

Sample image

## Datasheet

**Article number:** 70011580

**Designation:** CH10.A210.EF

**Description:** Switch

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

#### Tension assignée d'isolement Ui

Tension (V) AC / DC

690 AC / DC

#### Courant ininterrompu et thermique conventionnel Iu/Ith

Intensité (A) Température Ambiante (°) Température Maxi (°) Spécification complémentaire

20 55 60 Température ambiante +55°C durant 24 heures avec point à +60°C

#### Courant assigné d'emploi Ie

Catégorie d'emploi

Tension (V)

Intensité (A)

AC-15 220 - 240 6

AC-15 380 - 440 4

#### Puissance assignée d'emploi

Catégorie d'emploi

Tension (V)

Nb de phases

Nb de pôles

Puissance (kW)

AC-3 220 - 240 3 3 3

AC-3 380 - 440 3 3 5,50

AC-3 660 - 690 3 3 5,50

AC-3 220 - 240 1 2 2,20

AC-3 380 - 440 1 2 3

AC-23A 220 - 240 3 3 3,70

AC-23A 380 - 440 3 3 7,50

AC-23A 660 - 690 3 3 7,50

AC-23A 220 - 240 1 2 2,50

AC-23A 380 - 440 1 2 3,70

#### Protection par fusible (IEC)

Caractéri

Nombre de fusible

Intensité (A)

gG 1 25

### 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

20

0 - 40

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#### 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 0,50 40

DOL 220 - 240 1 2 1 40

DOL 277 - 277 1 2 2 40

DOL 440 - 480 1 2 2 40

DOL 550 - 600 1 2 2 40

DOL 110 - 120 3 3 1,50 40

DOL 220 - 240 3 3 3 40

DOL 440 - 480 3 3 5 40

DOL 550 - 600 3 3 5 40

#### Pilot duty rating code

Duty Code

A600

#### SCCR / Max. fuse rating

Conditions of acceptability

These devices are suitable for use on circuits capable of delivering not more than 5kA rms symmetrical amperes, 600V ac max. when protected by Class RK1 fuses.

#### Temp. rating of wire

Temperature rating (°C)

Intensité (A) Text

60 - 75

-- Use copper wire only

#### General Use

AC / DC Tension (V) Intensité (A) Nb de phases Nb de pôles No. of contacts in series

