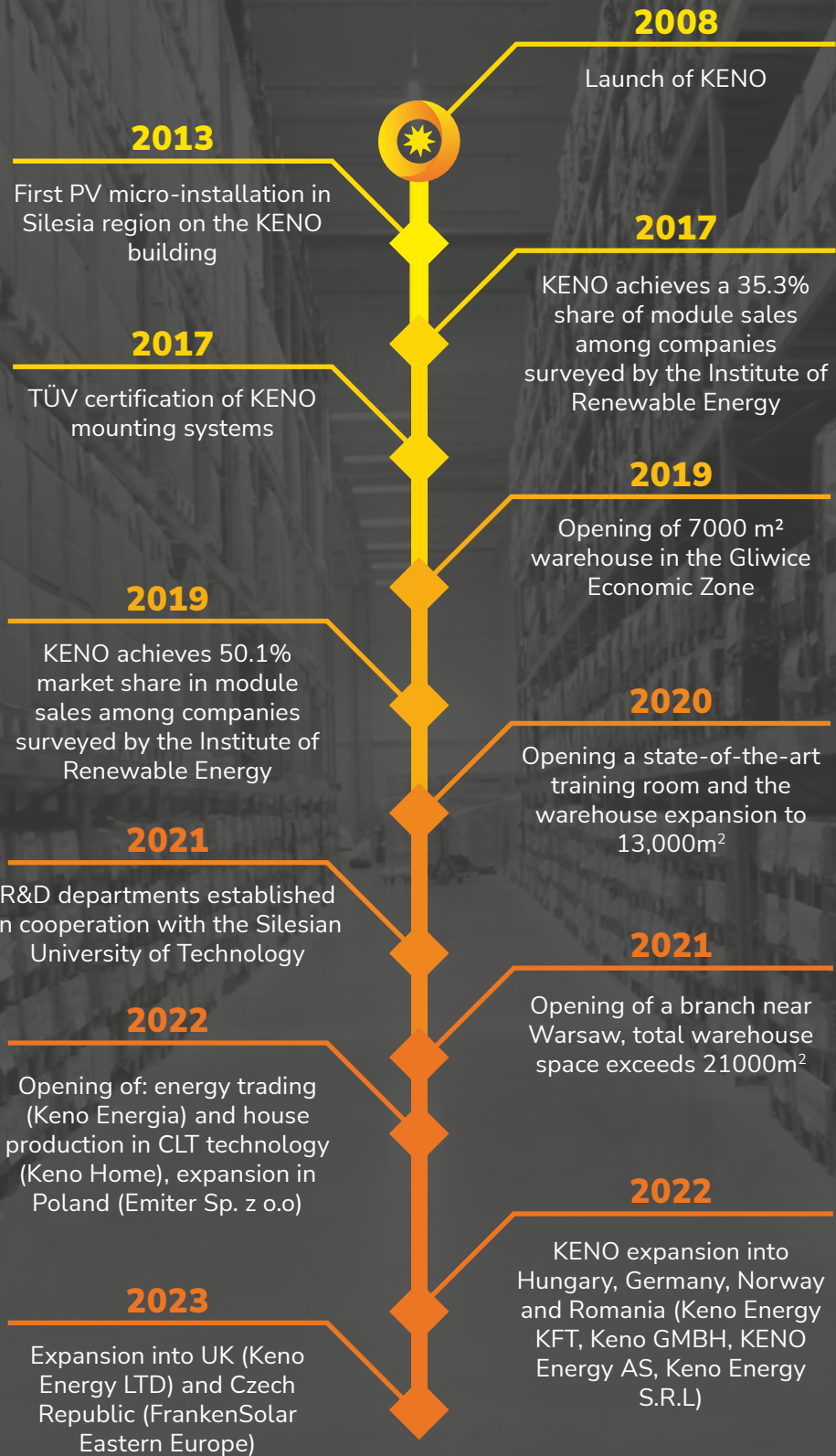


MOUNTING SYSTEMS
FOR PV



CONFIDENCE BUILT ON THE COMMITMENT

KENO specialises in providing comprehensive, reliable solutions for professionals. Years of operation in the Renewable Energy industry have given us the experience to build a strong Group and gain a high position in the industry. **We have branches in 7 European countries** – Germany, Czech Republic, United Kingdom, Norway, Poland, Romania and Hungary.

The newly opened branches were established as a result of the company's rapid growth and search for investment. Diversification into foreign markets is first and foremost a **pillar of financial stability for the KENO Group's business partners**. Thanks to this, we are able to even better forecast demand on the European market, thus ensuring the **best possible terms of cooperation and the highest possible availability of goods**, securing adequate stock levels.

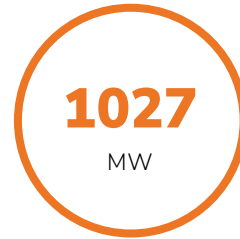
Our modernized in-house production line allows us to produce over 1,000 combiner box units per day, and our modern 48000m² logistics center allows us to maintain **fluidity of the supply chain**.

We influence the development of the RES market in Europe. We cooperate with a number of industry associations, and since 2021 we have been conducting product research in cooperation with Silesian University of Technology.

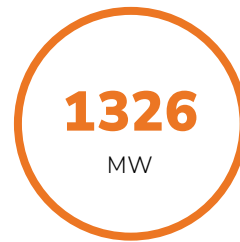
Our position, experience and solutions will enable your company to grow in the direction you want.



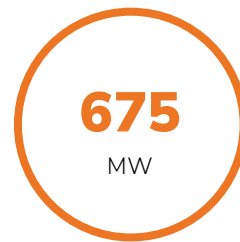
TURNOVER FOR 2022



PV MODULES DELIVERED in 2022



INVERTERS DELIVERED in 2022



MOUNTING SYSTEMS DELIVERED
IN 2022



WAREHOUSE SPACE



B2B PLATFORM

We have created a B2B platform for installers, which allows customers to quickly and efficiently select and price a photovoltaic kit, and, thanks to frequent updates, gives them access to the latest products and discounts.

Our system makes it possible to:

- + Automatically select installation components
- + Mounting structures extended warranty for up to 15 years
- + Place orders and track their processing, and have constant access to invoices
- + Generate offers for installers and quotations for end customers
- + Download up-to-date data sheets, warranties and certificates
- + Access current stock levels and promotions
- + Access information about upcoming training sessions organised by KENO

WWW.B2B.KENO-ENERGY.COM

We also provide tutorial videos to help you learn the features of our platform.



ONLINE MATERIALS

To make things easier for our business partners, we have made our catalogues available in all languages in a digital format. Simply scan the QR code to access the download.



SURGE PROTECTION

We offer ready-made models of standard combiner box as well as those made to the customer's specifications, giving the possibility to configure components and protections according to individual design.

Our products are distinguished by:

- ➔ **Polish production** thanks to which we ensure constant availability and possibility of prefabrication of combiner box **according to customer specifications** (base of more than 1000 manufactured models)
- ➔ product warranty up to **5 years** on selected models of combiner box
- ➔ production **according to the standards** IEC 61439-1, 61439-2
- ➔ UV resistance **confirmed by relevant certifications**
- ➔ Protection Class **IP65** for STANDARD series and **IP66** for SECURE series
- ➔ **Polish technical service** and a dedicated research and development department
- ➔ production capacity of 1,000 units per day, annually up to **240,000 pieces**.
- ➔ **shorter lead time** thanks to automated production line
- ➔ **two-stage quality control** of each combiner box
- ➔ each combiner box has a nameplate with a QR code for always up-to-date documentation
- ➔ own B2B purchasing platform with advanced configurators for automatic and manual selection of combiner boxes



OWN PRODUCTION

We offer ready-made models of **STANDARD** combiner box as well as those made to the customer's specifications, giving the possibility to configure components and protections according to individual design. We offer a large variety of standard and customised distribution board models, divided into three groups: **AC, DC and the most popular AC/DC**.

SECURE type combiner boxes are designed and dedicated for use in large industrial installations where are solution for hard environmental conditions.

We manufacture **Automatic Backup Systems**, which cooperate with hybrid inverter, enables emergency power supply to the consumers in the event of power grid failure.

This allows us to provide our customers with an offer that is perfectly tailored to their requirements.

The full range of combiner boxes, along with their configuration options, is available on our B2B platform.

WWW.B2B.KENO-ENERGY.COM

LARGE SCALE PROJECTS SUPPORT

We offer mounting systems dedicated for large scale projects, customized to the requirements of the submitted project and dedicated for a chosen solar module type. This allows for the BOS cost optimization, quickening and increased convenience of the assembly time.

Thanks to Magnelis® coating and 3-mm thick double supports, we enhanced durability and steadiness of the mounting system, ensuring reliability over the years.

