

INSTRUMENT TRANSFORMERS

# AccuRange® current transformers

High accuracy and extended range



# AccuRange current transformers

## Delivering savings with improved accuracy and reduced inventory

ABB's AccuRange current transformers offer improved accuracy and an extended range of current measurement beyond that of traditional current transformers.

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01 The benefits of extended range vs. standard range transformers

AccuRange current transformers are available in low and medium voltage high accuracy and extended range designs for metering applications. The products are to be used for metering applications only and not in relaying applications.

### Portfolio

ABB in Pinetops, NC, offers many different styles in the AccuRange current transformer portfolio, including units for secondary revenue, primary revenue, generation, and substation metering applications.

### Benefits

AccuRange current transformers provide many key benefits over standard range transformers:

- Exceed 0.15S metering accuracy class requirements
- Provide 0.15% accuracy from 1% of the nominal current through the rating factor
- Increase revenue by preventing metering losses
- Deliver high accuracy over a wide load swing, making them a great fit for variable load applications
- Provide greater value with an extended range, reducing inventory, part numbers, and stock outs
- Offer same dimensions as standard range current transformers, allowing for easy retrofit installations to upgrade metering accuracy

AccuRange current transformers



Class 0.15S



Class 0.15 enhanced revenue grade



Class 0.3 revenue grade



## Secondary revenue metering



### CBT-S

The CBT-S is primarily used for metering 600 volt circuits, typically installed inside of a transocket, and is available as window type or with primary bar. Applicable to single or polyphase low voltage circuits, a single 600:5 ratio unit measures at 0.15% accuracy from 6 A - 1200 A for extended range metering.



### CMF-S

The CMF-S is primarily used with watt-hour meters, with or without thermal demand attachments, and is available as window type or with primary bar. Applicable to single or polyphase low voltage circuits, a single 600:5 ratio unit measures at 0.15% accuracy from 6 A - 1200 A for extended range metering.



### CMV-S

The CMV-S is primarily used for pad-mounted distribution transformer metering on 600 V systems inside high ambient temperature environments up to 85° C, and can be mounted directly upon the energized busbar. A single 1000:5 ratio unit measures at 0.15% accuracy from 10 A - 2000 A for extended range metering.



### CLC-S

The CLC-S is primarily used for high current metering on low voltage systems and is available in single or dual ratios. It can be used with uninsulated bus bar or cable up to 600 volts, or with insulated primary conductors at higher voltages. A single 2000:5 ratio unit measures at 0.15% accuracy from 20 A - 5000 A for extended range metering.

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## Primary revenue metering



### Outdoor current transformers

The KON-11ER, KOR-15CER, and KOR-20ER high accuracy, extended range outdoor current transformers are specifically designed for primary metering on outdoor 15, 25, and 34.5 kV systems. They are ideal for variable load applications, as well as applications that have extended periods of very low current levels. The 34.5 kV units are especially well-suited for variable load renewable energy applications.



### CVC-110BER and CVC-110BRER combination transformers

The CVC-110BER and CVC-110BRER outdoor combination units consist of a current transformer (CT) and voltage transformer (VT) in one housing. They are designed for metering applications and can be pole-mounted or used in substations. The current transformer element is highly accurate and ideal for use in cogeneration and in applications where there are large power exchanges.

When used in primary metering applications, combination units require less wiring than traditional 3 CT/3 VT configurations and are mounted upright, providing installation, cost, and space savings.

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## Generation metering



### Generator current transformers

The indoor GCT-848 (board-mounted) and indoor/outdoor PSG-981 (solid cast) generator current transformers are 600 volt, 10 kV BIL rated units designed to fit over a wide range of primary conductors. The insulation of the primary provides dielectric protection for the current transformer.

Primary current ratios are available up to 50000:5 at 50 and/or 60 Hertz to meet IEC and IEEE standards with a typical rating factor of 1.0 @ 55°C.



These units are ideal for new installations or for replacement/retrofit on older generators, as well as in isolated phase bus (IPB) compartments and enclosures.

## Substation metering



### PH-982

The PH-982 outdoor “slip-over” ACCUSlip™ current transformer is a 600 volt, 10 kV BIL rated unit designed to fit over a variety of bushing sizes on power transformers, circuit breakers, or cable terminators (potheads). This unit can be applied over higher rated system voltages, provided sufficient insulation is available on the point of application.

Primary current ratios are available from 300:5 to 5000:5 with a rating factor of up to 4.0. The PH-982 is ideal for use in older electrical substation equipment where there is no space for internal bushing current transformers or free-standing high voltage current transformers.

Utilities can recognize a substantial cost savings in both initial price, as well as cost of installation, using slip-over current transformers. Window sizes range from 6" to 44" and many of these dry-type, solid-cast units exceed the 0.15S metering class.



### LGX

The LGX series is available for 15, 25, and 35 kV classes. These units are ideal for wind farm collector substations, as well as other variable load renewable energy applications, because of their ability to extend from very low to very high current levels. Window and bar-type designs are available for substation applications.



### RMBX-644/RMBX-632

The RMBX indoor/outdoor current transformers are designed for high accuracy metering applications. Offered in both 600 V and 5 kV styles, they are available with an open window for installing around the primary conductor or with a primary bus bar.



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