

# WIND TURBINE MARKET SOLUTIONS

For Wind Power Applications



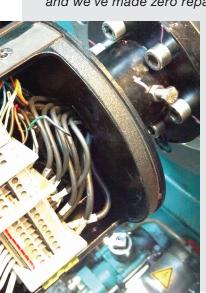
#### **Wind Turbine Market Solutions**

TPC Wire & Cable Corp. is a leading supplier of high-quality, high-performance wire, cable, connectors, and assemblies designed and engineered to withstand harsh industrial environments. We know how critical it is that your cables and connectors be able to survive abuse from impact, abrasion, flexing, extreme temperatures, and chemicals. TPC products solve the most difficult application problems and outlast ordinary cable 10:1, reducing your downtime, labor, and overall costs.

# **Customer replaces hundreds of harnesses with TPC product**

Dustin Coats, Regional Purchasing Agent **Leeward Renewable Energy** (Formerly Infigen Energy)

"We have been extremely pleased with a variety of products TPC has brought to the table – especially the Slip Ring Harness. Previously, we were powering down and accessing our turbines monthly to replace cable. This was not just an issue because of downtime and labor costs. It was also a safety issue, as the cable would often crack and expose wires. TPC's engineers provided us with a custom-designed solution that was extremely flexible and which has held up incredibly well over time. Since the custom assembly was installed a few years ago, the cable has shown no sign of damage, we've had no breakdowns, and we've made zero repairs. Due to the success we've



had with the 80+ turbines that are currently using TPC's Slip Ring Harness, we plan to switch over more than 200 additional turbines as failures occur, replacing each of the commodity harnesses with TPC's product."



#### **TPC Slip Ring Harness**

TPC's Slip Ring Harness Cable reduces downtime and helps you get back on line faster. This flexible harness is easy to install (even in cold weather) and is resistant to abrasion, oil, chemicals and UV. Conductors are highly flexible and are specifically designed for smooth installation in tight working spaces. We can also design a custom harness for your specific wind turbine needs.



#### **PFISTERER**

### NOW STOCKED & READY TO SHIP IN THE U.S.

- Reduced Lead Time
- Customized kitting
- Complete Cable Assemblies
- Storage & Deployment Solutions
- Technical Support



MV-CONNEX up to 36 kV



P3 MV QUICK-CONNECTION SYSTEM up to 6.6 kV

#### **TPC Products Solve Problems in Wind Energy Applications**

#### **ASSEMBLIES**



#### Locking Cam-Lock Assembly:

Secure quick-connect power up to 700 A. Watertight IP69K rated. Twist lock to prevent accidental disconnection. Appropriate for use with power runs. Available 2 AWG to 750 MCM and up to 2,000 V. Pull tested to 2,000 pounds.





#### Pitch Motor Harness:

Molded or mechanically attached. Sealed to prevent common brush dust failure.

### • Circuit Board Harness:

Reverse-engineered and redesigned as a rugged solution that's built to last.

#### **CABLES**



#### Portable Equipment Power Cable:

Extremely flexible to withstand abuse. Suitable for Class 1, 2, 3 — Division 1 & 2.



#### Main Power – Single Conductor Power Cable/DLO:

Highly flexible. Low smoke UL 1685. FT-4 and VW-1 Flame Rating. Oil and sunlight resistant. Rated 2,000 V. Combinable with Locking Cam-Lock for easy changeout.

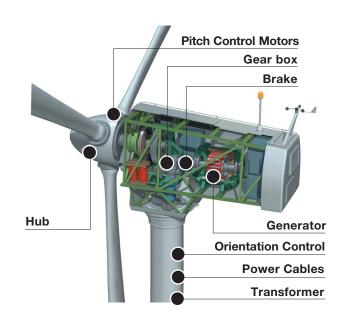


#### Super-Trex® Type MV-105:

Flexible medium voltage cable that simplifies difficult installations. Ideal for use in tight spaces with small bend radius. Oil and sunlight resistant. Listed to UL Std. 1072. Meets FT4/IEEE 1202 Flame Rating.

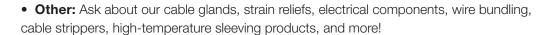
#### **CUSTOM SOLUTIONS TO SOLVE ANY PROBLEM**

TPC offers custom-engineered products that are designed using specific application and environmental information supplied by the customer. Built to solve a particular problem for an individual customer, these product solutions represent a unique added- value service offered by TPC, whose engineers are experienced in the electrical, mechanical, chemical, and industrial engineering disciplines. This know-how translates to superior performance. TPC engineers will assemble the critical components of your cable into a final design that delivers a longer-lasting, cost-effective alternative to the constant replacement of ordinary cable.



#### TPC Accessories — For Safe, Correct & Efficient Completion of the Job

- **Vulko-Wrap™:** Our most popular accessory! Adhesive-free, self-vulcanizing, insulated tape that fully bonds in 24 hours while remaining pliable in its application. Resistant to oil, water, ozone, and many chemicals. High dielectric strength usable with all electrical connections. Effective in temperatures from −60°F to +400°F. Conforms easily to odd shapes.
- Adhesive Shrink Tubing: The most versatile protection on the market! Three sizes available to cover wire from 16 AWG through 2000 MCM cable. Offers protection for sensors and conduit, strain relief for plugs and connectors, dielectric protection for tools and pliers, and corrosion protection for hydraulic cylinders and exposed sensors. Hy-Trex® High Ratio 6 to 1 Adhesive Shrink Tubing provides a watertight seal and is ideal for wet and corrosive environments and also underground applications.









## LET TPC DO THE WORK.

Get your cables connectorized & ready to install.

800.521.7935 | www.tpcwire.com



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