ADVANTAGES OF KENO MOUNTING SYSTEMS

- + 10+5-year warranty with the optional warranty extension **up to 25 years**
- + Mounting system customization by fitting to chosen solar module type
- + Compatible with bifacial type modules
- + Regulated tilt angle
- + Enables installation in multiple configurations, for example: **5 horizontal rows, 3 vertical rows**
- + Quick and convenient installation

MOUNTING SYSTEMS ARE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

EN 1090-1+A1:2012	Execution of steel structures and aluminium structures	Part 1: Requirements for conformity assessment of structural components
EN 1090-3:2008	Execution of steel structures and aluminium structures	Part 2: Technical requirements for steel structures
EN 1090-2+A1:2012	Execution of steel structures and aluminium structures	Part 3: Technical requirements for aluminium structures
EN ISO 4063	Welding process	
EN ISO 3834-4	Quality requirements for welding	
EN ISO 3506-1	Mechanical properties of corrosion-resistant steel bolts	
EN-1990	Basis of structural design	
EN-1993-1-1	Design of steel structures	Part 1-1: General rules and rules for buildings
EN-1993-1-3	Design of steel structures	Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting
EN-1993-1-4	Design of steel structures	Part 1-4: General rules - Supplementary rules for stainless steels
EN-1993-1-8	Design of steel structures	Part 1-8: Design of joints
EN-1993-1-10	Design of steel structures	Part 1-10: Material Toughness and through-thickness properties
EN-1999-1-1	Design of aluminium structures	Part 1-1: General structural rules

THE FOLLOWING STANDARDS WERE USED FOR CALCULATIONS:

EN 1991-1-3:2005/Na:2010	Actions on structures	Part 1-3: General actions – Snow loads
EN 1991-1-4:2008	Actions on structures	General actions – Wind actions
EN 1999-1-1:2011	Design of aluminum structures	Part 1-1: General rules

EUROCODE IN ACCORDANCE TO THE STANDARDS

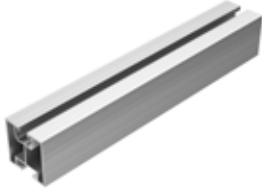
EUROKOD 0	EN 1990
EUROKOD 1	EN 1991
EUROKOD 3	EN 1993
EUROKOD 9	EN 1999

Our company's mounting systems have been positively verified by TÜV Thüringen and in 2017 obtained a number of certificates confirming compliance with quality standards. Our customers can be sure that our solutions are safe and have been manufactured with utmost care.



K-01-2220... 6290

Aluminium profile 2220/3540/4400/6290



Material	Aluminium
Height [mm]	40
Width [mm]	40
Lenght [mm]	2220 / 3540 / 4400 / 6290

Additional information

K-01-2220-CZ

Black aluminium profile 2220



Material	Aluminium
Height [mm]	40
Width [mm]	40
Lenght [mm]	2220

Additional information Black powder coating.

K-25-4400-3T

Reinforced aluminium profile 4400 with channels for T-bolts



Material	Aluminium
Height [mm]	80
Width [mm]	40
Lenght [mm]	4400

Additional information The profile has additional side channels for hex cap bolts.

K-26-1180... 5276

Aluminium angle bar 1180/3560/5276



Material	Aluminium
Height [mm]	40
Width [mm]	40
Lenght [mm]	1180 / 3560 / 5276

Additional information The profile of length 1180 has got an additional with a diameter of 11 mm side channels for hex cap bolts dedicated for ballast mounting system

K-36-3540**Deep-channel aluminium profile 3540**

Material	Aluminium
Height [mm]	40
Width [mm]	40
Lenght [mm]	3540

Additional information

K-45-1200... 2400**Aluminium rail for ballasted installation 1200/2400**

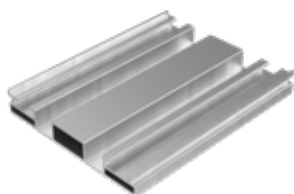
Material	Aluminium
Height [mm]	37
Width [mm]	132
Lenght [mm]	1200 / 2400

Additional information

K-60-4850**Aluminium profile 4850 mm raised**

Material	Aluminium
Height [mm]	75
Width [mm]	40
Lenght [mm]	4850

Additional information

K-66-1**Trapezoidal angular rail, rear**

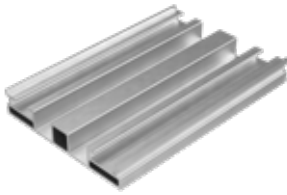
Material	Aluminium
Height [mm]	20
Width [mm]	130
Lenght [mm]	330 / 470

Additional information Spacer material (EPDM).

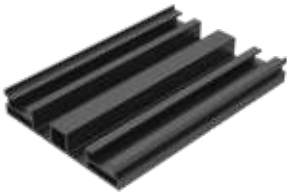
K-66-1-CZ**Trapezoidal angular rail, rear, black**

Material	Aluminium
Height [mm]	20
Width [mm]	130
Lenght [mm]	330

Additional information Black powder coating.
Spacer material (EPDM).

K-66-2**Trapezoidal angular rail, front**

Material	Aluminium
Height [mm]	20
Width [mm]	110
Lenght [mm]	330 / 470
Additional information	Spacer material (EPDM).

K-66-2-CZ**Trapezoidal angular rail, front, black**

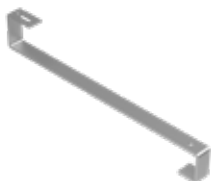
Material	Aluminium
Height [mm]	20
Width [mm]	110
Lenght [mm]	330
Additional information	Black powder coating. Spacer material (EPDM).

K-70-2220... 3540**Aluminium profile with double channels for T-bolts
2220/3540**

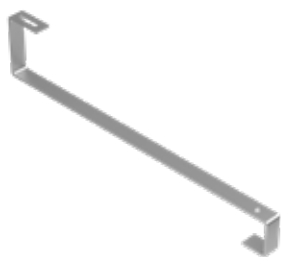
Material	Aluminium
Height [mm]	40
Width [mm]	40
Lenght [mm]	2220 / 3540
Additional information	

BRACKETS □**K-08-R****L-type roof hook with single adjustment**

Material	Stainless steel
Height [mm]	70-100 (regulated)
Width [mm]	30
Lenght [mm]	240
Hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-09-F**S-type roof hook**

Material	Stainless steel
Height [mm]	138
Width [mm]	30
Lenght [mm]	466
Hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-09-FW**S-type roof hook – elongated**

Material	Stainless steel
Height [mm]	165
Width [mm]	30
Lenght [mm]	500
Hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm. The bracket is designed for elongated roof tiles.

K-09-FR**S-type roof hook with single adjustment**

Material	Stainless steel
Height [mm]	134-159 (regulated)
Width [mm]	30
Lenght [mm]	480
Hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-10**Non-adjustable roof hook**

Material	Stainless steel
Height [mm]	124
Width [mm]	150
Lenght [mm]	165
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-10+3**Non-adjustable roof hook raised by 3 cm**

Material	Stainless steel
Height [mm]	154
Width [mm]	150
Lenght [mm]	165
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-12**Roof hook with double adjustment**

Material	Stainless steel
Height [mm]	133-177 (regulated)
Width [mm]	140
Lenght [mm]	204
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-12+3**Roof hook with double adjustment, raised by 3 cm**

Material	Stainless steel
Height [mm]	166-214 (regulated)
Width [mm]	140
Lenght [mm]	180
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-12-Long**Roof hook with double adjustment – Long**

Material	Stainless steel
Height [mm]	135-180
Width [mm]	140
Lenght [mm]	230
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-12-Strong**Roof hook with double adjustment – Strong 8 mm**

Material	Stainless steel
Height [mm]	132-147
Width [mm]	140
Lenght [mm]	210
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-13**Adjustable roof hook (for trapezoidal sheets)**

Material	Stainless steel
Height [mm]	121
Width [mm]	69
Lenght [mm]	106
Hole diameter [mm]	7
Additional information	"Bean" type adjustment hole 40x11 mm. Universal bracket for trapezoidal sheets of various sizes. Spacer material (EPDM).

K-14**Trapezoidal short rail high, 330/470 mm**

Material	Aluminium
Height [mm]	60
Width [mm]	95
Lenght [mm]	330 / 470
Additional information	Spacer material (EPDM).

K-14-330-CZ**Trapezoidal short rail high, 330 mm**

Material	Aluminium
Height [mm]	60
Width [mm]	95
Lenght [mm]	330
Additional information	Spacer material (EPDM). Black powder coating.

K-14N**Trapezoidal short rail low, 330/470 mm**

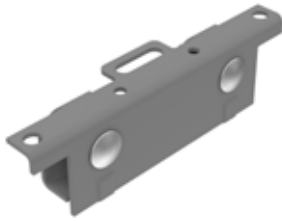
Material	Aluminium
Height [mm]	31
Width [mm]	90
Lenght [mm]	330 / 470
Additional information	Spacer material (EPDM).

