |                   |                               |                                                                                     |              |                                                                                       |                          |
| Size of conductor                                                                                                               |                   |                               |                                                                                     |              |                                                                                       |                          |
| composition of conductor                                                                                                        | Min. / Max. value | No. of conductor per terminal | Cross section (mm²) or (AWG/kcmil)                                                  |              | Material of the wire                                                                  |                          |
| solid wire                                                                                                                      | Min.              | 2                             | 0.75mm²                                                                             |              | Copper                                                                                |                          |
| solid wire                                                                                                                      | Min.              | 1                             | 1.5mm²                                                                              |              | Copper                                                                                |                          |
| flexible wire                                                                                                                   | Max.              | 1                             | AWG 6                                                                               |              | Copper                                                                                |                          |
| flexible wire                                                                                                                   | Min.              | 1                             | 2.5mm²                                                                              |              | Copper                                                                                |                          |
| flexible wire                                                                                                                   | Max.              | 1                             | 10mm²                                                                               |              | Copper                                                                                |                          |
| flexible wire                                                                                                                   | Min.              | 2                             | 1.5mm²                                                                              |              | Copper                                                                                |                          |
| Single-core or stranded wire                                                                                                    | Max.              | 1                             | AWG 6                                                                               |              | Copper                                                                                |                          |
| Single-core or stranded wire                                                                                                    | Max.              | 1                             | 16mm²                                                                               |              | Copper                                                                                |                          |
| flexible wire with sleeve                                                                                                       | Max.              | 1                             | 10mm²                                                                               |              | Copper                                                                                |                          |
| flexible wire with ferrule according to DIN 46228                                                                               | Min.              | 2                             | 0.75mm²                                                                             |              | Copper                                                                                |                          |
| flexible wire with ferrule according to DIN 46228                                                                               | Min.              | 1                             | 1.5mm²                                                                              |              | Copper                                                                                |                          |
| Stripping length                                                                                                                |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | Length (mm) --                                                                      |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               |  |              |                                                                                       |                          |
| Recommended screw driver                                                                                                        |                   |                               |                                                                                     |              |                                                                                       |                          |
| Type of screw driver                                                                                                            | Value             |                               |                                                                                     |              |                                                                                       |                          |
| Cross Screwdriver                                                                                                               | PH2               |                               |                                                                                     |              |                                                                                       |                          |
| Slot screwdriver according to DIN 5264                                                                                          | 1,2x6,5           |                               |                                                                                     |              |                                                                                       |                          |
| Tightening torque of screws                                                                                                     |                   |                               |                                                                                     |              |                                                                                       |                          |
|                                                                                                                                 |                   |                               | tightening torque (Nm)                                                              |              | tightening torque (lb-in)                                                             |                          |
|                                                                                                                                 |                   |                               | 1,80                                                                                |              | 16                                                                                    |                          |
| Approbations                                                                                                                    |                   |                               |                                                                                     |              |                                                                                       |                          |
| Specification                                                                                                                   |                   |                               |                                                                                     |              | Marking                                                                               |                          |
| EAC                                                                                                                             |                   |                               |                                                                                     |              |  |                          |
| CE marking                                                                                                                      |                   |                               |                                                                                     |              |  |                          |
| UK Directives                                                                                                                   |                   |                               |                                                                                     |              |  |                          |
| CSA C.22.2 No.14                                                                                                                |                   |                               |                                                                                     |              |  |                          |
| GB/T14048.3                                                                                                                     |                   |                               |                                                                                     |              |  |                          |
| General Information                                                                                                             |                   |                               |                                                                                     |              |                                                                                       |                          |
| Text                                                                                                                            |                   |                               |                                                                                     |              |                                                                                       |                          |
| - EMC Note: This device is suitable for use in environment A and B.                                                             |                   |                               |                                                                                     |              |                                                                                       |                          |

## General Information

### Text

- Do not lubricate or treat contacts.
- Switches may only be mounted, connected and set into operation by qualified persons according to the accepted rules of technology.
- Use copper wire only. Do not coat the wire end with tin.
- Terminals with factory fitted jumper links are tightened during production. Take care during installation to ensure factory fitted links are not lost by undoing both sides of linked terminals. After wiring, all terminal screws must be tightened to recommended torque specifications.

