



Sample image

## Datasheet

**Article number:** 70009801

**Designation:** KG10.T103/40.KS51V

**Description:** Switch Global Disconnecter

|                                                                                                                                                               |                          |                          |                                                                  |                 |                           |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|------------------------------------------------------------------|-----------------|---------------------------|--------------------------|
| 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                                          |                 |                           |                          |
| 20                                                                                                                                                            | 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-15                                                                                                                                                         |                          |                          | 220 - 240                                                        |                 | 6                         |                          |
| AC-15                                                                                                                                                         |                          |                          | 380 - 440                                                        |                 | 4                         |                          |
| Rated operational power                                                                                                                                       |                          |                          |                                                                  |                 |                           |                          |
| Utilization category                                                                                                                                          | Voltage (V)              | No. of phases            | No. of poles                                                     | Power (kW)      |                           |                          |
| AC-3                                                                                                                                                          | 220 - 240                | 3                        | 3                                                                | 2,20            |                           |                          |
| AC-3                                                                                                                                                          | 380 - 440                | 3                        | 3                                                                | 3,70            |                           |                          |
| AC-3                                                                                                                                                          | 660 - 690                | 3                        | 3                                                                | 3,70            |                           |                          |
| AC-3                                                                                                                                                          | 220 - 240                | 1                        | 2                                                                | 1,10            |                           |                          |
| AC-3                                                                                                                                                          | 380 - 440                | 1                        | 2                                                                | 1,50            |                           |                          |
| AC-23A                                                                                                                                                        | 220 - 240                | 3                        | 3                                                                | 3               |                           |                          |
| AC-23A                                                                                                                                                        | 380 - 440                | 3                        | 3                                                                | 5,50            |                           |                          |
| AC-23A                                                                                                                                                        | 660 - 690                | 3                        | 3                                                                | 5,50            |                           |                          |
| AC-23A                                                                                                                                                        | 220 - 240                | 1                        | 2                                                                | 1,50            |                           |                          |
| AC-23A                                                                                                                                                        | 380 - 440                | 1                        | 2                                                                | 2,20            |                           |                          |
| Max Fuse Rating IEC                                                                                                                                           |                          |                          |                                                                  |                 |                           |                          |
| Fuse characteristic                                                                                                                                           |                          |                          | No. of Fuses                                                     |                 | Current (A)               |                          |
| gG                                                                                                                                                            |                          |                          | 1                                                                |                 | 20                        |                          |
| UL60947-4-1 , UL508                                                                                                                                           |                          |                          |                                                                  |                 |                           |                          |
| Nominal Voltage                                                                                                                                               |                          |                          |                                                                  |                 |                           |                          |
| Voltage (V) AC / DC                                                                                                                                           |                          |                          |                                                                  |                 |                           |                          |
| 300 AC                                                                                                                                                        |                          |                          |                                                                  |                 |                           |                          |
| Rated insulation voltage Ui                                                                                                                                   |                          |                          |                                                                  |                 |                           |                          |
| Voltage (V) AC / DC                                                                                                                                           |                          |                          |                                                                  |                 |                           |                          |
| 300 AC                                                                                                                                                        |                          |                          |                                                                  |                 |                           |                          |
| Rated thermal current                                                                                                                                         |                          |                          |                                                                  |                 |                           |                          |
| Current (A)                                                                                                                                                   |                          | Ambient temperature (°C) |                                                                  | Additional Text |                           |                          |
| 20                                                                                                                                                            |                          | 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               | 0,50                      | 40                       |
| DOL                                                                                                                                                           |                          | 220 - 240                | 1                                                                | 2               | 1                         | 40                       |
| DOL                                                                                                                                                           |                          | 277 - 277                | 1                                                                | 2               | 1                         | 40                       |
| DOL                                                                                                                                                           |                          | 110 - 120                | 3                                                                | 3               | 1                         | 40                       |
| DOL                                                                                                                                                           |                          | 220 - 240                | 3                                                                | 3               | 2                         | 40                       |
| Pilot duty rating code                                                                                                                                        |                          |                          |                                                                  |                 |                           |                          |
| Duty Code                                                                                                                                                     |                          |                          |                                                                  |                 |                           |                          |
| A300                                                                                                                                                          |                          |                          |                                                                  |                 |                           |                          |
| SCCR / Max. fuse rating                                                                                                                                       |                          |                          |                                                                  |                 |                           |                          |
| Conditions of acceptability                                                                                                                                   |                          |                          |                                                                  |                 |                           |                          |
| These devices are suitable for use on circuits capable of delivering not more than 5kA rms symmetrical amperes, 300V ac max. when protected by Class J fuses. |                          |                          |                                                                  |                 |                           |                          |
| Temp. rating of wire                                                                                                                                          |                          |                          |                                                                  |                 |                           |                          |
| Temperature rating (°C)                                                                                                                                       |                          | Current (A) Text         |                                                                  |                 |                           |                          |
| 60 - 75                                                                                                                                                       |                          | -- Use copper wire only  |                                                                  |                 |                           |                          |
| Connecting instructions                                                                                                                                       |                          |                          |                                                                  |                 |                           |                          |
| Markings                                                                                                                                                      |                          |                          |                                                                  |                 |                           |                          |
| Break all lines.                                                                                                                                              |                          |                          |                                                                  |                 |                           |                          |
| For use on a flat surface of a type 1 enclosure.                                                                                                              |                          |                          |                                                                  |                 |                           |                          |
| General Use                                                                                                                                                   |                          |                          |                                                                  |                 |                           |                          |
| AC / DC                                                                                                                                                       | Voltage (V)              | Current (A)              | No. of phases                                                    | No. of poles    | No. of contacts in series |                          |
| AC                                                                                                                                                            | 277                      | 20                       | 1                                                                | 1               | 1                         |                          |
| AC                                                                                                                                                            | 300                      | 20                       | 1                                                                | 2               | 1                         |                          |

