



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SOLARLOK

Connectivity Systems for PV Solutions



Building a greener tomorrow

As solar becomes an increasingly viable and competitive source of alternative energy, TE Solar works with you every step of the way to solve your connectivity challenges. Our proven expertise, cross-industry innovation and broad range of connectivity solutions are establishing the intelligent link between the panel and the grid—and driving the future of solar energy.

Early involvement pays off in competition advantage

With approximately 7,000 engineers and 11 global design centers, plus manufacturing facilities in approximately 25 countries, we put a premium on innovation when it comes to helping companies solve tough design problems. Talking to us early on in your design cycle will give you the full benefit of our expertise.

We can help you:

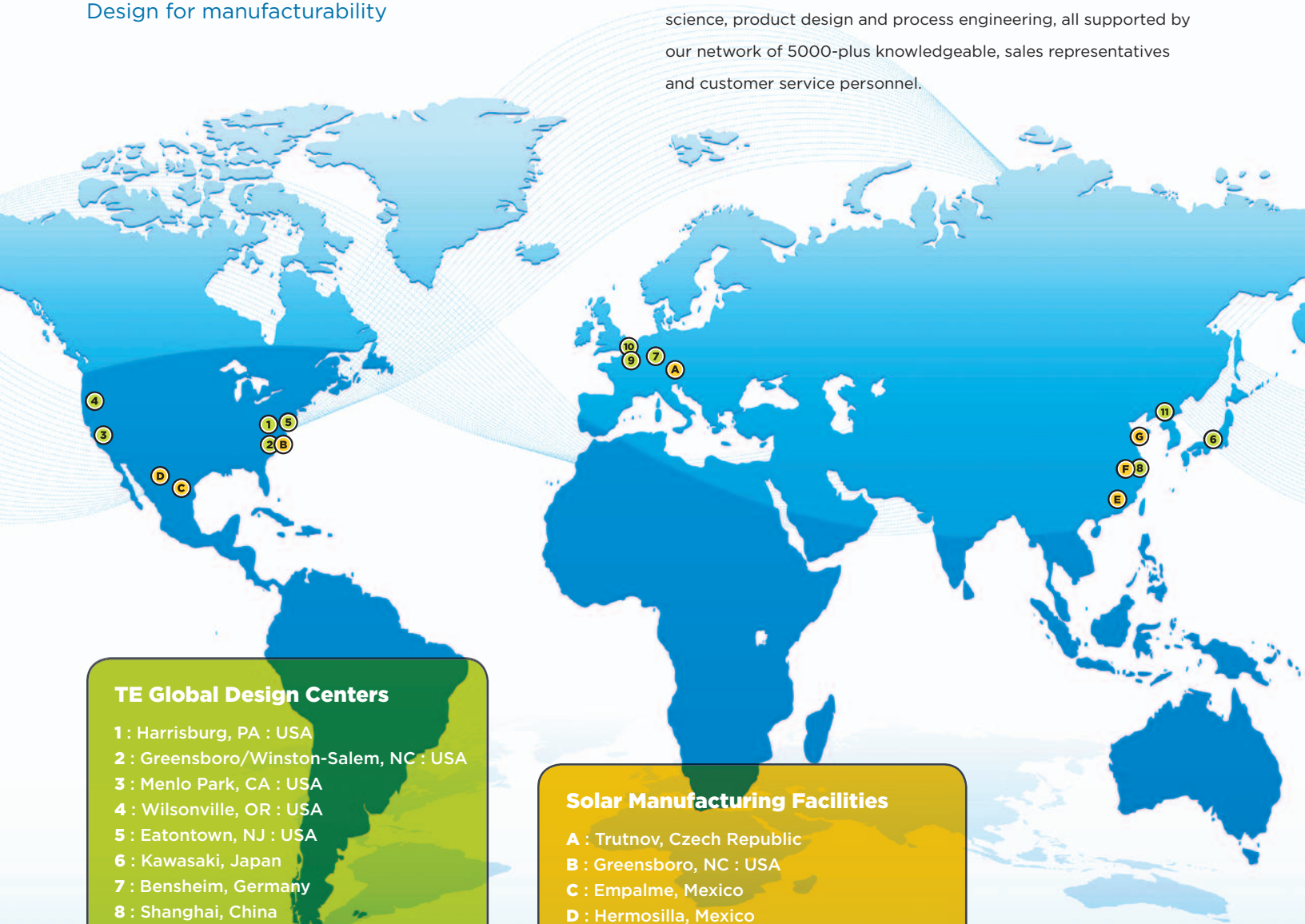
Shorten the design cycle

Reduce costs

Increase reliability

Design for manufacturability

In short, we can help you achieve a sustainable competitive advantage. Whether it's showing you the best existing products, offering a value added solution or designing a new product, our commitment to advanced engineering and world-class manufacturing delivers innovation that can advance any solar project. Our Electronic Components segment is a world leader in passive electronic components, including connectors and interconnect systems, relays, switches, circuit protection devices, touchscreens, sensors, and wire and cable. TE's ability to serve your present and future requirements is realized through the synergies of a strong R&D program and our expertise in materials science, product design and process engineering, all supported by our network of 5000-plus knowledgeable, sales representatives and customer service personnel.



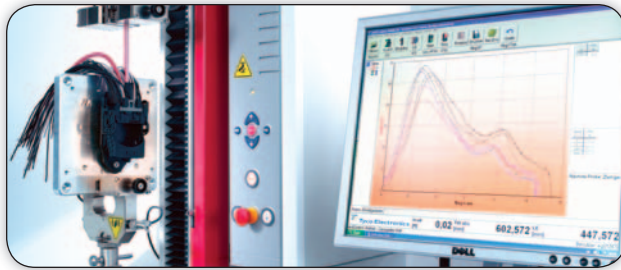
TE Global Design Centers

- 1 : Harrisburg, PA : USA
- 2 : Greensboro/Winston-Salem, NC : USA
- 3 : Menlo Park, CA : USA
- 4 : Wilsonville, OR : USA
- 5 : Eatontown, NJ : USA
- 6 : Kawasaki, Japan
- 7 : Bensheim, Germany
- 8 : Shanghai, China
- 9 : Kessel-Lo, Belgium
- 10 : s'Hertogenbosch, Netherlands
- 11 : Kyungsan, Korea

Solar Manufacturing Facilities

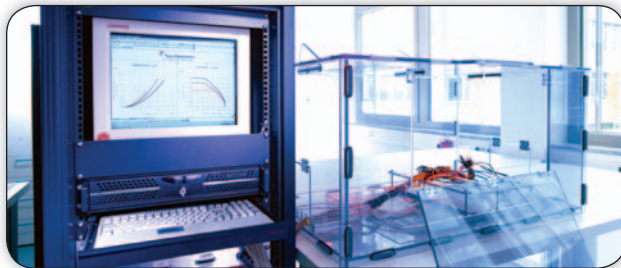
- A : Trutnov, Czech Republic
- B : Greensboro, NC : USA
- C : Empalme, Mexico
- D : Hermosilla, Mexico
- E : DongGuann, China
- F : Shanghai, China
- G : QingDao, China

Mechanical, Environmental and Electrical Testing Capabilities



Mechanical Testing Equipment

Force-deflection curves are generated to verify that spring contact properties meet design criteria.



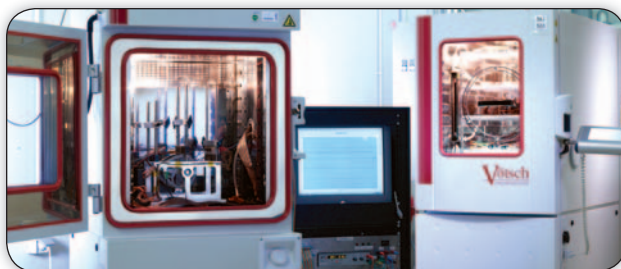
Electrical and Thermal Test Equipment

Contact resistance and temperature rise are measured and recorded automatically. These parameters help to establish/verify current carrying capacity, and de-rating curves. Test samples are isolated to minimize the influence of external variables such as air movement.



