



Symbolbild

## Datenblatt

**Artikelnummer:** 70020698

**Bezeichnung:** CA20B.A-2963.E.AT21

**Beschreibung:** Schalter

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

#### Bemessungsisolationsspannung $U_i$

Spannung (V) AC / DC  
690 50/60Hz/DC

#### Bemessungsdauerstrom $I_u$ /Ith

| Strom (A) | Umgebungstemperatur (°C) | Temperaturspitzen (°C) | zusätzliche Bedingungen                                         |
|-----------|--------------------------|------------------------|-----------------------------------------------------------------|
| 25        | 55                       | 60                     | Umgebungstemperatur +55°C über 24 Stunden mit Spitzen bis +60°C |

#### Bemessungsbetriebsstrom $I_e$

| Gebrauchskategorie | Spannung (V) | Strom (A) |
|--------------------|--------------|-----------|
| AC-15              | 220 - 240    | 8         |
| AC-15              | 380 - 440    | 5         |

#### Bemessungsbetriebsleistung

| Gebrauchskategorie | Spannung (V) | Phasenanzahl | Polanzahl | Leistung (kW) |
|--------------------|--------------|--------------|-----------|---------------|
| AC-3               | 220 - 240    | 3            | 3         | 4             |
| AC-3               | 380 - 440    | 3            | 3         | 7,50          |
| AC-3               | 660 - 690    | 3            | 3         | 7,50          |
| AC-3               | 220 - 240    | 1            | 2         | 3             |
| AC-3               | 380 - 440    | 1            | 2         | 3,70          |
| AC-23A             | 220 - 240    | 3            | 3         | 5,50          |
| AC-23A             | 380 - 440    | 3            | 3         | 11            |
| AC-23A             | 660 - 690    | 3            | 3         | 11            |
| AC-23A             | 220 - 240    | 1            | 2         | 3             |
| AC-23A             | 380 - 440    | 1            | 2         | 5,50          |

#### Max. Sicherungsnennstrom IEC

| Sicherungscharakteristik | Sicherungsanzahl | Strom (A) |
|--------------------------|------------------|-----------|
| gG                       | 1                | 35        |

#### Geprüfte AC und DC Werte

| Gebrauchskategorie / Zeitkonstante | Anzahl der Kontakte in Serie | Aus- bzw. Umschalter | Spannung (V) AC / DC | Strom (A) |
|------------------------------------|------------------------------|----------------------|----------------------|-----------|
| DC-13                              | 1                            | ON - OFF             | 24 DC                | 4         |
| DC-13                              | 1                            | ON - OFF             | 220 DC               | 0,35      |
| DC-21A                             | 1                            | ON - OFF             | 24 DC                | 25        |
| DC-21A                             | 1                            | ON - OFF             | 220 DC               | 1         |
| DC-23A                             | 1                            | ON - OFF             | 24 DC                | 25        |
| DC-23A                             | 1                            | ON - OFF             | 220 DC               | 0,20      |

### UL60947-4-1, UL508

#### Nominal Voltage

Voltage (V) AC / DC  
600 AC

#### Rated insulation voltage $U_i$

Voltage (V) AC / DC  
600 AC

#### Rated thermal current

| Current (A) | Ambient temperature (°C) | Additional Text |
|-------------|--------------------------|-----------------|
| 30          | 0 - 40                   | –               |

