

Bushing-type current transformer of the "XCTB" series for power quality applications up to 20 kHz

Description

The bushing-type current transformers for power quality applications ensure high-precision transmission up to 20 kHz and are designed for use in harmonic-loaded 9 kHz networks. The output signals are 5 A as in the conventional bushing-type current transformers. The power specifications also correspond to the usual values. Thus, they can also be used in conventional 50 Hz applications.

Properties

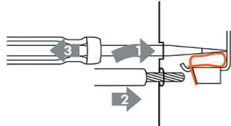
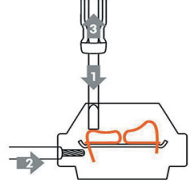
- For power quality applications up to 20 kHz
- Suitable for harmonic loaded networks up to 9 kHz with the basic frequencies of 50 Hz or 60 Hz
- High insulation test voltage up to 6 kV
- Tested lightning surge voltage for 690 V systems according to the IEC 61439-1 / -2
- Safe housing with high flame protection
- Protection against contamination due to optimized housing
- Easy and quick installation
- Safe, time-saving and screwless connection technology for massive and flexible conductors
- Various mounting options such as wall mounting, DIN rail mounting or Quick-Fix are available
- Shock and vibration resistant
- Maintenance-free



Technical data

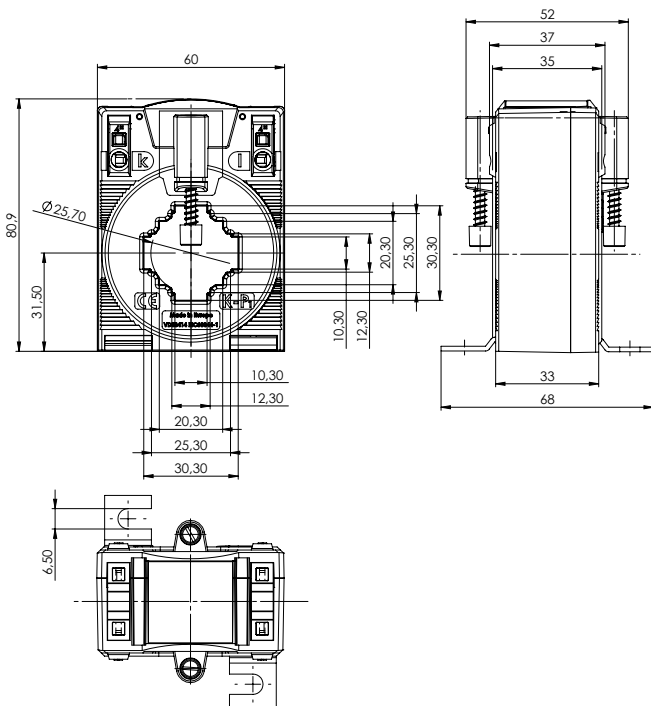
| | XCTB 31.35 | | | XCTB 81.35 | | |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------------------------|-----|-----|
| Breite / Höhe / Tiefe | 60 / 80.9 / 52 mm | | | 120 / 134.66 / 52 mm | | |
| Primärleiter Schiene | 30 x 10 mm; 25 x 12 mm; 20 x 20 mm | | | 80 x 10 mm; 60 x 30 mm | | |
| Rundleiter | Ø 25.7 mm | | | Ø 54.7 mm | | |
| Primärer Bemessungsstrom I_{pr} | 100 A ... 750 A | | | 400 A ... 2000 A | | |
| Sekundärer Bemessungsstrom I_{sr} | 5 A | | | | | |
| Genauigkeitsklasse | 0.2S | 0.2 | 0.5 | 0.2S | 0.2 | 0.5 |
| Spannungsfestigkeit | 6 kV; 50 Hz; 1 min | | | | | |
| Blitzstossspannung | 12 kV; 1.2/50 µs | | | | | |
| Nennfrequenz | 50 ... 60 Hz | | | | | |
| Bemessungsisolationspegel U_m | 1.2 kV | | | | | |
| Bemessungsleistung S_r | 1.5 VA; 2.5 VA; 5 VA | | | 2.5 VA; 5 VA | | |
| Thermischer Bemessungskurzzeitstrom I_{th} | 60 x I_N ; 1 Sek. | | | | | |
| Bemessungsstosstrom I_{dyn} | 2.5 x I_{th} | | | | | |
| Oberschwingungsmessung mit Bürde | 0.2 VA - Sr pf1 | | | | | |
| Isolationsklasse | E (max. 120 °C) | | | | | |
| Messgenauigkeit bis 20 kHz | $\epsilon \leq 2\% \mid \Delta\Phi \leq 2^\circ @ 0.05\text{-}10\text{ Hz}$ $\epsilon \leq 3\% \mid \Delta\Phi \leq 3^\circ @ 10\text{-}20\text{ Hz}$ | | | | | |

