



Sample image

## Datasheet

**Article number:** 70002238

**Designation:** CA10.A211.PN1

**Description:** Switch

|                                                                                                                                                                                                                                                                                                                                                                                                          |  |                          |                         |                                                                  |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------|-------------------------|------------------------------------------------------------------|---------------------|
| IEC 60947-3 EN 60947-3, VDE 0660 Teil 107                                                                                                                                                                                                                                                                                                                                                                |  |                          |                         |                                                                  |                     |
| Rated insulation voltage Ui                                                                                                                                                                                                                                                                                                                                                                              |  |                          |                         |                                                                  |                     |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                                                                                                                      |  |                          |                         |                                                                  |                     |
| 690 AC / DC                                                                                                                                                                                                                                                                                                                                                                                              |  |                          |                         |                                                                  |                     |
| Rated impulse withstand voltage Uimp                                                                                                                                                                                                                                                                                                                                                                     |  |                          |                         |                                                                  |                     |
| Voltage (kV)                                                                                                                                                                                                                                                                                                                                                                                             |  | Overvoltage category     | Pollution degree        | Supply system                                                    | Function            |
| 4 III                                                                                                                                                                                                                                                                                                                                                                                                    |  |                          | 3                       | Valid for lines with grounded common neutral termination         | Switch disconnecter |
| Rated uninterrupted current Iu/Ith                                                                                                                                                                                                                                                                                                                                                                       |  |                          |                         |                                                                  |                     |
| Current (A)                                                                                                                                                                                                                                                                                                                                                                                              |  | Ambient temperature (°C) | Peak temperature (°C)   | additional requirements                                          |                     |
| 20                                                                                                                                                                                                                                                                                                                                                                                                       |  | 55                       | 60                      | Ambient temperature +55°C during 24 hours with peaks up to +60°C |                     |
| Rated operational current Ie                                                                                                                                                                                                                                                                                                                                                                             |  |                          |                         |                                                                  |                     |
| Utilization category                                                                                                                                                                                                                                                                                                                                                                                     |  |                          | Voltage (V)             |                                                                  | Current (A)         |
| AC-15                                                                                                                                                                                                                                                                                                                                                                                                    |  |                          | 220 - 240               |                                                                  | 6                   |
| AC-15                                                                                                                                                                                                                                                                                                                                                                                                    |  |                          | 380 - 440               |                                                                  | 4                   |
| Rated operational power                                                                                                                                                                                                                                                                                                                                                                                  |  |                          |                         |                                                                  |                     |
| Utilization category                                                                                                                                                                                                                                                                                                                                                                                     |  | Voltage (V)              | No. of phases           | No. of poles                                                     | Power (kW)          |
| AC-3                                                                                                                                                                                                                                                                                                                                                                                                     |  | 220 - 240                | 3                       | 3                                                                | 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                |
| Max Fuse Rating IEC                                                                                                                                                                                                                                                                                                                                                                                      |  |                          |                         |                                                                  |                     |
| Fuse characteristic                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | No. of Fuses            |                                                                  | Current (A)         |
| gG                                                                                                                                                                                                                                                                                                                                                                                                       |  |                          | 1                       |                                                                  | 25                  |
| UL60947-4-1 , UL508                                                                                                                                                                                                                                                                                                                                                                                      |  |                          |                         |                                                                  |                     |
| Nominal Voltage                                                                                                                                                                                                                                                                                                                                                                                          |  |                          |                         |                                                                  |                     |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                                                                                                                      |  |                          |                         |                                                                  |                     |
| 300 AC / DC                                                                                                                                                                                                                                                                                                                                                                                              |  |                          |                         |                                                                  |                     |