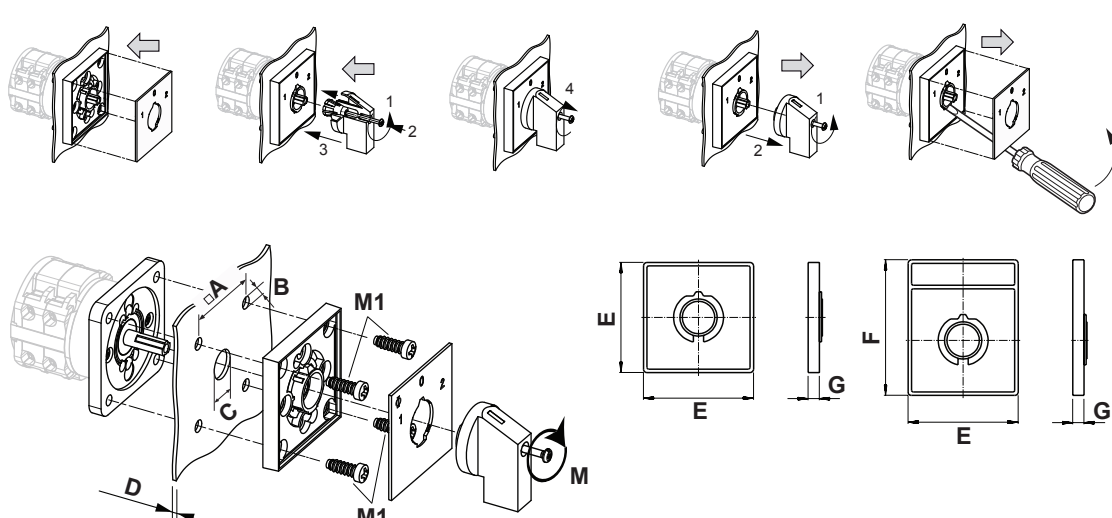
#### Horsepower rating

| Across-the-Line Motor Starting | Voltage (V) | No. of phases | No. of poles | Power (HP) | Ambient temperature [°C] |
|--------------------------------|-------------|---------------|--------------|------------|--------------------------|
| Reversing                      | 110 - 120   | 1             | 2            | 0,33       | 40                       |
| Reversing                      | 220 - 240   | 1             | 2            | 0,75       | 40                       |
| Reversing                      | 277 - 277   | 1             | 2            | 1          | 40                       |
| Reversing                      | 415 - 415   | 1             | 2            | 1,50       | 40                       |
| Reversing                      | 440 - 480   | 1             | 2            | 2          | 40                       |
| Reversing                      | 550 - 600   | 1             | 2            | 2          | 40                       |
| Reversing                      | 110 - 120   | 3             | 3            | 1          | 40                       |
| Reversing                      | 220 - 240   | 3             | 3            | 2          | 40                       |
| Reversing                      | 415 - 415   | 3             | 3            | 3          | 40                       |
| Reversing                      | 440 - 480   | 3             | 3            | 5          | 40                       |
| Reversing                      | 550 - 600   | 3             | 3            | 5          | 40                       |

