



Sample image

## Datasheet

**Article number:** 70019082

**Designation:** KG160.T104/35.STM

**Description:** Switch Global Disconnector

|                                                                                                                                                              |                          |                          |                                                                    |                |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------------------------------------------------|----------------|---------------------------|
| IEC 60947-3 EN 60947-3, VDE 0660 Teil 107                                                                                                                    |                          |                          |                                                                    |                |                           |
| Tension assignée d'isolement Ui                                                                                                                              |                          |                          |                                                                    |                |                           |
| Tension (V) AC / DC                                                                                                                                          |                          |                          |                                                                    |                |                           |
| 1000 AC                                                                                                                                                      |                          |                          |                                                                    |                |                           |
| Courant ininterrompu et thermique conventionnel Iu/Ith                                                                                                       |                          |                          |                                                                    |                |                           |
| Intensité (A)                                                                                                                                                | Température Ambiante (°) | Température Maxi (°)     | Spécification complémentaire                                       |                |                           |
| 160                                                                                                                                                          | 50                       | 55                       | Température ambiante +50°C durant 24 heures avec point à +55°C     |                |                           |
| Courant assigné d'emploi Ie                                                                                                                                  |                          |                          |                                                                    |                |                           |
| Catégorie d'emploi                                                                                                                                           |                          | Tension (V)              |                                                                    | Intensité (A)  |                           |
| AC-32A                                                                                                                                                       |                          | 20 - 400                 |                                                                    | 160            |                           |
| Puissance assignée d'emploi                                                                                                                                  |                          |                          |                                                                    |                |                           |
| Catégorie d'emploi                                                                                                                                           | Tension (V)              | Nb de phases             | Nb de pôles                                                        | Puissance (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             |                           |
| Protection par fusible (IEC)                                                                                                                                 |                          |                          |                                                                    |                |                           |
| Caractéri                                                                                                                                                    |                          | Nombre de fusible        |                                                                    | Intensité (A)  |                           |
| gG                                                                                                                                                           |                          | 1                        |                                                                    | 160            |                           |
| UL60947-4-1 , UL508                                                                                                                                          |                          |                          |                                                                    |                |                           |
| Nominal Voltage                                                                                                                                              |                          |                          |                                                                    |                |                           |
| Tension (V) AC / DC                                                                                                                                          |                          |                          |                                                                    |                |                           |
| 600 AC                                                                                                                                                       |                          |                          |                                                                    |                |                           |
| Tension assignée d'isolement Ui                                                                                                                              |                          |                          |                                                                    |                |                           |
| Tension (V) AC / DC                                                                                                                                          |                          |                          |                                                                    |                |                           |
| 600 AC                                                                                                                                                       |                          |                          |                                                                    |                |                           |
| Rated thermal current                                                                                                                                        |                          |                          |                                                                    |                |                           |
|                                                                                                                                                              | Intensité (A)            | Température Ambiante (°) | 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                                                                                                                               | Tension (V)              | Nb de phases             | Nb de pôles                                                        | 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)                                                                                                                                      |                          | Intensité (A) Text       |                                                                    |                |                           |
| 75                                                                                                                                                           |                          | -- --                    |                                                                    |                |                           |
| General Use                                                                                                                                                  |                          |                          |                                                                    |                |                           |
| AC / DC                                                                                                                                                      | Tension (V)              | Intensité (A)            | Nb de phases                                                       | Nb de pôles    | 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                                                                                                                                                                                                                                                                                                | Tension (V) | Intensité (A)                                                                       | Nb de phases                  | Nb de pôles  | 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                                                                                                                                                                                                                                                                                        |             |                                                                                     |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | Tension (V) AC / DC           |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | 600 AC                        |              |                                    |            |
| Tension assignée d'isolement Ui                                                                                                                                                                                                                                                                        |             |                                                                                     |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | Tension (V) AC / DC           |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | 600 AC                        |              |                                    |            |
| Rated thermal current                                                                                                                                                                                                                                                                                  |             |                                                                                     |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             | Intensité (A)                                                                       | Température Ambiante (°)      |              | Additional Text                    |            |
|                                                                                                                                                                                                                                                                                                        |             | 200                                                                                 | 0 - 40                        |              | --                                 |            |
| Horsepower rating                                                                                                                                                                                                                                                                                      |             |                                                                                     |                               |              |                                    |            |