| Rated insulation voltage Ui                                                                                                                                                                                                                                                                                                                                                                              |  |                          |                         |                                                                  |                     |
| Voltage (V) AC / DC                                                                                                                                                                                                                                                                                                                                                                                      |  |                          |                         |                                                                  |                     |
| 300 AC                                                                                                                                                                                                                                                                                                                                                                                                   |  |                          |                         |                                                                  |                     |
| Rated thermal current                                                                                                                                                                                                                                                                                                                                                                                    |  |                          |                         |                                                                  |                     |
| Current (A)                                                                                                                                                                                                                                                                                                                                                                                              |  | Ambient temperature (°C) |                         | Additional Text                                                  |                     |
| 20                                                                                                                                                                                                                                                                                                                                                                                                       |  | 0 - 40                   |                         | --                                                               |                     |
| Horsepower rating                                                                                                                                                                                                                                                                                                                                                                                        |  |                          |                         |                                                                  |                     |
| Across-the-Line Motor Starting                                                                                                                                                                                                                                                                                                                                                                           |  |                          | Voltage (V)             | No. of phases                                                    | No. of poles        |
| Reversing                                                                                                                                                                                                                                                                                                                                                                                                |  |                          | 110 - 120               | 1                                                                | 2                   |
| Reversing                                                                                                                                                                                                                                                                                                                                                                                                |  |                          | 220 - 240               | 1                                                                | 2                   |
| Reversing                                                                                                                                                                                                                                                                                                                                                                                                |  |                          | 277 - 277               | 1                                                                | 2                   |
| Reversing                                                                                                                                                                                                                                                                                                                                                                                                |  |                          | 110 - 120               | 3                                                                | 3                   |
| Reversing                                                                                                                                                                                                                                                                                                                                                                                                |  |                          | 220 - 240               | 3                                                                | 3                   |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | 110 - 120               | 1                                                                | 2                   |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | 220 - 240               | 1                                                                | 2                   |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | 277 - 277               | 1                                                                | 2                   |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | 110 - 120               | 3                                                                | 3                   |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                      |  |                          | 220 - 240               | 3                                                                | 3                   |
| Pilot duty rating code                                                                                                                                                                                                                                                                                                                                                                                   |  |                          |                         |                                                                  |                     |
| Duty Code                                                                                                                                                                                                                                                                                                                                                                                                |  |                          |                         |                                                                  |                     |
| A300                                                                                                                                                                                                                                                                                                                                                                                                     |  |                          |                         |                                                                  |                     |
| SCCR / Max. fuse rating                                                                                                                                                                                                                                                                                                                                                                                  |  |                          |                         |                                                                  |                     |
| Conditions of acceptability                                                                                                                                                                                                                                                                                                                                                                              |  |                          |                         |                                                                  |                     |
| These devices are suitable for use on circuits capable of delivering not more than 5000 rms symmetrical amperes, 600V ac max. when protected by Class RK1 fuses. Manual Motor Controllers when intended for use as a motor disconnecter are suitable for use on a circuit capable of delivering not more than 5000 rms symmetrical amperes, 600V ac max. when protected by 30A Class J time delay fuses. |  |                          |                         |                                                                  |                     |
| Temp. rating of wire                                                                                                                                                                                                                                                                                                                                                                                     |  |                          |                         |                                                                  |                     |
| Temperature rating (°C)                                                                                                                                                                                                                                                                                                                                                                                  |  |                          | Current (A) Text        |                                                                  |                     |
| 60 - 75                                                                                                                                                                                                                                                                                                                                                                                                  |  |                          | -- Use copper wire only |                                                                  |                     |