K-14P**Trapezoidal short rail raised 330/470 mm**

Material	Aluminium
Height [mm]	130
Width [mm]	130
Lenght [mm]	330 / 470
Additional information	Spacer material (EPDM).

K-15-R**Adjustable roof hook (plain roof tile)**

Material	Stainless steel
Height [mm]	130-155 (regulated)
Width [mm]	30
Lenght [mm]	315
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-24-C**Adjustable roof hook for sheet metal seams CWL - grey**

Material	Stainless steel
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Height [mm]	58
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Width [mm]	50
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Length [mm]	210
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Additional information	Adjustment hole 40x11 mm. Comes with two M10 bolts and two M10 nuts. RAL 9006.
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K-24-C-G**Adjustable roof hook for sheet metal seams CWL - graphite**

Material	Stainless steel
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Height [mm]	58
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Width [mm]	50
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Length [mm]	210
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Additional information	Adjustment hole 40x11 mm. Comes with two M10 bolts and two M10 nuts. RAL 7016.
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K-24-Z**Adjustable roof hook for sheet metal seams with two folds**

Material	Stainless steel
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Height [mm]	40
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Width [mm]	61
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Length [mm]	100
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Additional information	Adjustment hole 40x11 mm. Comes with two M8x25 hex bolts and two M8 nuts.
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K-34-1**Edge bracket low**

Material	Aluminium
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Height [mm]	194
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Width [mm]	80
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Length [mm]	410
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Hole diameter [mm]	M8 hole
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Additional information	Tilt angle 14°. A stop to facilitate module positioning. Spacer material (EPDM).
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K-34-4**Edge bracket high**

Material	Aluminium
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Height [mm]	403
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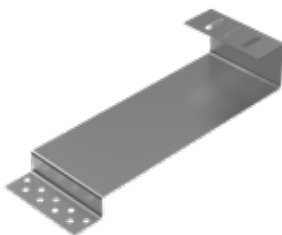
Width [mm]	80
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Length [mm]	420
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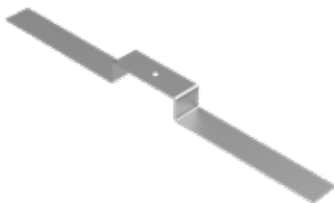
Additional information	Tilt angle 15°. Spacer material (EPDM).
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K-44**Stainless steel roof hook (plain roof tile)**

Material	Stainless steel
Height [mm]	115
Width [mm]	140
Lenght [mm]	289
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-44-W**Elongated stainless steel roof hook (plain roof tile)**

Material	Stainless steel
Height [mm]	115
Width [mm]	140
Lenght [mm]	410
Rafter hole diameter [mm]	9
Additional information	Adjustment hole 40x11 mm.

K-45-3-A**Ballast bracket**

Material	Aluminium
Height [mm]	43
Width [mm]	50
Lenght [mm]	680
Hole diameter [mm]	11
Additional information	

K-45-7...80**Aluminium roof hook, high 50/80**

Material	Aluminium
Height [mm]	176
Width [mm]	50 / 80
Lenght [mm]	125
Hole diameter [mm]	11
Additional information	

K-45-7-CZ**Aluminium roof hook, high, black**

Material	Aluminium
Height [mm]	176
Width [mm]	50
Lenght [mm]	125
Hole diameter [mm]	11
Additional information	Black powder coating.

K-45-8...80**Aluminium roof hook, low 50/80**

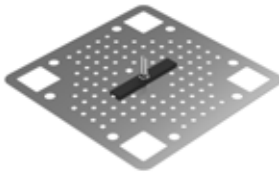
Material	Aluminium
Height [mm]	60
Width [mm]	50 / 80
Lenght [mm]	105
Hole diameter [mm]	11

Additional information

K-45-8-CZ**Aluminium roof hook, low, black**

Material	Aluminium
Height [mm]	60
Width [mm]	50
Lenght [mm]	105
Hole diameter [mm]	11

Additional information Black powder coating.

K-53-32... 80**Mounting plate installed under the membrane/tar paper**

Material	Stainless steel
Width [mm]	375
Lenght [mm]	375
Mounting bolt	Bolt M10
Thread lenght [mm]	32 / 50 / 80

Additional information Correct installation requires completion of the assembly course.
Comes with an M10 screw and a rubber washer.

K-56**Short mounting rail for steel tile**

Material	Aluminium
Height [mm]	63
Width [mm]	95
Lenght [mm]	330 / 470

Additional information Spacer material (EPDM).

K-56-CZ**Black short mounting rail for steel tile**

Material	Aluminium
Height [mm]	63
Width [mm]	95
Lenght [mm]	330 / 470

Additional information Spacer material (EPDM).
Black powder coating.

K-58-1**Low aluminium handle for ballasted installation, long side mounting**

Material	Aluminium
Height [mm]	328
Width [mm]	80
Lenght [mm]	157
Additional information	Tilt angle 14°. Spacer material (EPDM).

K-58-4**High aluminium handle for ballasted installation, long side mounting**

Material	Aluminium
Height [mm]	454
Width [mm]	80
Lenght [mm]	343
Additional information	Tilt angle 14°. Spacer material (EPDM).

K-64**Alumunium roof hook with single adjustment**

Material	Aluminium
Height [mm]	188,5-208,5 (regulated)
Width [mm]	140
Lenght [mm]	230
Rafter hole diameter [mm]	9
Additional information	Compatible with K-70 profile. Adjustment hole 40x11 mm. Allows for greater spacing between mounting points.

LM-S**Mounting bracket type S - zinc plated (LM-S)**

Material	Hot-dip galvanised steel
Height [mm]	466
Width [mm]	30
Lenght [mm]	133
Additional information	

K-07-M

Small adjustable mounting triangle (horizontal orientation of modules)



Index	K-07-M-15N	K-07-M-RN
Tilt angle	15°	20°-35° (regulated)
Height [mm]	317	414-633
Hypotenuse [mm]	1075	1075
Lenght [mm]	1000	1000

Additional information Custom size triangles available.
Adjustment holes 40x11 mm.

K-07-S

Medium adjustable mounting triangle (vertical orientation of modules)



Index	K-07-S-15N	K-07-S-RN
Tilt angle	15°	20°-35° (regulated)
Height [mm]	490	606-929
Hypotenuse [mm]	1600	1600
Lenght [mm]	1115	1115

Additional information Custom size triangles available.
Adjustment holes 40x11 mm.

K-07-D

Large mounting triangle (horizontal orientation of modules)



Material	Aluminium
Tilt angle	36°
Height [mm]	1330
Hypotenuse [mm]	2200
Lenght [mm]	1780

Additional information Custom size triangles available.
Adjustment holes 40x11 mm.

K-07-RS_BF

Adjustable mounting triangle for bifacial modules (horizontal orientation of modules)



Material	Aluminium
Tilt angle	15°-35° (regulated)
Height [mm]	450-810
Hypotenuse [mm]	1350
Lenght [mm]	1115

Additional information

SCREWS / BOLTS / NUTS

K-04

T-slot nut



Material	Aluminium
Height [mm]	11
Width [mm]	13
Length [mm]	22
Hole diameter [mm]	M8 hole
Additional information	Element for mounting clamps in any place of K-01 and K-25 profiles.

K-16-60... 100

Fastening bolt for roof hooks 60/80/100



Material	Stainless steel
Height [mm]	64 / 84 / 104
Diameter [mm]	7
Thread length [mm]	60 / 80 / 100
Additional information	Special drilling tip – facilitates screwing without pre-drilling. Bolt head diameter 19 mm. Bolt socket for Tx40 bit.

K-17-200... 300

Hanger bolt M10 200/250/300



Material	Stainless steel
Height [mm]	200 / 250 / 300
Diameter [mm]	9
Thread length M10 [mm]	110 / 130 / 150
Thread length dokrokwiowego [mm]	65 / 70 / 80
Additional information	Comes with a seal and three M10 nuts. Recommended pre-drilling 7 mm holes.

K-17-12x250

Hanger bolt M12 250mm



Material	Stainless steel
Height [mm]	250
Diameter [mm]	9
Thread length M12 [mm]	130
Thread length dokrokwiowego [mm]	70
Additional information	Comes with a seal and three M12 nuts. Recommended pre-drilling 9 mm holes.

K-18-20... 35**Hexagon socket cap screw with serration 20/22/25/30/35**

Material	Stainless steel
Height [mm]	28 / 30 / 33 / 38 / 43
Diameter [mm]	8
Thread length [mm]	20 / 22 / 25 / 30 / 35
Head height [mm]	8

Additional information

K-19-25... 30**T-bolt M10 25/30**

Material	Stainless steel
Height [mm]	30 / 35
Diameter [mm]	10
Thread length [mm]	25 / 30
Bolt head dimensions [mm]	10x23x5

Additional information

K-20**Sheet metal screw M6**

Material	Stainless steel
Height [mm]	30
Diameter [mm]	6
Thread length [mm]	25
Washer diameter [mm]	16
Additional information	Comes with an EPDM gasket washer.

