

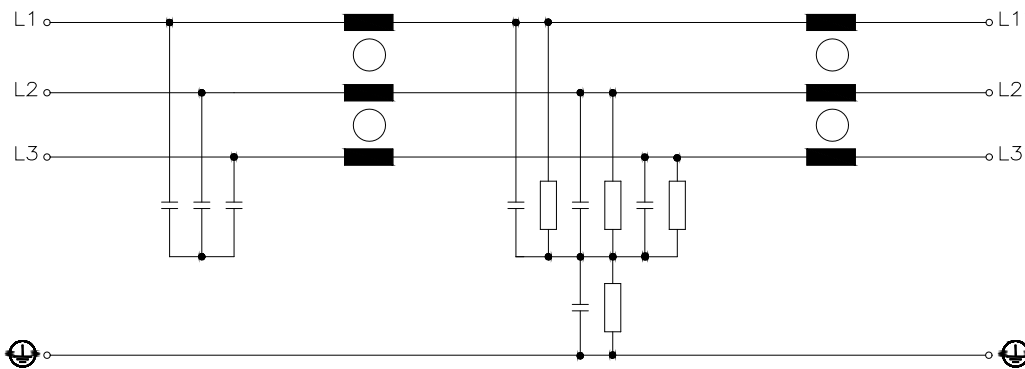
## Typennummer / Identification

|          |          |                      |            |                |                      |
|----------|----------|----------------------|------------|----------------|----------------------|
| Standard | Standard | <b>HLD 110-690/x</b> | Filter Typ | Type of filter | <b>3~ EMI Filter</b> |
|          |          |                      | Baureihe   | Model Family   | <b>HLD 110</b>       |

## Technische Daten / Technical Data

|                    |                      |        |            |     |     |           |     |     |       |     |     |     |     |
|--------------------|----------------------|--------|------------|-----|-----|-----------|-----|-----|-------|-----|-----|-----|-----|
| Phasenzahl         | No. of phase         |        | 3          |     |     |           |     |     |       |     |     |     |     |
| Bemessungsspannung | Rated voltage        | [ V ]  | 760/440 AC |     |     |           |     |     |       |     |     |     |     |
| Bemessungsfrequenz | Rated frequency      | [ Hz ] | 50 – 60    |     |     |           |     |     |       |     |     |     |     |
| Bemessungsstrom    | Rated current        | [ A ]  | 8          | 12  | 16  | 30        | 42  | 55  | 75    | 100 | 130 | 180 | 250 |
| Ableitstrom [1]    | Max. leakage current | [ mA ] | 113        | 113 | 122 | 171       | 178 | 178 | 178   | 178 | 184 | 219 |     |
| Ableitstrom [2]    | Max. leakage current | [ mA ] | 12         | 12  | 13  | 18        | 19  | 19  | 19    | 19  | 20  | 22  |     |
| Verlustleistung    | Power loss           | [ W ]  | --         | --  | --  | --        | --  | --  | --    | --  | --  | --  |     |
| Prüfspannung       | Test voltage         | [ kV ] | 3.00 DC    |     |     | Line-Line |     |     | 2 sec |     |     |     |     |
|                    | Test voltage         | [ kV ] | 4.00 DC    |     |     | Line-case |     |     | 2 sec |     |     |     |     |

## Prinzipschaltbild / Typical circuit diagram:



## Betriebsbedingungen / Operating conditions

|                     |                      |           |  |
|---------------------|----------------------|-----------|--|
| Schutzart           | Protection index     |           | IP 20  |
| Umgebungstemperatur | Ambient temperature  | [ °C ]    | -25 .... +50   |
| Derating            | Derating             | [ >50°C ] | -3% / K  |
| Überlastbarkeit     | Overload capability  |           | 1,5-facher Nennstrom für 1 Minute pro Stunde /<br>1,5 times rated current for 1 minute per hourclass 105 |
| Klimaklasse         | Climatic category    |           | 25/085/21 ( in accordance with EN 60068-1 )  |
| Kühlungsart         | Type of cooling      |           | AN   |
| Betriebsart         | Operating conditions |           | DB   |

## Ausführung / Standards

|                       |              |                 |
|-----------------------|--------------|-----------------|
| Typ / Type:           | Datum / Date | Zeichen / Signs |
| EN 60939-2            | 2006         |                 |
| RoHS 2011/65/EU       | 2011         |                 |
| China-RoHS 11363-2006 | 2006         |                 |

