

Sample image

## Datasheet

**Article number:** 70024297

**Designation:** KG20A.T104/01.FTF

**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                       |                  |              |                           |             |
| 25                                                                                                                                                                                                                                                                                                     | 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     |                           | 20          |
| Rated operational power                                                                                                                                                                                                                                                                                |                          |                                                                     |                  |              |                           |             |
| Utilization category                                                                                                                                                                                                                                                                                   | Voltage (V)              | No. of phases                                                       |                  | No. of poles |                           | Power (kW)  |
| AC-3                                                                                                                                                                                                                                                                                                   | 220 - 240                | 3                                                                   |                  | 3            |                           | 4           |
| AC-3                                                                                                                                                                                                                                                                                                   | 380 - 440                | 3                                                                   |                  | 3            |                           | 5,50        |
| AC-3                                                                                                                                                                                                                                                                                                   | 660 - 690                | 3                                                                   |                  | 3            |                           | 5,50        |
| AC-23A                                                                                                                                                                                                                                                                                                 | 220 - 240                | 3                                                                   |                  | 3            |                           | 5,50        |
| AC-23A                                                                                                                                                                                                                                                                                                 | 380 - 440                | 3                                                                   |                  | 3            |                           | 7,50        |
| AC-23A                                                                                                                                                                                                                                                                                                 | 660 - 690                | 3                                                                   |                  | 3            |                           | 7,50        |
| Max Fuse Rating IEC                                                                                                                                                                                                                                                                                    |                          |                                                                     |                  |              |                           |             |
| Fuse characteristic                                                                                                                                                                                                                                                                                    |                          |                                                                     |                  | No. of Fuses |                           | Current (A) |
| gG                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                  | 1            |                           | 35          |
| 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                            |                  |              |                           |             |
| 25                                                                                                                                                                                                                                                                                                     |                          | 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                | 1            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 220 - 240                | 1                                                                   | 2                | 3            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 277 - 277                | 1                                                                   | 2                | 3            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 415 - 415                | 1                                                                   | 2                | 5            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 440 - 480                | 1                                                                   | 2                | 5            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 550 - 600                | 1                                                                   | 2                | 5            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 110 - 120                | 3                                                                   | 3                | 2            | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 200 - 240                | 3                                                                   | 3                | 7,50         | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 415 - 415                | 3                                                                   | 3                | 10           | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 440 - 480                | 3                                                                   | 3                | 15           | 40                        |             |
| DOL                                                                                                                                                                                                                                                                                                    | 550 - 600                | 3                                                                   | 3                | 20           | 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 at 600V max., when protected by 40A 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                      | 25                                                                  | 1                | 1            | 1                         |             |
| AC                                                                                                                                                                                                                                                                                                     | 600                      | 25                                                                  | 1                | 2            | 1                         |             |
| AC                                                                                                                                                                                                                                                                                                     | 600                      | 25                                                                  | 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           |                                                                                       |                          |
|                                                                                                                                      |                   | 25                      | 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                         | 1                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 220 - 240                     | 1                                  | 2                         | 3                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 277 - 277                     | 1                                  | 2                         | 3                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 415 - 415                     | 1                                  | 2                         | 5                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 440 - 480                     | 1                                  | 2                         | 5                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 550 - 600                     | 1                                  | 2                         | 5                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 110 - 120                     | 3                                  | 3                         | 2                                                                                     | 40                       |
| DOL                                                                                                                                  |                   |                         | 220 - 240                     | 3                                  | 3                         | 7,50                                                                                  | 40                       |
| DOL                                                                                                                                  |                   |                         | 415 - 415                     | 3                                  | 3                         | 10                                                                                    | 40                       |
| DOL                                                                                                                                  |                   |                         | 440 - 480                     | 3                                  | 3                         | 15                                                                                    | 40                       |
| DOL                                                                                                                                  |                   |                         | 550 - 600                     | 3                                  | 3                         | 20                                                                                    | 40                       |
| Pilot duty rating code                                                                                                               |                   |                         |                               |                                    |                           |                                                                                       |                          |
| Duty Code                                                                                                                            |                   |                         |                               |                                    |                           |                                                                                       |                          |
| A600                                                                                                                                 |                   |                         |                               |                                    |                           |                                                                                       |                          |
| 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               | 25                      | 1                             | 1                                  | 1                         |                                                                                       |                          |
| AC                                                                                                                                   | 600               | 25                      | 1                             | 2                                  | 1                         |                                                                                       |                          |
| AC                                                                                                                                   | 600               | 25                      | 3                             | 3                                  | 1                         |                                                                                       |                          |
| GENERAL TECHNICAL INFORMATION                                                                                                        |                   |                         |                               |                                    |                           |                                                                                       |                          |
| Tightening torque of screws                                                                                                          |                   |                         |                               |                                    |                           |                                                                                       |                          |
|                                                                                                                                      |                   |                         | tightening torque (Nm)        |                                    | tightening torque (lb-in) |                                                                                       |                          |
|                                                                                                                                      |                   |                         | 1,25                          |                                    | 11                        |                                                                                       |                          |
| Stripping length                                                                                                                     |                   |                         |                               |                                    |                           |                                                                                       |                          |
|                                                                                                                                      |                   |                         | Length (mm) --                |                                    |                           |                                                                                       |                          |
|                                                                                                                                      |                   |                         | 9 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                                                                  |                          |
| flexible wire                                                                                                                        | Max.              |                         | 1                             | AWG 10                             |                           | Copper                                                                                |                          |
| flexible wire                                                                                                                        | Max.              |                         | 1                             | 4mm²                               |                           | Copper                                                                                |                          |
| Single-core or stranded wire                                                                                                         | Max.              |                         | 1                             | 6mm²                               |                           | Copper                                                                                |                          |
| Single-core or stranded wire                                                                                                         | Max.              |                         | 1                             | AWG 10                             |                           | Copper                                                                                |                          |
| flexible wire with sleeve                                                                                                            | Max.              |                         | 1                             | 4mm²                               |                           | 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                                                                                                                    |                   |                         | PH2                           |                                    |                           |                                                                                       |                          |
| Slot screwdriver according to DIN 5264                                                                                               |                   |                         | 0,8x4                         |                                    |                           |                                                                                       |                          |
| General Information                                                                                                                  |                   |                         |                               |                                    |                           |                                                                                       |                          |
| Text                                                                                                                                 |                   |                         |                               |                                    |                           |                                                                                       |                          |
| - EMC Note: This device is suitable for use in environment A and B.                                                                  |                   |                         |                               |                                    |                           |                                                                                       |                          |
| - 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.                                                                           |                   |                         |                               |                                    |                           |                                                                                       |                          |

