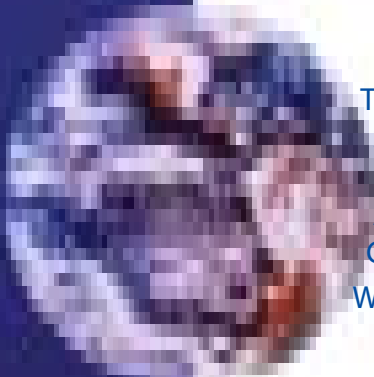




Type PH-982

**High Accuracy
Slipover CT's
for Generation
Metering Applications**



**TRANSFORMER
SOLUTIONS
FOR
A
CHANGING
WORLD**

Features of PH-982 & Benefits to User

- 0.15% High Accuracy for Metering
✓ **Best Accuracy Metering Performance**
- Broad Range Accuracy Stability
✓ **Excellent Readings Down to Low Amps**
- Revenue Rated Ratios to 200:5
✓ **Accurate, Large Signal for Low Loads**
- Extended Rating Factors to 4.0
✓ **Reduced Inventory, Best Meter Range**
- Molded Dry-type Arrangement
✓ **Environmentally Safe-No oil or gas**
- UV Stabilized Outdoor Cast Resin
✓ **Flexible over Wide Temp Range**
- 600 Volt rated Slip-over CT
✓ **Inherently Safe, Low Voltage Design**
- 6" to 36" Standard Window Sizes
✓ **Use on 15kV to 362kV Bushings**
- Window Type Single Turn Primary
✓ **Virtually Unlimited Short-time Strength**



Genco-Transco Metering

- Mounted on Electrical Apparatus
- Economical Option for Metering
- Easily Installed
- Compact Mounting-No Structures
- Inherently Safe-No Oil or Porcelain
- Higher Accuracy for Improved Metering

**Maximum benefit for
generation facilities!**

ACCUSlip™
Slipover
Revenue Metering
Current Transformers

Kuhlman Electric Corporation

Instrument Transformers Division

3022 NC 43 North

Pinetops, NC 27864

Phone: +1 252 827-3212

www.abb.com/mediumvoltage

No. BRIACC0204

Slipover CT designs with lower ratios for accurate metering

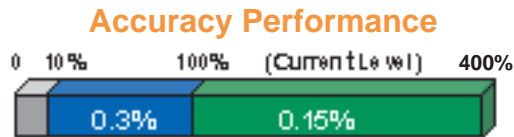
Historically, large window slipover current transformer designs have very poor meter accuracy performance at low ratios due to their large mean length turn (MLT). This made them un-acceptable for use in revenue metering applications. However, the ACCUSlip™ designs developed by Kuhlman Electric have special proprietary winding configurations to overcome the limitations of the traditional designs. This has allowed higher accuracy performance down to 200:5 ratio, and below, in large window arrangements.

Some ACCUSlip examples:

- 14" ID (69kV bushing), 200:5SR, RF=4.0, 0.15%B0.5
- 22" ID (138kV bushing), 200:5SR, RF=4.0, 0.15%B0.5
- 26" ID (345kV bushing), 400:5SR, RF=4.0, 0.15%B0.2

Higher accuracy means better metering!

By improving accuracy at nominal ratio, the performance at a fraction of the current is also enhanced. This works to accurately meter current flow to and from generation facilities over wide current swings



ACCUSlip™ designed specifically for use over GSU bushings to accurately meter current.

ACCUSlip™.... Less expensive to purchase and install. Less space!

With the advent of de-regulation in the utility industry, generation companies are now faced with metering power flow onto the grid through the electrical substation. In many installations, it is difficult to insert traditional instrument transformers due to space limitations. Also, the cost of the high voltage installation, including concrete foundations and support structures, can be prohibitive.

The ACCUSlip™ CT's address both of these concerns by reducing the up-front cost of the CT by 50% or more depending upon voltage rating of the application. CT mounting is easily accomplished without taking up extra space, or requiring foundations and support structures. These CT's simply slip over the existing bushings on the GSU transformers.

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How to define requirements for ACCUSlip™ Slipover CT

These designs are built to specifications and depend upon the size of the bushings and the space around them on the GSU. Given this dimensional data, we can define quickly an appropriate CT with the ratings required for the metering application.

Put us to the test! Feel free to send in your specification by filling in the following and faxing (859-873-3316) or email (instmkt@kuhlman.com) the data to us for an analysis. Send to "ACCUSlip Engineering".

GSU Data:

Rating of High Side Bushing _____ kV
 Largest Bushing O.D. _____ inches
 (Maximum porcelain diameter)
 Bushing Flange O.D. _____ inches
 (Largest flange dimension for CT placement)
 Metal Flange Height _____ inches
 (Vertical distance from GSU cover to porcelain)
 Nearest Interference _____ inches
 (Radial dimension from bushing centerline)

ACCUSlip™ CT Data:

Ratio Required _____:5
 (Single ratio)
 Current metering range ____ to ____ amps
 (Indicate current range from low to high)
 Rating Factor Required _____
 (Standard RF=4.0)
 Maximum Meter Burden _____ ohms
 (Include lead resistance, plus meter input)

Contact Data:

Name: _____
 Company: _____
 Address: _____

 Phone: _____
 Fax: _____
 Email: _____

If we cannot meet your exact needs due to design limits, Kuhlman can recommend an alternative that can still provide better performance and cost than other market options.