| General Use                                                                                                                                                                                                                                                                                            |             |                   |                               |                                    |                           |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|-------------------------------|------------------------------------|---------------------------|---------------------------------------------------------------------------------------|
| AC / DC                                                                                                                                                                                                                                                                                                | Voltage (V) | Current (A)       | No. of phases                 | No. of poles                       | No. of contacts in series |                                                                                       |
| AC                                                                                                                                                                                                                                                                                                     | 300         | 20                | 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. |             |                   |                               |                                    |                           |                                                                                       |
| - 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                   |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | 300                                | AC                        |                                                                                       |
| Rated insulation voltage Ui                                                                                                                                                                                                                                                                            |             |                   |                               |                                    |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | Voltage (V)                        | AC / DC                   |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | 300                                | AC                        |                                                                                       |
| Rated thermal current                                                                                                                                                                                                                                                                                  |             |                   |                               |                                    |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             | Current (A)       | Ambient temperature (°C)      |                                    | Additional Text           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             | 20                | 0 - 40                        |                                    | --                        |                                                                                       |
| Horsepower rating                                                                                                                                                                                                                                                                                      |             |                   |                               |                                    |                           |                                                                                       |
| Across-the-Line Motor Starting                                                                                                                                                                                                                                                                         |             |                   |                               | Voltage (V)                        | No. of phases             | No. of poles                                                                          |
| DOL                                                                                                                                                                                                                                                                                                    |             |                   |                               | 110 - 120                          | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |             |                   |                               | 220 - 240                          | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |             |                   |                               | 277 - 277                          | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |             |                   |                               | 110 - 120                          | 3                         | 3                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |             |                   |                               | 220 - 240                          | 3                         | 3                                                                                     |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               |                                    |                           |                                                                                       |
| Pilot duty rating code                                                                                                                                                                                                                                                                                 |             |                   |                               |                                    |                           |                                                                                       |
| Duty Code                                                                                                                                                                                                                                                                                              |             |                   |                               |                                    |                           |                                                                                       |
| A300                                                                                                                                                                                                                                                                                                   |             |                   |                               |                                    |                           |                                                                                       |
| 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         | 20                | 1                             | 1                                  | 1                         |                                                                                       |
| AC                                                                                                                                                                                                                                                                                                     | 277         | 20                | 3                             | 3                                  | 1                         |                                                                                       |
| GENERAL TECHNICAL INFORMATION                                                                                                                                                                                                                                                                          |             |                   |                               |                                    |                           |                                                                                       |
| Tightening torque of screws                                                                                                                                                                                                                                                                            |             |                   |                               |                                    |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | tightening torque (Nm)             | tightening torque (lb-in) |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | 0,60                               | 5                         |                                                                                       |
| Stripping length                                                                                                                                                                                                                                                                                       |             |                   |                               |                                    |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | Length (mm)                        | --                        |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |             |                   |                               | 8                                  | STRIPPINGLENGTH           |                                                                                       |
| 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.              | 1                             | 0.5mm²                             |                           | Copper                                                                                |
| solid wire                                                                                                                                                                                                                                                                                             |             | Min.              | 2                             | 0.5mm²                             |                           | Copper                                                                                |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Min.              | 1                             | 0.75mm²                            |                           | Copper                                                                                |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Min.              | 2                             | 0.75mm²                            |                           | Copper                                                                                |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Max.              | 1                             | AWG 12                             |                           | Copper                                                                                |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Max.              | 1                             | 2.5mm²                             |                           | Copper                                                                                |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           |             | Max.              | 1                             | AWG 12                             |                           | Copper                                                                                |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           |             | Max.              | 1                             | 2.5mm²                             |                           | Copper                                                                                |
| flexible wire with ferrule according to DIN 46228                                                                                                                                                                                                                                                      |             | Max.              | 1                             | 2.5mm²                             |                           | Copper                                                                                |
| flexible wire with ferrule according to DIN 46228                                                                                                                                                                                                                                                      |             | Min.              | 1                             | 0.5mm²                             |                           | Copper                                                                                |
| flexible wire with ferrule according to DIN 46228                                                                                                                                                                                                                                                      |             | Min.              | 2                             | 0.5mm²                             |                           | Copper                                                                                |
| Approbations                                                                                                                                                                                                                                                                                           |             |                   |                               |                                    |                           |                                                                                       |
| Specification                                                                                                                                                                                                                                                                                          |             |                   |                               |                                    |                           | Marking                                                                               |
| EAC                                                                                                                                                                                                                                                                                                    |             |                   |                               |                                    |                           |  |
| CE marking                                                                                                                                                                                                                                                                                             |             |                   |                               |                                    |                           |  |
| UK Directives                                                                                                                                                                                                                                                                                          |             |                   |                               |                                    |                           |  |
| CSA C.22.2 No.14                                                                                                                                                                                                                                                                                       |             |                   |                               |                                    |                           |  |
| GB/T14048.3                                                                                                                                                                                                                                                                                            |             |                   |                               |                                    |                           |  |
| Recommended screw driver                                                                                                                                                                                                                                                                               |             |                   |                               |                                    |                           |                                                                                       |
| Type of screw driver                                                                                                                                                                                                                                                                                   |             |                   |                               | Value                              |                           |                                                                                       |
| Cross Screwdriver                                                                                                                                                                                                                                                                                      |             |                   |                               | PH1                                |                           |                                                                                       |
| Slot screwdriver according to DIN 5264                                                                                                                                                                                                                                                                 |             |                   |                               | 0,8x4                              |                           |                                                                                       |
| General Information                                                                                                                                                                                                                                                                                    |             |                   |                               |                                    |                           |                                                                                       |
| Text                                                                                                                                                                                                                                                                                                   |             |                   |                               |                                    |                           |                                                                                       |
| - Do not lubricate or treat contacts.                                                                                                                                                                                                                                                                  |             |                   |                               |                                    |                           |                                                                                       |

