

A close-up photograph of a red current transformer. The device features a prominent silver-colored metal core with a circular hole. The red plastic housing is visible, showing a smooth, curved surface. The lighting creates highlights and shadows, emphasizing the metallic texture and the vibrant red color.

CURRENT TRANSFORMERS

POLYCAST[®] 

WHO WE ARE

A leader in epoxy product innovation since 1972, Polycast continues to be the electrical power industry's first choice for technically demanding molded products.

We specialize in a shared design approach, working with you to provide solutions for the most challenging applications. Together, we create optimal solutions inspired by the toughest demands.

Building trust requires the highest of standards. As an ISO 9001 certified manufacturer, we are committed to quality, and are known for our consistency and unsurpassed product performance. We engineer products to be proud of, delivered on time, with care towards our people and the environment. Our principle of Dedication to Excellence extends to every product, person and business we serve.

Allow us to be your casting partner.

OUR CURRENT TRANS- FORMERS

Polycast designs and manufactures a wide range of window and bar type current transformers cast in epoxy or finished with cotton or fibreglass tape for metering, relaying, and combination applications.

Applications

Various indoor and outdoor applications including differential and over current protection of power and distribution transformers, switchgears, generators, and medium to high voltage circuit breakers.

Testing & Performance

Product performance is measured throughout the manufacturing process to confirm compliance with design criteria. All Polycast CT's are individually designed, manufactured and tested to meet and exceed North American and International standards including CSA, IEC, and IEEE.

- In-house routine testing includes power frequency voltage withstand, partial discharge, accuracy, and inter-turn overvoltage
- CT's for outdoor applications are tested at -50 °C to guarantee performance in the coldest climates
- Each CT has a unique serial number which allows full traceability
- Test certificates are provided with CT shipments and are available for future customer requests

DESIGN FEATURES (Standard)

Primary Current: Up to 30,000 amps for window type current transformers

Secondary Current: 1 and 5 amps are standard, others available

Frequency: 50 and 60 Hz, design and testing to different frequency available

Rating Factor: Up to 4.0

Relaying Accuracy: Up to C800 (IEEE)/5P20-200VA (IEC)

Metering Accuracy: 0.15S through 2.4 (CSA, IEEE)/0.2S through 5.0 (IEC)

Burden: Standard and custom burdens available

OPERATIONAL TEMPERATURES

- Indoor bis-A epoxy current transformers are rated between -25°C to +95°C.
- Outdoor cycloaliphatic epoxy current transformers are rated between -50°C to +95°C and are recommended for applications where UV, pollution, or condensation are considered factors.

Polycast epoxy materials are UL certified.

ADDITIONAL FEATURES

- Nameplate identifies CT by family, serial number, ratio, and accuracy and year of manufacture
- Standard Cores made of cold rolled grain-oriented FeSi steel
- Special cores made of FeNi steel for high accuracy metering applications

OPTIONS

- Industry Canada approval for revenue billing purposes
- Multi-core units
- Gapped cores with remanent flux limit
- Special PX, PXR, TPY, TPX, TPZ designs

The current transformers listed in this brochure are our standard products.

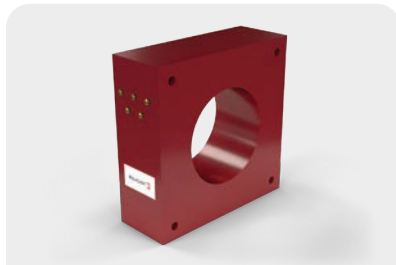
Please contact Polycast if you would like a CT designed to different specifications, ratings, or require a custom-built product for a unique application.

LOW VOLTAGE CURRENT TRANSFORMERS

Styles: window-type, bar-type, auxiliary, bushing-type, sensor, primary wound, and zero-sequence

Voltage Rating: 0.6kV/10kV BIL to 5kV/60kV BIL

INDOOR OPERATIONS



PICW Series
Window Type

- Suitable for oil immersion
- Square or octagonal body styles
- 3.25" to 40" window diameter
- Epoxy encapsulated



PCZR Series
Zero Sequence

- For ground fault detection
- Epoxy encapsulated



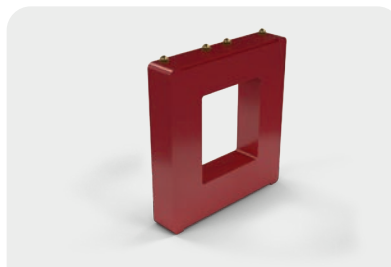
PICVZ Series
Zero Sequence

- For ground fault detection
- Finished with insulating varnish coating



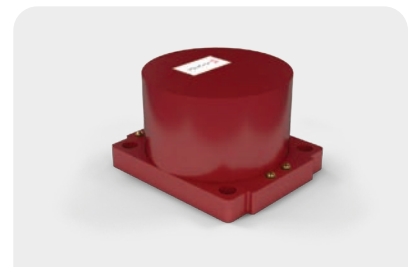
PICVD Series
Bushing Current Transformer

