

# INNOVATIVE WIND ENERGY SOLUTIONS

Blade to Grid



## Nacelle

We provide products for all components of the nacelle, which is the largest feature of the wind turbine that houses the main systems for power generation and control. The products listed here represent only a fraction of our entire line of products.

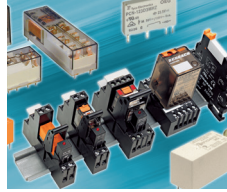
### Electronic Components



HTS Heavy Duty Connectors



Passive Components



Relays

Circular Plastic Connectors (CPC)  
Industrial Ethernet Products  
Sensors  
IEC-Type Contactors  
Heat Shrink Tubings  
Identifications  
Elo Touch TouchSystems  
Flexible Bus Bars  
Fibre Optics  
Cable Assemblies

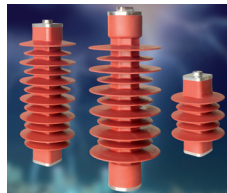
### Electrical Power Products



Screened Power Cable Connecting Systems



Digital & Analogue Meters



Surge Arresters

Power Cable Terminations  
Insulators  
Connectors & Lugs  
Load Limiters  
AMPOWER Terminals, Lugs, Splices

## Tower

We provide products for all components of the wind tower, which acts as a support to the nacelle and is the conduit for power and control to the ground systems. The products listed here represent only a fraction of our entire line of products.

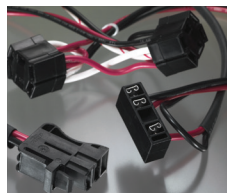
### Electronic Components



Shear Bolt Lugs and Sleeves



Sensors



Customised Cables & Cable Assemblies

HTS Heavy Duty Connectors  
Passive Components  
Circular Plastic Connectors (CPC)  
AMPOWER Terminals & Splices

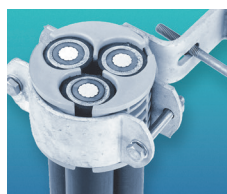
### Electrical Power Products



Dead Break Elbows and Arresters



Power Cable Terminations



Power Cable Risers

Power Cable Joints/Splices  
Earthing Connectors  
Heat Shrink Tubings  
AMPOWER Terminals, Lugs, Splices  
Surge Arresters

## Base

Switchgear, Transformer, Converter... These systems prepare the power generated within the nacelle for transmission to grid. The products listed here represent only a fraction of our entire line of products.

### Electronic Components



Fibre management  
Joint closures  
with cold gel seal  
technology



Circular Plastic  
Connectors (CPC)



Industrial ethernet  
products

**Passive components**  
**Relays and busbars**

### Electrical Power Products



Power cable  
connecting systems



Insulation  
components



Power cable  
feedthroughs

**Insulators**  
**AMPOWER terminal, lugs,  
splices**  
**Earthing connectors**  
**Insulation**  
**Digital & analogue meters**  
**Power cable joints/Splices**  
**Cable Riser**  
**Flexible Bus Bars**  
**Power Cable Terminations**

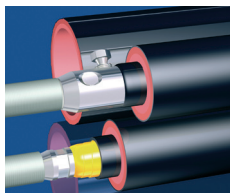
## Collector Field

A network of power and communications that interconnect the towers to the substation and the wind farm control station. The products listed here represent only a fraction of our entire line of products.

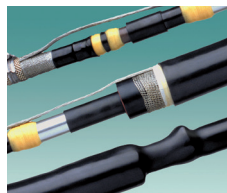
### Electrical Power Products



Heat shrink cable  
joints/splices



Power cable  
Inline joints/splices



Power cable  
Repair joints/splices

**Power Cable Branch Joints**



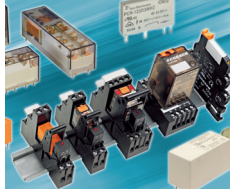
## Substation

We provide products for all components of the control station, including wind farm controls, power and communication interconnects. The products listed here represent only a fraction of our entire line of products.

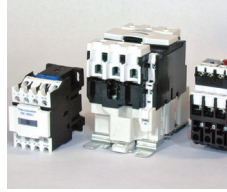
### Electronic Components



HTS Heavy Duty Connectors



Relays



IEC-Type contactors

Switches  
Cable assemblies  
Cable ties  
Mounts & accessories  
Fibre optics  
Elo touchSystems  
Netconnect  
Connectors  
Industrial ethernet products

### Electrical Power Products



Substation protection - Insulating components



Terminations



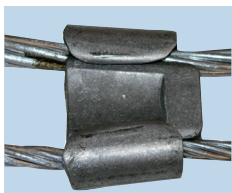
Power cable feedthroughs

Insulators  
Earthing connectors  
Insulation systems  
Digital & analogue meters  
Joints/Splices  
Flexible busbars  
Insulation systems  
Power cable connecting systems

## Network Grid Interconnection

We provide products for public grid access, which transmits the power from the wind farm throughout the public grid to the end user. The products listed here represent only a fraction of our entire line of products.