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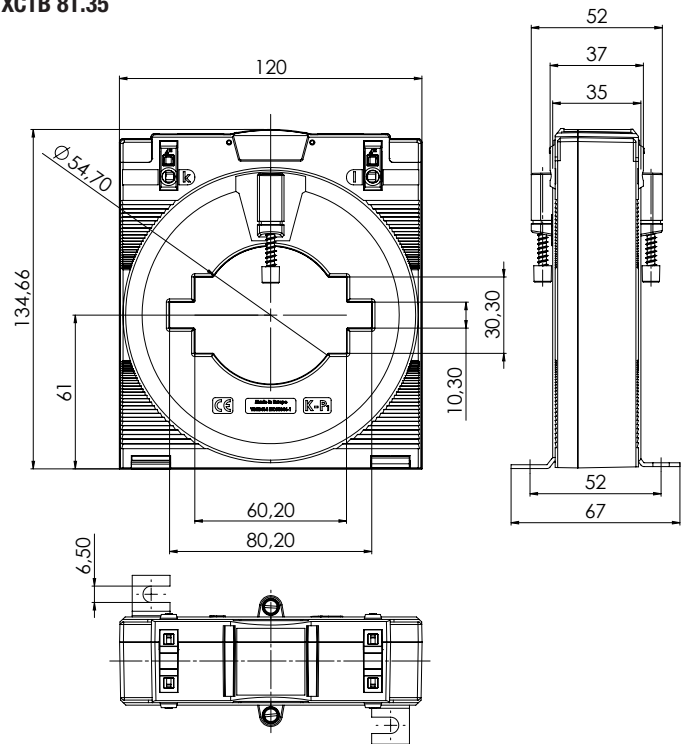
| | XCTB 31.35 | XCTB 81.35 |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Housing material | Polycarbonate | |
| Flammability class | UL94 V-0, self-extinguishing, non-dripping, halogen-free | |
| Ambient temperature | -5 °C ... +50 °C | |
| Storage temperature | -25 °C ... +70 °C | |
| Connectivity technology | Federzugklemme "Cage Clamp" bis max. 4 mm ²   | |
| Standard accepted | IEC 61869-1; IEC 61869-2; IEC 61439-1; IEC 61439-2 | |