- For installation over insulated cable or bushing
- Finished with insulating varnish coating



PCSN Series
Current Sensor

- For current sensing
- Up to 2000-amp primary
- Epoxy encapsulated



PICA Series
Primary Wound

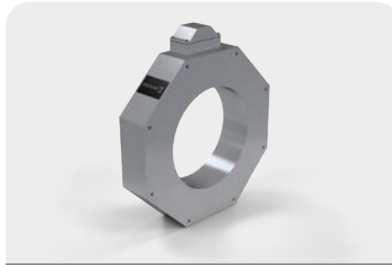
- Step-up or step-down applications
- High accuracy at low current ratio
- Up to 50-amp primary current

OUTDOOR OPERATIONS



POCZR Series
Zero Sequence

- For ground fault detection
- Encapsulated in cycloaliphatic epoxy



POCWL Series
Window Type

- Slip over bushing applications
- Rectangular or octagonal body
- 2.50" to 38.00" window diameter

OIL-IMMERSION APPLICATIONS



BCT Series
Bushing Current Transformer

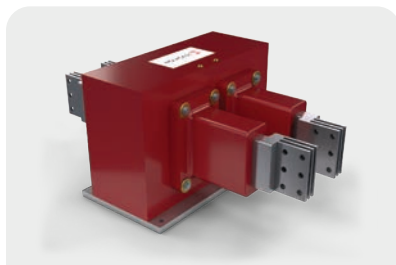
- For installation over insulated cable or bushing
- 3" to 48" window diameter
- Finished with cotton tape

MEDIUM VOLTAGE CURRENT TRANSFORMERS

Styles: window-type, bar-type, split-phase, and CT/bushing combination

Voltage Rating: up to 35kV/170kV BIL

INDOOR OPERATIONS



PISP Series
Window or Bar Type Split-Phase

- Up to 18kV/110kV BIL
- To measure current difference in two primary conductors
- Up to 3000 amps per split phase



PCW Series
Window Type

- Up to 28kV/150kV BIL
- Primary current up to 30000A
- Shielded or unshielded
- 3.25" to 40" window diameter
- For installation over uninsulated cable or bushing



PCTP Series
Bar Type

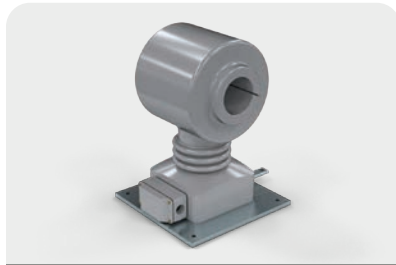
- Up to 35kV/170kV BIL
- Primary current up to 5000A
- Shielded or unshielded
- Silver plated copper primary conductor

MEDIUM VOLTAGE CURRENT TRANSFORMERS

Styles: window-type, bar-type, split-phase, and CT/bushing combination

Voltage Rating: up to 35kV/170kV BIL

OUTDOOR OPERATIONS



POCW Series

Window Type

- Up to 28kV/150kV BIL
- 3.25" to 40" window diameter
- Primary current up to 30000A
- Shielded or unshielded
- IP55 rated terminal box



POCWB Series

Window Type

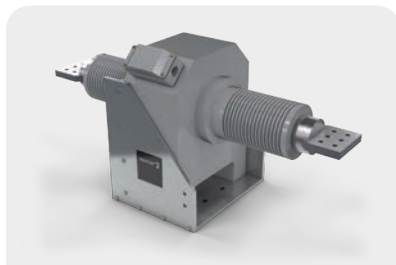
- Up to 28kV/150kV BIL
- CT / bushing combination
- IP55 rated terminal box