|                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                                             |                                     |                                                           |                                     |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------|-------------------------------------|-----------------------------------------------------------|-------------------------------------|----------------------|
| <b>Horsepower rating</b>                                                                                                                                                                                                                                                                                                                                                                               |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Across-the-Line Motor Starting</i>                                                                                                                                                                                                                                                                                                                                                                  |                         |                                             |                                     |                                                           |                                     |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <i>Voltage (V)</i>      | <i>No. of phases</i>                        | <i>No. of poles</i>                 | <i>Power (HP)</i>                                         | <i>Ambient temperature [°C]</i>     |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 110 - 120               | 1                                           | 2                                   | 1,50                                                      | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 220 - 240               | 1                                           | 2                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 277 - 277               | 1                                           | 2                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 415 - 415               | 1                                           | 2                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 440 - 480               | 1                                           | 2                                   | 5                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 550 - 600               | 1                                           | 2                                   | 5                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 110 - 120               | 3                                           | 3                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 220 - 240               | 3                                           | 3                                   | 7,50                                                      | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 415 - 415               | 3                                           | 3                                   | 7,50                                                      | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 440 - 480               | 3                                           | 3                                   | 10                                                        | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 550 - 600               | 3                                           | 3                                   | 10                                                        | 40                                  |                      |
| <b>Pilot duty rating code</b>                                                                                                                                                                                                                                                                                                                                                                          |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Duty Code</i>                                                                                                                                                                                                                                                                                                                                                                                       |                         |                                             |                                     |                                                           |                                     |                      |
| A600                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                                             |                                     |                                                           |                                     |                      |
| <b>SCCR / Max. fuse rating</b>                                                                                                                                                                                                                                                                                                                                                                         |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Conditions of acceptability</i>                                                                                                                                                                                                                                                                                                                                                                     |                         |                                             |                                     |                                                           |                                     |                      |
| 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 disconnect 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. |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Temp. rating of wire</b>                                                                                                                                                                                                                                                                                                                                                                            |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Temperature rating (°C)</i>                                                                                                                                                                                                                                                                                                                                                                         |                         |                                             | <i>Current (A) Text</i>             |                                                           |                                     |                      |
| 75                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                                             | – Use copper wire only              |                                                           |                                     |                      |
| <b>Connecting instructions</b>                                                                                                                                                                                                                                                                                                                                                                         |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Markings</i>                                                                                                                                                                                                                                                                                                                                                                                        |                         |                                             |                                     |                                                           |                                     |                      |
| When intended for use as a motor disconnect the device shall be provided with a method of being locked in the OFF-position.                                                                                                                                                                                                                                                                            |                         |                                             |                                     |                                                           |                                     |                      |
| <b>General Use</b>                                                                                                                                                                                                                                                                                                                                                                                     |                         |                                             |                                     |                                                           |                                     |                      |
| <i>AC / DC</i>                                                                                                                                                                                                                                                                                                                                                                                         | <i>Voltage (V)</i>      | <i>Current (A)</i>                          | <i>No. of phases</i>                | <i>No. of poles</i>                                       | <i>No. of contacts in series</i>    |                      |
| AC                                                                                                                                                                                                                                                                                                                                                                                                     | 600                     | 30                                          | 1                                   | 2                                                         | 1                                   |                      |
| AC                                                                                                                                                                                                                                                                                                                                                                                                     | 600                     | 30                                          | 3                                   | 3                                                         | 1                                   |                      |
| <b>CSA</b>                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Nominal Voltage</b>                                                                                                                                                                                                                                                                                                                                                                                 |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Spannung (V) AC / DC</i>                                                                                                                                                                                                                                                                                                                                                                            |                         |                                             |                                     |                                                           |                                     |                      |
| 600 AC                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Bemessungsisolationsspannung Ui</b>                                                                                                                                                                                                                                                                                                                                                                 |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Spannung (V) AC / DC</i>                                                                                                                                                                                                                                                                                                                                                                            |                         |                                             |                                     |                                                           |                                     |                      |
| 600 AC                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Rated thermal current</b>                                                                                                                                                                                                                                                                                                                                                                           |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Strom (A)</i>                                                                                                                                                                                                                                                                                                                                                                                       |                         | <i>Umgebungstemperatur (°C) Zusatz Text</i> |                                     |                                                           |                                     |                      |
| 30                                                                                                                                                                                                                                                                                                                                                                                                     |                         | 0 - 40 –                                    |                                     |                                                           |                                     |                      |
| <b>Horsepower rating</b>                                                                                                                                                                                                                                                                                                                                                                               |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Across-the-Line Motor Starting</i>                                                                                                                                                                                                                                                                                                                                                                  |                         |                                             |                                     |                                                           |                                     |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <i>Spannung (V)</i>     | <i>Phasenanzahl</i>                         | <i>Polanzahl</i>                    | <i>Leistung (HP)</i>                                      | <i>Umgebungstemperatur [°C]</i>     |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 110 - 120               | 1                                           | 2                                   | 1,50                                                      | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 220 - 240               | 1                                           | 2                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 277 - 277               | 1                                           | 2                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 415 - 415               | 1                                           | 2                                   | 5                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 440 - 480               | 1                                           | 2                                   | 5                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 550 - 600               | 1                                           | 2                                   | 5                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 110 - 120               | 3                                           | 3                                   | 3                                                         | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 220 - 240               | 3                                           | 3                                   | 7,50                                                      | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 415 - 415               | 3                                           | 3                                   | 10                                                        | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 440 - 480               | 3                                           | 3                                   | 10                                                        | 40                                  |                      |