### Electrical Power Products - MV & HV network



Ampact wedge connectors



Wildlife and Asset Protection products



Terminations

Surge arresters  
Insulation systems  
Power cable inline joints/splices  
Power cable branch joints/splices

### Electrical Power Products - HV Substation



HV terminations



HV surge arresters



HV Busbar connectors

HV insulators  
HV surge counters  
Insulation systems  
Power cable feedthroughs  
Digital & analogue meters

## OEM & Panel maker

TE Connectivity is a trusted supplier of products for designers and manufacturers of control systems and panels for the wind sector.

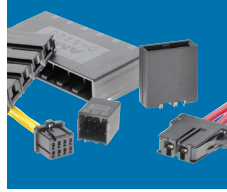
### Electronic Components



Terminal block connectors



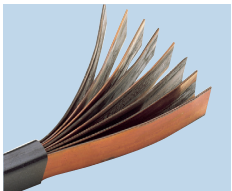
Heat shrink tubings



Dynamic series connectors

**Fibre Optic**  
**MB/M12 connector & cord sets**  
**Industrial ethernet products**  
**Industrial mini I/O connectors**  
**Kliovac contactors**  
**Elo touch systems**  
**HTS Heavy Duty Connectors**  
**IEC-Type contactors**  
**Filters**  
**Passives**  
**Circular Plastic Connectors (CPC)**

### Electrical Power Products



Flexible busbars



Insulation tubings



Digital & analogue meters

**Load limiters**  
**Circuit breakers**  
**Identifications**

## TE Connectivity's Alternative Energy Solar Solutions

SOLARLOK products deliver a flexible system solution for easy and dependable interconnections from photovoltaic modules to the DC/AC converter. The entire system concept is based on cost-effective and quality processing of individual interconnection system components. This significantly reduces installation costs of the solar energy system.



### Connectors

Designed with a wire crimp, these latching connectors accommodate 14-10AWG wire sizes for a low applied cost. Polarity keyed housing helps to prevent mismatching. UL and TÜV listed.



for high reliability. With a preassembled product that includes a #10-32 thread cutting screw, SolKlip grounding connector is easy to install to PV Modules. The 6-8 AWG grounding connector contains scoring features to score the ground wire and frame for a longterm, reliable connection. UL listed.



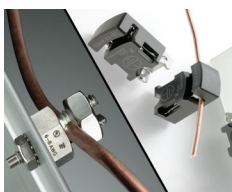
### Junction Boxes

The junction box concept is based on a flexible open system structure that allows serial as well as parallel interconnection via direct wire connect or separable connectors. Within the junction box, up to six termination rails are available for photovoltaic foil connection.



### Solar Wires

TE Connectivity PV wire is designed to meet the harsh environment conditions typical in the wiring of photo-voltaic installations. Listings include UL and TÜV listings, in addition to a USE-2 wire for the American market.



### Grounding Solutions

SolKlip 10-12AWG grounding connector provides four points of contact to the ground wire

### Solar Identification Labels

National Electric Code (NEC) demands proper marking and labeling of solar systems. TE labels are designed to withstand harsh outdoor environments. The labels can be exposed to rain, intense sunlight, UV rays, snow, ice cold temperature, sand, salt spray and condensation from fog without degradation.

