



Sample image

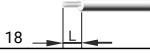
## Datasheet

**Article number:** 70019089

**Designation:** KG160.T204/01.E

**Description:** Switch Global Disconnecter

|                                                                                                                                                              |                          |                          |                                                                    |              |                           |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------------------------------------------------|--------------|---------------------------|--------------------------|
| IEC 60947-3 EN 60947-3, VDE 0660 Teil 107                                                                                                                    |                          |                          |                                                                    |              |                           |                          |
| Rated insulation voltage Ui                                                                                                                                  |                          |                          |                                                                    |              |                           |                          |
| Voltage (V) AC / DC                                                                                                                                          |                          |                          |                                                                    |              |                           |                          |
| 1000 AC                                                                                                                                                      |                          |                          |                                                                    |              |                           |                          |
| Rated uninterrupted current Iu/Ith                                                                                                                           |                          |                          |                                                                    |              |                           |                          |
| Current (A)                                                                                                                                                  | Ambient temperature (°C) | Peak temperature (°C)    | additional requirements                                            |              |                           |                          |
| 160                                                                                                                                                          | 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                 |                                                                    | 160          |                           |                          |
| Rated operational power                                                                                                                                      |                          |                          |                                                                    |              |                           |                          |
| Utilization category                                                                                                                                         | Voltage (V)              | No. of phases            | No. of poles                                                       | Power (kW)   |                           |                          |
| AC-3                                                                                                                                                         | 220 - 240                | 3                        | 3                                                                  | 30           |                           |                          |
| AC-3                                                                                                                                                         | 380 - 440                | 3                        | 3                                                                  | 45           |                           |                          |
| AC-3                                                                                                                                                         | 660 - 690                | 3                        | 3                                                                  | 37           |                           |                          |
| AC-23A                                                                                                                                                       | 220 - 240                | 3                        | 3                                                                  | 30           |                           |                          |
| AC-23A                                                                                                                                                       | 380 - 440                | 3                        | 3                                                                  | 55           |                           |                          |
| AC-23A                                                                                                                                                       | 660 - 690                | 3                        | 3                                                                  | 37           |                           |                          |
| Max. Fuse rating IEC                                                                                                                                         |                          |                          |                                                                    |              |                           |                          |
| Fuse characteristic                                                                                                                                          |                          | No. of Fuses             |                                                                    | Current (A)  |                           |                          |
| gG                                                                                                                                                           |                          | 1                        |                                                                    | 160          |                           |                          |
| 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                                                    |              |                           |                          |
| 200                                                                                                                                                          |                          | 0 - 40                   | ON-OFF switch (Valid when connected with wire rated for 75°C)      |              |                           |                          |
| 160                                                                                                                                                          |                          | 0 - 40                   | Change over switch (Valid when connected with wire rated for 75°C) |              |                           |                          |
| 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            | 10                        | 40                       |
| DOL                                                                                                                                                          |                          | 220 - 240                | 1                                                                  | 2            | 25                        | 40                       |
| DOL                                                                                                                                                          |                          | 277 - 277                | 1                                                                  | 2            | 25                        | 40                       |
| DOL                                                                                                                                                          |                          | 440 - 480                | 1                                                                  | 2            | 40                        | 40                       |
| DOL                                                                                                                                                          |                          | 550 - 600                | 1                                                                  | 2            | 40                        | 40                       |
| DOL                                                                                                                                                          |                          | 110 - 120                | 3                                                                  | 3            | 20                        | 40                       |
| DOL                                                                                                                                                          |                          | 220 - 240                | 3                                                                  | 3            | 40                        | 40                       |
| DOL                                                                                                                                                          |                          | 440 - 480                | 3                                                                  | 3            | 75                        | 40                       |
| DOL                                                                                                                                                          |                          | 440 - 480                | 3                                                                  | 3            | 75                        | 60                       |
| DOL                                                                                                                                                          |                          | 550 - 600                | 3                                                                  | 3            | 60                        | 40                       |
| 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 300A Class J fuses.          |                          |                          |                                                                    |              |                           |                          |
| 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                      | 200                      | 1                                                                  | 1            | 1                         |                          |
| AC                                                                                                                                                           | 600                      | 200                      | 1                                                                  | 2            | 1                         |                          |
| AC                                                                                                                                                           | 600                      | 200                      | 3                                                                  | 3            | 1                         |                          |
| AC double-throw function                                                                                                                                     | 277                      | 160                      | 1                                                                  | 1            | 1                         |                          |
| AC double-throw function                                                                                                                                     | 600                      | 160                      | 1                                                                  | 2            | 1                         |                          |