Climate cabinets and temperature shock chambers

Components/assemblies are exposed to cold, heat, moisture, and temperature change. Thermal shock is accomplished with the 2-chamber method. Environmental chambers operate from -70°C to +180°C enabling simulation of real-world conditions.



4-component pollutant gas unit/crimp validation

Slow-motion bending and vibration testing simulates line movements in the wire, stressing the crimped termination. Industrial atmospheres are generated with a gas mixture of SO₂, H₂S, NO₂ and Cl₂.



3D X-ray computer tomography

3D X-ray computer tomography provides high resolution three-dimensional non-destructive analysis capability.

Manufacturing Capabilities

TE manufactures the SOLARLOK product line on state of the art manufacturing equipment.

The Trutnov, Czech Republic facility offers a repeatable manufacturing process which produces a 100% automatically inspected and electrically tested junction box. For quality control purposes, each junction box is “laser etched” with a unique serial number.

Our electrical test equipment has four independent heads to automatically test each connection rail and diode in the popular four rail junction box. Assembly equipment automatically verifies the production of the cable assemblies and attachment to the junction box. The true position of the contact in the mating coupler housing and proper torque of the screw nut are some of the critical process checks made to each unit. A vision system is incorporated into the junction box assembly equipment. Polarization and molded features are inspected by the same vision system to contribute to the production of a quality product and a repeatable manufacturing process.

The SOLARLOK product is currently manufactured in Europe, Asia and the USA.



TE Manufacturing Facility in Trutnov, Czech Republic

The SOLARLOK Product Concept

System Features

Junction Box

- Variable wiring options
- Simple, fast and cost-effective assembly
- Flat, low profile design
- High current carrying capacity
- Good thermal balance
- Connectorized or direct wire configurations
- Up to four outputs possible
- Up to six internal rails
- Customer-specific solutions
- TÜV and UL approved

Cable Couplers

- Simple on-site processing
- Mating safety provided by keyed housings
- Semi-automatic assembly capability possible
- Multiple plugging and unplugging cycles
- Accommodates solar cable with different insulation diameters
- High current carrying capacity
- Wide temperature operating range
- TÜV and UL approved

Solar Cable

- More than 50 years of expected lifetime (acc. to TUV ZPFG1169/08.2007)
- More than 50% higher insulation resistance provides a superior safety
- Can withstand the lowest temperature in its range (-60°C at fixed installation)
- Nominal Voltage: 1800/3000 V AC – 2600 V DC
- Dual wall insulation
- Electron beam cross-linked
- Excellent resistance to U.V., water, ozone, fluids, salt, general weathering
- Excellent resistance to abrasion
- Halogen free, flame retardant, low toxicity
- Excellent flexibility and stripping performance
- Temperature Rating : -40°C up to +125°C



Simple and Reliable Interconnection of Solar Systems

Market expansion of the formerly regulated energy supply sector, increased global environmental awareness and governments committing themselves to more stringent environmental targets have opened up new opportunities for the photovoltaic industry.

Having served a niche market in the past, the photovoltaics industry now has the opportunity to move into mass production, realizing economies of scale and gaining a greater market share of the world's energy mix.

TE has contributed to the establishment of this environmentally-friendly technology with the introduction of its SOLARLOK connector system.

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

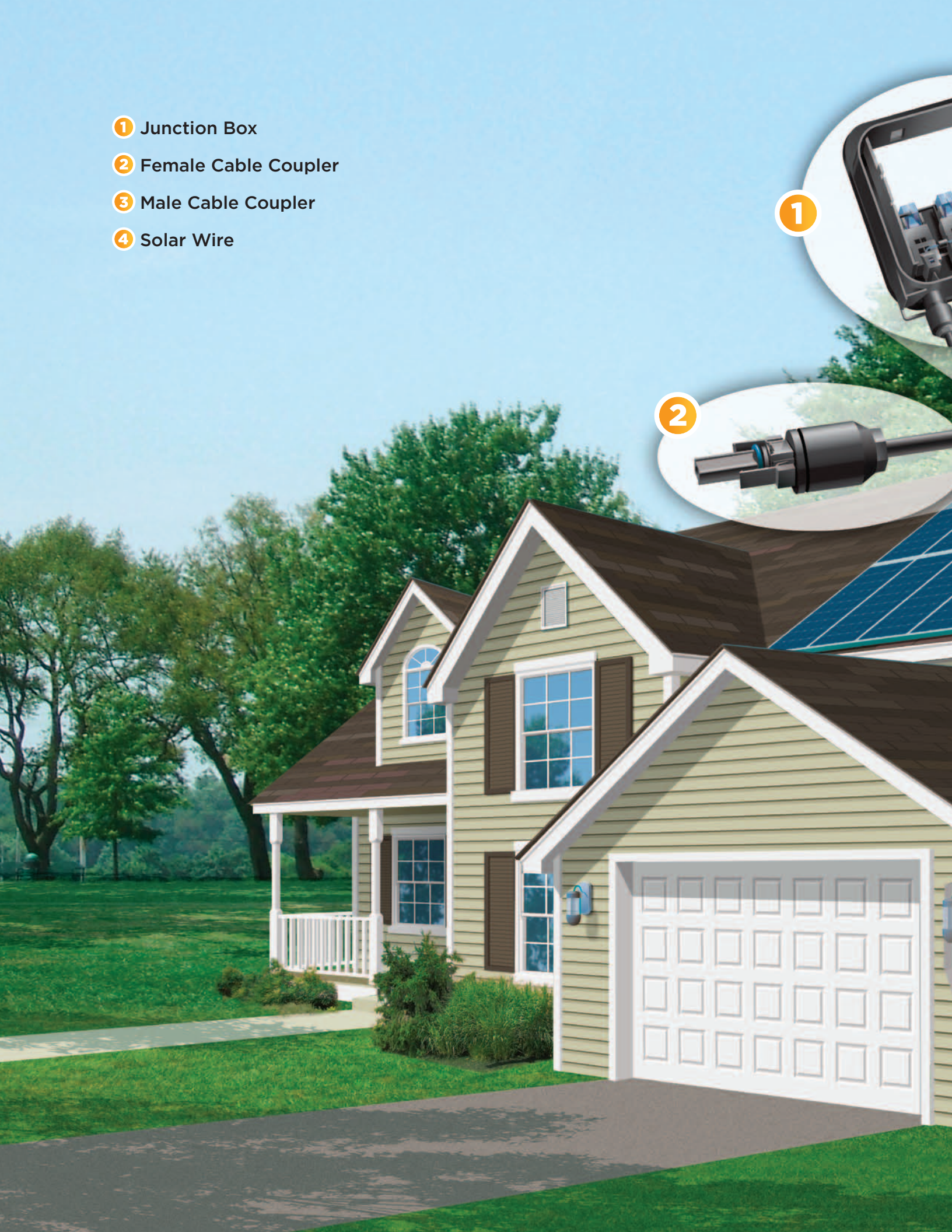
The junction box concept is based on a flexible, open system structure, which allows serial as well as parallel interconnection via direct wire connect or separable connectors. Within the junction box, up to six termination places rails are available for photovoltaic foil connection. If required by the customer, the junction box can be delivered pre-configured with diodes, jumpers, plug connectors, and solar cable pigtails.

The male and female cable couplers were designed for high voltage and high current-carrying capacity in addition to the well-established IP 67 sealing requirement in the photovoltaic industry. Mating safety is provided by polarity keyed housings, fully shrouded contacts, reliable high cycle life, and a squeeze to release connection system. In addition, a wide temperature range and fulfillment of worldwide standards for photovoltaic connection systems complement the robust product specification.