| DOL                                                                                                                                                                                                                                                                                                                                                                                                    | 550 - 600               | 3                                           | 3                                   | 10                                                        | 40                                  |                      |
| <b>Pilot duty rating code</b>                                                                                                                                                                                                                                                                                                                                                                          |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Duty Code</i>                                                                                                                                                                                                                                                                                                                                                                                       |                         |                                             |                                     |                                                           |                                     |                      |
| A600                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Temp. rating of wire</b>                                                                                                                                                                                                                                                                                                                                                                            |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Temperature Rating (°C)</i>                                                                                                                                                                                                                                                                                                                                                                         |                         |                                             | <i>Strom (A) Text</i>               |                                                           |                                     |                      |
| 75                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                                             | – only                              |                                                           |                                     |                      |
| <b>General Use</b>                                                                                                                                                                                                                                                                                                                                                                                     |                         |                                             |                                     |                                                           |                                     |                      |
| <i>AC / DC</i>                                                                                                                                                                                                                                                                                                                                                                                         | <i>Spannung (V)</i>     | <i>Strom (A)</i>                            | <i>Phasenanzahl</i>                 | <i>Polanzahl</i>                                          | <i>Anzahl der Kontakte in Serie</i> |                      |
| AC                                                                                                                                                                                                                                                                                                                                                                                                     | 600                     | 30                                          | 1                                   | 1                                                         | 1                                   |                      |
| <b>GENERAL TECHNICAL INFORMATION</b>                                                                                                                                                                                                                                                                                                                                                                   |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Leiterquerschnitt</b>                                                                                                                                                                                                                                                                                                                                                                               |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Leiteraufbau</i>                                                                                                                                                                                                                                                                                                                                                                                    | <i>Min. / Max. Wert</i> |                                             | <i>Anzahl der Leiter pro Klemme</i> | <i>Drahtquerschnitt (-bereich) (mm²) oder (AWG/kcmil)</i> |                                     | <i>Drahtmaterial</i> |
| Feindrähtig                                                                                                                                                                                                                                                                                                                                                                                            | Max.                    |                                             |                                     | 2 AWG 12                                                  |                                     | Kupfer               |
| Feindrähtig                                                                                                                                                                                                                                                                                                                                                                                            | Max.                    |                                             |                                     | 2 4mm²                                                    |                                     | Kupfer               |
| ein- bzw. mehrdrähtig                                                                                                                                                                                                                                                                                                                                                                                  | Max.                    |                                             |                                     | 2 AWG 10                                                  |                                     | Kupfer               |
| ein- bzw. mehrdrähtig                                                                                                                                                                                                                                                                                                                                                                                  | Max.                    |                                             |                                     | 2 4mm²                                                    |                                     | Kupfer               |
| Feindrähtig mit Aderendhülsen nach DIN 46228                                                                                                                                                                                                                                                                                                                                                           | Max.                    |                                             |                                     | 2 2,5mm²                                                  |                                     | Kupfer               |
| <b>Abisolierlänge des Leiters</b>                                                                                                                                                                                                                                                                                                                                                                      |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Länge (mm) Anschlusslänge - Bild</i>                                                                                                                                                                                                                                                                                                                                                                |                         |                                             |                                     |                                                           |                                     |                      |
|                                                                                                                                                                                                                                                                                                                   |                         |                                             |                                     |                                                           |                                     |                      |
| <b>Empfohlene Schraubendreher</b>                                                                                                                                                                                                                                                                                                                                                                      |                         |                                             |                                     |                                                           |                                     |                      |
| <i>Schraubendreherart</i>                                                                                                                                                                                                                                                                                                                                                                              |                         |                                             | <i>Wert</i>                         |                                                           |                                     |                      |
| Kreuzschlitz - Schraubendreher                                                                                                                                                                                                                                                                                                                                                                         |                         |                                             | PH1                                 |                                                           |                                     |                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Empfohlene Schraubendreher</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Schraubendreherart                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Wert                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Schlitzschraubendreher nach DIN 5264                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0,8x5,5                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Klemmschraube</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Anzugsdrehmoment (Nm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Anzugsdrehmoment (lb-in)                                                                                                                                                                                                                                                                                                                                                                                             |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 9                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Approbationen</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Marking                                                                                                                                                                                                                                                                                                                                                                                                              |
| CE marking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                   |
| UK Directives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                   |
| UL 60947-4-1; CSA C22.2 No. 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                   |
| CSA C.22.2 No.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                   |
| GB/T14048.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                   |
| <b>Allgemeine Informationen</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>- Nur Kupferleitungen mit oder ohne verzinnenden/versilberenden Einzeldrähten verwenden. Das nachträgliche Verzinnen der Leiterenden ist nicht zulässig.</li> <li>- Verbindungsclipsen und Drahtverbindungen sind werkseitig zur Vermeidung von Verlusten verschraubt. Beim Öffnen der Anschlussklemmen ist darauf zu achten, dass keine Verbindungsclipsen verloren gehen und alle Drahtverbindungen korrekt sitzen.</li> <li>- Nach der Montage sind ALLE Klemmschrauben auf das vorgeschriebene Anzugsdrehmoment zu kontrollieren.</li> <li>- Die Verwendung einer Zusatzeinrichtung kann die Schutzart der gewählten Bauform beeinflussen.</li> <li>- Die Schaltgeräte sind wartungsfrei. Schmierung oder Behandlung von Kontakten ist zu unterlassen.</li> <li>- Die Schalter dürfen nur von Fachkräften und nach den anerkannten Regeln der Technik eingebaut, angeschlossen und in Betrieb genommen werden.</li> <li>- Nach Installation der Schalter müssen die Kriech- und Luftstrecken im Bereich der Anschlussklemmen den Anforderungen der anwendbaren Norm und Vorschriften entsprechen.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Waste Electrical &amp; Electronic Equipment (WEEE)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Picture name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Nicht in den Müll werfen, da auf eine umweltgerechte Entsorgung und Wiederverwertung geachtet werden muss. Bitte wenden Sie sich entweder an ein umweltfreundliches Entsorgungsunternehmen; senden Sie es zur Entsorgung an den Lieferanten oder direkt an den Hersteller Kraus & Naimer zurück. Lokale Kraus & Naimer Ansprechpartner finden Sie unter <a href="http://www.krausnaimer.com">www.krausnaimer.com</a> |
| <b>Proposition 65</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Bildname                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Beschreibung                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 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> .                                                                                                                                                                              |