Dimensions

XCTB 31.35

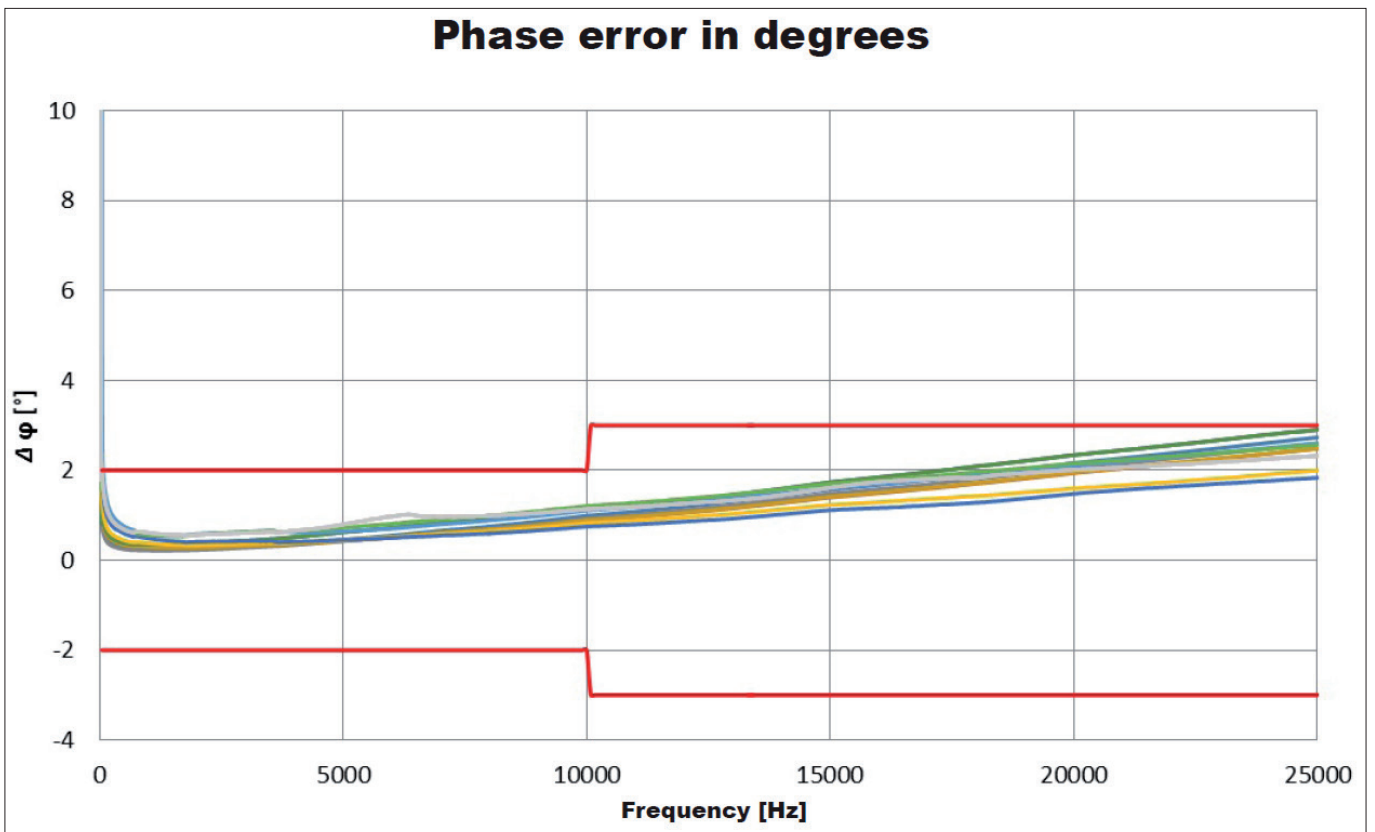
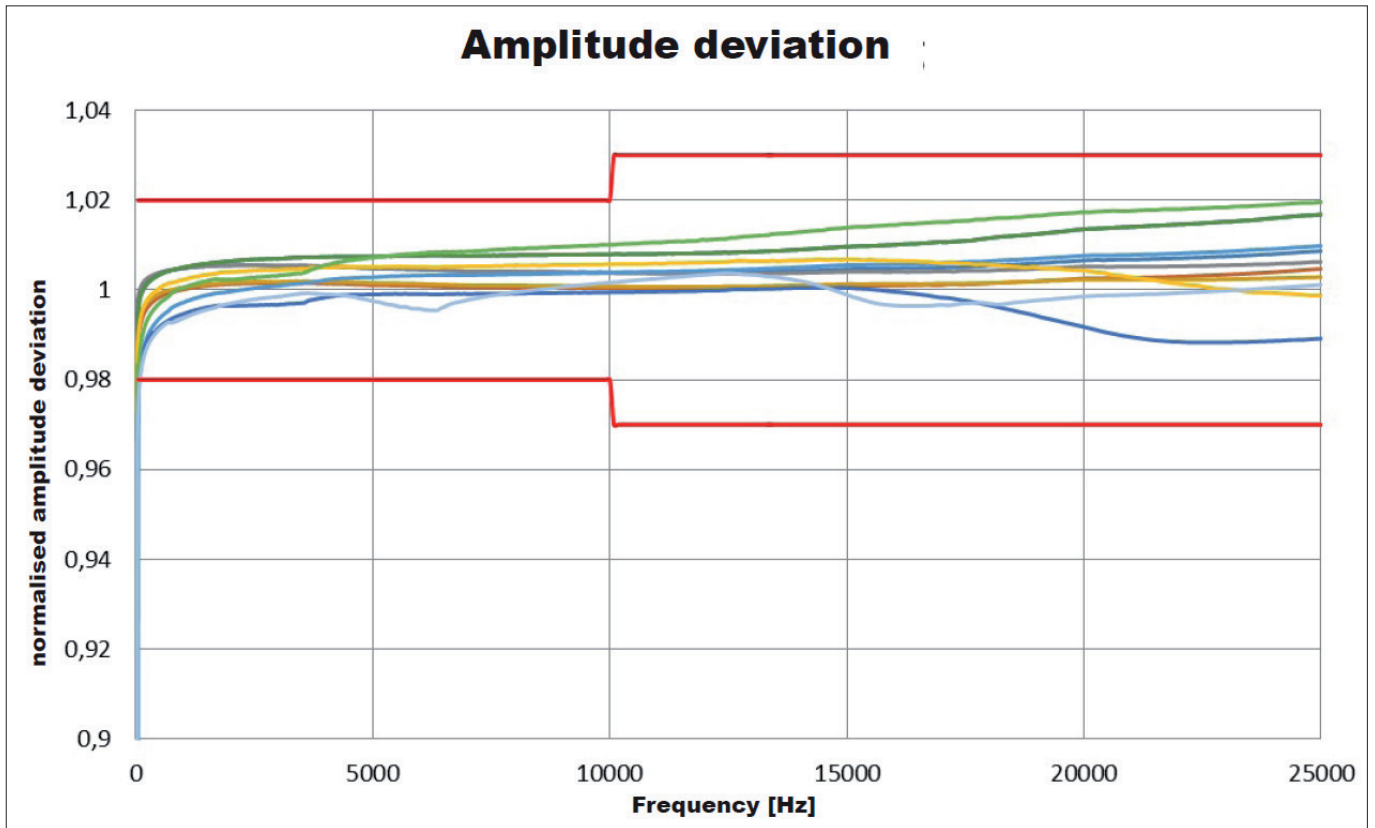