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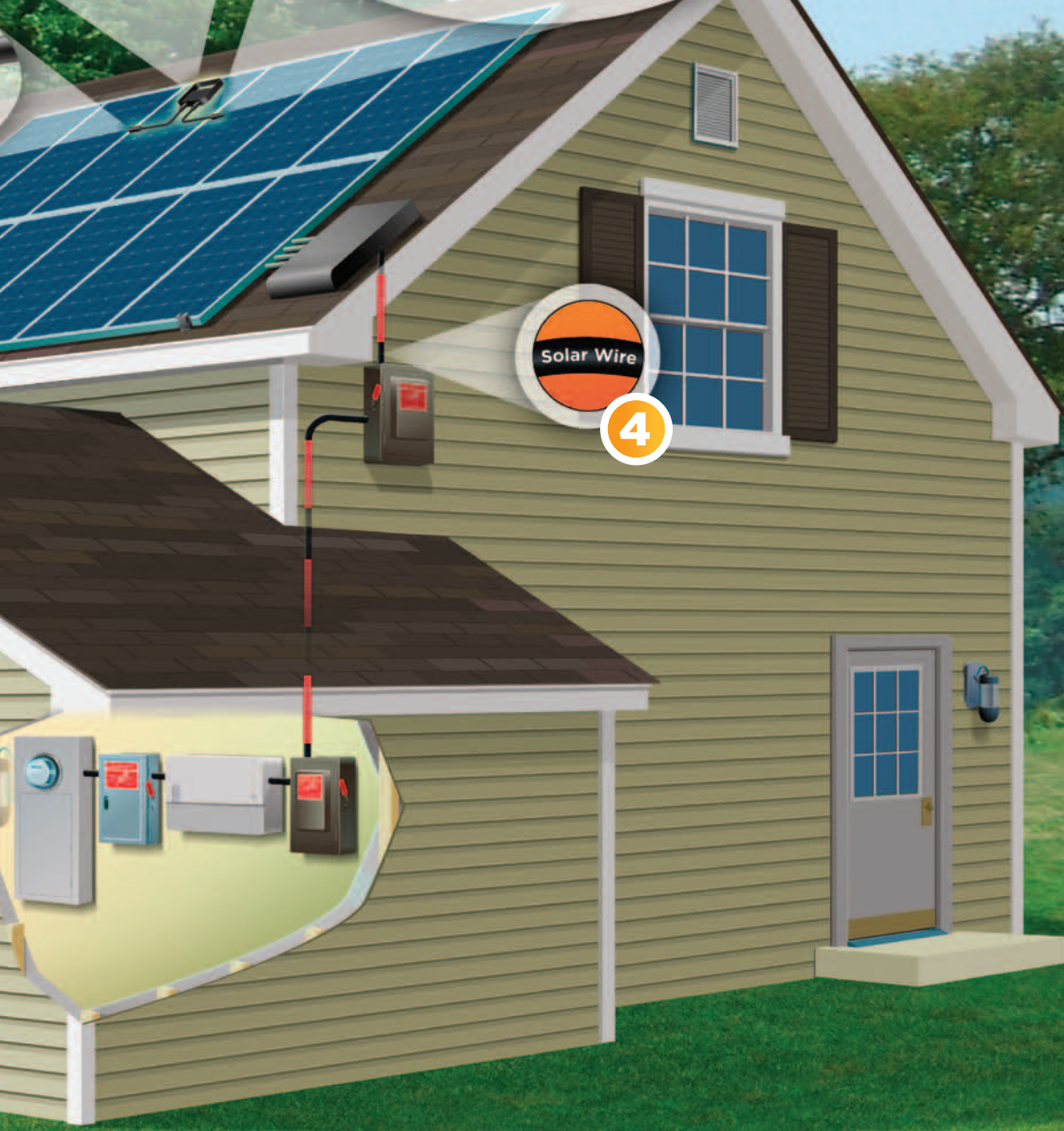
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- 1 Junction Box
- 2 Female Cable Coupler
- 3 Male Cable Coupler
- 4 Solar Wire



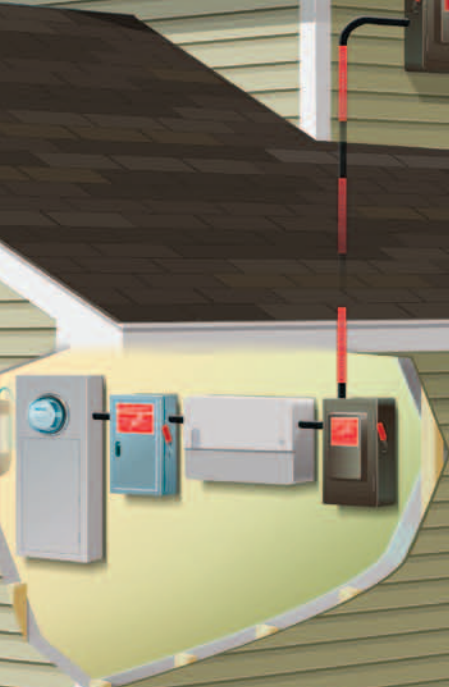


3



Solar Wire

4



Large Junction Box : Serial Interconnection

Technical Data

Materials

Socket and Pin Contacts : CuZn

Housing : PPE+PS, weatherproof against UV radiation ozone

Contact Rail : Bright tin over copper

Electrical Features

Withstanding Voltage : 1000 V DC

Current Rating : Up to 25 A

Protection Class : II

Mechanical Features

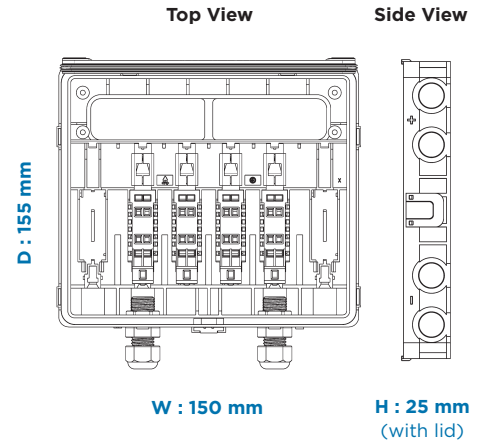
Temperature Range : -40°C to +105°C

Wire Size Range : Up to 12 AWG, 4 mm²

Protection Degree : IP 65, closed

Standards

TÜV approved to IEC 61215 ed. 2 approved



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG
1740300-2	6	5	6.0	1,000	4.0	12
1987294-2	6	5	8.5	1,000	4.0	12
1987254-2	6	5	13.0	1,000	4.0	12
1740077-1	4	3	6.0	1,000	4.0	12
1740077-3	4	3	8.5	1,000	4.0	12
on request	4	3	13.0	1,000	4.0	12

Junction Box with Connector Outlet

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)
3-1394723-0	6	5	6.0
6-1394735-5	6	5	8.5
6-1394723-4	6	5	13.0
2-1394723-4	4	3	6.0
on request	4	3	8.5
5-1394723-3	4	3	13.0

Standard mounting on the panel with silicone glue (approved types see application specification). Optional with double-sided adhesive tape (specifications of the adhesive tape can be found in the datasheets of the manufacturer)

5-Rail Junction Box : Serial Interconnection

Technical Data

Materials

Socket and Pin Contacts : CuZn

Housing : PPE+PS, weatherproof against UV radiation ozone

Contact Rail : Bright tin over copper

Electrical Features

Withstanding Voltage : 1000 V DC

Current Rating : Up to 25 A

Protection Class : II

Mechanical Features

Temperature Range : -40°C to +115°C

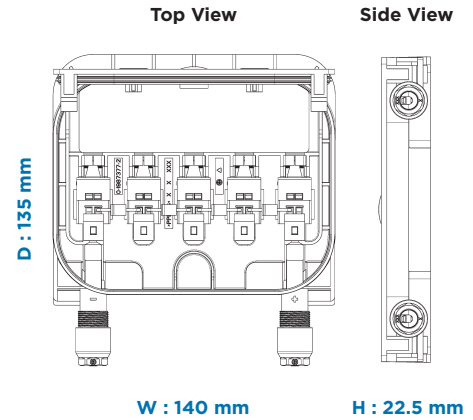
Wire Size Range : Up to 12 AWG, 4 mm²

Protection Degree : IP 65, closed

Standards

UL approved

TÜV approved to IEC 61215 ed. 2 approved



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG
1987858-3	5	4	8.5	1,000	4.0	12
1987982-3	5	4	13.0	1,000	4.0	12