K-21**Hexagon flange nut with serration M10**

Material	Stainless steel
Height [mm]	10
Flange diameter [mm]	21
Flange height [mm]	2
Additional information	Serration on the underside of the flange.

K-21-M8**Hexagon flange nut with serration M8**

Material	Stainless steel
Height [mm]	8
Flange diameter [mm]	17
Flange height [mm]	2
Additional information	Serration on the underside of the flange.

K-28-20... 60

Hex cap bolt M10 20/30/60



Material	Stainless steel
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Height [mm]	26 / 36 / 66
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Diameter [mm]	17
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Thread length [mm]	20 / 30 / 60
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Bolt head height [mm]	6
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Additional information

K-31

Bolt with flange nut for optimizer fastening



Material	Stainless steel
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Height [mm]	25
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Diameter [mm]	8
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Thread length [mm]	20
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Bolt head dimensions [mm]	10x23x4
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Additional information
Used to fasten optimizers to the mounting system.
Consists of an M8 T-bolt and an M8 flange nut.

K-43-21... 27

Hanger bolt for steel rafters M8 210/270mm



Material	Stainless steel
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Height [mm]	210 / 270
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Diameter [mm]	7
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Thread length M8 [mm]	63
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Thread length M10 [mm]	43 / 63
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Additional information

K-51

M10 washer



Material	Hot-dip galvanized steel
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Thickness [mm]	2
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Diameter [mm]	20
---------------	----

Hole diameter [mm]	10,5
--------------------	------

Additional information

K-51-M8

M8 washer



Material	Hot-dip galvanized steel
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Thickness [mm]	1,6
----------------	-----

Diameter [mm]	16
---------------	----

Hole diameter [mm]	8,4
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Additional information

ACCESSORIES / ELECTRIC COMPONENTS □

K-27-CZ

Mounting profile cap black



Material Plastic

Height [mm] 31

Width [mm] 44

Lenght [mm] 44

Additional information

K-27-SZ

Mounting profile cap grey



Material Plastic

Height [mm] 31

Width [mm] 44

Lenght [mm] 44

Additional information

K-27-SZ-80

Mounting profile cap grey



Material Plastic

Height [mm] 80

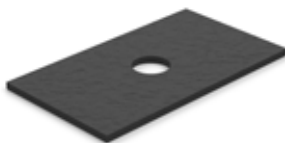
Width [mm] 40

Lenght [mm] 30

Additional information

K-32

EPDM separator – small



Material Synthetic rubber

Thickness [mm] 2

Width [mm] 40

Lenght [mm] 70

Hole diameter [mm] 11

Additional information Element used as a spacer between aluminium profiles and galvanised steel elements.

K-37-70...100

Wall plug 14x70mm/14x100mm



Material Plastic

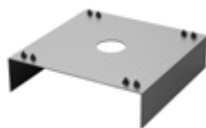
Height [mm] 70 / 100

Diameter [mm] 14

Additional information

K-39

Grounding washer



Material	Stainless steel
----------	-----------------

Height [mm]	10
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Width [mm]	41
------------	----

Lenght [mm]	40
-------------	----

Hole diameter [mm]	9
--------------------	---

Additional information	
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K-41

EPDM separator – large



Material	Synthetic rubber
----------	------------------

Thickness [mm]	2
----------------	---

Width [mm]	85
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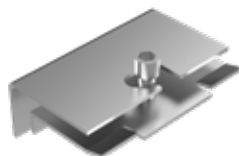
Lenght [mm]	175
-------------	-----

Hole diameter [mm]	11
--------------------	----

Additional information	
------------------------	--

K-42

Universal bracket for fastening an optimizer to the module frame



Material	Stainless steel
----------	-----------------

Height [mm]	60
-------------	----

Width [mm]	90
------------	----

Lenght [mm]	30
-------------	----

Additional information	Comes with a hexagon socket cap screw with serration.
------------------------	---

K-45-4

Ballast rubber plate 320x450x3mm



Material	SBR
----------	-----

Thickness [mm]	3
----------------	---

Width [mm]	320
------------	-----

Lenght [mm]	450
-------------	-----

Additional information	
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K-45-5

Ballast rubber plate 200x250x3mm



Material	SBR
----------	-----

Thickness [mm]	3
----------------	---

Width [mm]	200
------------	-----

Lenght [mm]	250
-------------	-----

Additional information	
------------------------	--

K-45-9

Rubber support for the rail



Material	SBR
----------	-----

Height [mm]	32
-------------	----

Width [mm]	100
------------	-----

Lenght [mm]	127
-------------	-----

Additional information	Support for the K-45-1200 / K-45-2400 rail.
------------------------	---

K-46**Grounding holder**

Material	Aluminium
----------	-----------

Height [mm]	22
-------------	----

Width [mm]	38
------------	----

Lenght [mm]	30
-------------	----

Hole diameter [mm]	11
--------------------	----

Additional information

K-49**Cable tie fastener to the module frame**

Material	Plastic
----------	---------

Lenght [mm]	200
-------------	-----

Width [mm]	5
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Additional information Fastening for mounting directly to the module frame.

K-49-K**Cable clip fastener to the module frame**

Material	Stainless steel
----------	-----------------

Height [mm]	18
-------------	----

Lenght [mm]	22
-------------	----

Width [mm]	9
------------	---

Additional information Fastening for mounting directly to the module frame.

K-52-F**Ground rod 2x1500 mm with clamp**

Material	Hot-dip galvanised steel
----------	--------------------------

Lenght [mm]	2x 1500
-------------	---------

Diameter [mm]	14
---------------	----

Additional information

K-52-FP**1500 mm ground rod extension**

Material	Hot-dip galvanised steel
----------	--------------------------

Lenght [mm]	1500
-------------	------

Diameter [mm]	14
---------------	----

Additional information Vertical earth electrode of a PV system.

K-65-1**Vinylester chemical anchor**

Material	Vinylester, styrene-free resin
----------	--------------------------------

Packaging	Cartridge 300 ml
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Additional information Non-expansion chemical anchor for mounting system elements, for concrete, stone and clay bricks (solid and hollow).

K-65-2**Mixing nozzle for the chemical anchor****Material**

Plastic

Additional information

Mixing nozzle for use with chemical anchors in cartridges, ensuring even anchor component mixing during extrusion

K-68**Threaded pin DIN976 A2-70 M10x1000****Material**

Stainless steel

Lenght [mm]

1000

Diameter [mm]

10

Additional information**K-72****SikaLastomer-710 sealant – bituminous coating 600ml****Material**

1-component butyl rubber

Packaging

Unipack 600 ml

Additional information

Professional product for resistant and ductile bituminous coating sealing in places where commonly used sealant do not provide full waterproofness.

K-73**SikaBond TF Plus N sealant – sheet metal/tiles 600ml****Material**

1-component, PU-based adhesive

Packaging

Unipack 600 ml

Additional information

Professional sealant with high mechanical durability while maintaining flexibility, for use as an additional sheet and tile roof coating sealing.

K-77**Flexible casing pipe UV with protective jacket 1250 N 50m****Inside diameter [mm]**

18,4

Additional information

UV-resistant.
Teflon inner layer.
Can be used outdoors, indoors in concrete and earth

K-78**Flexible casing pipe 32mm UV protective jacket 1250 N 25m****Inside diameter [mm]**

24,1

Additional information

UV-resistant.
Teflon inner layer.
Can be used outdoors, indoors in concrete and earth.

K-79**Casing pipe connector UV 25mm****Additional information**

Packaging 25 pcs.
 UV-resistant.
 Push-in connector for connections of casing pipe, intended for use with the K-77.

K-80**Casing pipe connector UV 32mm****Additional information**

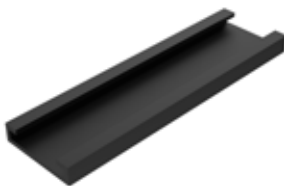
Packaging 25 pcs.
 UV-resistant.
 Push-in connector for connections of casing pipe, intended for use with the K-78.

K-81**Casing pipe wall mount 25mm****Additional information**

Packaging 50 pcs.
 UV-resistant.
 Casing pipe wall mount for use with the K-77.

K-82**Casing pipe wall mount 32mm****Additional information**

Packaging 50 pcs.
 UV-resistant.
 Casing pipe wall mount for use with the K-78.

K-83**EPDM hook edge support 30x120mm**

Material	EPDM
Height [mm]	8
Width [mm]	30
Length [mm]	120

Additional information**TOOLS** **K-50****MC4 connector tester****Additional information**

Verification of correct and safe assembly of MC4 connectors.
 MC4 Stäubli compatible.

KPVMC4



Wrench for MC4 connectors

Additional information

Designed for mounting and dismounting MC4 connectors.
Equipped with grooves for dismounting MC4 connectors.