## General Information

### Text

- 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 [www.krausnaimer.com](http://www.krausnaimer.com)

### Proposition 65

#### Picture name Description



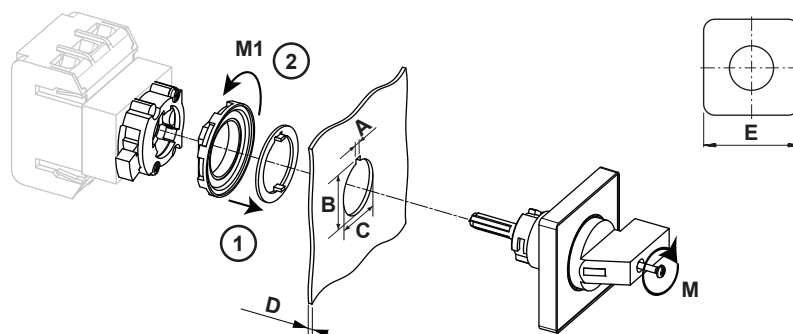
WARNING: This product can expose you to chemicals including nickel and lead, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

## Mounting-FT2



|                      |    |                   |
|----------------------|----|-------------------|
| IP - Code front side |    | IP66, IP67, IP69k |
| Stages               |    | 1,00 - 5,00       |
| A                    | H  | 3,20 mm           |
| A+_tol.              | H  | 0,20 mm           |
| A-_tol.              | H  | 0,00 mm           |
| B                    | H  | 24,10 mm          |
| B+_tol.              | H  | 0,40 mm           |
| B-_tol.              | H  | 0,00 mm           |
| C                    | Ø  | 22,30 mm          |
| C+_tol.              | Ø  | 0,40 mm           |
| C-_tol.              | Ø  | 0,00 mm           |
| D                    | H  | <= 6,00 mm        |
| E                    | □  | 48,00 mm          |
| M                    | M̄ | 0,50 Nm           |
| M1                   | M̄ | 1,80 Nm           |



Wiring diagram

KG20A.T304.FT2



## Switch program

KG20A.T304.FT2



Kraus & Naimer

**KG20A**
**T304**
**Page 1 of 1**

| Face Plate                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |    |    |   |    |    |    |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|---|----|----|----|----|
|                                                                                                                                                                                                                                                                                                                           |     | L1 | L2 | L3 | N |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     | 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 | N |    |    |    |    |
| 0                                                                                                                                                                                                                                                                                                                                                                                                          | 270 |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |
| 1                                                                                                                                                                                                                                                                                                                                                                                                          | 0   | ■  | ■  | ■  | ■ |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | 90  |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | 180 |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |    |    |   |    |    |    |    |

Version: 94

## Face plate

S1.F456/C10.V11H





Sample image

## PADLOCK DEVICE with F-handle ring

**Designation:** S1.V840G/A71/F21

**Colour of F-handle ring:** "A" black

**Colour of face ring:** "7" electro-grey

**Locking position:** "1" at 09:00 (1x90°)

**Type of mounting:** "F" for type of mounting \*FT2 and \*FH3

**Switch type:** "2" for KA-, KG- and KH(R)-switches

**Type of version:** "1" for next smaller switch size (IP65)