Junction Box with Connector Outlet

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)
on request	5	4	8.5
on request	5	4	13.0

Automated Junction Box : Serial Interconnection

Technical Data

Materials

Housing : PPE+PS,
weatherproof against UV radiation ozone

Electrical Features

Withstanding Voltage : 1000 V DC
Current Rating : Up to 14 A

Mechanical Features

Temperature Range : -40°C to + 115°C
Wire Size Range : Up to 12 AWG, 4 mm²
Protection Degree : IP 65, closed

Standards

UL approved
TÜV approved

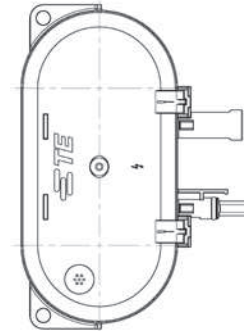
Part Number

x-2120098-1-y



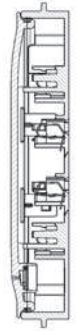
D : 145 mm

Top View

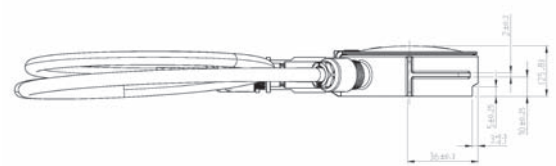
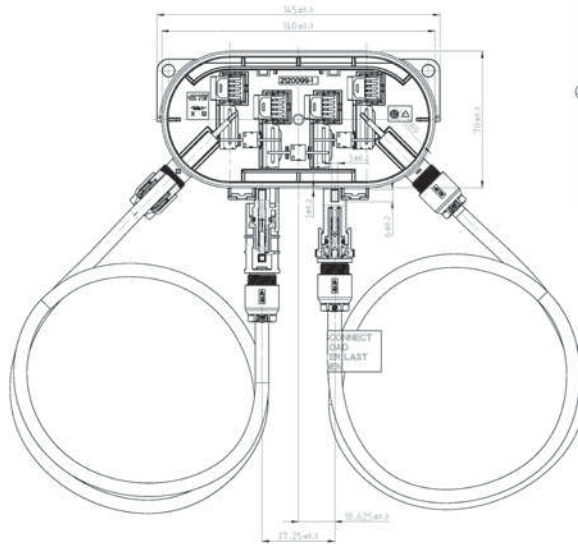


W : 70 mm

Side View



H : 25 mm



Z-Rail Junction Box: Serial Interconnection

Technical Data

Materials

Housing : PPE+PS,
weatherproof against UV radiation ozone

Contact Rail : Tin plated copper alloy

Electrical Features

Withstanding Voltage :
1000 V (TÜV) / 600 V (UL)

Current Rating : Up to 13 A

Mechanical Features

Temperature Range : -40°C to +115°C

Wire Size Range : 12 AWG, 4 mm²

Protection Degree : IP 65, closed

Standards

UL approved

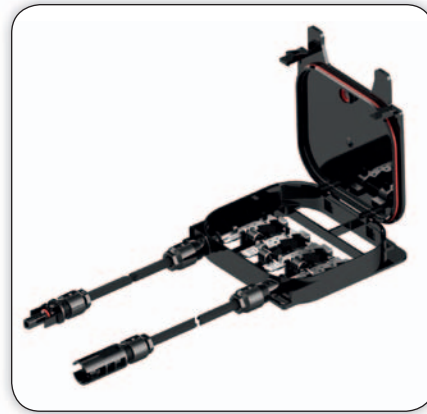
TÜV approved

Part Numbers

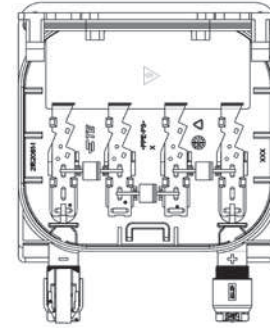
Clamp Version : y-2152080-x

Solder Version : y-2152099-x

Weld Version : y-2152177-x



Top View



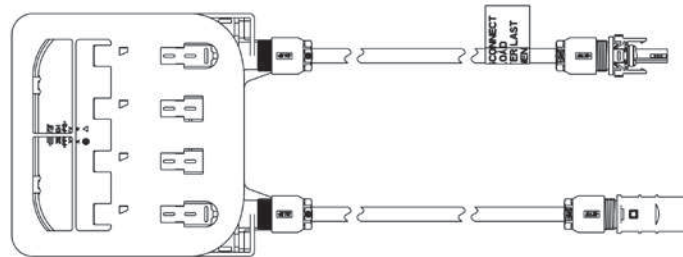
W : 115 mm

Side View

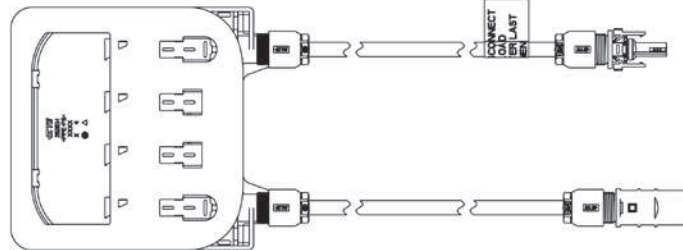


H : 23 mm

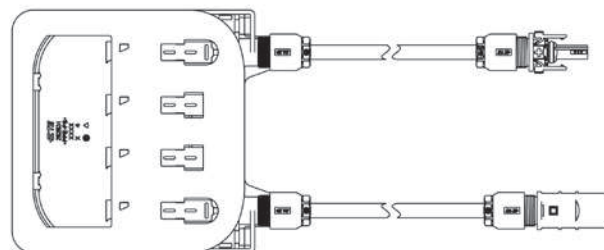
Soldered Version Potted



Clamp Version



Weldes Version



Medium Junction Box : Serial Interconnection

Technical Data

Materials

Socket and Pin Contacts : CuZn
 Housing : PPE+PS, weatherproof against UV radiation ozone
 Contact Rail : Bright tin over copper
 Lid : Impact resistant P.C.

Electrical Features

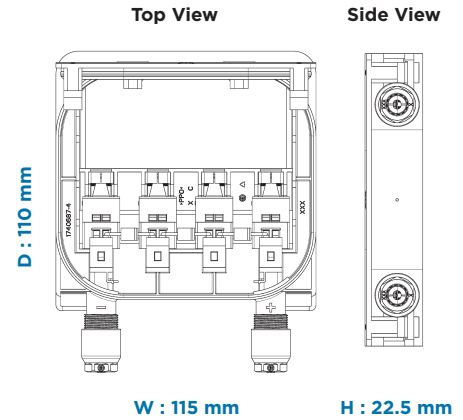
Withstanding Voltage : 1000 V DC
 Current Rating : Up to 25 A
 Protection Class : II

Mechanical Features

Temperature Range : -40°C to +115°C
 Wire Size Range : Up to 12 AWG, 4mm²
 Protection Degree : IP 65, closed

Standards

UL approved
 TÜV approved to IEC 61215 ed. 2 approved



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG
1987002-4	4	3	6.0	1,000	4.0	12
1740699-6	4	3	9.3	1,000	4.0	12
1740971-2	4	3	13.0	1,000	4.0	12