### Waste Electrical & Electronic Equipment (WEEE)

| Picture name                                                                     | Description                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Do not throw in the trash as care must be taken to ensure environmentally sound disposal and recycling. Please either use an environmentally friendly waste disposal company; return to the supplier for disposal; or return direct to the manufacturer, Kraus & Naimer. You can find local Kraus & Naimer offices at <a href="http://www.krausnaimer.com">www.krausnaimer.com</a> |

### Proposition 65

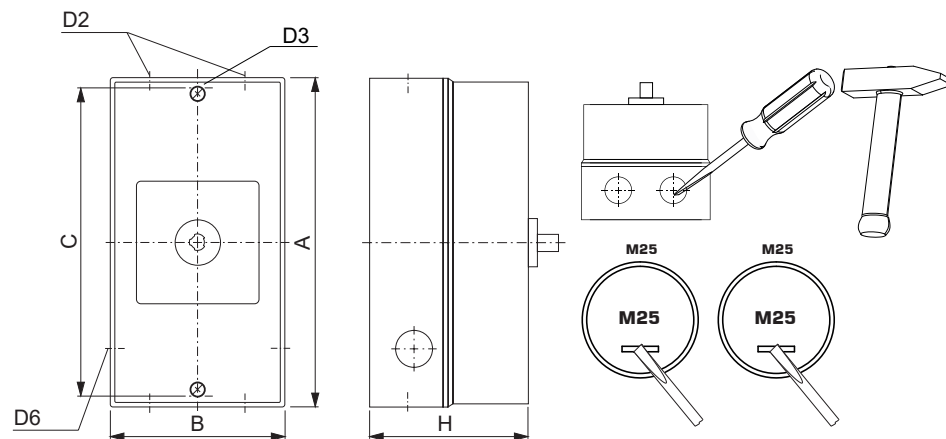
| Picture name                                                                     | Description                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . |

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

## Mounting-KL11V



| IP - Code front side |   | IP66, IP67, IP69k |
|----------------------|---|-------------------|
| Stages               |   | 1,00 - 5,00       |
| A                    | H | 190,00 mm         |
| B                    | H | 100,00 mm         |
| C                    | H | 178,00 mm         |
| D2                   | Ø | 4,00 x M25        |
| D3                   | Ø | 5,60 mm           |
| D6                   | Ø | 2,00 x M25        |
| H                    | H | 93,00 mm          |

Wiring diagram

KG41.T303.KL11V



## Switch program

KG41.T303.KL11V



Kraus & Naimer

KG41
T303
Page 1 of 1

| Face Plate                                                                                                                                                                                                                                                                                                               |     |    |    |    |   |    |    |    |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|---|----|----|----|----|
|                                                                                                                                                                                                                                         |     | L1 | L2 | L3 |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     | 1  | 3  | 5  | 7 | 9  | 11 | 13 | 15 |
| <div style="display: flex; justify-content: space-around;">    </div> |     |    |    |    |   |    |    |    |    |
| Switching Angle <span style="border: 1px solid black; padding: 2px;">90</span><br>Total switching Angle <span style="border: 1px solid black; padding: 2px;">90</span>                                                                                                                                                   |     | 2  | 4  | 6  | 8 | 10 | 12 | 14 | 16 |
|                                                                                                                                                                                                                                                                                                                          |     | T1 | T2 | T3 |   |    |    |    |    |
| 0                                                                                                                                                                                                                                                                                                                        | 270 |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |
| 1                                                                                                                                                                                                                                                                                                                        | 0   | ■  | ■  | ■  |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          | 90  |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          | 180 |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                          |     |    |    |    |   |    |    |    |    |