## General Information

### Text

- 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.
- After installation of the switches the spacings between the terminals must be sufficient to fulfill the requirement of the applicable standards.

### 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

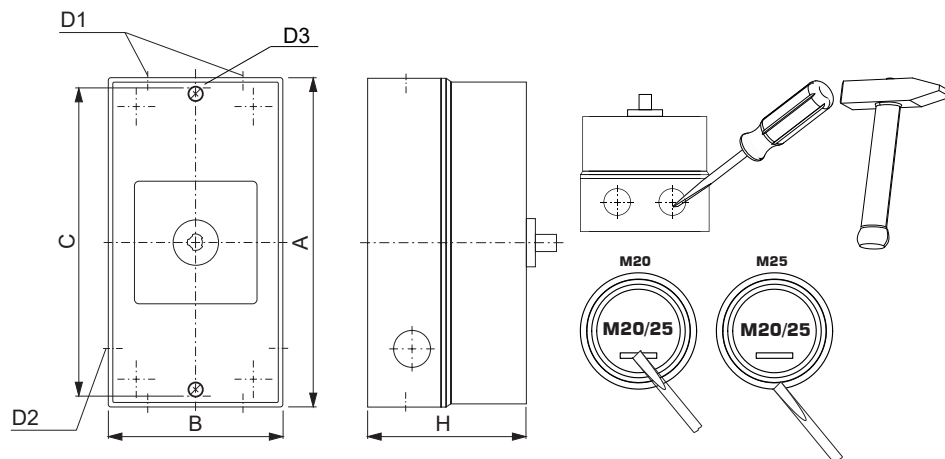
| Picture name                                                                     | Description                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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-KS51V