# We offer a wide range of solutions for:

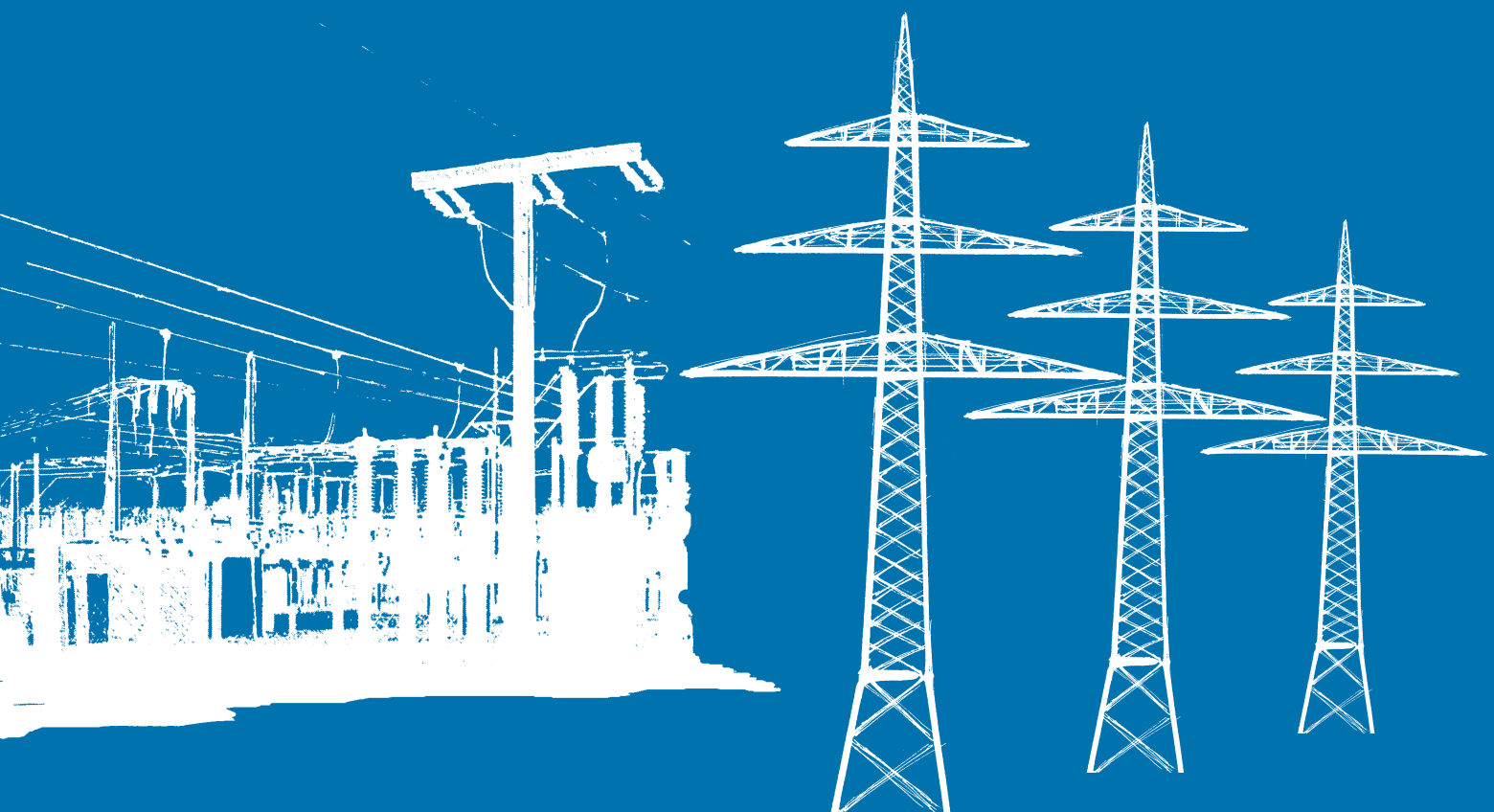
- Nacelle
- Tower
- Base
- Internal MV Underground Network
- Control Station
- Public Grid Access
- OEM Panel Maker

## Your Choice:

TE Connectivity offers a vast solution set of products for the wind turbine OEM, developer, contractor and engineering teams involved in the Wind segment. With TE Connectivity's global manufacturing and broad engineering expertise located in 12 design centers, we are committed to bringing the promise of renewable energy to the world.

**TE Connectivity** can assist you in making advancements in alternative wind energy with improved technical development and overall system solutions from the tip of the blade to the consumer. With an ever increasing pressure on quality and system availability, the alternative energy industry faces many opportunities. Whether system monitoring, motion and drive solutions, power and control interconnectivity, or any other related areas, such as modular turbine design, control systems, inverters or drives, these and many more challenges are being faced throughout this rapidly evolving market. For over 60 years, TE Connectivity has worked with industry leaders to introduce more cost-effective solutions, to develop systems to increase reliability, and to devise new and innovative ways to implement technically advanced solutions for emerging markets.

**In this flyer we represent only a fraction of the entire product range at TE Connectivity. Please contact us for our full range of products or if you have specific requirements.**



TE Connectivity (NYSE: TEL) is a \$12 billion global technology leader. Our connectivity and sensor solutions are essential in today's increasingly connected world. We collaborate with engineers to transform their concepts into creations - redefining what's possible using intelligent, efficient and high-performing TE products and solutions proven in harsh environments. Our 72,000 people, including over 7,000 engineers, partner with customers in close to 150 countries across a wide range of industries. We believe EVERY CONNECTION COUNTS - [www.TE.com](http://www.TE.com).