Junction Box with Connector Outlet

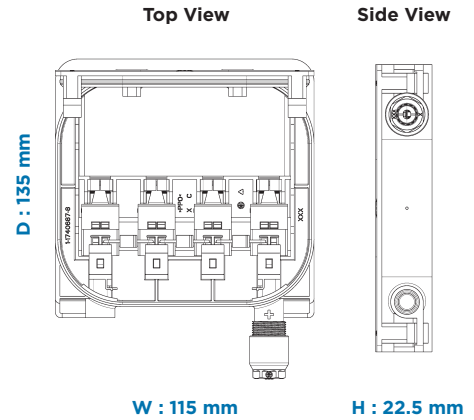
Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)
1987003-3	4	3	6.0
1740700-1	4	3	9.3
1740972-1	4	3	13.0

Special Version

Part Number	Contact Rails	Diodes	Withstanding Voltage
x-2120634-x	4	3	1000 V (UL & TÜV)

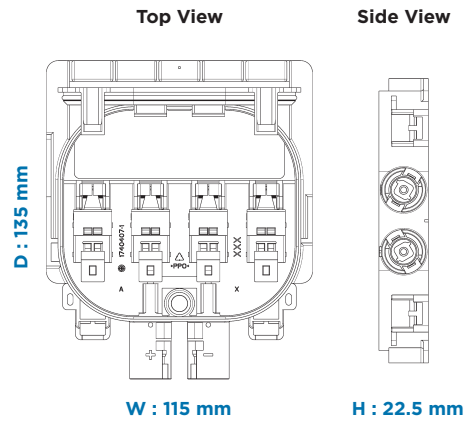
Medium Junction Box : Serial Interconnection : Special Versions

Technical Data



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG	Comments
3-1740699-9	4	3	9.3	1,000	4.0	12	Male contact (neutral) right, left closed
3-1740699-8	4	3	9.3	1,000	4.0	12	Female contact (neutral) left, right closed
1987994-1	4	3	13.0	1,000	4.0	12	Male contact (neutral) right, left closed
1987995-1	4	3	13.0	1,000	4.0	12	Female contact (neutral) left, right closed



Inside Style

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG	Comments
1740657-8	4	3	8.5	1,000	4.0	12	with mounted cable
1-1740657-2	4	3	9.5	1,000	4.0	12	with mounted cable

Breeze Junction Box : Serial Interconnection

Technical Data

Materials

Socket and Pin Contacts : Copper alloy with tin plated

Housing : R3 (UL94-V0/5VA, f1)

Lid : R2 (UL94-V0/5VA, f1)

Contact Rail : Copper alloy with tin plated

Electrical Features

Withstanding Voltage : 1000 V DC (TÜV)

600 V DC (UL)

Current Rating : 11 A (bypass mode)

Protection Class : II

Mechanical Features

Temperature Range : -40°C to +90°C

Wire Size Range : Up to 12 AWG, 4 mm²

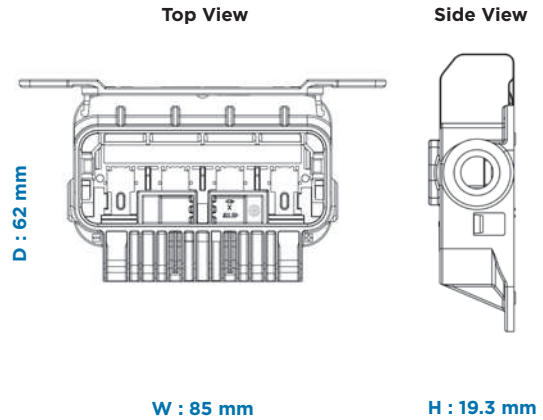
Protection Degree : IP 67, closed

Foil Tab Connection : Soldering

Standards

UL pending

TÜV pending



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current	Cable Length (mm)	Wire Size	
			(IEC 61215, Edition 2) (Ampere)		(mm ²)	AWG
1971867-1	4	3	11	900	4.0	12

Small 3-Rail Junction Box : Serial Interconnection

Technical Data

Materials

Socket and Pin Contacts : CuZn
 Housing : PPE+PS, weatherproof against UV radiation ozone
 Contact Rail : Bright tin over copper
 Lid : Impact resistant P.C.

Electrical Features

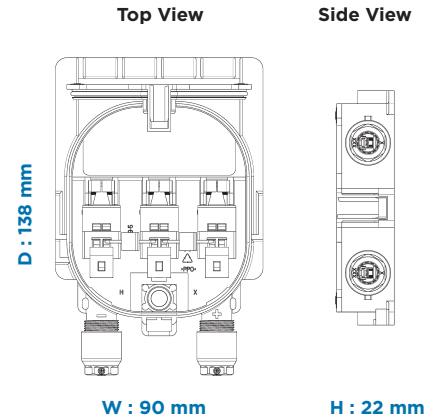
Withstanding Voltage : 1000 V DC
 Current Rating : Up to 25 A
 Protection Class : II

Mechanical Features

Temperature Range : -40°C to +115°C
 Wire Size Range : Up to 12 AWG, 4mm²
 Protection Degree : IP 65, closed

Standards

UL approved
 TÜV approved to IEC 61215 ed. 2 approved



Junction Box with Mounted Cable and Connectors

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Cable Length (mm)	Wire Size (mm ²)	AWG
1740425-5	3	2	6.5	1,000	4.0	12
1987252-6	3	2	10.5	1,000	4.0	12
1987252-1	3	2	14.0	1,000	4.0	12

Junction Box with Connector Outlet

Part Number	Contact Rails	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)
1418867-6	3	2	6.5
1987459-1	3	2	10.5
1987771-1	3	2	14.0

Decentralized 2-Rail Junction Box : Serial Interconnection

Technical Data

Materials

Housing : PPE+PS,
weatherproof against UV radiation ozone

Electrical Features

Current Rating : 9 A, 11 A

Withstanding Voltage : 1000 V DC

Mechanical Features

Temperature Range : -40°C to +105°C

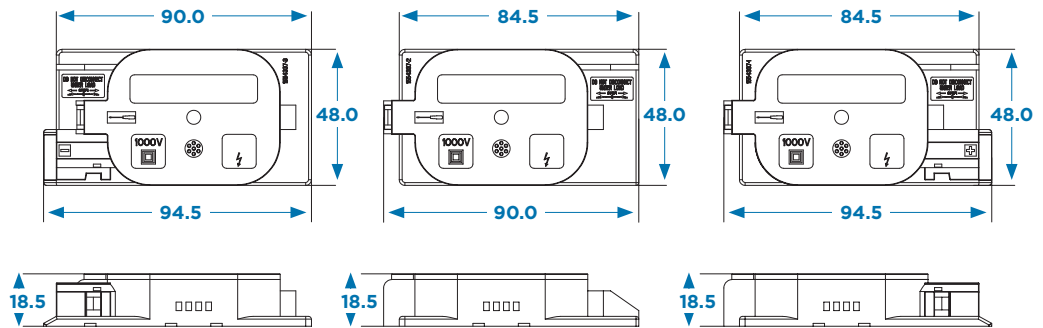
Wire Size Range : Up to 12 AWG, 4 mm²

Protection Degree : IP 65, closed

Standards

UL approved

TÜV approved to IEC 61215 ed. 2 approved
(VDE 0126-5)



Feature & Benefits

- Low profile, only 18.5 mm
- Separated diodes in separate boxes
- Proven solderless spring clip termination technique
- 2 position style for lay out flexibility
- Decentralized position saves on the length of connecting cable
- Decentralized position saves on the length of X-connect
- Connectorized style (mates with Slim Line Connector System)

Product Offering, 9 A

Part Numbers	Description
2134417-1	2 Rail Junction Box : PLUS
2134417-2	2 Rail Junction Box : CENTER
2134417-3	2 Rail Junction Box : MINUS