### Connecting instructions

### Markings

When intended for use as a motor disconnecter the device shall be provided with a method of being locked in the OFF-position.

|             |
|-------------|
| General Use |
|-------------|

| AC / DC | Voltage (V) | Current (A) | No. of phases | No. of poles | No. of contacts in series |
|---------|-------------|-------------|---------------|--------------|---------------------------|
| AC      | 300         | 20          | 1             | 2            | 1                         |
| AC      | 300         | 20          | 3             | 3            | 1                         |

## CSA

|                        |       |
|------------------------|-------|
| <b>Nominal Voltage</b> | 1.2 V |
|------------------------|-------|

|             |         |
|-------------|---------|
| Voltage (V) | AC / DC |
| 300         | AC      |

|                                |  |
|--------------------------------|--|
| Rated insulation voltage $U_i$ |  |
|--------------------------------|--|

|  |             |         |
|--|-------------|---------|
|  | Voltage (V) | AC / DC |
|  | 300         | AC      |

|                       |       |
|-----------------------|-------|
| Rated thermal current | 100 A |
|-----------------------|-------|

| Current (A) | Ambient temperature (°C) | Additional Text |
|-------------|--------------------------|-----------------|
| 20          | 0 - 40                   | --              |

|                   |
|-------------------|
| Horsepower rating |
|-------------------|

| Across-the-Line Motor Starting | Voltage (V) | No. of phases | No. of poles | Power (HP) | Ambient temperature [°C] |
|--------------------------------|-------------|---------------|--------------|------------|--------------------------|
| DOL                            | 110 - 120   | 1             | 2            | 0,50       | 40                       |
| DOL                            | 220 - 240   | 1             | 2            | 1          | 40                       |
| DOL                            | 277 - 277   | 1             | 2            | 2          | 40                       |
| DOL                            | 110 - 120   | 3             | 3            | 1,50       | 40                       |
| DOL                            | 220 - 240   | 3             | 3            | 3          | 40                       |

|                               |
|-------------------------------|
| <b>Pilot duty rating code</b> |
|-------------------------------|

|                  |  |
|------------------|--|
| <i>Duty Code</i> |  |
|------------------|--|

A300

## Temp. rating of wire

| Temperature rating (°C) | Current (A) | Text |
|-------------------------|-------------|------|
| 75                      | –           | only |

## General Use

| AC / DC | Voltage (V) | Current (A) | No. of phases | No. of poles | No. of contacts in series |
|---------|-------------|-------------|---------------|--------------|---------------------------|
| AC      | 300         | 20          | 1             | 1            | 1                         |

## GENERAL TECHNICAL INFORMATION

## Size of conductor

| composition of conductor                          | Min. / Max. value | No. of conductor per terminal | Cross section (mm <sup>2</sup> ) or (AWG/kcmil) | Material of the wire |
|---------------------------------------------------|-------------------|-------------------------------|-------------------------------------------------|----------------------|
| solid wire                                        | Min.              | 1                             | 0.5mm <sup>2</sup>                              | Copper               |
| solid wire                                        | Min.              | 2                             | 0.5mm <sup>2</sup>                              | Copper               |
| flexible wire                                     | Min.              | 1                             | 0.75mm <sup>2</sup>                             | Copper               |
| flexible wire                                     | Min.              | 2                             | 0.75mm <sup>2</sup>                             | Copper               |
| flexible wire                                     | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire                                     | Max.              | 2                             | AWG 14                                          | Copper               |
| Single-core or stranded wire                      | Max.              | 2                             | AWG 12                                          | Copper               |
| Single-core or stranded wire                      | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228 | Min.              | 1                             | 0.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228 | Max.              | 2                             | 2.5mm <sup>2</sup>                              | Copper               |
| flexible wire with ferrule according to DIN 46228 | Min.              | 2                             | 0.5mm <sup>2</sup>                              | Copper               |

## Stripping length

Length (mm) --

8

**Recommended screw driver**

|                                        |       |
|----------------------------------------|-------|
| Type of screw driver                   | Value |
| Cross Screwdriver                      | PH1   |
| Slot screwdriver according to DIN 5264 | 0,8x4 |

### Tightening torque of screws

|  | tightening torque (Nm) | tightening torque (lb-in) |
|--|------------------------|---------------------------|
|  | 0,60                   | 5                         |

## Approbations

| Specification    | Marking                                                                                              |
|------------------|------------------------------------------------------------------------------------------------------|
| EAC              |                 |
| CE marking       |                 |
| UK Directives    |                 |
| CSA C.22.2 No.14 |                 |
| GB/T14048.3      | <br>GB/T14048.3 |

### General Information

## Text

- Do not lubricate or treat contacts.