## Bemerkung / Notes

|   |   |
|---|---|
| Die angegebenen technischen Daten sind typisch.<br>Material- und fertigungsbedingt können Abweichungen auftreten. | Technical specifications are typical.<br>They can vary due to material and production tolerances. |
| [ 1 ] = Berechnet bei max. Eingangsspannung und dem Ausfall von 2 Phasen ( typ. @ 50Hz )                          | [ 1 ] = Calculated for max. line voltage tolerance, by loss of two phases ( type @ 50Hz ).        |
| [ 2 ] = Bemessen auf die max. zulässige Eingangsspannungsschwankung nach IEC 38 ± 10%.                            | [ 2 ] = @ max. allowed voltage fluctuation in accordance with IEC 38 ± 10%.                       |

|          |                    |
|----------|--------------------|
| Date:    | <b>29.05.2019</b>  |
| Name:    | <b>Hoffmann</b>    |
| Date:    | <b>03.06.2019</b>  |
| Checked: | <b>Schröder P.</b> |

Schutzvermerk gemäß ISO 16016 beachten

Observe protection clause to ISO 16016

|           |                  |
|-----------|------------------|
| Datei     | <b>000139155</b> |
| Änderung  | <b>B</b>         |
| Abteilung | <b>EWN</b>       |

## Abmessungen / Dimensions

Diagramm 1:

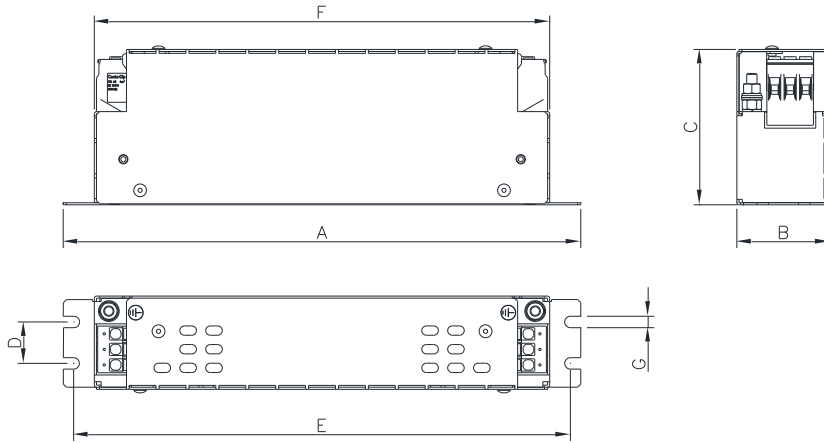
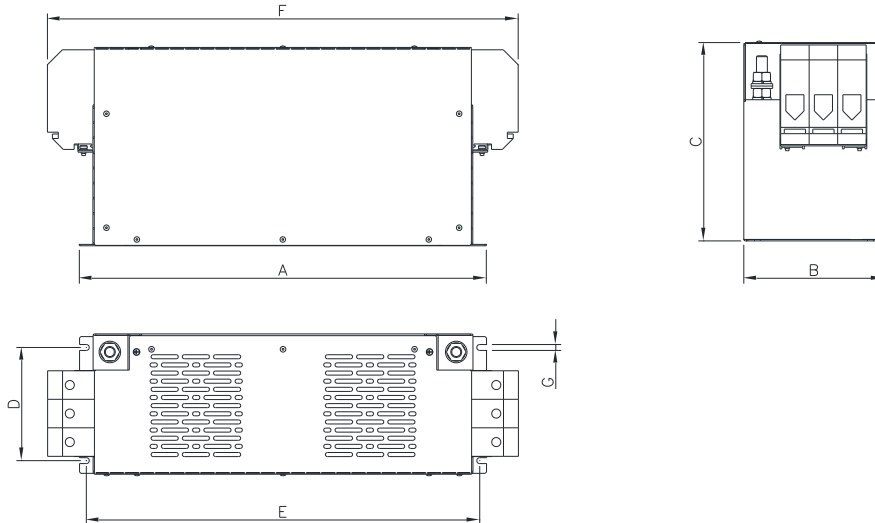