AC 277 20 1 1 1

AC 600 20 1 2 1

| General Use                                       |             |                   |                               |             |                                    |             |                      |                          |
|---------------------------------------------------|-------------|-------------------|-------------------------------|-------------|------------------------------------|-------------|----------------------|--------------------------|
| AC / DC                                           | Tension (V) | Intensité (A)     | Nb de phases                  | Nb de pôles | No. of contacts in series          |             |                      |                          |
| AC                                                | 600         | 20                | 3                             | 3           | 1                                  |             |                      |                          |
| 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                    |             |                      |                          |
|                                                   |             | 20                | 0 - 40                        |             | --                                 |             |                      |                          |
| 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           | 0,50                 | 40                       |
| DOL                                               |             |                   |                               | 220 - 240   | 1                                  | 2           | 1                    | 40                       |
| DOL                                               |             |                   |                               | 277 - 277   | 1                                  | 2           | 2                    | 40                       |
| DOL                                               |             |                   |                               | 440 - 480   | 1                                  | 2           | 2                    | 40                       |
| DOL                                               |             |                   |                               | 550 - 600   | 1                                  | 2           | 2                    | 40                       |
| DOL                                               |             |                   |                               | 110 - 120   | 3                                  | 3           | 1,50                 | 40                       |
| DOL                                               |             |                   |                               | 220 - 240   | 3                                  | 3           | 3                    | 40                       |
| DOL                                               |             |                   |                               | 440 - 480   | 3                                  | 3           | 5                    | 40                       |
| DOL                                               |             |                   |                               | 550 - 600   | 3                                  | 3           | 5                    | 40                       |
| Pilot duty rating code                            |             |                   |                               |             |                                    |             |                      |                          |
| Duty Code                                         |             |                   |                               |             |                                    |             |                      |                          |
| A600                                              |             |                   |                               |             |                                    |             |                      |                          |
| 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         | 20                | 1                             | 1           | 1                                  |             |                      |                          |
| AC                                                | 600         | 20                | 1                             | 2           | 1                                  |             |                      |                          |
| AC                                                | 600         | 20                | 3                             | 3           | 1                                  |             |                      |                          |
| GENERAL TECHNICAL INFORMATION                     |             |                   |                               |             |                                    |             |                      |                          |
| Tightening torque of screws                       |             |                   |                               |             |                                    |             |                      |                          |
|                                                   |             |                   | tightening torque (Nm)        |             | tightening torque (lb-in)          |             |                      |                          |
|                                                   |             |                   | 1                             |             | 9                                  |             |                      |                          |
| Stripping length                                  |             |                   |                               |             |                                    |             |                      |                          |
|                                                   |             |                   | Length (mm) --                |             |                                    |             |                      |                          |
|                                                   |             |                   | 9 STRIPPINGLENGTH             |             |                                    |             |                      |                          |
| Size of conductor                                 |             |                   |                               |             |                                    |             |                      |                          |
| composition of conductor                          |             | Min. / Max. value | No. of conductor per terminal |             | Cross section (mm²) or (AWG/kcmil) |             | Material of the wire |                          |
| solid wire                                        |             | Min.              | 1                             |             | 0,75mm²                            |             | Copper               |                          |
| solid wire                                        |             | Min.              | 2                             |             | 0,75mm²                            |             | Copper               |                          |
| flexible wire                                     |             | Min.              | 1                             |             | 0,75mm²                            |             | Copper               |                          |
| flexible wire                                     |             | Min.              | 2                             |             | 0,75mm²                            |             | Copper               |                          |
| flexible wire                                     |             | Max.              | 2                             |             | AWG 12                             |             | Copper               |                          |
| flexible wire                                     |             | Max.              | 2                             |             | 2,5mm²                             |             | Copper               |                          |
| Single-core or stranded wire                      |             | Max.              | 2                             |             | AWG 10                             |             | Copper               |                          |
| Single-core or stranded wire                      |             | Max.              | 2                             |             | 4mm²                               |             | Copper               |                          |
| flexible wire with ferrule according to DIN 46228 |             | Min.              | 1                             |             | 0,75mm²                            |             | Copper               |                          |
| flexible wire with ferrule according to DIN 46228 |             | Min.              | 2                             |             | 0,75mm²                            |             | Copper               |                          |
| flexible wire with ferrule according to DIN 46228 |             | Max.              | 2                             |             | 2,5mm²                             |             | Copper               |                          |
| Approbations                                      |             |                   |                               |             |                                    |             |                      |                          |
| Specification                                     |             |                   |                               |             |                                    |             |                      |                          |
| Marking                                           |             |                   |                               |             |                                    |             |                      |                          |
| EAC                                               |             |                   |                               |             |                                    |             |                      |                          |
| CE marking                                        |             |                   |                               |             |                                    |             |                      |                          |
| UK Directives                                     |             |                   |                               |             |                                    |             |                      |                          |
| CSA C.22.2 No.14                                  |             |                   |                               |             |                                    |             |                      |                          |
| GB/T14048.3                                       |             |                   |                               |             |                                    |             |                      |                          |
| Recommandations concernant le tournevis           |             |                   |                               |             |                                    |             |                      |                          |
| Type                                              |             |                   | Value                         |             |                                    |             |                      |                          |
| Tournevis cruciforme                              |             |                   | PH1                           |             |                                    |             |                      |                          |
| Slot screwdriver according to DIN 5264            |             |                   | 0,8x4                         |             |                                    |             |                      |                          |
| General Information                               |             |                   |                               |             |                                    |             |                      |                          |
| Text                                              |             |                   |                               |             |                                    |             |                      |                          |
| - Ne jamais lubrifier ou traiter les contacts.    |             |                   |                               |             |                                    |             |                      |                          |

## General Information

### Text

- 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.
- Après mise en place des les commutateurs l'espace entre bornes doit être suffisant pour répondre aux exigences des normes en vigueur.

## 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

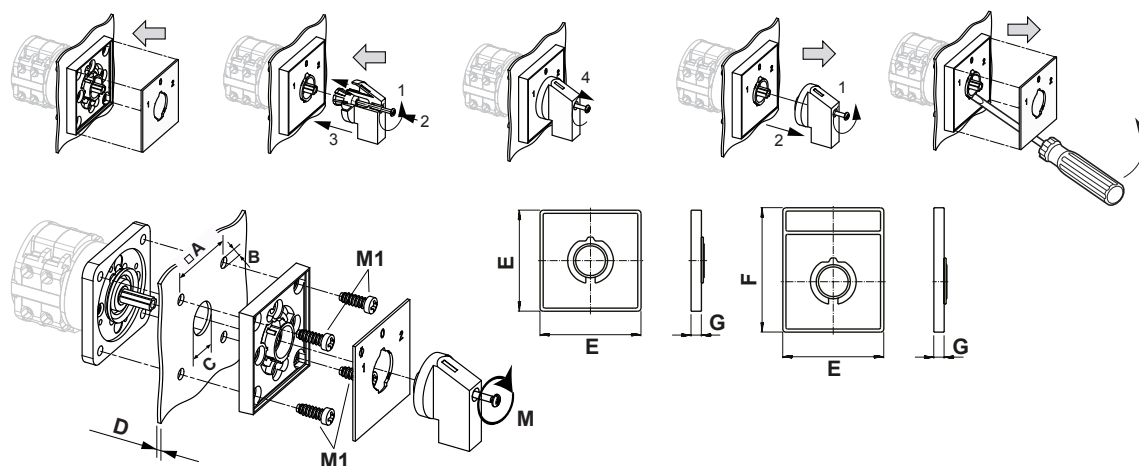
| Picture name                                                                     | Description                                                                                                                                                                                                            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