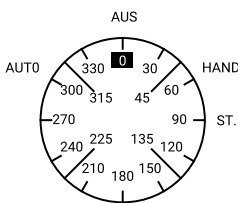
|                                  |
|----------------------------------|
| Kontakttyp: Starre Kontaktbrücke |
| Kontaktmaterial: Silber          |
| Anschluss: Schraubanschluss      |

|                                                                                      |              |
|--------------------------------------------------------------------------------------|--------------|
| <b>Bauform-E</b>                                                                     |              |
|  |              |
| IP - Schutzart Front                                                                 | IP40         |
| Fluchten                                                                             | 1,00 - 12,00 |
| A                                                                                    | □ 48,00 mm   |
| B                                                                                    | ∅ 5,00 mm    |

|    |   |                  |
|----|---|------------------|
| C  | Ø | 10,00 - 22,00 mm |
| D  | H | <= 4,00 mm       |
| E  | H | 64,00 mm         |
| F  | H | 78,00 mm         |
| G  | H | 7,40 mm          |
| M  | M | 0,70 Nm          |
| M1 | M | 1,20 Nm          |

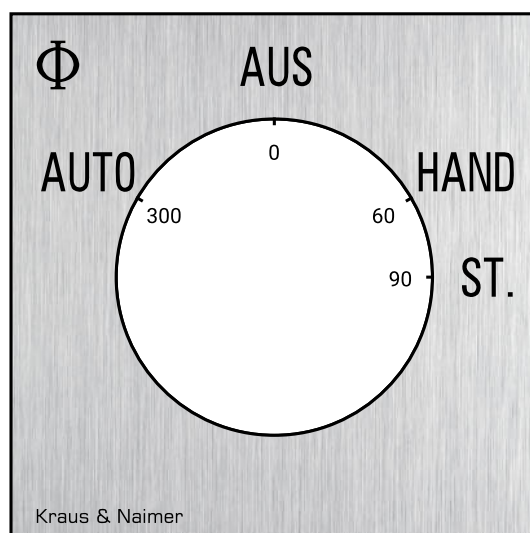
## Schaltprogramm

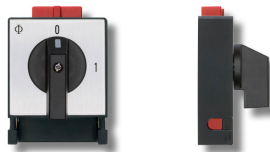
CA20B.A-2963.E

|  Kraus & Naimer    |             | CA20B                                                                             |      | A-2963 |      | Seite 1 von 1 |      |      |      |      |      |      |      |
|-----------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------|------|--------|------|---------------|------|------|------|------|------|------|------|
|                                                                                                     |             |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
| <b>Frontschild</b>                                                                                  |             |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                    |             | 1                                                                                 | 3    | 5      | 7    | 9             | 11   | 13   | 15   | 17   | 19   | 21   | 23   |
|                                                                                                     |             |  |      |        |      |               |      |      |      |      |      |      |      |
| Schaltwinkel <input type="text" value="60"/><br>Gesamtschaltwinkel <input type="text" value="144"/> |             | 2                                                                                 | 4    | 6      | 8    | 10            | 12   | 14   | 16   | 18   | 20   | 22   | 24   |
|                  | <b>AUTO</b> | 300                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 315                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 330                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 345                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | <b>AUS</b>  | 0                                                                                 |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 15                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 30                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 45                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | <b>HAND</b> | 60                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 75                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | <b>ST.</b>  | 90                                                                                |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 105                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 120                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 135                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 150                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 165                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 180                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 195                                                                               |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 210         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 225         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 240         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 255         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 270         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     | 285         |                                                                                   |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | <b>Laschen</b>                                                                    |      |        |      |               |      |      |      |      |      |      |      |
|                                                                                                     |             | 1                                                                                 | 3    | 4      | 5    | 6             | 7    | 8    | 9    | 10   | 11   | 12   | 13   |
|                                                                                                     |             | 14                                                                                | 15   | 16     | 17   | 18            | 19   | 20   | 21   | 22   | 23   | 24   | 25   |
|                                                                                                     |             | 26                                                                                | 27   | 28     | 29   | 30            | 31   | 32   | 33   | 34   | 35   | 36   | 37   |
|                                                                                                     |             | 38                                                                                | 39   | 40     | 41   | 42            | 43   | 44   | 45   | 46   | 47   | 48   | 49   |
|                                                                                                     |             | 50                                                                                | 51   | 52     | 53   | 54            | 55   | 56   | 57   | 58   | 59   | 60   | 61   |
|                                                                                                     |             | 62                                                                                | 63   | 64     | 65   | 66            | 67   | 68   | 69   | 70   | 71   | 72   | 73   |
|                                                                                                     |             | 74                                                                                | 75   | 76     | 77   | 78            | 79   | 80   | 81   | 82   | 83   | 84   | 85   |
|                                                                                                     |             | 86                                                                                | 87   | 88     | 89   | 90            | 91   | 92   | 93   | 94   | 95   | 96   | 97   |
|                                                                                                     |             | 98                                                                                | 99   | 100    | 101  | 102           | 103  | 104  | 105  | 106  | 107  | 108  | 109  |
|                                                                                                     |             | 110                                                                               | 111  | 112    | 113  | 114           | 115  | 116  | 117  | 118  | 119  | 120  | 121  |
|                                                                                                     |             | 122                                                                               | 123  | 124    | 125  | 126           | 127  | 128  | 129  | 130  | 131  | 132  | 133  |
|                                                                                                     |             | 134                                                                               | 135  | 136    | 137  | 138           | 139  | 140  | 141  | 142  | 143  | 144  | 145  |
|                                                                                                     |             | 146                                                                               | 147  | 148    | 149  | 150           | 151  | 152  | 153  | 154  | 155  | 156  | 157  |
|                                                                                                     |             | 158                                                                               | 159  | 160    | 161  | 162           | 163  | 164  | 165  | 166  | 167  | 168  | 169  |
|                                                                                                     |             | 170                                                                               | 171  | 172    | 173  | 174           | 175  | 176  | 177  | 178  | 179  | 180  | 181  |
|                                                                                                     |             | 182                                                                               | 183  | 184    | 185  | 186           | 187  | 188  | 189  | 190  | 191  | 192  | 193  |
|                                                                                                     |             | 194                                                                               | 195  | 196    | 197  | 198           | 199  | 200  | 201  | 202  | 203  | 204  | 205  |
|                                                                                                     |             | 206                                                                               | 207  | 208    | 209  | 210           | 211  | 212  | 213  | 214  | 215  | 216  | 217  |