POCTP Series

Bar Type

- Up to 28kV/170kV BIL
- Primary current up to 5000A
- IP55 rated terminal box



POCPB Series

Bar Type

- Up to 28kV/170kV BIL
- CT / bushing combination
- IP55 rated terminal box

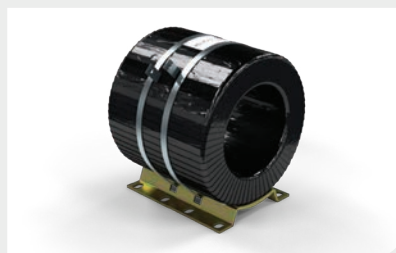
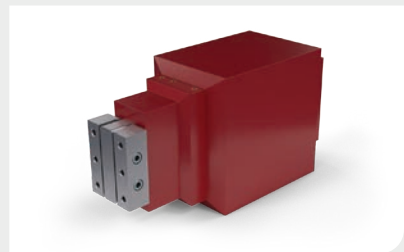
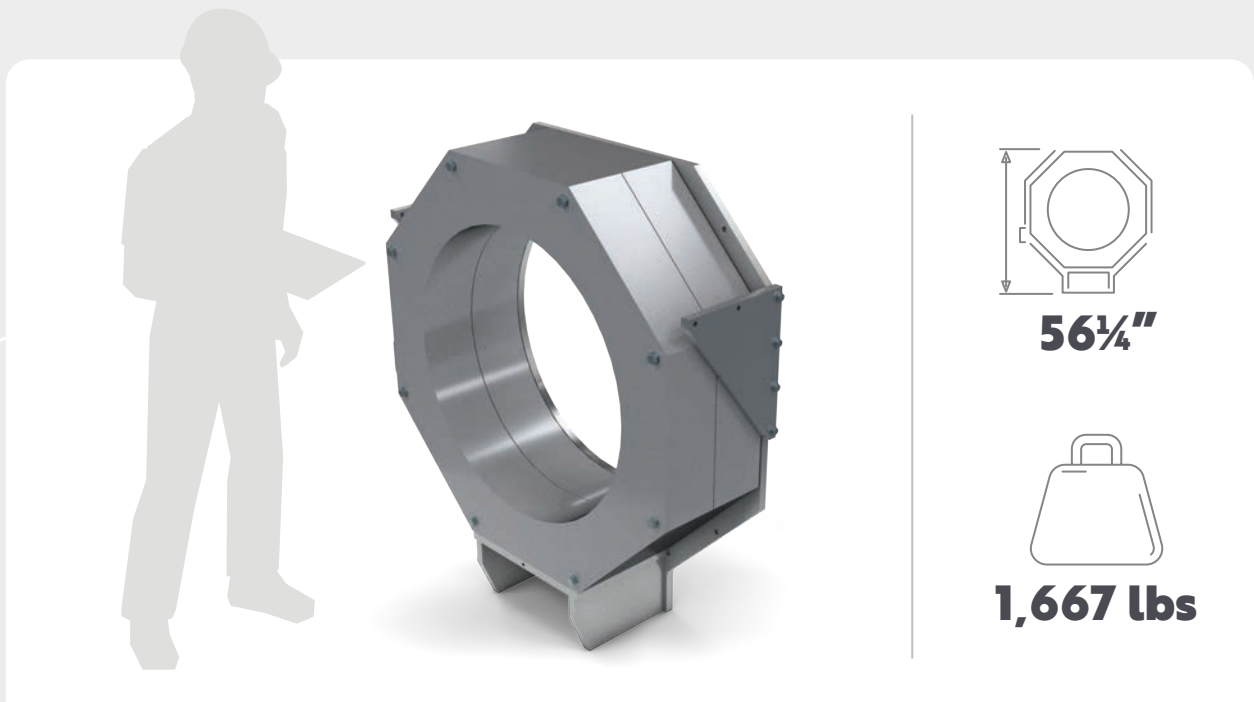
CUSTOM CURRENT TRANSFORMERS

Specialty, Retrofit, and Assemblies

From concept through design and tool manufacture, prototype testing, and full production runs, our innovative team will work with you to engineer special bushings for unique applications.

As time goes on, refurbishment of dated electrical equipment becomes a necessity; Polycast is equipped to respond quickly and provide rush replacement parts to meet your project deadlines.

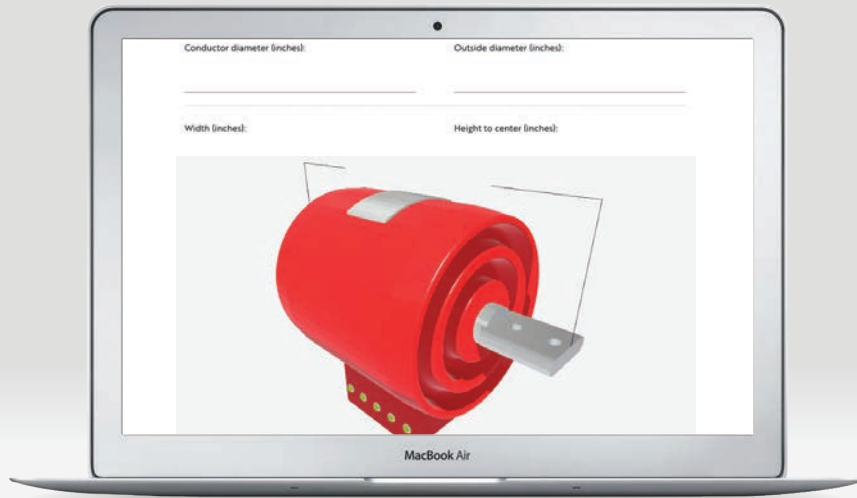
Send us a sketch, photo, drawing, or the required part and we will replicate and optimize the product to your exact specifications.





DESIGN YOUR OWN PRODUCT

Using 3D Models on Our Website



Specifications are sent directly to our engineering team to begin the shared design approach.
Download our product template PDFs to determine necessary specifications.

polycast.ca/design-your-own

POLYCAST®

CURRENT TRANSFORMERS • BUSHINGS • INSULATORS

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