SM-PV



PV module simulator - 143-286 VDC; 0,7A

Additional information

Simulator with prepared MC4, SunClix, Amphenol connectors.
Enables configuration and commissioning of inverters after dark or in the absence of sufficient voltage and current parameters from PV modules.

SM-PV BS



PV module simulator - 143-286 VDC; 0,7A

Additional information

PV module simulator constant-current (version without SUNCLIX connectors) is a programmable power supply for photovoltaic applications. It allows you to configure and start inverters after dark or when there are insufficient current and voltage parameters from PV modules.

PRZ-4...6MM



Extension with MC4 connectors – solar KENO cable

Nominal conductor cross-section [mm²]

4 / 6

Length [m]

0,5 / 1 / 2 / 3,8

Available colours

Red / Black

Connector type

MC4

Additional information

Used in photovoltaic installations for connections between individual photovoltaic modules and between modules and inverter. It is possible to manufacture a DC extension cable to the customer's specification.

PRZ-EVO2-4...6MM



Extension with MC4 EVO2 connectors – solar KENO cable

Nominal conductor cross-section [mm²]

4 / 6

Length [m]

0,5 / 1 / 2 / 3,8

Available colours

Red / Black

Connector type

EVO2

Additional information

Used in photovoltaic installations for connections between individual photovoltaic modules and between modules and inverter. It is possible to manufacture a DC extension cable to the customer's specification.

ZPVMC4



Crimping pliers for MC4 connectors

Additional information

3 work sockets.
Designed to make MC4 connectors on wires with a cross-section: 2,5mm², 4mm², 6mm².

610 924 KENO**AC toolkit RENNSTEIG WERA**

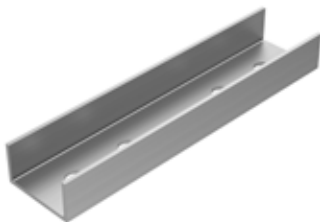
Manufacturer	Rennsteig
Includes	<ol style="list-style-type: none"> 1. Crimping pliers for MC4 connectors Rennsteig / KENO 2. Stripping tool 4-10mm² - Rennsteig / KENO 3. Wera Allen key 4. Wera ratcheting combination wrench with anti-slip protection 5. Cable cutters KENO 6. Wrench for MC4 connectors Knipex 7. MC4 connector tester

624 105-58 KENO**DC toolkit RENNSTEIG WERA**

Manufacturer	Rennsteig
Includes	<ol style="list-style-type: none"> 1. Stripping tool 0.08-16mm² Rennsteig / KENO 2. Crimping pliers 0,14-16 Rennsteig / KENO 3. Torque screwdriver 1,7-3,5Nm with bit set

CONNECTORS **K-02****Mounting profile connector**

Material	Aluminium
Height [mm]	25
Width [mm]	46
Lenght [mm]	250
Hole diameter [mm]	11

Additional information**K-02-Long****Long mounting profile connector**

Material	Aluminium
Height [mm]	25
Width [mm]	46
Lenght [mm]	200
Hole diameter [mm]	11

Additional information 4 mounting holes.**K-02-CZ****Black mounting profile connector**

Material	Aluminium
Height [mm]	25
Width [mm]	46
Lenght [mm]	115
Hole diameter [mm]	11

Additional information Anodized/Black powder coating.

K-03

Mounting adapter



Material	Stainless steel
Width [mm]	30
Length [mm]	80
Hole diameter [mm]	11
Additional information	Adjustment hole 40x11 mm. Available option with with a diameter of 13 mm hole.

K-23

High angle connector – for connecting profiles



Material	Aluminium
Height [mm]	40
Width [mm]	40
Length [mm]	60
Additional information	„Bean“-type mounting hole. Two adjustment holes 23x11 mm. Used to connect mounting profiles at a 90° angle.

K-29

Low angle connector – for connecting profiles



Material	Aluminium
Height [mm]	40
Width [mm]	40
Length [mm]	40
Additional information	„Bean“-type mounting hole. Two adjustment holes 23x11 mm.

K-40

Stainless steel connector (free-standing installation)



Material	Stainless steel
Height [mm]	80
Width [mm]	25
Length [mm]	40
Additional information	Two adjustment holes 23x11 mm.

K-45-6

Connector for ballasted installation



Material	Aluminium
Height [mm]	29
Width [mm]	33
Length [mm]	200
Additional information	

K-05
Universal mid clamp


Material	Aluminium
Height [mm]	25
Width [mm]	36
Lenght [mm]	50
Hole diameter [mm]	9
Additional information	Serration at the module installation point.

K-05-CZ
Universal mid clamp black


Material	Aluminium
Height [mm]	25
Width [mm]	36
Lenght [mm]	50
Hole diameter [mm]	9
Additional information	Serration at the module installation point. Black powder coating.

K-05-ACZ
Universal mid clamp anodized


Material	Aluminium
Height [mm]	25
Width [mm]	36
Lenght [mm]	50
Hole diameter [mm]	9
Additional information	Serration at the module installation point. Anodized.

K-05-70
Middle clamp 70mm


Material	Aluminium
Height [mm]	25
Width [mm]	36
Lenght [mm]	70
Hole diameter [mm]	9
Additional information	Serration at the module installation point.

K-06-30... 40
End clamp 30/35/38/40


Material	Aluminium
Module frame thickness [mm]	30 / 35 / 38 / 40
Width [mm]	27
Height [mm]	33 / 38 / 41 / 43
Hole diameter [mm]	9
Additional information	Serration at the module installation point.

K-06-30... 40-CZ**End clamp black 30/35/38/40**

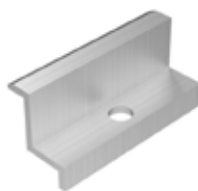
Material	Aluminium
Module frame thickness [mm]	30 / 35 / 38 / 40
Width [mm]	27
Height [mm]	33 / 38 / 41 / 43
Hole diameter [mm]	9
Additional information	Serration at the module installation point. Black powder coating.

K-06-35-ACZ**End clamp anodized 35**

Material	Aluminium
Module frame thickness [mm]	35
Width [mm]	27
Height [mm]	33-43
Hole diameter [mm]	9
Additional information	Serration at the module installation point. Anodized.

K-06-30... 40-70**End clamp 70mm 30/35/38/40**

Material	Aluminium
Module frame thickness [mm]	30 / 35 / 38 / 40
Width [mm]	27
Height [mm]	33 / 38
Lenght [mm]	70
Hole diameter [mm]	9
Additional information	Serration at the module installation point.

K-06-30-Z**End clamp 30mm - modified profile**

Material	Aluminium
Module frame thickness [mm]	30
Width [mm]	27
Height [mm]	33
Lenght [mm]	70
Hole diameter [mm]	9
Additional information	Serration at the module installation point. Compatible with 25mm bolt.

K-22RP

Free-standing single-support system with two arms



Material	Hot-dip galvanised steel
Post height [mm]	2800
Tilt angle	28°
Additional information	Minimum insertion depth 1300 mm. Enables installation in three horizontal rows and two vertical rows.

K-22RP-MAG

Free-standing single-support system with two arms Magnelis® coating



Material	Steel with Magnelis® coating
Post height [mm]	2800
Tilt angle	28°
Additional information	Minimum insertion depth 1300 mm. Enables installation in three horizontal rows and two vertical rows.

K-33-MAG

Free-standing double-support system



Material	Steel with Magnelis® coating
Post height tylnej [mm]	3110
Post height przedniej [mm]	2175
Tilt angle	0-35° (regulated)
Additional information	Minimum insertion depth 1300 mm. Enables installation in four horizontal rows and two vertical rows. Enables bifacial modules installation.

K-47

Rack for hanging the inverter



Material	Steel with Magnelis® coating
Post height [mm]	2800
Transverse rail width [mm]	2000
Hole diameter [mm]	40x11
Additional information	Minimum insertion depth 1300 mm.

K-54

Free-standing system for large scale projects



Material	Steel with Magnelis® coating
Rear post height [mm]	3110
Front post height [mm]	2175
Tilt angle	23-27°
Additional information	Minimum insertion depth 1300 mm. Enables installation in four horizontal rows. Max modules per section – 40 pcs. Available on special request – please contact your Customer Advisor.

K-62

Vertical design dedicated to assembly of bifacial modules



Material	Steel with Magnelis® coating
Height [mm]	4200
Maximal width [mm]	4350
Additional information	Minimum insertion depth 1300 mm. Enables installation of modules sized up to 2278x1140 mm.

L-01-00EnelX

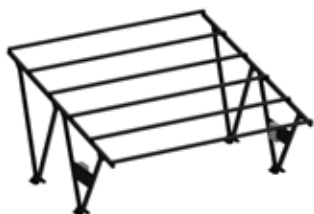
Stand mounting post for EnelX JuiceBox Pro/Plus electric car charging stations



Material	Steel
Height [mm]	1490
Width [mm]	174
Thickness [mm]	114
Additional information	Black powder coating.