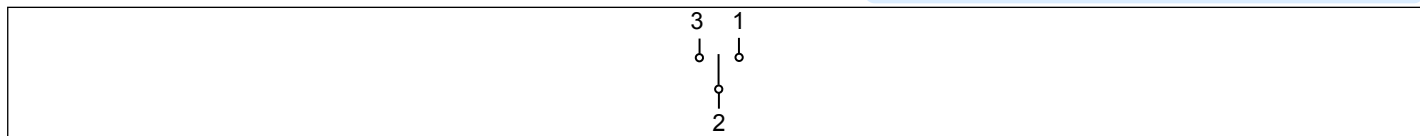
## Fixation-EF



|                      |    |                   |
|----------------------|----|-------------------|
| IP - Code front side |    | IP66, IP67, IP69k |
| Stages               |    | 1,00 - 12,00      |
| A                    | □  | 36,00 mm          |
| B                    | ∅  | 5,00 mm           |
| C                    | ∅  | 15,00 - 19,00 mm  |
| D                    | H  | <= 4,00 mm        |
| E                    | H  | 48,00 mm          |
| F                    | H  | 59,00 mm          |
| G                    | H  | 6,70 mm           |
| M                    | M̂ | 0,50 Nm           |
| M1                   | M̂ | 0,90 Nm           |

## Wiring diagram

CH10.A210.EF



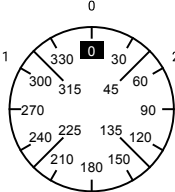
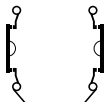
## Switch program

CH10.A210.EF



Kraus & Naimer

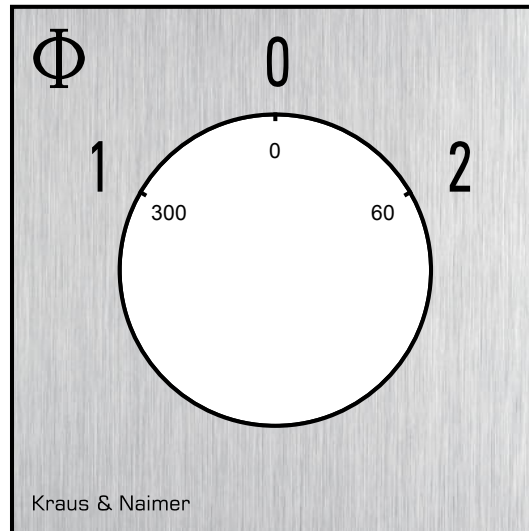
CH10
A210
Page 1 of 1

| Face Plate                                                                                                                                                              |     |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------|---|---|---|----|----|----|----|----|----|----|----|
|                                                                                        |     |  |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         |     | 1                                                                                 | 3 | 5 | 7 | 9  | 11 | 13 | 15 | 17 | 19 | 21 | 23 |
| Switching Angle <span style="border: 1px solid black; padding: 2px;">60</span><br>Total switching Angle <span style="border: 1px solid black; padding: 2px;">120</span> |     | 2                                                                                 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 1                                                                                                                                                                       | 300 | ■                                                                                 |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 315 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 330 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 345 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
| 0                                                                                                                                                                       | 0   |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 15  |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 30  |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 45  |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
| 2                                                                                                                                                                       | 60  | ■                                                                                 |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 75  |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 90  |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 105 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 120 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 135 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 150 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 165 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 180 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 195 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 210 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 225 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 240 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 255 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 270 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |
|                                                                                                                                                                         | 285 |                                                                                   |   |   |   |    |    |    |    |    |    |    |    |

Version: 102

## Face plate

S0.F071/A1B.PEL



## HANDLES

**Designation:** S0C.G251

**Handle colour:** "1" black