## General Information

### Text

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

### Waste Electrical & Electronic Equipment (WEEE)

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

### Proposition 65

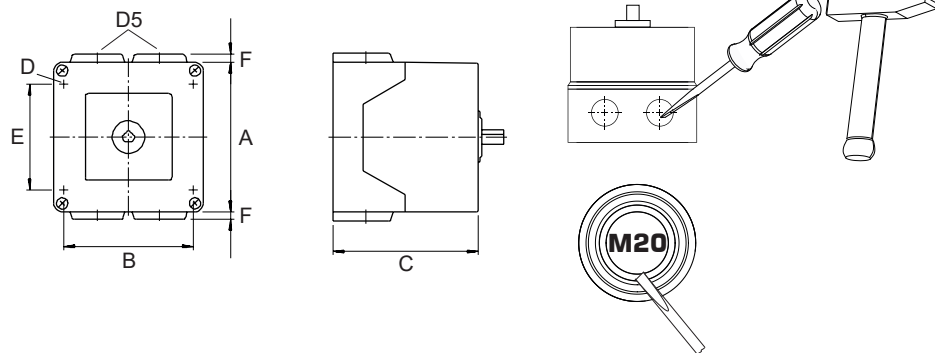
| Picture name                                                                     | Description                                                                                                                                                                                                            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

Classification Contact: Rigid contact bridge

Classification Contact Mat: Silver

Classification Terminal: Screw terminal

## Mounting-PN1

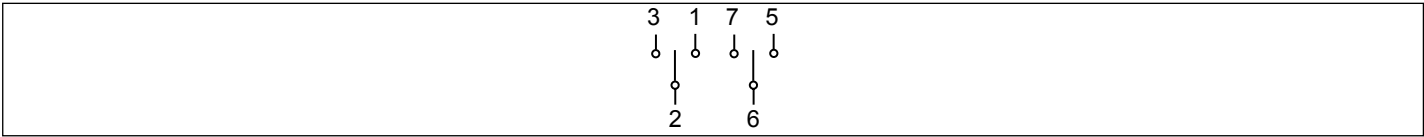


| IP - Code front side |   | IP42        |
|----------------------|---|-------------|
| Stages               |   | 2,00 - 2,00 |
| A                    | □ | 64,00 mm    |
| B                    | H | 50,00 mm    |
| C                    | H | 45,80 mm    |
| D                    | Ø | 4,40 mm     |
| D5                   | Ø | 4,00 x M20  |
| E                    | H | 36,00 mm    |
| F                    | H | 4,00 mm     |



Wiring diagram

CA10.A211.PN1



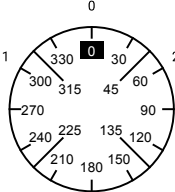
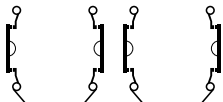
## Switch program

CA10.A211.PN1



Kraus & Naimer

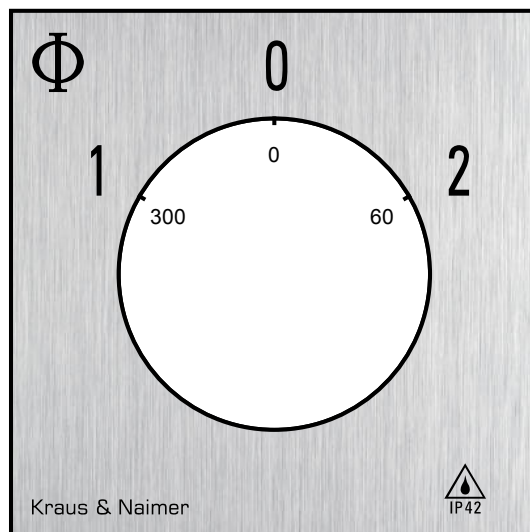
CA10
A211
Page 1 of 1

| 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: 111

## Face plate

S0.F071/A10.PNL



## HANDLES

**Designation:** S0C.G257

**Handle colour:** "7" electro grey