W-02

Carport



Material	Steel
Height [mm]	3300
Width [mm]	6050
Length [mm]	5770
Tilt angle	12°
Additional information	Dimensions may vary depending on solar module model. Black powder coating. Available on special request – please contact your Customer Advisor.

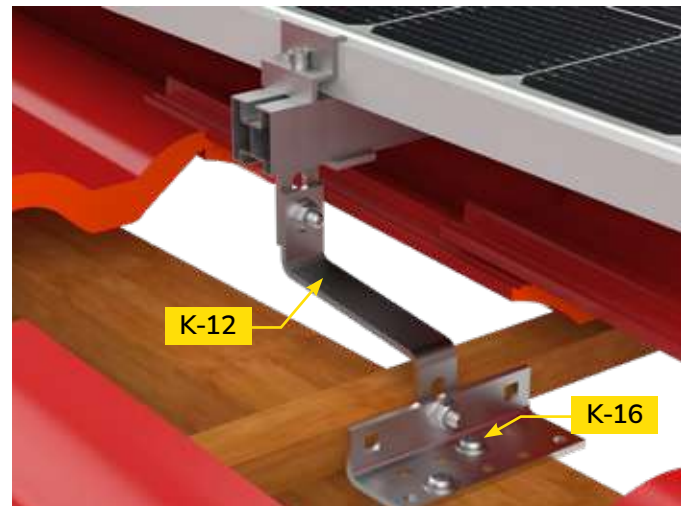
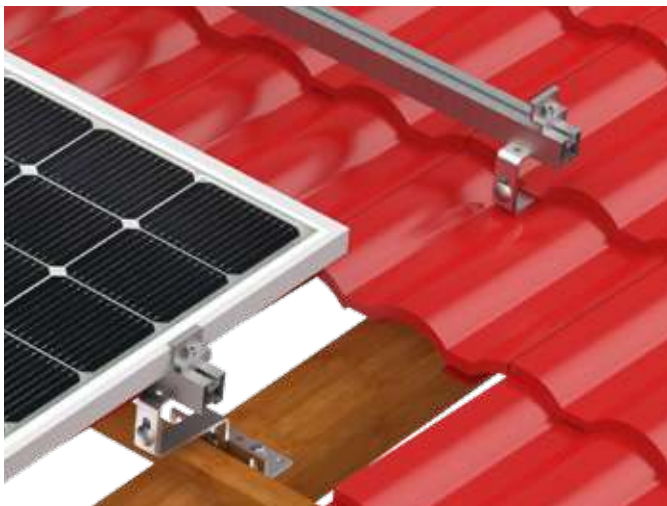
SYSTEM FOR TILED ROOFING



3. PRODUCTS

Material	Stainless steel / aluminium
Installation method	Mounting to the roof structure
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Alternative mounting methods	K-12, K-12-L, K-12+3, K-12-Strong
Notes	Systems for pitched roofs may extend up to 300 mm beyond the mounting point.

4. MOUNTING SYSTEMS

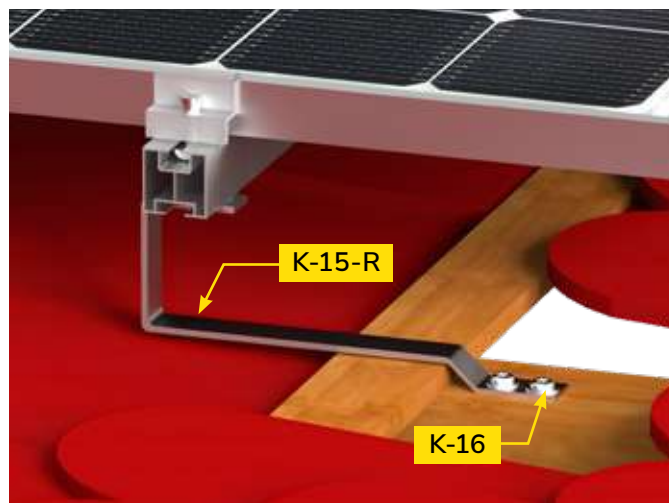


☐ FOR PITCHED ROOFS



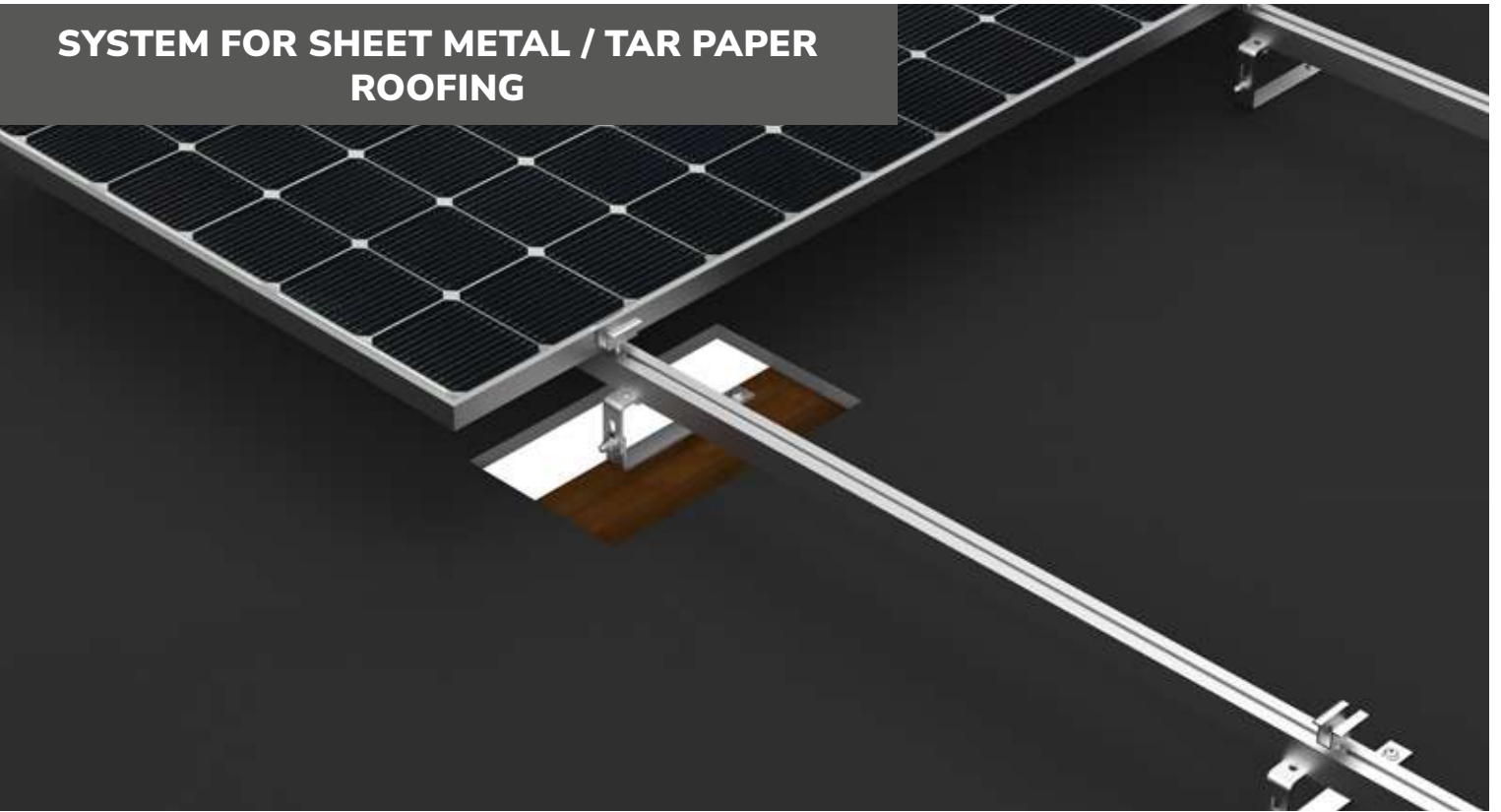
Material	Stainless steel / aluminium
Installation method	Mounting to the roof structure
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Alternative mounting methods	K-15-R, K-44, K-44-W
Notes	Systems for pitched roofs may extend up to 300 mm beyond the mounting point.

