

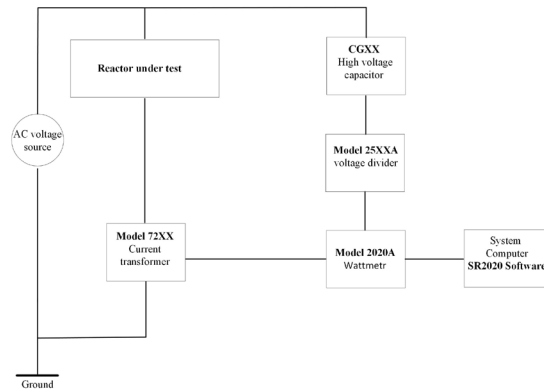


ACCULOSS® SERIES OF SHUNT REACTOR LOSS MEASUREMENT SYSTEM

AccuLoss® SR2020

Features

- Reactor Loss Measurements
- Positive Impact on the Environment
- Wattmeter Based
- Fast Reliable Measurements
- Overall Accuracy < 50 ppm
- High-Voltage Capacitors to 800 kV
- Current Transformers to 4000 A



The AccuLoss® SR2020 System from Measurements International is a high-quality and reliable solution for measuring losses in high-voltage shunt reactors. This system is designed to operate at very low power factors, making it ideal for large-scale applications. Two of the main advantages of the AccuLoss® SR2020 System is its accuracy and speed. With a full-scale system accuracy of < 50 ppm in phase and magnitude for power measurements and < 0.05 % for voltage and current measurements, you can be confident in the reliability and precision of your measurements. This level of accuracy is essential to ensure compliance with applicable standards and directives.

In addition to its accuracy, the AccuLoss® SR2020 System is also fast and efficient. Its high-speed waveform analysis capabilities allow for quick and efficient measurements, saving you time and improving your overall productivity. The system is also easy to set up and use, and can be wheeled around the shop floor or installed in your test laboratory, making it incredibly versatile and flexible. The AccuLoss® SR2020 System includes a compressed-gas-dielectric capacitor that serves as a standard for comparison of an inductive current, a standard two-stage-compensated Current Transformer and the model 2020A power reference and a controller all mounted in a rack with interconnection cables to provide high measurement accuracy at very low PFs.

Choose the AccuLoss® SR2020 System for your shunt reactor loss measurement needs, and experience the unparalleled accuracy, reliability, and speed that Measurements International can provide. Contact us today to learn more about this system and how it can benefit your operations.

System Accuracy

Power Factor	Accuracy (2σ)
cos φ = 0.01	0.5 %
cos φ = 0.004	1.2 %
cos φ = 0.002	2.5 %
cos φ = 0.001	5 %

Calibration is essential to ensure that measurement equipment is accurate and reliable, and it's great to know that the SR2020 system can be calibrated in multiple ways to achieve the required level of accuracy.

Calibrating the main components of the system or calibrating the overall system on-site are both viable options to improve the accuracy of loss measurements. Achieving an accuracy of 5 % or better at a PF of 0.001 is a significant improvement that can provide greater confidence in the measurement results.

It's also good to know that all components of the AccuLoss® SR2020 system can be supplied complete with 17025 calibration certificates. These certificates provide third-party validation that the equipment has been calibrated to the required standards and can help ensure compliance with applicable regulations and directives.

Finally, mentioning the CLAS Certificate Number 2004-01 is helpful information that shows that the AccuLoss® SR2020 System has been tested and certified by the Canadian Calibration Lab (CLAS), further validating its accuracy and reliability.

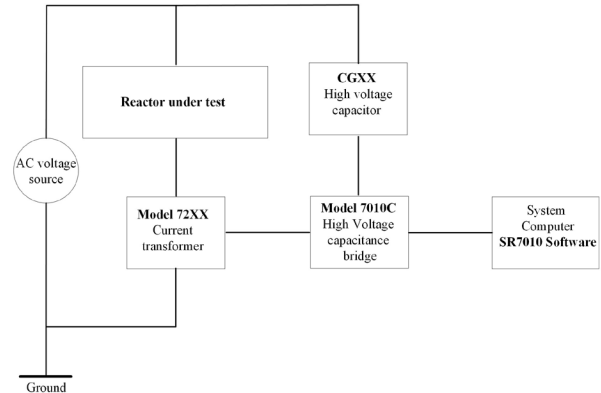


ACCULOSS® SERIES

Acculoss® SR7010

Features

- Reactor Loss Measurements
- Positive Impact on the Environment
- Current Comparator Based
- Fast Reliable Measurements
- Overall Accuracy < 30 ppm
- High-Voltage Capacitors to 800 kV
- Current Transformers to 4000 A



The AccuLoss® SR7010 system is impressive in accuracy with a full-scale system accuracy of < 30 ppm in phase and magnitude for power measurements and < 0.05 % for voltage and current measurements. The use of the Model 7010C High Voltage Capacitance Bridge and the two-stage-compensated current comparator demonstrates that the SR7010 system is designed to measure load loss of large high-voltage inductive loads accurately. The inclusion of a compressed-gas-dielectric high voltage capacitor that serves as a standard for comparison of an inductive current with a capacitive reference further enhances the accuracy of the system.