|                                                                                                     |             | 218                                                                               | 219  | 220    | 221  | 222           | 223  | 224  | 225  | 226  | 227  | 228  | 229  |
|                                                                                                     |             | 230                                                                               | 231  | 232    | 233  | 234           | 235  | 236  | 237  | 238  | 239  | 240  | 241  |
|                                                                                                     |             | 242                                                                               | 243  | 244    | 245  | 246           | 247  | 248  | 249  | 250  | 251  | 252  | 253  |
|                                                                                                     |             | 254                                                                               | 255  | 256    | 257  | 258           | 259  | 260  | 261  | 262  | 263  | 264  | 265  |
|                                                                                                     |             | 266                                                                               | 267  | 268    | 269  | 270           | 271  | 272  | 273  | 274  | 275  | 276  | 277  |
|                                                                                                     |             | 278                                                                               | 279  | 280    | 281  | 282           | 283  | 284  | 285  | 286  | 287  | 288  | 289  |
|                                                                                                     |             | 290                                                                               | 291  | 292    | 293  | 294           | 295  | 296  | 297  | 298  | 299  | 300  | 301  |
|                                                                                                     |             | 302                                                                               | 303  | 304    | 305  | 306           | 307  | 308  | 309  | 310  | 311  | 312  | 313  |
|                                                                                                     |             | 314                                                                               | 315  | 316    | 317  | 318           | 319  | 320  | 321  | 322  | 323  | 324  | 325  |
|                                                                                                     |             | 326                                                                               | 327  | 328    | 329  | 330           | 331  | 332  | 333  | 334  | 335  | 336  | 337  |
|                                                                                                     |             | 338                                                                               | 339  | 340    | 341  | 342           | 343  | 344  | 345  | 346  | 347  | 348  | 349  |
|                                                                                                     |             | 350                                                                               | 351  | 352    | 353  | 354           | 355  | 356  | 357  | 358  | 359  | 360  | 361  |
|                                                                                                     |             | 362                                                                               | 363  | 364    | 365  | 366           | 367  | 368  | 369  | 370  | 371  | 372  | 373  |
|                                                                                                     |             | 374                                                                               | 375  | 376    | 377  | 378           | 379  | 380  | 381  | 382  | 383  | 384  | 385  |
|                                                                                                     |             | 386                                                                               | 387  | 388    | 389  | 390           | 391  | 392  | 393  | 394  | 395  | 396  | 397  |
|                                                                                                     |             | 398                                                                               | 399  | 400    | 401  | 402           | 403  | 404  | 405  | 406  | 407  | 408  | 409  |
|                                                                                                     |             | 410                                                                               | 411  | 412    | 413  | 414           | 415  | 416  | 417  | 418  | 419  | 420  | 421  |
|                                                                                                     |             | 422                                                                               | 423  | 424    | 425  | 426           | 427  | 428  | 429  | 430  | 431  | 432  | 433  |
|                                                                                                     |             | 434                                                                               | 435  | 436    | 437  | 438           | 439  | 440  | 441  | 442  | 443  | 444  | 445  |
|                                                                                                     |             | 446                                                                               | 447  | 448    | 449  | 450           | 451  | 452  | 453  | 454  | 455  | 456  | 457  |
|                                                                                                     |             | 458                                                                               | 459  | 460    | 461  | 462           | 463  | 464  | 465  | 466  | 467  | 468  | 469  |
|                                                                                                     |             | 470                                                                               | 471  | 472    | 473  | 474           | 475  | 476  | 477  | 478  | 479  | 480  | 481  |
|                                                                                                     |             | 482                                                                               | 483  | 484    | 485  | 486           | 487  | 488  | 489  | 490  | 491  | 492  | 493  |
|                                                                                                     |             | 494                                                                               | 495  | 496    | 497  | 498           | 499  | 500  | 501  | 502  | 503  | 504  | 505  |
|                                                                                                     |             | 506                                                                               | 507  | 508    | 509  | 510           | 511  | 512  | 513  | 514  | 515  | 516  | 517  |
|                                                                                                     |             | 518                                                                               | 519  | 520    | 521  | 522           | 523  | 524  | 525  | 526  | 527  | 528  | 529  |
|                                                                                                     |             | 530                                                                               | 531  | 532    | 533  | 534           | 535  | 536  | 537  | 538  | 539  | 540  | 541  |
|                                                                                                     |             | 542                                                                               | 543  | 544    | 545  | 546           | 547  | 548  | 549  | 550  | 551  | 552  | 553  |
|                                                                                                     |             | 554                                                                               | 555  | 556    | 557  | 558           | 559  | 560  | 561  | 562  | 563  | 564  | 565  |
|                                                                                                     |             | 566                                                                               | 567  | 568    | 569  | 570           | 571  | 572  | 573  | 574  | 575  | 576  | 577  |
|                                                                                                     |             | 578                                                                               | 579  | 580    | 581  | 582           | 583  | 584  | 585  | 586  | 587  | 588  | 589  |
|                                                                                                     |             | 590                                                                               | 591  | 592    | 593  | 594           | 595  | 596  | 597  | 598  | 599  | 600  | 601  |
|                                                                                                     |             | 602                                                                               | 603  | 604    | 605  | 606           | 607  | 608  | 609  | 610  | 611  | 612  | 613  |
|                                                                                                     |             | 614                                                                               | 615  | 616    | 617  | 618           | 619  | 620  | 621  | 622  | 623  | 624  | 625  |
|                                                                                                     |             | 626                                                                               | 627  | 628    | 629  | 630           | 631  | 632  | 633  | 634  | 635  | 636  | 637  |
|                                                                                                     |             | 638                                                                               | 639  | 640    | 641  | 642           | 643  | 644  | 645  | 646  | 647  | 648  | 649  |