|                                                                                                                                                                                                                                                                                                        |                   |                               |                                                                                     |              |                           |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------|-------------------------------------------------------------------------------------|--------------|---------------------------|---------------------------------------------------------------------------------------|
| General Use                                                                                                                                                                                                                                                                                            |                   |                               |                                                                                     |              |                           |                                                                                       |
| AC / DC                                                                                                                                                                                                                                                                                                | Voltage (V)       | Current (A)                   | No. of phases                                                                       | No. of poles | No. of contacts in series |                                                                                       |
| AC double-throw function                                                                                                                                                                                                                                                                               | 600               | 160                           | 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. |                   |                               |                                                                                     |              |                           |                                                                                       |
| 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           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |                   | 200                           | 0 - 40                                                                              |              | --                        |                                                                                       |
| Horsepower rating                                                                                                                                                                                                                                                                                      |                   |                               |                                                                                     |              |                           |                                                                                       |
| Across-the-Line Motor Starting                                                                                                                                                                                                                                                                         |                   |                               |                                                                                     | Voltage (V)  | No. of phases             | No. of poles                                                                          |
|                                                                                                                                                                                                                                                                                                        |                   |                               |                                                                                     | 110 - 120    | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 220 - 240    | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 277 - 277    | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 440 - 480    | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 550 - 600    | 1                         | 2                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 110 - 120    | 3                         | 3                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 220 - 240    | 3                         | 3                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 440 - 480    | 3                         | 3                                                                                     |
| DOL                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     | 550 - 600    | 3                         | 3                                                                                     |
|                                                                                                                                                                                                                                                                                                        |                   |                               |                                                                                     |              |                           |                                                                                       |
| 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               | 200                           | 1                                                                                   | 1            | 1                         |                                                                                       |
| AC                                                                                                                                                                                                                                                                                                     | 600               | 200                           | 1                                                                                   | 2            | 1                         |                                                                                       |
| AC                                                                                                                                                                                                                                                                                                     | 600               | 200                           | 3                                                                                   | 3            | 1                         |                                                                                       |
| GENERAL TECHNICAL INFORMATION                                                                                                                                                                                                                                                                          |                   |                               |                                                                                     |              |                           |                                                                                       |
| Size of conductor                                                                                                                                                                                                                                                                                      |                   |                               |                                                                                     |              |                           |                                                                                       |
| composition of conductor                                                                                                                                                                                                                                                                               | Min. / Max. value | No. of conductor per terminal | Cross section (mm²) or (AWG/kcmil)                                                  |              | Material of the wire      |                                                                                       |
| solid wire                                                                                                                                                                                                                                                                                             | Min.              | 1                             | 6mm²                                                                                |              | Copper                    |                                                                                       |
| flexible wire                                                                                                                                                                                                                                                                                          | Max.              | 1                             | 70mm²                                                                               |              | Copper                    |                                                                                       |
| flexible wire                                                                                                                                                                                                                                                                                          | Min.              | 1                             | 16mm²                                                                               |              | Copper                    |                                                                                       |
| flexible wire                                                                                                                                                                                                                                                                                          | Max.              | 1                             | AWG 2/0                                                                             |              | Copper                    |                                                                                       |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           | Max.              | 1                             | 95mm²                                                                               |              | Copper                    |                                                                                       |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           | Max.              | 1                             | AWG 3/0                                                                             |              | Copper                    |                                                                                       |
| flexible wire with sleeve                                                                                                                                                                                                                                                                              | Max.              | 1                             | 70mm²                                                                               |              | Copper                    |                                                                                       |
| flexible wire with ferrule according to DIN 46228                                                                                                                                                                                                                                                      | Min.              | 1                             | 10mm²                                                                               |              | Copper                    |                                                                                       |
| Stripping length                                                                                                                                                                                                                                                                                       |                   |                               |                                                                                     |              |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |                   |                               | Length (mm) --                                                                      |              |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |                   |                               |  |              |                           |                                                                                       |
| Recommended screw driver                                                                                                                                                                                                                                                                               |                   |                               |                                                                                     |              |                           |                                                                                       |
| Type of screw driver                                                                                                                                                                                                                                                                                   | Value             |                               |                                                                                     |              |                           |                                                                                       |
| Hex key                                                                                                                                                                                                                                                                                                | 5                 |                               |                                                                                     |              |                           |                                                                                       |
| Tightening torque of screws                                                                                                                                                                                                                                                                            |                   |                               |                                                                                     |              |                           |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |                   |                               | tightening torque (Nm)                                                              |              | tightening torque (lb-in) |                                                                                       |
|                                                                                                                                                                                                                                                                                                        |                   |                               | 14                                                                                  |              | 125                       |                                                                                       |
| Approbations                                                                                                                                                                                                                                                                                           |                   |                               |                                                                                     |              |                           |                                                                                       |
| Specification                                                                                                                                                                                                                                                                                          |                   |                               |                                                                                     |              |                           | Marking                                                                               |
| EAC                                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     |              |                           |  |
| CE marking                                                                                                                                                                                                                                                                                             |                   |                               |                                                                                     |              |                           |  |
| UK Directives                                                                                                                                                                                                                                                                                          |                   |                               |                                                                                     |              |                           |  |
| CSA C.22.2 No.14                                                                                                                                                                                                                                                                                       |                   |                               |                                                                                     |              |                           |  |
| GB/T14048.3                                                                                                                                                                                                                                                                                            |                   |                               |                                                                                     |              |                           |  |
| General Information                                                                                                                                                                                                                                                                                    |                   |                               |                                                                                     |              |                           |                                                                                       |
| Text                                                                                                                                                                                                                                                                                                   |                   |                               |                                                                                     |              |                           |                                                                                       |
| - FMC Note: This device is suitable for use in environment A and B                                                                                                                                                                                                                                     |                   |                               |                                                                                     |              |                           |                                                                                       |