Version: 102

## Face plate

S1.F656/C10.V9



## AUXILIARY CONTACTS

(cam operated) for switch type KG20 - KG100C and KH(R)16 - KH(R)25B

**Designation:** K1.M510A/2CA-B

**Number of contacts:** "2" 2 auxiliary contacts

**Operation of contacts:** "C" 1 auxiliary contact closed in pos. 1 and 1 auxiliary contact closed in pos. 0 (NO/NC)

**Type of version:** "A" 1. auxiliary contact module

**Type of mounting:** "-B" for type of mounting VE, VE2, silver contacts

### IEC 60947-3 EN 60947-3, VDE 0660 Teil 107

| Nominal Voltage                                             |                          |                       |                                                                  |
|-------------------------------------------------------------|--------------------------|-----------------------|------------------------------------------------------------------|
|                                                             |                          | Voltage (V) AC / DC   |                                                                  |
|                                                             |                          | 690 AC                |                                                                  |
| Rated uninterrupted current I <sub>u</sub> /I <sub>th</sub> |                          |                       |                                                                  |
| Current (A)                                                 | Ambient temperature (°C) | Peak temperature (°C) | additional requirements                                          |
| 16                                                          | 55                       | 60                    | Ambient temperature +55°C during 24 hours with peaks up to +60°C |
| Rated operational current I <sub>e</sub>                    |                          |                       |                                                                  |
| Utilization category                                        | Voltage (V)              |                       | Current (A)                                                      |
| AC-15                                                       | 110 - 240                |                       | 6                                                                |
| AC-15                                                       | 380 - 440                |                       | 3                                                                |
| AC-15                                                       | 500                      |                       | 1,50                                                             |
| AC-21A                                                      | 20 - 690                 |                       | 16                                                               |

### UL60947-4-1, UL508

| Nominal Voltage                         |             |                     |                                                      |
|-----------------------------------------|-------------|---------------------|------------------------------------------------------|
|                                         |             | Voltage (V) AC / DC |                                                      |
|                                         |             | 600 AC              |                                                      |
| Rated insulation voltage U <sub>i</sub> |             |                     |                                                      |
|                                         |             | Voltage (V) AC / DC |                                                      |
|                                         |             | 600 AC              |                                                      |
| Rated thermal current                   |             |                     |                                                      |
|                                         |             | Current (A)         | Ambient temperature (°C) Additional Text             |
|                                         |             | 10                  | 0 - 40 --                                            |
| Pilot duty rating code                  |             |                     |                                                      |
| Duty Code                               |             |                     |                                                      |
| A600                                    |             |                     |                                                      |
| General Use                             |             |                     |                                                      |
| AC / DC                                 | Voltage (V) | Current (A)         | No. of phases No. of poles No. of contacts in series |
| AC                                      | 600         | 10                  | 1 1 1                                                |

### GENERAL TECHNICAL INFORMATION

| GENERAL TECHNICAL INFORMATION                                                       |                   |                               |                                                 |                      |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------|-------------------------------------------------|----------------------|
| Size of conductor                                                                   |                   |                               |                                                 |                      |
| composition of conductor                                                            | Min. / Max. value | No. of conductor per terminal | Cross section (mm <sup>2</sup> ) or (AWG/kcmil) | Material of the wire |
| solid wire                                                                          | Min.              | 1                             | 0.5mm <sup>2</sup>                              | Copper               |
| solid wire                                                                          | Min.              | 2                             | 0.5mm <sup>2</sup>                              | Copper               |
| flexible wire                                                                       | Min.              | 1                             | 0.75mm <sup>2</sup>                             | Copper               |
| flexible wire                                                                       | Min.              | 2                             | 0.75mm <sup>2</sup>                             | Copper               |
| flexible wire                                                                       | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire                                                                       | Max.              | 2                             | AWG 14                                          | Copper               |
| Single-core or stranded wire                                                        | Max.              | 2                             | AWG 12                                          | Copper               |
| Single-core or stranded wire                                                        | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228                                   | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228                                   | Min.              | 1                             | 0.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228                                   | Min.              | 2                             | 0.5mm <sup>2</sup>                              | Copper               |
| Stripping length                                                                    |                   |                               |                                                 |                      |
| Length (mm) --                                                                      |                   |                               |                                                 |                      |
|  |                   |                               |                                                 |                      |
| Recommended screw driver                                                            |                   |                               |                                                 |                      |
| Type of screw driver                                                                | Value             |                               |                                                 |                      |
| Cross Screwdriver                                                                   | PH1               |                               |                                                 |                      |
| Slot screwdriver according to DIN 5264                                              | 0,8x4             |                               |                                                 |                      |
| Tightening torque of screws                                                         |                   |                               |                                                 |                      |
| tightening torque (Nm)                                                              |                   |                               | tightening torque (lb-in)                       |                      |
| 0.60                                                                                |                   |                               |                                                 |                      |

| General Information                                                                                                                                                                                                                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Text                                                                                                                                                                                                                                                                                                      |  |
| <ul style="list-style-type: none"> <li>- Do not lubricate or treat contacts.</li> <li>- Switches may only be mounted, connected and set into operation by qualified persons according to the accepted rules of technology.</li> <li>- Use copper wire only. Do not coat the wire end with tin.</li> </ul> |  |
| <div> <div>13</div> <div>14</div> </div> <div> <div>21</div> <div>22</div> </div>                                                                                                                                                                                                                         |  |