|                                                                                                     |             | 650                                                                               | 651  | 652    | 653  | 654           | 655  | 656  | 657  | 658  | 659  | 660  | 661  |
|                                                                                                     |             | 662                                                                               | 663  | 664    | 665  | 666           | 667  | 668  | 669  | 670  | 671  | 672  | 673  |
|                                                                                                     |             | 674                                                                               | 675  | 676    | 677  | 678           | 679  | 680  | 681  | 682  | 683  | 684  | 685  |
|                                                                                                     |             | 686                                                                               | 687  | 688    | 689  | 690           | 691  | 692  | 693  | 694  | 695  | 696  | 697  |
|                                                                                                     |             | 698                                                                               | 699  | 700    | 701  | 702           | 703  | 704  | 705  | 706  | 707  | 708  | 709  |
|                                                                                                     |             | 710                                                                               | 711  | 712    | 713  | 714           | 715  | 716  | 717  | 718  | 719  | 720  | 721  |
|                                                                                                     |             | 722                                                                               | 723  | 724    | 725  | 726           | 727  | 728  | 729  | 730  | 731  | 732  | 733  |
|                                                                                                     |             | 734                                                                               | 735  | 736    | 737  | 738           | 739  | 740  | 741  | 742  | 743  | 744  | 745  |
|                                                                                                     |             | 746                                                                               | 747  | 748    | 749  | 750           | 751  | 752  | 753  | 754  | 755  | 756  | 757  |
|                                                                                                     |             | 758                                                                               | 759  | 760    | 761  | 762           | 763  | 764  | 765  | 766  | 767  | 768  | 769  |
|                                                                                                     |             | 770                                                                               | 771  | 772    | 773  | 774           | 775  | 776  | 777  | 778  | 779  | 780  | 781  |
|                                                                                                     |             | 782                                                                               | 783  | 784    | 785  | 786           | 787  | 788  | 789  | 790  | 791  | 792  | 793  |
|                                                                                                     |             | 794                                                                               | 795  | 796    | 797  | 798           | 799  | 800  | 801  | 802  | 803  | 804  | 805  |
|                                                                                                     |             | 806                                                                               | 807  | 808    | 809  | 810           | 811  | 812  | 813  | 814  | 815  | 816  | 817  |
|                                                                                                     |             | 818                                                                               | 819  | 820    | 821  | 822           | 823  | 824  | 825  | 826  | 827  | 828  | 829  |
|                                                                                                     |             | 830                                                                               | 831  | 832    | 833  | 834           | 835  | 836  | 837  | 838  | 839  | 840  | 841  |
|                                                                                                     |             | 842                                                                               | 843  | 844    | 845  | 846           | 847  | 848  | 849  | 850  | 851  | 852  | 853  |
|                                                                                                     |             | 854                                                                               | 855  | 856    | 857  | 858           | 859  | 860  | 861  | 862  | 863  | 864  | 865  |
|                                                                                                     |             | 866                                                                               | 867  | 868    | 869  | 870           | 871  | 872  | 873  | 874  | 875  | 876  | 877  |
|                                                                                                     |             | 878                                                                               | 879  | 880    | 881  | 882           | 883  | 884  | 885  | 886  | 887  | 888  | 889  |
|                                                                                                     |             | 890                                                                               | 891  | 892    | 893  | 894           | 895  | 896  | 897  | 898  | 899  | 900  | 901  |
|                                                                                                     |             | 902                                                                               | 903  | 904    | 905  | 906           | 907  | 908  | 909  | 910  | 911  | 912  | 913  |
|                                                                                                     |             | 914                                                                               | 915  | 916    | 917  | 918           | 919  | 920  | 921  | 922  | 923  | 924  | 925  |
|                                                                                                     |             | 926                                                                               | 927  | 928    | 929  | 930           | 931  | 932  | 933  | 934  | 935  | 936  | 937  |
|                                                                                                     |             | 938                                                                               | 939  | 940    | 941  | 942           | 943  | 944  | 945  | 946  | 947  | 948  | 949  |
|                                                                                                     |             | 950                                                                               | 951  | 952    | 953  | 954           | 955  | 956  | 957  | 958  | 959  | 960  | 961  |
|                                                                                                     |             | 962                                                                               | 963  | 964    | 965  | 966           | 967  | 968  | 969  | 970  | 971  | 972  | 973  |
|                                                                                                     |             | 974                                                                               | 975  | 976    | 977  | 978           | 979  | 980  | 981  | 982  | 983  | 984  | 985  |
|                                                                                                     |             | 986                                                                               | 987  | 988    | 989  | 990           | 991  | 992  | 993  | 994  | 995  | 996  | 997  |
|                                                                                                     |             | 998                                                                               | 999  | 1000   | 1001 | 1002          | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 |
|                                                                                                     |             | 1010                                                                              | 1011 | 1012   | 1013 | 1014          | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 |
|                                                                                                     |             | 1022                                                                              | 1023 | 1024   | 1025 | 1026          | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 |
|                                                                                                     |             | 1034                                                                              | 1035 | 1036   | 1037 | 1038          | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 |
|                                                                                                     |             | 1046                                                                              | 1047 | 1048   | 1049 | 1050          | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 |
|                                                                                                     |             | 1058                                                                              | 1059 | 1060   | 1061 | 1062          | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 |
|                                                                                                     |             | 1070                                                                              | 1071 | 1072   | 1073 | 1074          | 1075 | 1076 | 1077 | 1078 |      |      |      |