The fact that the SR7010 system can achieve overall full-scale system accuracies of < 30 ppm in phase is a testament to the precision and reliability of the system. This level of accuracy can provide greater confidence in the measurement results and help ensure compliance with applicable standards and directives.

Overall, the AccuLoss® SR7010 system is an impressive piece of equipment that can provide accurate and reliable measurements of load loss for large high-voltage inductive loads.

System Accuracy

Power Factor	Accuracy (2σ)
cos φ = 0.01	0.3 %
cos φ = 0.004	0.75 %
cos φ = 0.002	1.5 %
cos φ = 0.001	3 %

The AccuLoss® SR7010 System can be calibrated by calibrating the main components, and that these components can be supplied with 17025 calibration certificates. This can help ensure that the system is accurately calibrated and can provide reliable measurements of load loss for large high-voltage inductive loads.

Calibration of the main components can improve the overall accuracy of loss measurements to about 3 % or better at a PF of 0.001. This level of accuracy can provide greater confidence in the measurement results and help ensure compliance with applicable standards and directives. Overall, the AccuLoss® SR7010 System is a high-quality piece of equipment that is designed to provide accurate and reliable measurements of load loss for large high-voltage inductive loads.



Measurements International

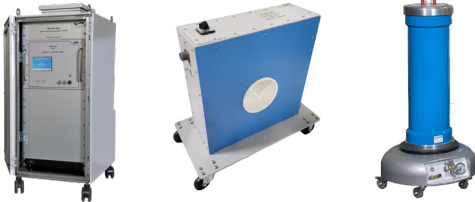
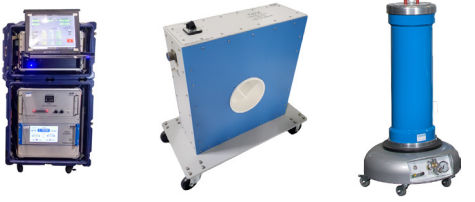
Metrology is Our Science, Accuracy is Our Business™

ACCULOSS® SERIES

The AccuLoss® series offered by Measurements International is a reliable and accurate means of measuring losses in power transformers and reactors. Accurate measurement of losses is important to ensure compliance with applicable standards and directives, such as IEC/TS 60076-19 and Ecodesign directives.

Reducing losses in power transformers and reactors not only reduces the cost of ownership but also has a positive impact on the environment by reducing CO2 emissions. Manufacturers should take steps to ensure their products comply with these standards and directives by using accurate measurement equipment such as the AccuLoss® series.

Measurements International offers a range of systems with various voltages and current capabilities to suit different applications. By using the AccuLoss® series, manufacturers can accurately verify the compliance of their products with applicable standards and directives, ensuring that they meet the needs of their customers and have a positive impact on the environment.

Models	AccuLoss® SR7010 System It is based on the Model 7010C Bridge	AccuLoss® SR2020 System It is based on the Model 2020A Wattmeter
		
Voltage, kV	100, 200, 300, 400 to 800 (as per used HV capacitor)	100, 200, 300 (as per used HV capacitor)
Current, A	1000, 2000, 4000 (as per used CT)	1000, 2000, 4000 (as per used CT)
Frequency	50 or 60 Hz	40 to 400 Hz
Portability	Supplied on wheels	Supplied on wheels
Capabilities	<ul style="list-style-type: none"> The AC Bridge method for testing shunt reactors provides a highly accurate measurement of reactor losses Software 7010C includes, Shunt Reactor Loss Measurement 	<ul style="list-style-type: none"> Use of the Wattmeter for testing shunt reactors provides higher measurement speed and signal waveform analysis in one box The Main SW Menu is divided into UUT Data, Test Conditions, Calibrate Menu, GPIB Test (used to enter the errors of the components) and measurement screen for performing tests on the reactor.
	Depending on the operating conditions required, the low-voltage part of the Model AccuLoss® SR7010 System is designed for: <ul style="list-style-type: none"> Laboratory bench top setup Test Floor rack on wheels 	Depending on the operating conditions required, the low-voltage part of the Model AccuLoss® SR2020 can be designed: <ul style="list-style-type: none"> Bench top setup Portable enclosures on wheels

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