

# WE CONNECT SOLAR ENERGY.

Overview 2022/2023

COMPLETE SYSTEM FOR INTERCONNECTING FLOATING SYSTEMS







# THE PREMISE OF HIS IS TO INTEGRATE THE REQUIREMENTS OF NEW FORMS OF PHOTOVOLTAICS INTO TODAY'S PRODUCTS.

The proof: We have been selling HIKRA® Solar Cables which can do more than the standard prescribes for years. Our HIKRA SOL allowed us to implement and certify the stipulated requirements of the new TÜV 2 Pfg 2750 type designation without product modifications.



# HIKRA® SOL

# THE CABLE FOR FLOATING PV CERTIFIED IN ACCORDANCE WITH TÜV Pfg2750

Double insulated and featuring an electron-beam crosslinked compound, our HIKRA® SOL Cable is certified in accordance with all common standards, meets all relevant fire protection regulations and is subjected to additional tests which go far beyond the standard. Thanks to the use of durable and robust materials, HIKRA® SOL possesses increased water-repellent properties.





The tests carried out as part of the certification (floating PV TÜV 2 Pfg 2750) included, among others:

## **Extended DC voltage test:**

at 85°C + 5°C 240 hours Test voltage of 3.6V DC

#### Capacity measurement when immersed in water:

14 days immersion in water at +90°C +5°C; Capacity measurement after 1 day; Capacity measurement after 14 days a maximum of 10%, or after 7 days 4%, more than when compared to the capacity measurement after one day









# YOUR ADVANTAGE: NO RISKS

## Additionally certified for

floating PV in accordance with TÜV 2 Pfg 2750 (PV1500WR)

## Higher water resistance thanks to

a special compound with better insulation properties

## **Increased quality**

excellent mechanical stability

## Weather resistant

high degree of resistance to external organic influences







# INDUSTRIAL MANUFACTURING AND ASSEMBLY BENEFITS FOR YOUR ASSEMBLY.

The installation of solar cables and connectors in the field, and in particular on water, carries risks which have a negative impact on the connection's quality and service life. Pre-assembly of whole cable drums as a plug-and-play solution including labelling ensures these properties (quality, durability, shorter and safer assembly) and ultimately safeguards the capital invested.

# SHORTER ASSEMBLY TIMES PLUG'N'PLAY COMPONENTS

Floating systems can be set up as effectively as possible on an industrial scale thanks to matched HISkon® cable harnesses. These finished cable harnesses can be quickly and safely implemented into the floats on land - without any additional assembly work.



Matched plug-cable connections through additional immersion tests. The IP class alone is sufficient; risks such as longitudinal diffusion and plastics' relaxation behavior still remain underappreciated.

# **MORE QUALITY**

Not to mention the quality of the electrical connection itself. Our crimp laboratories and automated manufacturing process ensure we deliver 100% quality.







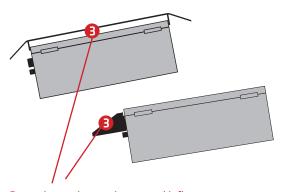


# DEVELOPED FOR INDIVIDUAL REQUIREMENTS DESIGNED FOR HIGH SYSTEM PROFITABILITY.

In addition to the challenges already known when using DC/AC combiners, floating systems face other issues and risks which need to be assessed and reduced, which include, among others:

- Resistance of the components to environmental influences
- Electrical operational safety and maintenance
- Protection against outside climatic influences

# **CUSTOMIZED**



Protection against environmental influences





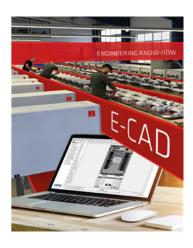
# DESIGNED WITH HIGH QUALITY COMPONENTS.

By using standardised, certified components which have also been tested by HIS Renewables, we are laying the foundation for long, maintenance-free operation of our HISbox® solutions.

**HIGH RELIABILITY** 

# PRODUCTION COMPLIANT WITH STANDARDS

We develop, design and manufacture our HISbox® Combiner Boxes in accordance with IEC 61439-2 and supply circuit diagrams and installation instructions in our offers.





## **ADDITIONAL PROTECTION**

HISbox® Combiner Boxes can be supplied with additional protection against solar radiation, heat and rain. The protective shield enables a constant flow of air which offers significant cooling for the components.

## **CERTIFIED QUALITY**

Integration of the planning software into the merchandise management system; temperature rise tests in in-house testing laboratories; routine testing in accordance with the IEC standard: with HISbox® String Boxes, nothing is left to chance.





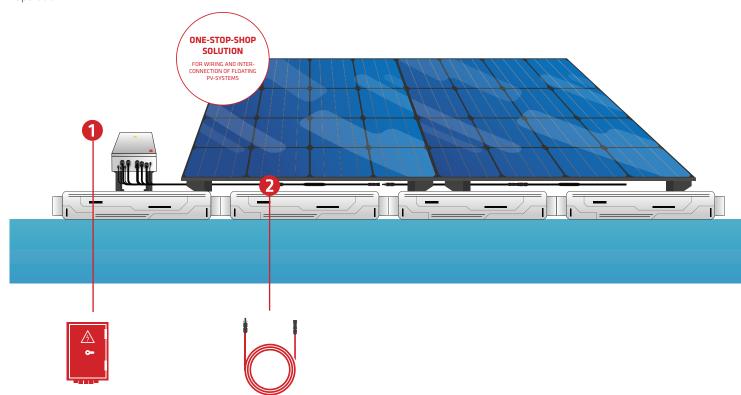






# FLOATING PV: THE SOLAR ENERGY REVOLUTION. CONNECTED SECURELY WITH HISCONNECT®.

One of floating PV systems' characteristics is their higher power generation owing to the water's cooling effect on the solar modules as well as the other components and cables. However, the cabling and interconnection components used must match the increased requirements of floating PV. Solutions and components from the HISconnect® portfolio overcome these requirements with flying colours, thereby ensuring stable and reliable operation.



## **DC COMBINER**

The power of all the solar modules in the array is collected here in order to feed it to the central inverter.

IEC 61439-1;-2

# PRE-ASSEMBLED CABLE HARNESSES

These are the connections used for integrating the solar modules, combiner boxes, the central inverter and the transformer.

HIKRA® SOL (H1Z2Z2-K) EN50618 + IEC62930 TÜV 2PFG 2750/09.2020 UL44 UL1581 UL2556



## Headquarter Germany

Development, Manufacturing, Vertrieb

## HIS Renewables GmbH

Siemensstraße 4 64760 Oberzent

**T** +49 6068 9314 430 **E** sales@his-solar.de

# HIS Renouvelables SARL

48, rue Claude Balbastre 34070 Montpellier

**T** +33 4 67 27 68 20 **E** info.fr@his-solar.com

# HIS Soluciones de Sistemas Solares S.L.

Avenida de Brasil 17 Madrid, 28020

**T** +34 916 320 493 **E** info.es@his-solar.com

# HIS Solar Sistemleri A.Ş

Alsancak Mah. 1479 Sk. N:15/17 Kristal 2 İş Merkezi K:3 D:12 35220 Konak - İzmir

**T** +90 232 4220 931 **E** info.tr@his-solar.com

#### Office Poland

**T** +48 576 030 900 **E** info.pl@his-solar.com

More information on our website www.his-solar.com

**#1 PROVIDER IN EUROPE** FOR WIRING SOLUTIONS

© 2022/2023 by HIS Renewables GmbH, All rights reserved. No liability for misprints.