| Across-the-Line Motor Starting                                                                                                                                                                                                                                                                         |             |                                                                                     | Tension (V)                   | Nb de phases | Nb de pôles                        | Power (HP) |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 110 - 120                     | 1            | 2                                  | 10         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 220 - 240                     | 1            | 2                                  | 25         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 277 - 277                     | 1            | 2                                  | 25         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 440 - 480                     | 1            | 2                                  | 40         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 550 - 600                     | 1            | 2                                  | 40         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 110 - 120                     | 3            | 3                                  | 20         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 220 - 240                     | 3            | 3                                  | 40         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 440 - 480                     | 3            | 3                                  | 75         |
| DOL                                                                                                                                                                                                                                                                                                    |             |                                                                                     | 550 - 600                     | 3            | 3                                  | 60         |
| Temp. rating of wire                                                                                                                                                                                                                                                                                   |             |                                                                                     |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | Temperature rating (°C)       |              | Intensité (A) Text                 |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | 75                            |              | -- --                              |            |
| General Use                                                                                                                                                                                                                                                                                            |             |                                                                                     |                               |              |                                    |            |
| AC / DC                                                                                                                                                                                                                                                                                                | Tension (V) | Intensité (A)                                                                       | Nb de phases                  | Nb de pôles  | 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) |            |
| solid wire                                                                                                                                                                                                                                                                                             |             | Min.                                                                                | 1                             |              | 6mm²                               |            |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Max.                                                                                | 1                             |              | 70mm²                              |            |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Min.                                                                                | 1                             |              | 16mm²                              |            |
| flexible wire                                                                                                                                                                                                                                                                                          |             | Max.                                                                                | 1                             |              | AWG 2/0                            |            |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           |             | Max.                                                                                | 1                             |              | 95mm²                              |            |
| Single-core or stranded wire                                                                                                                                                                                                                                                                           |             | Max.                                                                                | 1                             |              | AWG 3/0                            |            |
| flexible wire with sleeve                                                                                                                                                                                                                                                                              |             | Max.                                                                                | 1                             |              | 70mm²                              |            |
| flexible wire with ferrule according to DIN 46228                                                                                                                                                                                                                                                      |             | Min.                                                                                | 1                             |              | 10mm²                              |            |
| Stripping length                                                                                                                                                                                                                                                                                       |             | Length (mm) --                                                                      |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |  |                               |              |                                    |            |
| Recommandations concernant le tournevis                                                                                                                                                                                                                                                                |             | Value                                                                               |                               |              |                                    |            |
| Type                                                                                                                                                                                                                                                                                                   |             | Clé Allen                                                                           |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             | 5                                                                                   |                               |              |                                    |            |
| Tightening torque of screws                                                                                                                                                                                                                                                                            |             |                                                                                     |                               |              |                                    |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | tightening torque (Nm)        |              | tightening torque (lb-in)          |            |
|                                                                                                                                                                                                                                                                                                        |             |                                                                                     | 14                            |              | 125                                |            |
| Approbations                                                                                                                                                                                                                                                                                           |             |                                                                                     |                               |              |                                    |            |
| Specification                                                                                                                                                                                                                                                                                          |             |                                                                                     |                               |              |                                    |            |
| EAC                                                                                                                                                                                                                                                                                                    |             |                                                                                     |                               |              |                                    |            |
| CE marking                                                                                                                                                                                                                                                                                             |             |                                                                                     |                               |              |                                    |            |
| UK Directives                                                                                                                                                                                                                                                                                          |             |                                                                                     |                               |              |                                    |            |
| CSA C.22.2 No.14                                                                                                                                                                                                                                                                                       |             |                                                                                     |                               |              |                                    |            |
| GB/T14048.3                                                                                                                                                                                                                                                                                            |             |                                                                                     |                               |              |                                    |            |
| General Information                                                                                                                                                                                                                                                                                    |             |                                                                                     |                               |              |                                    |            |
| Text                                                                                                                                                                                                                                                                                                   |             |                                                                                     |                               |              |                                    |            |
| - EMC Note: This device is suitable for use in environment A and B.                                                                                                                                                                                                                                    |             |                                                                                     |                               |              |                                    |            |



