

SIRAX BT72x0 and SIRAX BT73x0 AC/DC current transformer with energy meter functionality

Description

The SIRAX BT7200/BT7250 and SIRAX BT7300/BT7350 series are current transformers with integrated energy meter functionality for monitoring 1-phase AC and DC applications. The large number of measured variables, the maximum current of up to 300 AAC or 400 ADC at maximum 1000 VDC or 800 VAC allow a versatile use of the devices.

Characteristics

- Break-resistant plastic housing made of PBT
- Flame retardant and self extinguishing according to UL94 V0
- Bidirectional energy measurement
- Max. voltage range up to 800 VAC / 1000 VDC
- Max. current range up to 300 AAC / 400 ADC
- Galvanic separation from the measuring circuit
- Configuration by configuration software
- Serial RS485 Modbus/RTU output
- DIN rail or wall mounting for vertical or horizontal position



Application

With the ability to measure currents with different frequency ranges, the AC/DC current transformers with energy meter functionality are the ideal solution for monitoring photovoltaic systems, battery charging systems, UPS systems and variable frequency drives.

Technical specifications

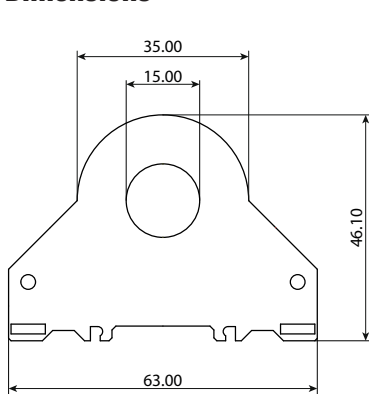
| | SIRAX BT7200 | SIRAX BT7250 | SIRAX BT7300 | SIRAX BT7350 |
|---------------------|--|------------------|--------------------|------------------|
| System type | 1-phase AC/DC | | | |
| Type of measure | TRMS (monopolar) or DC | | | |
| Current measurement | Integrated Hall effect current sensor | | | |
| Installation form | DIN rail mounting | | | |
| Mounting position | arbitrarily, vertically or horizontally | | | |
| Input | | | | |
| Input range current | 50 A AC/DC | | 300 AAC / 400 VDC | |
| Input range voltage | 800 VAC / 1000 VDC | 80 VAC / 100 VDC | 800 VAC / 1000 VDC | 80 VAC / 100 VDC |
| Transformer ratio | 1,0 standard (customizable) | | | |
| Power supply | 9...30 VDC | | | |
| Absorption | < 1.3 W | | | |
| Max. cable diameter | 14 mm | | 32 mm | |
| Output | | | | |
| Output range | RS485 Modbus/RTU | | | |
| Sampling rate | 11 kHz | | | |
| Working frequency | DC or 1...400 Hz | | | |
| Accuracy | | | | |
| Accuracy | Voltage, Current, Active power, Phase to phase voltage: < 0.5% F.S. / Frequency: ± 0.1 Hz / Energy: ± 1% / Reactive power: <1.5% F.S. / Apparent power from 0.1 In to In: ± 1% rdg / Apparent power from 0.05 In to 0.1 In: ± 2% rdg | | | |

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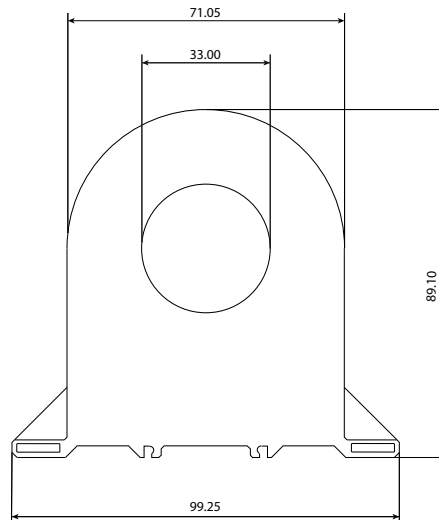
AC/DC current transformer with energy meter functionality

| | SIRAX BT7200 | SIRAX BT7250 | SIRAX BT7300 | SIRAX BT7350 |
|--|--|-------------------|--|-------------------|
| Resolution | 12 bit | | | |
| Temperature coefficient | < 200 ppm/°C | | | |
| Crest factor | 1.8 | | 1.4 | |
| Input impedance | 1 MΩ ±1% | | | |
| Safety and environmental conditions | | | | |
| Operating temperature | -15 ... +65 °C | | | |
| Humidity | 10 ... 90 % (not condensing) | | | |
| Housing protection IP | IP20 | | | |
| Isolation | 3 kV on bare wire for Current measurement / 4 kV for Voltage measurement | | | |
| Overvoltage category | CATIII up to 600 V CATII up to 1000 V | CATIV up to 100 V | CATIII up to 600 V CATII up to 1000 V | CATIV up to 100 V |
| Altitude | max. 2000 m | | | |
| Mechanical properties | | | | |
| Housing material | PBT | | | |
| Filling | Epoxy Resins | | | |
| Flammability | UL94 V-0, self-extinguishing, non-dripping, halogen-free | | | |
| Weight | 80 g | | 370 g | |
| Connections | Plug-in terminals 3.5 mm, 1x4 Pol, 2x2 Pol | | | |
| DIP switch | 2 Pol | | | |
| Programming | Via DIP switch, Modbus RTU and software | | | |
| Mounting | Screw grooves for vertical and horizontal panel mounting / Fasteners for mounting on DIN rail | | | |
| Dimensions | 46.1 x 63 x 26.4 mm (without terminals) | | 89.1 x 99.25 x 28.5 mm (without terminals) | |
| Standards | | | | |
| Adhered standards | EN61000-6-4; EN64000-6-2; EN61010-1 | | | |
| Order data | | | | |
| Article-No. | 179970 | 179988 | 179996 | 180000 |

Dimensions



SIRAX BT7200/BT7250



SIRAX BT7300/BT7350



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