3. PRODUCTS



4. MOUNTING SYSTEMS

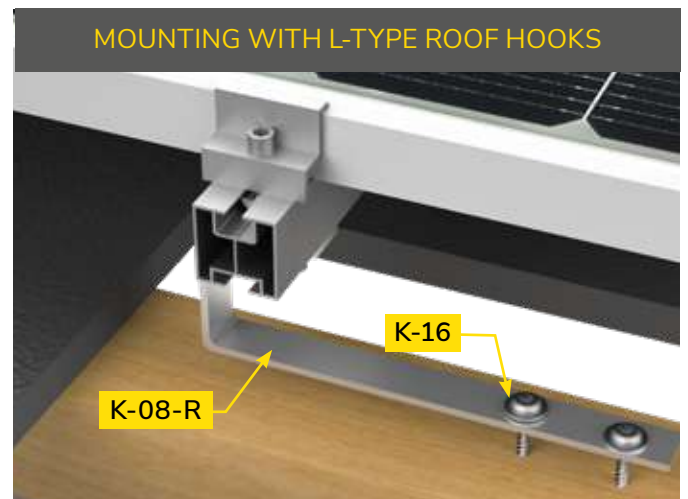
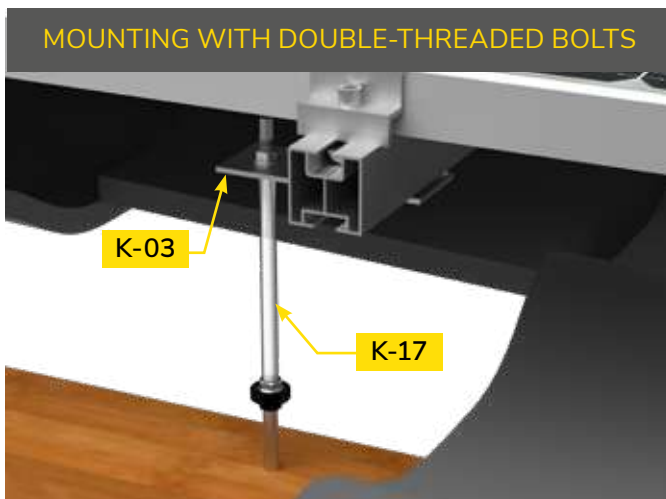
SYSTEM FOR SHEET METAL / TAR PAPER ROOFING



3. PRODUCTS

Material	Stainless steel / aluminium
Installation method	Mounting to the roof structure
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Alternative mounting methods	K-08-R, K-17, K-43
Notes	Systems for pitched roofs may extend up to 300 mm beyond the mounting point. For shingled roofing it is recommended to use hanger bolts and to seal EPDM with a roofing sealant.

4. MOUNTING SYSTEMS



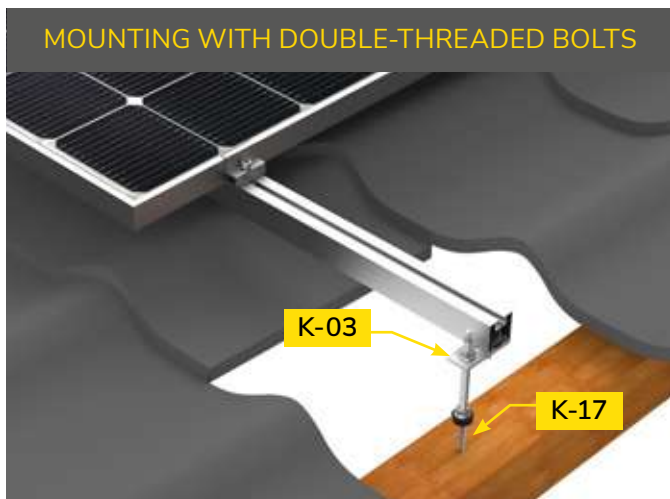
□ FOR PITCHED ROOFS



SYSTEM FOR STEEL TILE ROOFING

Material	Stainless steel / aluminium
Installation method	Mounting to the roof structure / to the roof sheeting
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Notes	Systems for pitched roofs may extend up to 300 mm beyond the mounting point. Min. required sheet thickness for mounting with a trapezoidal short rail is 0,4 mm.

3. PRODUCTS



4. MOUNTING SYSTEMS

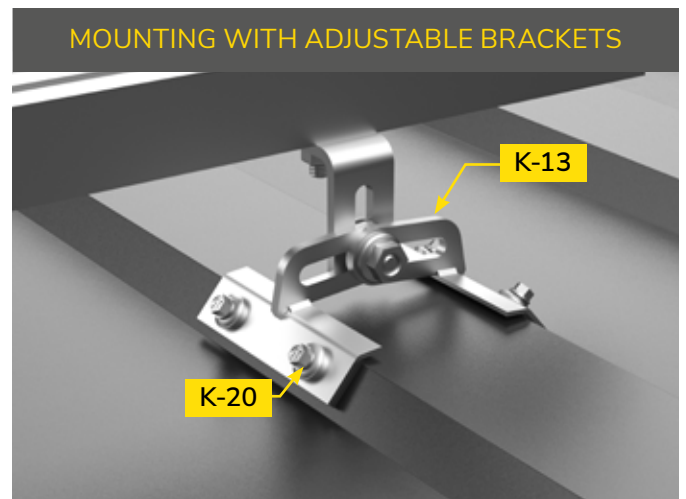
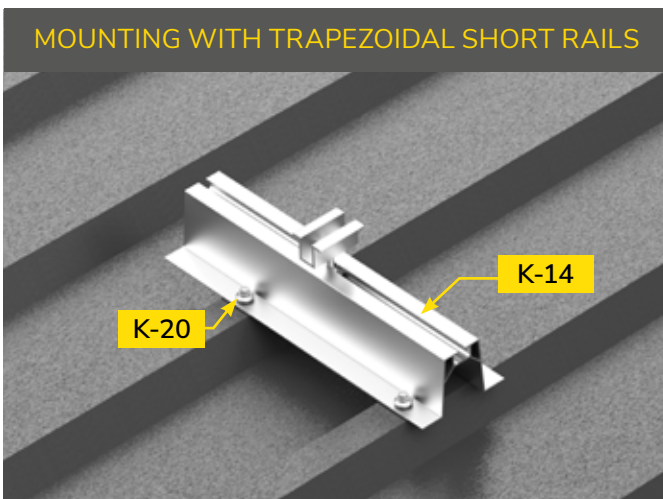
SYSTEM FOR TRAPEZOIDAL SHEET METAL ROOFING



3. PRODUCTS

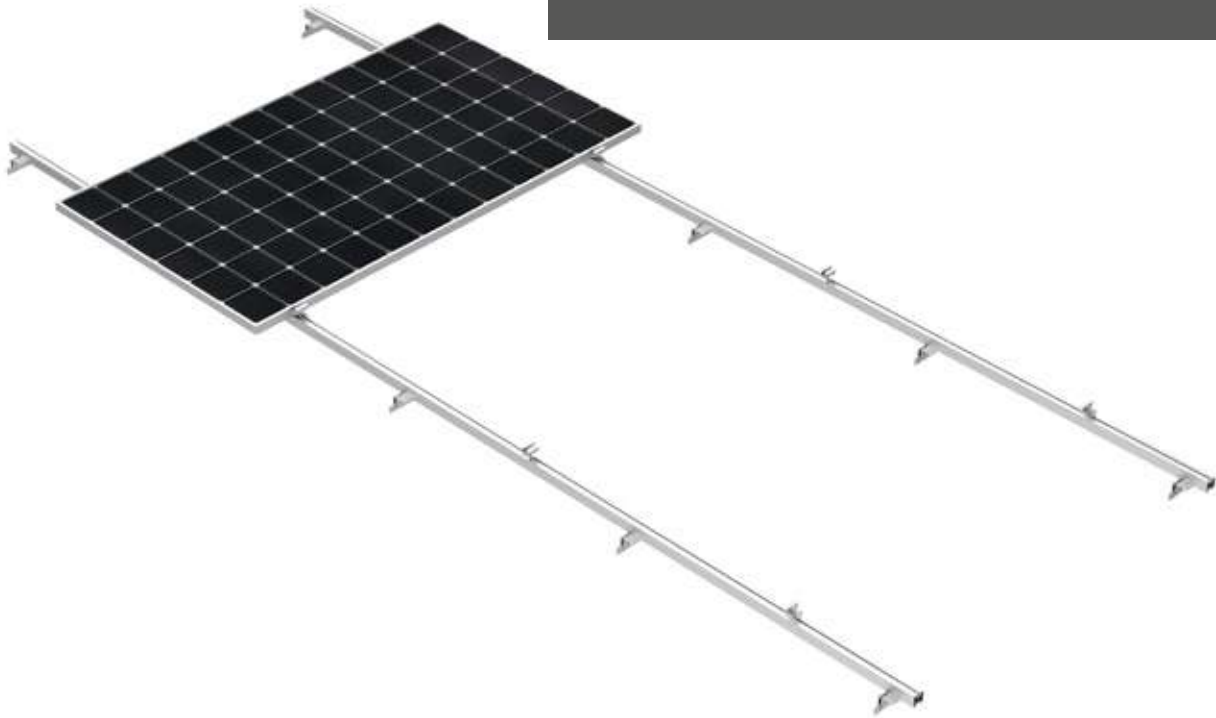
Material	Stainless steel / aluminium
Installation method	Mounting to the roof sheeting
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Notes	Systems for pitched roofs may extend up to 300 mm beyond the mounting point. Min. required sheet thickness for mounting with a trapezoidal short rail is 0,4 mm. Enables mounting trapezoidal short rails in vertical orientation on a trapezoidal sheet roofing.