- Mining
- Nuclear power plants
- OEMs
- Overhead distribution
- Petrochemical plants
- Railways
- Street lighting
- Substations
- Transmission lines
- Underground distribution
- Windfarms
- Solar
- Hydro-electric

WHEREVER ELECTRICITY FLOWS, YOU'LL FIND TE ENERGY



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## MEDIUM VOLTAGE JUNCTION BOX

### WITH RAYCHEM SCREENED, SEPARABLE CONNECTION SYSTEM

### RSTI UP TO 42 KV

#### KEY FEATURES

- Application in grid connection and wind turbines in on shore and off shore environment
- Branching point for cross section combinations from 25 to 800 mm<sup>2</sup>
- Full metal encapsulation
- Easy accessibility to the capacitive test points
- Monitoring and detection of voltage
- Tested according to CENELEC HD.629.1 S2:2006 +A1:2008

TE Connectivity's (TE) medium voltage junction box with set of Raychem screened separable connectors facilitates safe, easy and quick connection and disconnection of MV cables up to 42 kV. It is suitable for usage in grid connection and wind turbines in on shore and off shore environment. Supporting a wide application range, it represents a branching point for all cross-sections from 25 to 800 mm<sup>2</sup>.

The overall dimensions are compact and designed to take up the minimum space. Full metal encapsulation gives reliable and insured service. MV Junction box provides ability to connect all Raychem screened separable connectors type RSTI, Coupling Connectors RSTI-CC and Surge Arresters RSTI-CC-SA.

This gives easy accessibility to the capacitive test points for determining whether the circuit is energized and opportunity to protect equipment from overvoltages. Possibility to monitor and detect the voltage gives reliability and safeness in its function within electrical system.

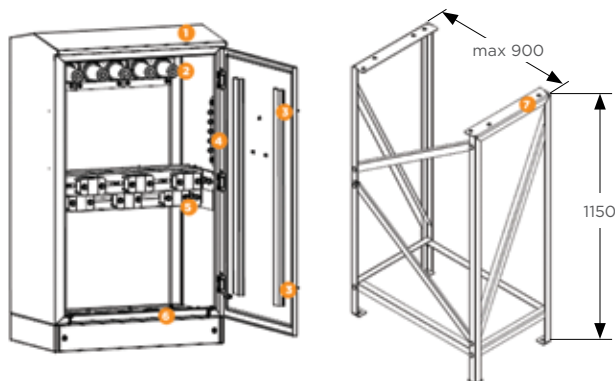
Standards:

Tested according to the cable accessories standard CENELEC HD 629.1 S2, which includes BS, VDE and other international specifications.

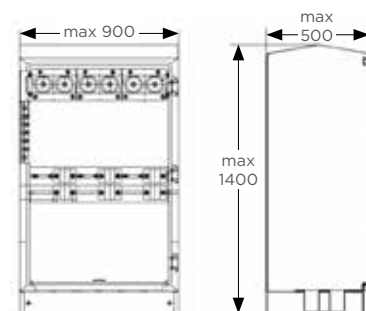
With fulfilment of IP 65 test degree of protection with integrated bottom plate, MVJB is secured against water and dust ingress.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## Medium Voltage Junction Box



1. Metal housing
2. U-shape bushing
3. Door locking system
4. Earth busbars
5. Cable cleats
6. With or w/o bottom plate
7. MVJB Foundation rack



### EXAMPLE OF SELECTION DATA\*

Voltage Class	Cable Cross section	Diameter overshearth	RSTI Kits	RSTI-CC Kits	U-Bushing	Bottom Plate	Cable Cleats	MVJB KIT**
	(mm²)	(mm)						
42 kV	25	35-38	RSTI-6851	RSTI-CC-6851	630 A / 1250 A	01 (MA) & 03 (IP65)	HVCA-CABCLAMP-ST36-52	MVJB-6x2A-01; MVJB-6x2A-03; MVJB-6x2A-03S**
	35	37-39						
	50	38-40						
	70	39-42						
	95	41-44						
	120	43-46	RSTI-6853	RSTI-CC-6853				MVJB-6x2B-01; MVJB-6x2B-03
	150	45-48						
	185	47-49						
	240	50-52						
	300	53-55					RSTI-6855	
	400	57-59	RSTI-6951	RSTI-CC-6951	1250 A	01 (MA) & 03 (IP65)	MVJB-6x2E-01; MVJB-6x2E-03	
	500	59-62	RSTI-6952	RSTI-CC-6952			MVJB-6x2F-01; MVJB-6x2F-03	
	630	62-65					RSTI-6953	RSTI-CC-6953
	800	64-66						

\* For further details please contact your local sales representative.

\*\* For stainless steel version add letter "S" into description.

### TECHNICAL DATA

Protection class	IP65***	No class
Application	Non buried	Non buried
Box size (LxHxW) (mm)	max 900x1400x500	max 900x1400x500
Material	Mild and Stainless steel	Mild and Stainless steel
Cable connection	Compression or mechanical lug	Compression or mechanical lug
Impulse withstand voltage (kV)	200	200
AC withstand voltage (kV)	93,5	93,5
DC withstand voltage (kV)	125	125
Short circuit current (kA/1s)	22	22
Description	MVJB-6x2x-03	MVJB-6x2x-01

\*\*\* with integrated bottom plate.

### ORDERING INFORMATION

MVJB Foundation rack is ordered separately.

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