## General Information

### Text

- Ne jamais lubrifier ou traiter les contacts.
- Les commutateurs ne peuvent être montés, branchés et mis en service que par une personne qualifiée selon les règles techniques en vigueur.
- Use copper wire only. Do not coat the wire end with tin.
- Les bornes qui ne sont pas supposées être utilisées pour le raccordement de l'appareil sont livrées serrées et ne doivent pas être desserrées. Si toutefois ces bornes sont malgré tout ouvertes accidentellement, vérifier qu'aucun shunt n'est manquant. Le câblage terminé, s'assurer que toutes les bornes sont serrées.

### 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

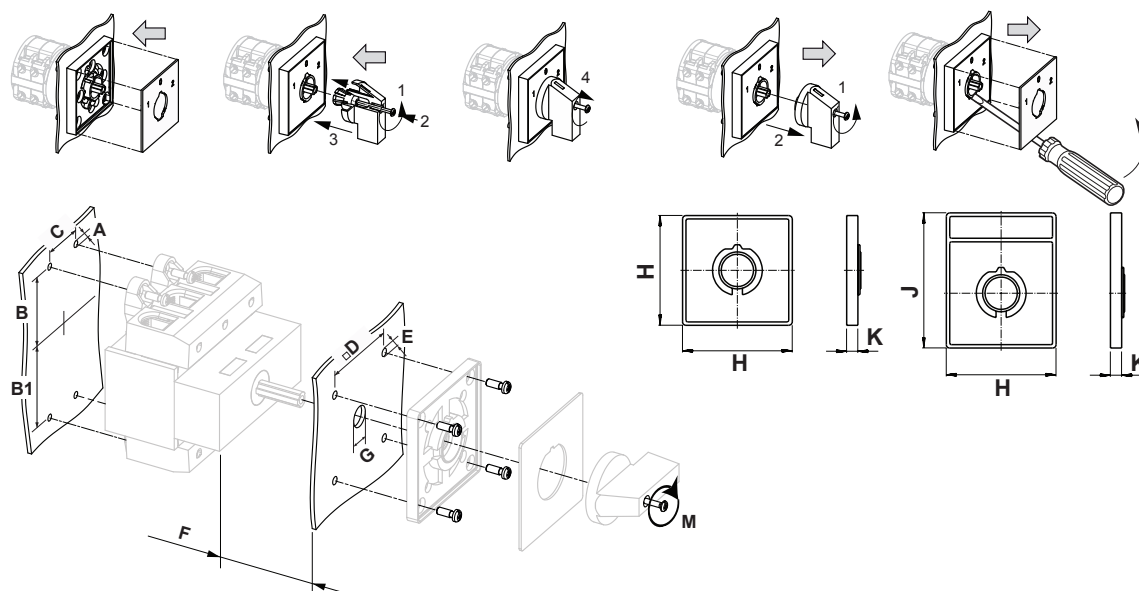
| Picture name                                                                     | Description                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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> . |

Type de contacts: Rigid contact bridge

Revêtement des Contacts: Silver

Types de raccordement: Screw terminal

## Fixation-VE

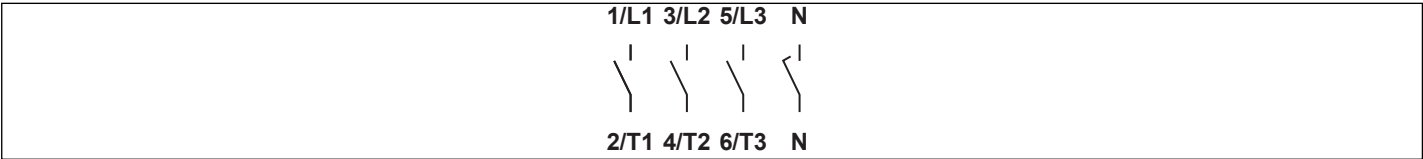


| IP - Code front side | IP40               |
|----------------------|--------------------|
| Stages               | 1,00 - 5,00        |
| A                    | Ø 6,40 mm          |
| B                    | H 59,00 - 61,00 mm |
| B1                   | H 59,00 - 61,00 mm |
| C                    | H 36,00 mm         |
| D                    | □ 68,00 mm         |
| E                    | Ø 6,00 mm          |
| F                    | H ≤ 16,00 mm       |
| G                    | Ø 13,00 - 17,00 mm |
| H                    | H 88,00 mm         |
| J                    | H 124,00 mm        |
| K                    | H 8,50 mm          |
| M                    | M 1,20 Nm          |



Wiring diagram

KG160.T304.VE



## Switch program

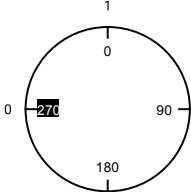
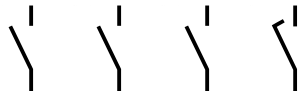
KG160.T304.VE



Kraus & Naimer

**KG160**
**T304**

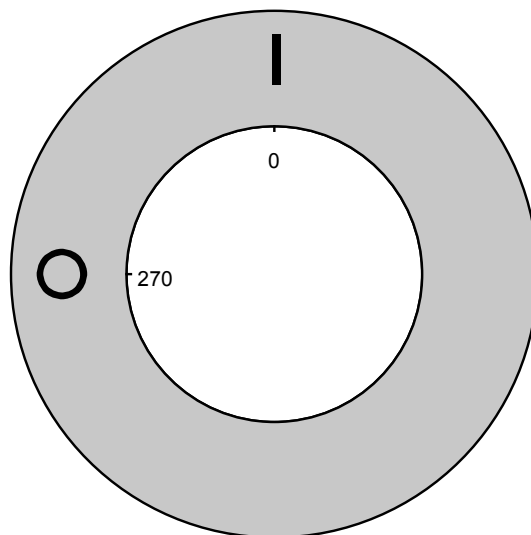
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| Face Plate                                                                                                                                                             |     |                                                                                   |      |      |   |    |    |    |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------|------|------|---|----|----|----|----|
|                                                                                       | 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