Product Offering, 11 A

Part Numbers	Description
1-2134417-1	2 Rail Junction Box : PLUS
1-2134417-2	2 Rail Junction Box : CENTER
1-2134417-3	2 Rail Junction Box : MINUS

2-Rail Micro Junction Box

Technical Data

Materials

Housing : PPE+PS,
weatherproof against UV radiation ozone,
UL F1-rated

Electrical Features

Withstanding Voltage : 1000 V DC

Current Rating : Up to 7.5 A
Rated for 600 V (UL) and 1000 V (TÜV)
system voltages

Mechanical Features

Temperature Range : -40°C to +85°C

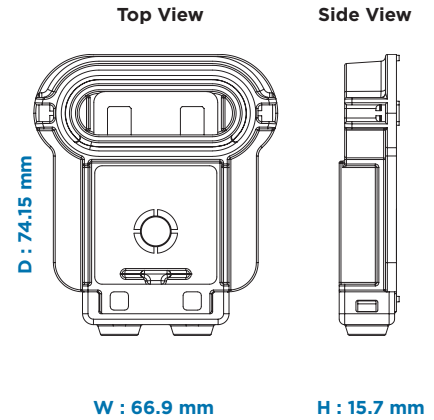
Wire Size Range : 4 mm², 2.5 mm²,
Dual Rated

Protection Degree : IP 67, closed

Standards

UL approved

TÜV approved to IEC 61215 ed. 2 approved



2-Rail Micro Junction Box, Part Number

Part Number	Rate Current	Rated Voltage	Cable Length (mm)	Wire Size	
				(mm ²)	AWG
2152131-1	7.5 A	150 V	440	4.0	12

1-Rail Junction Box

Technical Data

Materials

Housing : PA 66 (polyamide 66)

Cover : PPE + PS

Contact Rail : Copper alloy

Electrical Features

Withstanding Voltage :

1000 V (TÜV), 600 V (UL)

Current Rating : Up to 25 A

Mechanical Features

Temperature Range : -40°C to +85°C

Wire Size Range : 2.5 mm² (AWG 14)

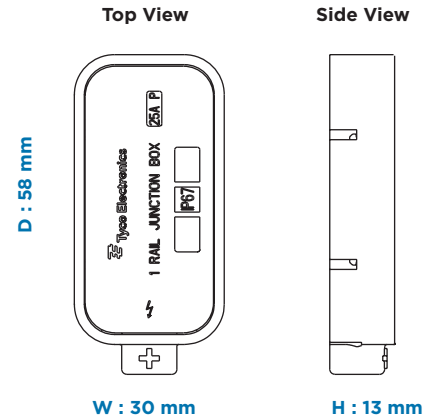
or 4.0 mm² (AWG 12)

Protection Degree : IP 20, IP 67

Standards

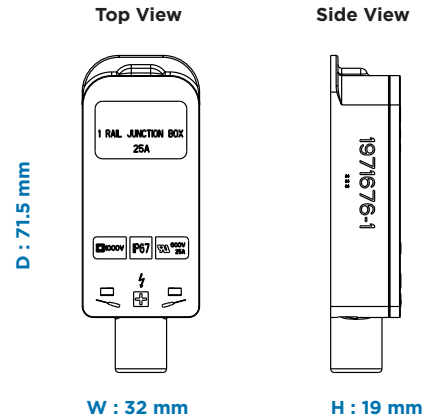
UL approved

TÜV approved to IEC 61215 ed. 2 approved



Potting Version

Part Number	Description	Cable Length (mm)	Wire Size (mm ²)	AWG
1971645-1	Assembly, plus, no diode	250	4.0	12
1971645-2	Assembly, minus, no diode	250	4.0	12
1971645-3	Assembly, plus, with blocking diode	250	4.0	12



No-Potting Version

Part Number	Description	Cable Length (mm)	Wire Size (mm ²)	AWG
1971676-1	Assembly, plus, no diode, 4 mm ² (12 AWG)	250	4.0	12
1971676-2	Assembly, minus, no diode, 4 mm ² (12 AWG)	250	4.0	12
1971676-3	Assembly, plus, with blocking diode, 4 mm ² (12 AWG)	250	4.0	12

Building Integrated PV : Wing Edge Junction Box

Technical Data

Materials

Contact Plate : CuFe

Pin Contact : Silver plated CuSn

Housing : High temperature resin

Electrical Features

Withstanding Voltage : 1000 V DC

Mechanical Features

Temperature Range : -40°C to +115°C

Wire Size Range : Up to 12 AWG, 4.0 mm²

Protection Degree : IP 67

Standards

TÜV approved

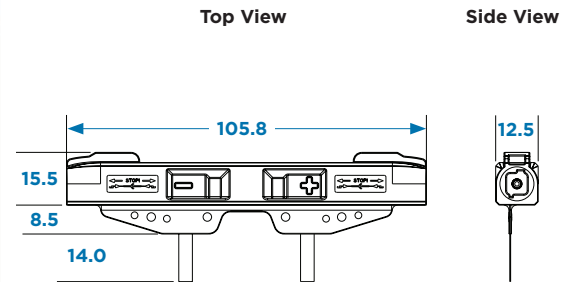
Specifications

Product Specifications : 108-94114

Application Specifications : 114-18896

Feature & Benefits

- Suitable solution for automatic lamination
- For crystalline applications
- Connectorized junction box termination allows for easy and reliable field installations
- No potting required
- No silicon glue needed



Wing Edge Junction Box

Part Number	Diodes	Rated Current (IEC 61215, Edition 2) (Ampere)	Connection Type
1-1987293-4	1	12	with slim line connector system page 26 or blind cap (2120413-1)

Note: The cable assemblies for wing-edge junction box are available upon request.

NOTE : This product is not permitted for use in the USA.

Building Integrated PV : Straddle Edge Junction Box

Technical Data

Materials

Housing : PPE+PS,
weatherproof against UV radiation ozone,
UV F1 rated material

Electrical Features

Rated Current : 11A (crystalline)
and 3A (thin film)

Voltage : 1000V DC

Mechanical Features

Temperature Range : -40°C to + 85°C

Protection Level : IP 67

Application Cable : 2.5 mm² and 4.0 mm²

Standards

TÜV approved

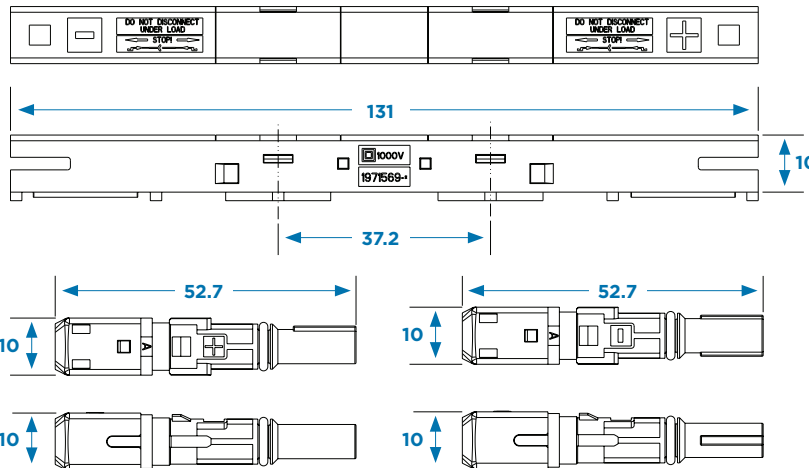
Specifications

Product Specifications : 108-106018

Application Specifications : 114-106001

Features & Benefits

- For both crystalline and thin film applications
- Lowest profile in its class, with a 10 mm width on connector and box
- Modular design can meet various size module application requirements
- Connectorized junction box termination allows for easy and reliable field installations