XCTB 81.35



Bushing-type current transformer of the "XCTB" series for power quality applications up to 20 kHz

Typical frequency-response characteristics with ohmic load



Bushing-type current transformer of the "XCTB" series for power quality applications up to 20 kHz

Performance

| | | XCTB 31.35 | | | XCTB 81.35 | | |
|-------------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|
| Secondary current | | 5 A | | | | | |
| Primary current | Rated power | Accuracy class | | | | | |
| | | 0.2S | 0.2 | 0.5 | 0.2S | 0.2 | 0.5 |
| | | Article-No. | Article-No. | Article-No. | Article-No. | Article-No. | Article-No. |
| 100 A | 1.5 VA | – | 183658 | 183640 | – | – | – |
| | 2.5 VA | – | – | 183666 | – | – | – |
| 125 A | 1.5 VA | 183690 | 183682 | 183674 | – | – | – |
| | 2.5 VA | – | – | 183707 | – | – | – |
| 150 A | 1.5 VA | 183731 | 183723 | 183715 | – | – | – |
| | 2.5 VA | – | – | 183749 | – | – | – |
| 200 A | 1.5 VA | – | 183765 | 183757 | – | – | – |
| | 2.5 VA | – | – | 183773 | – | – | – |
| 250 A | 2.5 VA | 183806 | 183799 | 183781 | – | – | – |
| | 5 VA | – | 183822 | 183814 | – | – | – |
| 300 A | 2.5 VA | 183856 | 183848 | 183830 | – | – | – |
| | 5 VA | 183880 | 183872 | 183864 | – | – | – |
| 400 A | 5 VA | 183913 | 183905 | 183898 | – | – | – |
| 500 A | 2.5 VA | 183947 | 1183939 | 183921 | – | – | – |
| | 5 VA | 183971 | 183963 | 183955 | – | – | – |
| 600 A | 2.5 VA | – | – | – | – | – | – |
| | 5 VA | 184002 | 183997 | 183989 | – | – | – |
| 750 A | 2.5 VA | – | – | – | – | – | – |
| | 5 VA | 184036 | 184028 | 184010 | – | – | – |
| 800 A | 2.5 VA | – | – | – | 184060 | 184052 | 184044 |
| | 5 VA | – | – | – | 184094 | 184086 | 184078 |
| 1000 A | 5 VA | – | – | – | 184127 | 184119 | 184101 |
| 1200 A | 5 VA | – | – | – | 184151 | 184143 | 184135 |
| 1250 A | 5 VA | – | – | – | 184185 | 184177 | 184169 |
| 1500 A | 5 VA | – | – | – | 184218 | 184200 | 184193 |
| 1600 A | 5 VA | – | – | – | 184242 | 184234 | 184226 |
| 2000 A | 5 VA | – | – | – | 184276 | 184268 | 184250 |

Accessories

| | | XCTB 31.35 | XCTB 81.35 |
|-----------------------|-------------------------------------------------------------------------------------|------------|------------|
| Quick-Fix attachment |  | 184284 | |
| Sealing cover |  | 184292 | 184309 |
| DIN rail mounting kit |  | 184317 | – |

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