## Frontschild

S1.F990/A10.P1L.F\*A-9043





Symbolbild

## SPERRVORRICHTUNG

für Bauform E und EF

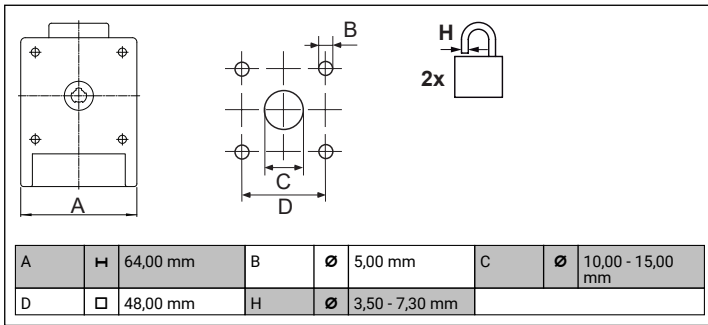
**Bezeichnung:** S1.V850/D1

**Lage der Drucktaste:** "D" unten, für

Bügeldurchmesser 3,5-7,3mm

**Sperrbarkeit:** "1" nur Baustellung laut OPASWITCH

Bauplan sperrbar



## GRIFFE

**Bezeichnung:** S1B.G251

**Grifffarbe:** "1" schwarz

### GENERAL TECHNICAL INFORMATION

#### Empfohlene Schraubendreher

| Schraubendreherart                   | Wert    |
|--------------------------------------|---------|
| Kreuzschlitz - Schraubendreher       | PH1     |
| Schlitzschraubendreher nach DIN 5264 | 0,8x5,5 |



|   |          |   |          |   |          |
|---|----------|---|----------|---|----------|
| A | 27,00 mm | B | 31,80 mm | C | 36,00 mm |
|---|----------|---|----------|---|----------|