## General Information

### Text

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

### Waste Electrical & Electronic Equipment (WEEE)

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

### Proposition 65

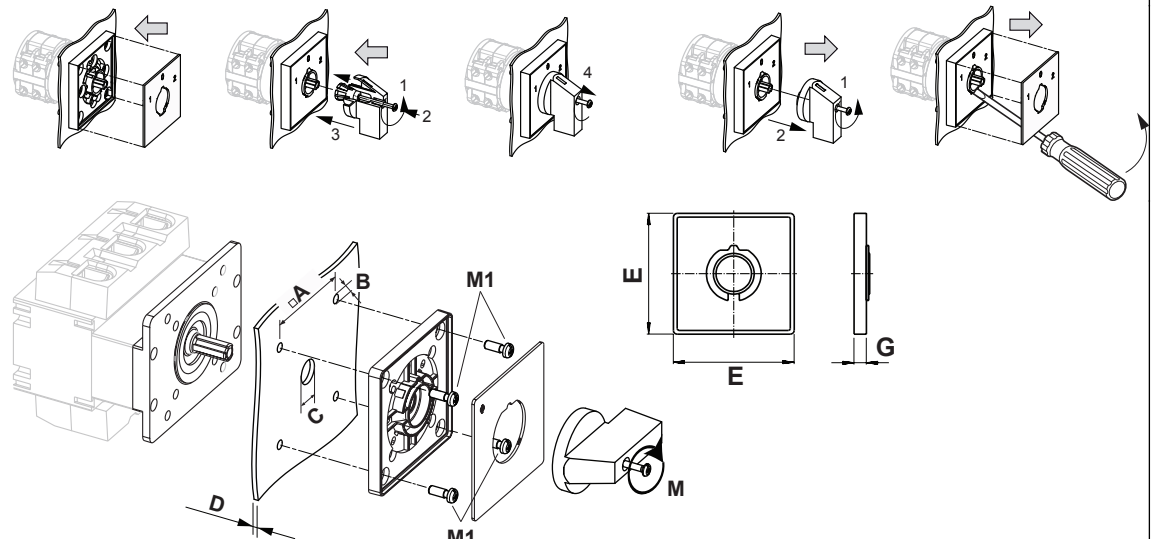
| Picture name                                                                     | Description                                                                                                                                                                                                            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

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

## Mounting-E



|                      |                    |
|----------------------|--------------------|
| IP - Code front side | IP66, IP67         |
| Stages               | 1,00 - 12,00       |
| A                    | □ 68,00 mm         |
| B                    | ∅ 6,00 mm          |
| C                    | ∅ 13,00 - 17,00 mm |
| D                    | H ≤ 5,50 mm        |
| E                    | H 88,00 mm         |
| G                    | H 8,50 mm          |
| M                    | M̄ 1,20 Nm         |
| M1                   | M̄ 1,50 Nm         |



## Switch program

KG160.T304.E



Kraus & Naimer

**KG160**
**T304**

**Page 1 of 1**

| Face Plate                                                                                                                                                             |     |                                                                                   |      |      |   |    |    |    |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------|------|------|---|----|----|----|----|
|                                                                                       | 1   | 1/L1                                                                              | 3/L2 | 5/L3 | N |    |    |    |    |
|                                                                                                                                                                        | 0   | 1                                                                                 | 3    | 5    | 7 | 9  | 11 | 13 | 15 |
|                                                                                                                                                                        |     |  |      |      |   |    |    |    |    |
| 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 |
|                                                                                                                                                                        |     | 2/T1                                                                              | 4/T2 | 6/T3 | N |    |    |    |    |
| 0                                                                                                                                                                      | 270 |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |
| 1                                                                                                                                                                      | 0   | ■                                                                                 | ■    | ■    | ■ |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        | 90  |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        | 180 |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |
|                                                                                                                                                                        |     |                                                                                   |      |      |   |    |    |    |    |

Version: 84

## Face plate

S2.F456/C10.V11





Sample image

## PADLOCK DEVICE

with F-handle ring for type of mounting E, EF, E22, FT, VE, GK, PN, PF, KS (S00)

**Designation:** S2.V840D/D6-E

**Colour of F-handle ring:** "D" red

**Colour of face ring:** "6" yellow

**Type of mounting:** "-E" for type of mounting E for KG125/KG160, KG250/KG315