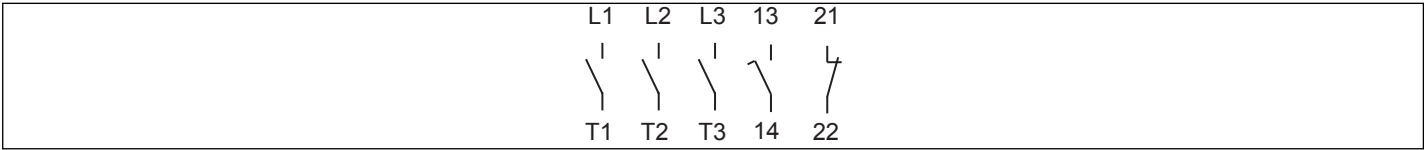


|                      |   |                   |
|----------------------|---|-------------------|
| IP - Code front side |   | IP66, IP67, IP69k |
| Stages               |   | 2,00 - 4,00       |
| A                    | H | 121,00 mm         |
| B                    | H | 86,00 mm          |
| C                    | H | 110,00 mm         |
| D1                   | Ø | 4,00 x M20/M25    |
| D2                   | Ø | 2,00 x M20        |
| D3                   | Ø | 4,20 mm           |
| H                    | H | 90,00 mm          |



Wiring diagram

KG10.T30311.KS51V



## Switch program

KG10.T30311.KS51V



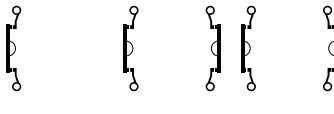
Kraus & Naimer

**KG10**
**T30311VE**
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**Face Plate**



Marking plate: S0D H043 91E



Switching Angle

Total switching Angle

|     | 2  | 4 | 6  | 8  | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|-----|----|---|----|----|----|----|----|----|----|----|----|----|
|     | L2 |   | L1 | L3 | 13 | 21 |    |    |    |    |    |    |
| 0   |    |   |    |    |    |    |    |    |    |    |    |    |
| 270 |    |   |    |    |    |    |    |    |    |    |    |    |
| 285 |    |   |    |    |    |    |    |    |    |    |    |    |
| 300 |    |   |    |    |    |    |    |    |    |    |    |    |
| 315 |    |   |    |    |    |    |    |    |    |    |    |    |
| 330 |    |   |    |    |    |    |    |    |    |    |    |    |
| 345 |    |   |    |    |    |    |    |    |    |    |    |    |
| 1   |    |   |    |    |    |    |    |    |    |    |    |    |
| 0   |    |   |    |    |    |    |    |    |    |    |    |    |
| 15  |    |   |    |    |    |    |    |    |    |    |    |    |
| 30  |    |   |    |    |    |    |    |    |    |    |    |    |
| 45  |    |   |    |    |    |    |    |    |    |    |    |    |
| 60  |    |   |    |    |    |    |    |    |    |    |    |    |
| 75  |    |   |    |    |    |    |    |    |    |    |    |    |
| 90  |    |   |    |    |    |    |    |    |    |    |    |    |
| 105 |    |   |    |    |    |    |    |    |    |    |    |    |
| 120 |    |   |    |    |    |    |    |    |    |    |    |    |
| 135 |    |   |    |    |    |    |    |    |    |    |    |    |
| 150 |    |   |    |    |    |    |    |    |    |    |    |    |
| 165 |    |   |    |    |    |    |    |    |    |    |    |    |
| 180 |    |   |    |    |    |    |    |    |    |    |    |    |
| 195 |    |   |    |    |    |    |    |    |    |    |    |    |
| 210 |    |   |    |    |    |    |    |    |    |    |    |    |
| 225 |    |   |    |    |    |    |    |    |    |    |    |    |
| 240 |    |   |    |    |    |    |    |    |    |    |    |    |
| 255 |    |   |    |    |    |    |    |    |    |    |    |    |

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## Face plate

S1.F656/C10.V9