Straddle Edge Junction Box

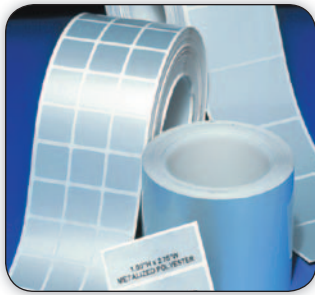
Part Number	Description	Type	Termination	Diode	Rated Current (IEC 61215, ed.2) (Ampere)	Connection Type
1971569-1	Straddle Edge Junction Box	Crystalline	Potting (a)	1	11	With Socket Connector
1971569-2		Thin-film	Potting (a)	1	3	
1971569-3		Crystalline	Clamping	1	11	
1971569-4		Thin-film	Clamping	1	3	

(a) Connection foil by soldering and potting. Refer to application specification for potting material information.
Note: The cable assemblies for straddle edge junction boxes are available upon request

Socket Connector & Accessories

Part Number	Description	Keying	Cable Outer Diameter	Wire Type
1971131-1	Socket Connector	Plus	6.1 - 6.5 mm	See Application Specification
1971131-2	Socket Connector	Minus	6.1 - 6.5 mm	See Application Specification
1971131-3	Socket Connector	Plus	5.8 - 6.1 mm	See Application Specification
1971131-4	Socket Connector	Minus	5.8 - 6.1 mm	See Application Specification
1971133-1	End Cap	-	-	-
1971638-1	Dust Cap	-	-	-

HM : High tack metallized polyester labels (for indoor and outdoor applications)



HM is a thermal transfer printable metallized polyester film with a high tack permanent acrylic adhesive. The labels are designed for application to rough surfaces or where increased adhesion is required. The high tack adhesion of HM will bond to most demanding surfaces, including textured and contoured surfaces.

Technical Data

Applications

- Racks and Panels
(including back of solar panels)
- Electronic device and equipment labeling
- General purpose label applications

Temperature Range

Operating Temperature

: -40°C to +150°C (-40°F to +302°F)

Minimum Application Temperature

: 10°C (50°F)

Specifications and Certifications

TE Technical Data Sheet

: TTDS-075

: UL 969, File MH17292

Printer Information

TE Printer

: TE3124 (Thermal transfer)

: T312 (Thermal transfer)

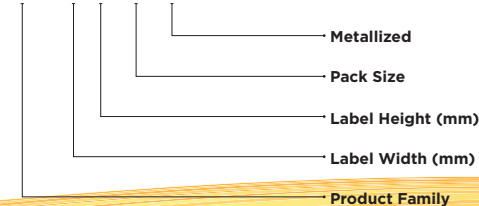
TE Ribbons

: 1330-0607

Product Order	Pack Qty.	# AC	Label Width		Label Height		Horizontal Repeat		Vertical Repeat		Web Width	
			(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
HM-064064-25-8A	25000	12	6.4	0.25	6.4	0.25	6.4	0.25	9.5	0.375	82.2	3.24
HM-089047-10-8A	10000	5	8.9	0.35	4.7	0.186	11.4	0.45	7.9	0.313	60.6	2.386
HM-095080-25-8A	25000	5	9.5	0.375	8	0.315	12.2	0.48	12.7	0.5	64.3	2.531
HM-095095-10-8A	10000	7	9.5	0.375	9.5	0.375	11.1	0.437	12.7	0.5	82.1	3.23
HM-127111-10-8A	10000	5	12.7	0.5	11.1	0.437	16.8	0.662	14.3	0.563	86	3.38
HM-127127-10-8A	10000	5	12.7	0.5	12.7	0.5	15.9	0.625	15.9	0.625	82.6	3.25
HM-191064-10-8A	10000	4	19.1	0.75	6.4	0.25	21.6	0.85	9.5	0.375	89.9	3.54
HM-191114-15-8A	15000	3	19.1	0.75	11.4	0.45	22.2	0.875	14.7	0.579	69.5	2.736
HM-254064-10-8A	10000	3	25.4	1	6.4	0.25	27.9	1.1	9.5	0.375	87.3	3.436
HM-254127-10-8A	10000	3	25.4	1	12.7	0.5	27.9	1.1	16.9	0.666	87.4	3.44
HM-254254-10-8A	10000	3	25.4	1	25.4	1	27.9	1.1	28.6	1.125	87.4	3.44
HM-318097-10-8A	10000	1	31.8	1.25	9.7	0.38	--	--	12.7	0.5	37.8	1.488
HM-381064-10-8A	10000	1	38.1	1.5	6.4	0.25	--	--	9.5	0.375	44.5	1.75
HM-381127-5-8A	5000	2	38.1	1.5	12.7	0.5	44.2	1.738	15.9	0.625	88.2	3.472
HM-381191-5-8A	5000	2	38.1	1.5	19.1	0.75	43.2	1.7	22.2	0.875	87.6	3.45
HM-381381-2.5-8A	2500	2	38.1	1.5	38.1	1.5	44.5	1.75	40.8	1.607	88.9	3.5
HM-381635-5-8A	5000	2	38.1	1.5	63.5	2.5	40.6	1.6	66.7	2.625	84.7	3.338
HM-445064-10-8A	10000	1	44.5	1.75	6.4	0.25	--	--	9.5	0.375	50.4	1.986
HM-445445-2-8A	2000	1	44.5	1.75	44.5	1.75	--	--	47.6	1.875	50.4	1.986
HM-508064-10-8A	10000	1	50.8	2	6.4	0.25	--	--	9.5	0.375	56.9	2.24
HM-508127-5-8A	5000	1	50.8	2	12.7	0.5	--	--	15.9	0.625	56.9	2.24
HM-508254-5-8A	5000	1	50.8	2	25.4	1	--	--	28.6	1.125	57.2	2.25
HM-508318-2.5-8A	2500	1	50.8	2	31.8	1.25	--	--	34.9	1.375	56.9	2.24
HM-508508-3-8A	3000	1	50.8	2	50.8	2	--	--	54.6	2.15	54	2.13
HM-762381-2.5-8A	2500	1	76.2	3	38.1	1.5	--	--	41.3	1.625	82.3	3.24
HM-762508-2.5-8A	2500	1	76.2	3	50.8	2	--	--	54	2.125	82.6	3.24
HM-101508-2.5-8A	2500	1	101.6	4	50.8	2	--	--	54.6	2.15	104.1	4.1
HM-101635-2.5-8A	2500	1	101.6	4	63.5	2.5	--	--	66.7	2.625	107.7	4.24
HM-101101-1.3-8A	1300	1	101.6	4	101.6	4	--	--	104.8	4.125	104.1	4.1

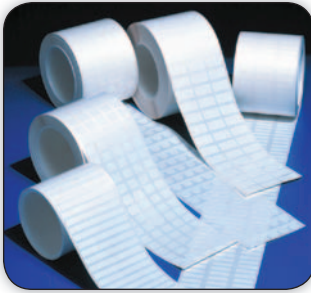
Part Number Example

HM - 127508 - 10 - 8A



NOTE : For reliable print performance and durability, use with Tyco Electronics 1330-0607 series ribbon.

HW : High Tack White Polyester Labels



HW is a white thermal transfer printable polyester film with a high tack - permanent acrylic adhesive, designed for application to multiple surface types where increased adhesion is required. The high tack adhesion of HW will bond to most demanding surfaces, including textured and contoured surfaces.

