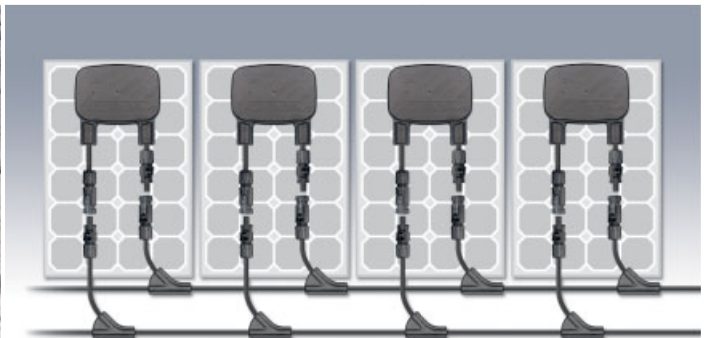


# Success stories

[www.multi-contact.com](http://www.multi-contact.com)

## Solarsector



**1500 Volt DC (IEC) - Multi-Contact is the first PV company to produce a junction box and connectors for PV crystalline modules.**

### Business needs – Background

The introduction of 1500 V technology combined with optimizer technology to increase efficiency is the next revolutionary step in photovoltaic system technology. This enables significant reduction of costs in this area, which improves solar energy production's ability to compete.

Our customer is not only a project developer, installer or manufacturer of photovoltaic modules, but is also an integrated producer of solar electricity providing solutions to a range of electrical markets up to 12MWp large scale PV plants. For further cost-effectiveness and optimization the customer decided to integrate a 300kWp 1500V sector for demonstration and comparison within a 12MWp solar farm. Compared to 1000V technology this could result in 10 to 15% more efficient classical grid integration.

Market segment
Solar Power
Application
1500V junction box with MC4PLUS connectors
Customer
Developer and module manufacturer
Location
France, South Africa, Europe, India
Industrial Connectors
<b>Solar</b> line



Female cable coupler MC4PLUS

Westlake-H junction box

Male cable coupler MC4PLUS

# Success stories

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## The challenge

Since solutions for 1500V IEC are not off the shelf solutions our customer contacted us in this specific case and asked us to provide a solution. Especially the handling of the TÜV testing and approval was challenging since no standard was defined at that time. MC worked very close with the approval agency.

## The solution

- MC4PLUS cable assemblies for initial project (end 2011)
- Westlake-H with MC4PLUS connectors for withstanding 1500V DC (July 2012)
- Varied and time-efficient services to the main players involved in the certification process (installation on 1350 modules to be finished in November 2012)

## Benefits for the customer

- **MC4PLUS for 1500V (IEC)** is the first connector worldwide with the TÜV certification for 1500V DC.
- **Water proof!** The MC4 as well as the MC4PLUS connector now guarantees in addition to IP65 and 67 the high protection category IP68 (1h/1m). The tests performed according to EN 50521 and IEC 60529.
- The MC4PLUS is compatible with our MC4 connector system.
- **Westlake junction box 1500V DC (IEC) TÜV certified!** Multi-Contact's new PV junction box Westlake for crystalline modules, originally rated for 600V, is now UL recognized for a rated voltage of 1000V and fulfills the IEC standards for 1000V and 1500V (depending on the cable selection).
- Access to additional MC services like engineering, certifications, market know how.

### Technical specification

#### Westlake-H:

- rated voltage: 1500V
- rated current:  $I_{sc} = 9A$
- reted current JB: 12A
- cable cross section: 4mm<sup>2</sup>
- cable length: 2x140cm
- connectors: MC4PLUS
- ribbons connection:  
Clamping technology

Multi-Contact will continue to research and develop new technologies in the field of photovoltaics to maintain its position as an innovation leader in the future.

For more information on how Multi-Contact can improve your business, visit us at [www.multi-contact.com](http://www.multi-contact.com) or contact your Multi-Contact account manager.

Advanced Contact Technology

**Multi-Contact**

**MC**

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