

## ERLPhase Power Technologies: November 2010 Update

Welcome to our latest e-newsletter. Enjoy...

### T-PRO Transformer Protection B-PRO Bus Bar Protection

#### *Best-in-Class Differential Protection Systems*

Protect your substation assets with the most reliable differential systems on the market.

Our Transformer Protection and Bus Bar Protection relays now offer...

#### **Delta-Phase\***

A unique technique that ensures secure differential protection, even under extreme CT saturation and other adverse power system conditions.

\* Patent Pending. Delta-Phase is included in all new T-PRO 4000, T-PRO 8700, B-PRO 4000 and B-PRO 8700 products.

[LEARN MORE](#)



### New! Transmission-Level Sub-Harmonic Monitoring & Protection: S-PRO 4000 Sub-Harmonic Protection Relay



*Protecting wind farms and series compensation transmission systems.*

#### **Reliable wind farm operation**

Since wind farms are generally located far away from load centers, power flow is increased using series capacitors to compensate for transmission line reactance. Unfortunately series capacitors can interact with the wind system, creating undamped sub-harmonic current oscillations that can cause serious damage to wind turbine controllers and also to conventional generators. The wind turbine's own mechanical system interactions (tower-to-blade) can also generate sub-harmonics, which are detrimental to induction generators, transformers, and may cause resonance at the point of common coupling in the electrical grid. By isolating the healthy grid from sub-harmonic generation sources, damage to the electrical interconnection can be prevented.



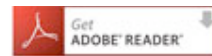
Wind farm located in Midwest USA is site of first S-PRO installation.



ERLPhase and Xcel technical teams work together for successful installation of the first S-PRO, which will detect sub harmonics at a wind farm in the Midwestern USA.

### AutoCAD Drawings Now Online!

Customers can now download AutoCAD drawings for each product from our website, enabling them to copy/paste those into their own construction drawings for equipment installation. Drawings can be downloaded (along with manuals and other product literature) from the Documents page in the Support section of our website: <http://www.erlphase.com/support.php?ID=documents>. There's now a column called "Drawings", which enables download of a zipped file with the drawings for that product.



Brochures	Manuals	Drawings	Ordering Template
	<a href="#">10.5MB</a>	<a href="#">3.1MB ZIP</a>	<a href="#">232KB</a>
	<a href="#">2.9MB</a>	<a href="#">1.3MB ZIP</a>	<a href="#">234KB</a>
		<a href="#">3.0MB ZIP</a>	<a href="#">232KB</a>

Do let us know if you ever have other website suggestions to improve our service to you.

### CD Manuals

In our ongoing efforts to run our business in an environmentally sensitive way, we are encouraging the use of PDF manuals. Your CD manual is included in this box (for products except accessories, which do not have manuals). Of course, the latest copies of all manuals are also always available for download from our website. If you do wish to have a hard copy you may request that from our Support Team (contact info below).



### Western Protective Relay Conference

It was good to see many of you in Spokane at the recent WPRC conference. At our hospitality room, ERLPhase demonstrated 4000 series hardware, including the S-PRO 4000 Sub-Harmonic Relay. All were pleased with the look of the hardware, with updated logos and design. The vendor suite enabled in-depth meetings with our current and prospective customers including AltaLink, CLECO, Enmax, Fortis BC, National Grid, PG&E, Portland General Electric and Tri-State. As in past years, we are encouraged to have a good reputation among key customers, who make a point to visit us and connect with our sales and application contacts at the show.



**Above:** Joe Perez presents his paper entitled *Fundamental Principles of Transformer Thermal Loading and Protection* to the a packed conference audience.

Thank you to ASAT Solutions, who demonstrated their cyber security and substation automation solutions in our suite. Many of our TESLA 3000 customers had interest in solutions to meet NERC CIP Cyber Security requirements.



**Above:** Nan Zhang, Rene Midence, and Cathy Brydon.



**Above:** 4000 series relays running IEC 61850 demonstration, using L-PRO Line Protection Relays.

Learn more about WPRC at <http://conferences.wsu.edu/wprc>

## IEEE/PES T&D 2010 (Latin America)

Nov 8-11, 2010  
Sao Paulo, Brazil

Thanks to everyone that visited us recently in Sao Paulo. This show was exciting chance for us to expand relationships in Latin America and to show off our new products!

Learn more about [IEEE Brazil](#).



**Above:** (left to right) Hugo Davila, René Midence, Ricardo Fernandez, and John Swindlehurst show off newest generation products in Sao Paulo, Brazil.

## New App Notes

### ❖ Establishing a TESLA Cooperative Group

This application note describes the core procedure and settings required to establish a cooperative group of two TESLA 3000 recorders on a network. Its application can be extended to a cooperative group of up to four recorders. Detailed information on the configuration and operation of a cooperative group is provided in the TESLA 3000 and 4000 manuals, and the

reader is advised to refer to those sources for details.  
[Download Application Note PDF](#)

## Upcoming Events

Looking forward to seeing you at an event in your area...

### DistribuTECH 2011

Feb 1-3, 2011  
San Diego, CA  
Visit us at Booth #2216!

❖ [Learn more about DistribuTECH 2011](#)

### Texas A&M Relay Conference

Apr 11-14, 2011  
College Station, TX

❖ [Learn more about Texas A&M Relay Conference](#)

### Georgia Tech Fault Disturbance Analysis & Protective Relaying

May 9-13, 2011  
Atlanta, GA

❖ Learn more about: GA [Tech Fault Disturbance Analysis Conference](#) and [Protective Relaying Conference](#)

### ERLPhase Power Technologies Ltd

- ❖ North American centre of excellence within a strong and dynamic global organization
- ❖ Driven by innovation and best-in-class technology to provide smart solutions to customers needs
- ❖ Singular focus on power system protection and recording



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