Technical Data

Applications

- Enclosures, Racks and Panels (including back of solar panels)
- Electronic device and equipment labeling
- General purpose label applications

Temperature Range

Operating Temperature

: -40°C to +150°C (-40°F to +302°F)

Minimum Application Temperature

: 10°C (50°F)

Specifications and Certifications

TE Technical Data Sheet

: TTDS-076

: UL 969, File MH17292

Printer Information

TE Printer

: TE3124 (Thermal transfer)

: T312 (Thermal transfer)

TE Ribbons

: 1330-0607

Product Order	Pack Qty.	# AC	Label Width		Label Height		Horizontal Repeat		Vertical Repeat		Web Width	
			(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
HW-064064-25-9	25000	12	6.4	0.250	6.4	0.250	6.4	0.25	9.5	0.375	82.2	3.240
HW-080080-10-9	10000	8	8.0	0.315	8.0	0.315	9.9	0.39	13.3	0.525	83.3	3.280
HW-089047-10-9	10000	5	8.9	0.350	4.7	0.185	11.4	0.45	7.9	0.313	60.6	2.386
HW-095095-10-9	10000	7	9.5	0.375	9.5	0.375	11.1	0.437	12.7	0.500	64.3	2.531
HW-114040-25-9	25000	6	11.4	0.450	4.0	0.158	11.4	0.45	7.1	0.282	74.6	2.936
HW-127032-10-9	10000	5	12.7	0.500	3.2	0.126	19.1	0.75	6.4	0.250	94.6	3.736
HW-127064-10-9	10000	6	12.7	0.500	6.4	0.252	15.2	0.6	9.5	0.375	95.3	3.750
HW-127111-10-9	10000	5	12.7	0.500	11.1	0.437	16.8	0.662	14.3	0.563	86.0	3.380
HW-127127-10-9	10000	5	12.7	0.500	12.7	0.500	15.9	0.625	15.9	0.625	82.6	3.250
HW-165051-25-9	25000	4	16.5	0.650	5.1	0.200	17.8	0.7	8.3	0.325	75.8	2.990
HW-171171-10-9	10000	5	17.1	0.674	17.1	0.674	19.7	0.774	20.3	0.800	101.8	4.006
HW-178095-10-9	10000	4	17.8	0.700	9.5	0.375	19.1	0.75	12.7	0.500	80.9	3.190
HW-191064-10-6	10000	4	19.1	0.750	6.4	0.250	21.6	0.85	9.5	0.375	89.9	3.540
HW-191064-10-9	10000	4	19.1	0.750	6.4	0.250	21.6	0.85	9.5	0.375	89.9	3.540
HW-203127-10-9	10000	4	20.3	0.800	12.7	0.500	22.9	0.9	15.9	0.625	94.6	3.730
HW-229064-10-9	10000	3	22.9	0.900	6.4	0.250	28.6	1.125	9.5	0.375	86.0	3.390
HW-254064-10-9	10000	3	25.4	1.000	6.4	0.250	27.9	1.1	9.5	0.375	95.3	3.750
HW-254097-10-9	10000	3	25.4	1.000	9.7	0.380	27.9	1.1	12.7	0.500	87.4	3.440
HW-254127-10-4	10000	3	25.4	1.000	12.7	0.500	27.9	1.1	16.9	0.666	87.4	3.440
HW-254254-10-9	10000	3	25.4	1.000	25.4	1.000	27.9	1.1	28.6	1.125	87.4	3.440
HW-318064-10-9	10000	1	31.8	1.250	6.4	0.250	--	--	9.5	0.375	37.9	1.490
HW-318097-10-9	10000	1	31.8	1.250	9.7	0.380	--	--	12.7	0.500	37.9	1.490
HW-381064-10-9	10000	1	38.1	1.500	6.4	0.250	--	--	9.5	0.375	44.5	1.750
HW-381127-5-9	5000	2	38.1	1.500	12.7	0.500	44.2	1.74	15.9	0.625	88.2	3.470
HW-381191-5-9	5000	2	38.1	1.500	19.1	0.750	43.2	1.7	22.2	0.875	87.6	3.450
HW-445102-5-9	5000	1	44.5	1.750	10.2	0.400	--	--	12.7	0.500	50.4	1.986
HW-478175-5-9	5000	1	47.8	1.880	17.5	0.690	--	--	24.4	0.962	66.0	2.600
HW-508064-10-9	10000	1	50.8	2.000	6.4	0.250	--	--	9.5	0.375	56.9	2.240
HW-508095-5-9	5000	1	50.8	2.000	9.5	0.375	--	--	12.7	0.500	57.2	2.250
HW-508127-5-9	5000	1	50.8	2.000	12.7	0.500	--	--	15.9	0.625	56.9	2.240
HW-508254-5-9	5000	1	50.8	2.000	25.4	1.000	--	--	28.6	1.125	57.2	2.250
HW-508318-2.5-9	2500	1	50.8	2.000	31.8	1.250	--	--	34.9	1.375	56.9	2.240
HW-523841-1.5-9	1500	1	52.3	2.060	84.1	3.310	--	--	88.9	3.500	58.2	2.290
HW-699191-5-9	5000	1	69.9	2.750	19.1	0.750	--	--	23.3	0.917	76.2	3.000
HW-699254-5-9	5000	1	69.9	2.750	25.4	1.000	--	--	28.6	1.125	76.2	3.000
HW-762127-1-9	1000	1	76.2	3.000	127.0	5.000	--	--	129.5	5.100	79.4	3.130
HW-762254-5-9	5000	1	76.2	3.000	25.4	1.000	--	--	28.6	1.125	82.3	3.240
HW-762508-2.5-9	2500	1	76.2	3.000	50.8	2.000	--	--	54.0	2.125	82.6	3.240

Part Number Example

HW - 127508 - 10 - 9



Note : Label can be flood-coated to meet any color in the PMS book. Inquire with TE customer service.

NOTE : For reliable print performance and durability, use with Tyco Electronics 1330-0607 series ribbon.

Grounding System : Grounding Bolt

Technical Data

Materials

Connector & Hardware

: Stainless Steel (Passivated)

Electrical Features

Short Term Current Test (UL 467)

: 6 AWG = 1530A (6 seconds)

: 8 AWG = 1180A (4 seconds)

: 10 AWG = 750A (4 seconds)

: 12 AWG = 470A (4 seconds)

Mechanical Features

Securness Test (ul 486A-B)

: 6 AWG = 18lbs (30 minutes)

: 8 AWG = 8lbs (30 minutes)

: 10 AWG = 5lbs (30 minutes)

: 12 AWG = 5lbs (30 minutes)

Pull out Test (ul 486A-B)

: 6 AWG = 100lbs (1 minute)

: 8 AWG = 90lbs (1 minute)

: 10 AWG = 80lbs (1 minute)

: 12 AWG = 70lbs (1 minute)



Product Offering

Part Number	Description	Thread	Dim "A"	Package Quantity
2058729-1	6-12 AWG	#8-32 UNC	.380	500
2106831-1	Long Shank 6-12 AWG	#10-32 UNF	.700	100

*Instruction Sheet : 408-10262

Dimensions

Application Tooling

Flex socket wrench or wrenches

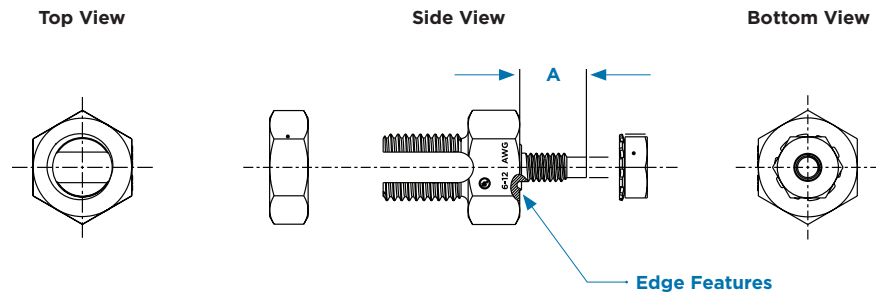
Standards

UL 467 listed

UL File #E69905

A requirement for UL 1703 solar panel listing

CSA C22.2 No. 41-07



Features & Benefits

- Rugged and compact hex bolt design made from stainless steel.
- Quick and easy mounting procedures.
- Bottom edge feature cuts through the anodized aluminum surface when securing the hex bolt to the module frame.
- Standard tooling can be used with the hex nuts.