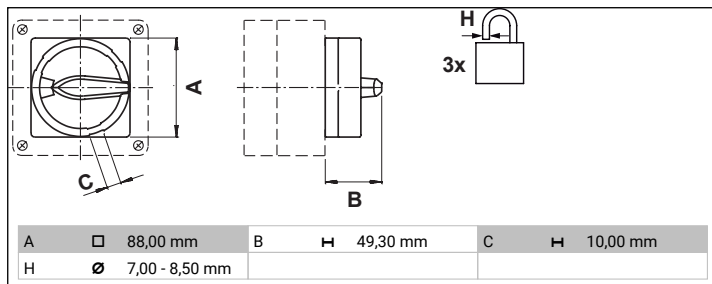
## Face plate

S2.F456/C10.V11





Sample image



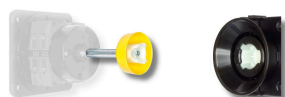
## PADLOCK DEVICE

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

**Designation:** S2.V840D/B7

**Colour of F-handle ring:** "B" electro-grey

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



Sample image

## STANDARD DOOR CLUTCH

with shaft extension/asymmetric profile (with arresting screw)

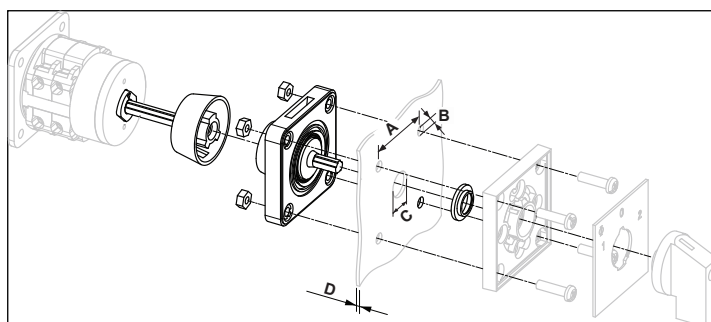
**Designation:** S2.M280E/B21S-EF

**Type of interlock:** "B2" with protected profile and interlock by door clutch

**Shaft length:** "1" 60 - 90 mm

**Application:** "S" for type of mounting VE

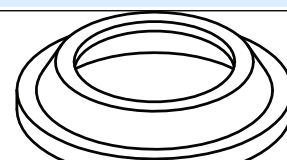
**Type of version:** "-EF" splash proof (IP66/67)



|   |            |   |           |   |                    |
|---|------------|---|-----------|---|--------------------|
| A | □ 68,00 mm | B | ∅ 6,00 mm | C | ∅ 26,00 - 30,00 mm |
| D | H 5,50 mm  |   |           |   |                    |

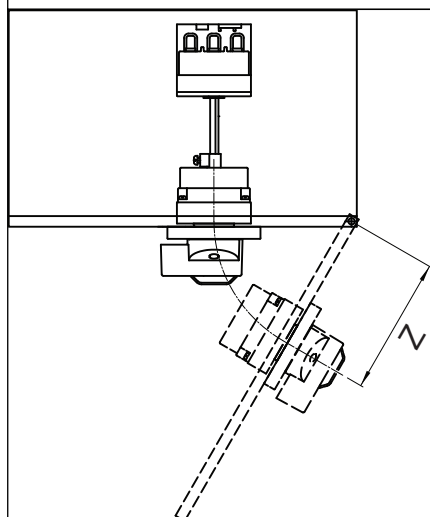


**S2D V840 10**

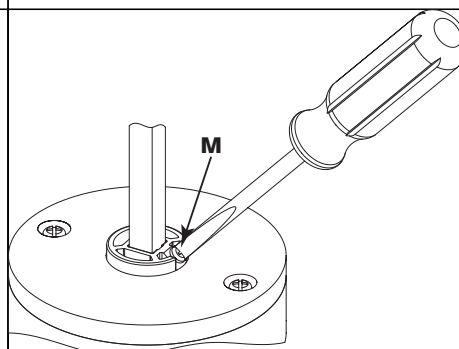


**S3D V840 10**

If S2 V840D or S2/S3 V845 will be applied with M280D, M280E or M280F, separately delivered parts S2D V840 10 resp. S3D V840 10 are not needed.



|   |                |  |  |
|---|----------------|--|--|
| Z | H >= 110,00 mm |  |  |
|---|----------------|--|--|



M  $\vec{M}$  0,80 Nm

1. Loosen the screw
2. Move shaft
3. Tighten the screw