Diagramm 2:



| Bemessungsstrom | Rated Current | [ A ]  | 8   | 12  | 16  | 30  | 42  | 55  | 75  | 100 | 130 | 180 | 250  |
|-----------------|---------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Diagramm Nr.    | Diagram No.   | -      | 1   | 1   | 1   | 1   | 1   | 2   | 2   | 2   | 2   | 2   | 2    |
| Abmessungen A   | Dimensions A  | [ mm ] | 190 | 220 | 250 | 270 | 310 | 250 | 270 | 270 | 270 | 380 | 450  |
| Abmessungen B   | Dimensions B  | [ mm ] | 45  | 45  | 45  | 55  | 55  | 85  | 85  | 95  | 95  | 130 | 155  |
| Abmessungen C   | Dimensions C  | [ mm ] | 75  | 75  | 75  | 95  | 95  | 95  | 135 | 150 | 150 | 181 | 220  |
| Abmessungen D   | Dimensions D  | [ mm ] | 20  | 20  | 20  | 30  | 30  | 60  | 60  | 65  | 65  | 102 | 125  |
| Abmessungen E   | Dimensions E  | [ mm ] | 180 | 210 | 240 | 255 | 295 | 235 | 255 | 255 | 255 | 365 | 435  |
| Abmessungen F   | Dimensions F  | [ mm ] | 166 | 190 | 220 | 240 | 280 | 255 | 310 | 325 | 325 | 440 | 525  |
| Abmessungen G   | Dimensions G  | -      | M5  | M5  | M5  | M5  | M5  | M5  | M6  | M6  | M6  | M6  | M6   |
| Gewicht         | Weight        | [ kg ] | 0,8 | 1,0 | 1,2 | 1,8 | 2,1 | 2,5 | 4,5 | 5,2 | 5,6 | 9,2 | 12,2 |

## Anschlüsse / Terminals

| Eingang / Ausgang | Input / Output | [ mm <sup>2</sup> ] | 4  | 4  | 4  | 10 | 10 | 16 | 35 | 50  | 50  | 95  | 150 |
|-------------------|----------------|---------------------|----|----|----|----|----|----|----|-----|-----|-----|-----|
| PE Anschluss      | PE Terminal    | Bolzen / Bolt       | M5 | M5 | M5 | M5 | M6 | M6 | M8 | M10 | M10 | M10 | M12 |

## Anzugsmomente / torque

| Eingang / Ausgang | Input / Output | [ Nm ] | 0,5 - 1,0 | 0,5 - 1,0 | 0,5 - 1,0 | 1,2 - 2,0 | 1,2 - 2,0 | 2,0 - 4,0 | 2,0 - 5,0 | 6,0 - 8,0 | 6,0 - 8,0 | 8,0 - 12,0 | 14,0 - 20,0 |
|-------------------|----------------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-------------|
| PE Anschluss      | PE Terminal    | [ Nm ] | 3,0       | 3,0       | 3,0       | 3,0       | 6,0       | 6,0       | 12,0      | 20,0      | 20,0      | 20,0       | 30,0        |

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## Zusatzinformationen Klemmen / Additional Information Terminals

| Klemme               | Terminal          |                     | 4 mm <sup>2</sup>        | 10 mm <sup>2</sup> | 16 mm <sup>2</sup> | 35 mm <sup>2</sup> | 50 mm <sup>2</sup>   | 95 mm <sup>2</sup> | 150 mm <sup>2</sup> |  |
|----------------------|-------------------|---------------------|--------------------------|--------------------|--------------------|--------------------|----------------------|--------------------|---------------------|--|
| Eingang /<br>Ausgang | Input /<br>Output | [ mm <sup>2</sup> ] | 0,2 – 6,0 /<br>-         | 0,2 – 16           | 2,5 – 25           | 2,5 – 50           | 16 – 50 /<br>25 – 50 | 25 – 95            | 35 – 150            | Eindrchtig ( starr ) / Mehrdrchtig ( flexibel)<br>Single wire ( solid ) / stranded ( flexible )        |
|                      |                   | [ mm <sup>2</sup> ] | 0,2 – 6,0 /<br>0,2 – 4,0 | 0,2 – 10           | 2,5 – 16           | 2,5 – 35           | 25 – 50              | 25 – 95            | 35 – 150            | Feindrchtig / Feindrchtig mit Aderendhuse<br>Finely-stranded / Finely-stranded with cable and sleeves |
|                      |                   | AWG                 | 22 – 10                  | 8                  | 10 – 6             | 12 – 2             | 4/0 – 2              | 4/0 – 2            | 300 – 2             |  |

## Bemerkung / Notes

Einzelheiten der Darstellung in der Aufbauskizze sind unverbindlich.  
Allgemeintoleranzen DIN 2768-c.  
nderungen vorbehalten.

Technical specifications in the drawing are not binding.  
General tolerance to DIN 2768-c.  
Subject to change.

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