### SEL-2240 AXION® PLATFORM-PMU SOLUTIONS

MODULAR. FLEXIBLE. RELIABLE.





## RELIABLE AND MODULAR CONTROL FOR EVERY SUBSTATION

The SEL-2240 Axion is a fully integrated, modular phasor measurement unit (PMU) and control solution designed for synchrophasor systems. The Axion can be customized to fit a variety of substation sizes and requirements because you can add the exact number of CT/PT modules or digital input modules that you need. Stream and process IEEE C37.118.1 compliant synchrophasor messages via the SEL-2245-4 AC Module, which has 4 CT and 4 PT inputs, as well as the SEL-2244-2 Digital Input Module, which has 24 digital inputs. Send voltage or current phasors, breaker status, or nontraditional analog input quantities, such as temperature or pressure, with the streaming power of the Axion. The Axion chassis also provides accurate P and M class measurements in remote locations as far as 5 km apart, and because the EtherCAT<sup>®</sup> network distributes submicrosecond time to each chassis, an IRIG-B connection isn't needed. In today's harsh substation environments, the Axion is the reliable control and measurement solution you can depend on for your critical operations.



Modular PMU

#### ONE PMU FOR AN ENTIRE SUBSTATION

The Axion can act as a single PMU that covers an entire substation, simplifying setup and management of PMUs regardless of substation size. Simply configure the Axion with the number of CT and PT input modules and digital input modules needed. The digital inputs can then communicate the status of each breaker or switch in your substation, providing timely and accurate feedback about your operations.



#### PRECISE MEASUREMENT IN **DIFFICULT ENVIRONMENTS**

SEL Axion

Modular PMU With GPS Satellite Clock Input

> The Axion is an ideal solution for use in areas or environments where gathering data is difficult. In a dam, one Axion PMU can be installed at the substation near the top while another goes next to the generator deep within the dam. The two devices are joined via a fiber connection, allowing the Axion PMUs to accurately make synchrophasor measurements at both the generator, where there is no IRIG-B signal, and at the substation, where there is a GPS clock connected to the Axion.





Remote Axion PMU Node

# PHASOR MEASUREMENT UNIT PERFORMANCE SUMMARY

Standard compliance	IEEE C37.118.1-2011 as amended by IEEE C37.118.1a-2014
Performance class	P and M
Reporting rates	1 to 60 messages/second
Phasor quantities	Maximum of 64 phasors
Digital inputs	30
Server outputs	1–2 servers with 64 phasors at 60 messages/second 3–6 servers with 64 phasors at 30 messages/second



#### MAKING ELECTRIC POWER SAFER, MORE RELIABLE, AND MORE ECONOMICAL

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