4. MOUNTING SYSTEMS



□ FOR PITCHED ROOFS

SYSTEM FOR SHEET METAL SEAM ROOFING



1. KENO

2. NORMS

3. PRODUCTS

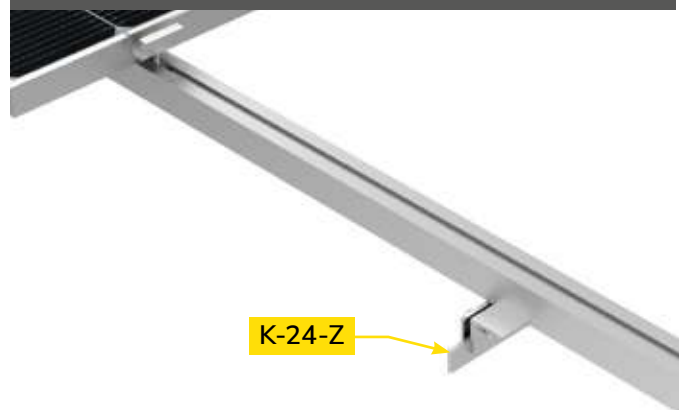
Material	Stainless steel / aluminium
Installation method	Mounting to the roof sheeting
Tilt angle	Equal to the roof slope
Modules arrangement	Vertical or horizontal
Product warranty	10+5 years
Notes	Max seam thickness for a system for standing seam roofing is 15 mm. Systems for pitched roofs may extend up to 300 mm beyond the mounting point.

4. MOUNTING SYSTEMS

MOUNTING WITH ADJUSTABLE K-24-C HOOK



MOUNTING WITH ADJUSTABLE K-24-Z HOOK



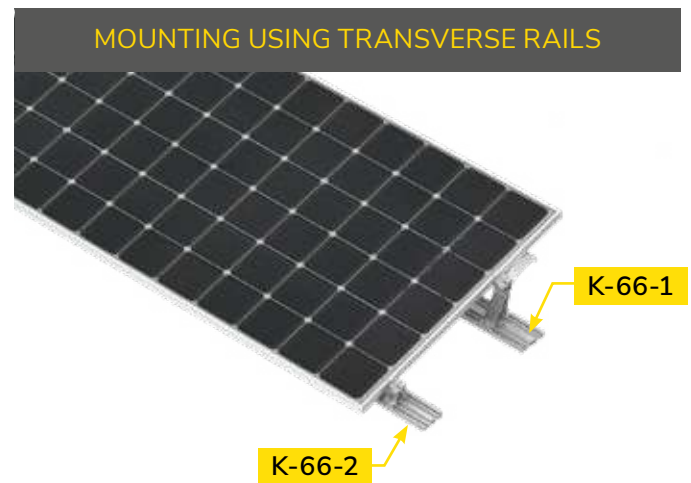
MOUNTING CONSTRUCTION FOR SANDWICH PANELS



Material	Aluminium
Installaton method	Mounting to the roof sheeting
Tilt angle	11°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 1000 mm. Min. required sheet thickness for mounting using mounting rails is 0,4 mm. Enables installation on sandwich panels roofs.

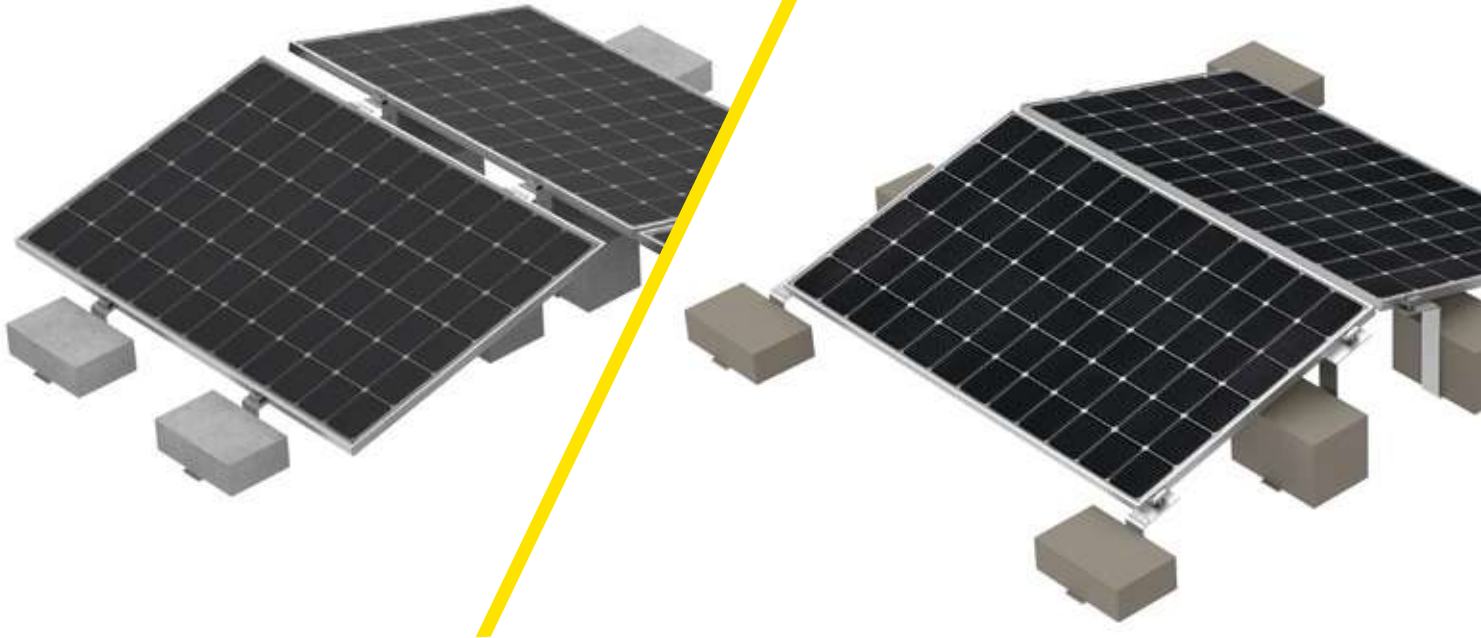
3. PRODUCTS

4. MOUNTING SYSTEMS



□ FOR FLAT ROOFS

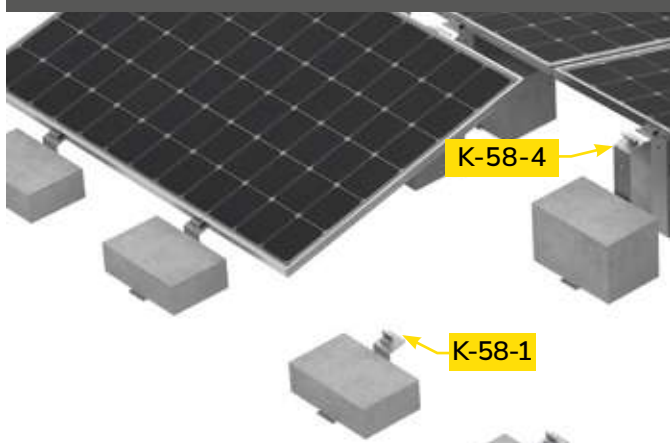
BALLASTED SYSTEM



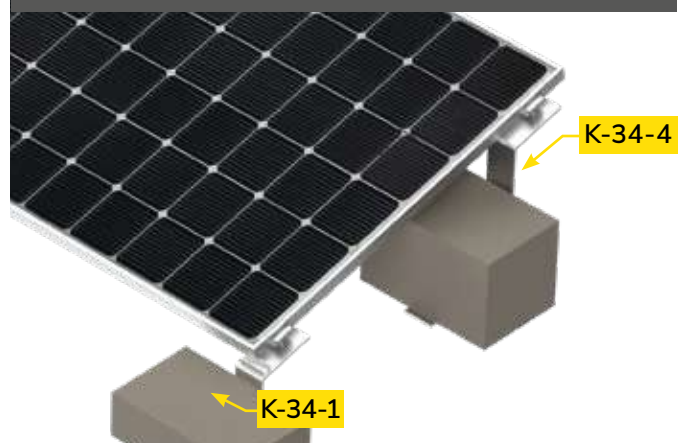
Material	Aluminium
Installation method	Non-invasive mounting
Tilt angle	14°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	For ballasted systems only horizontal module orientation is permitted. Min. roof edge distance for systems for pitched roofs is 1000 mm.

3. PRODUCTS

LONG SIDE MOUNTING (EAST/WEST)

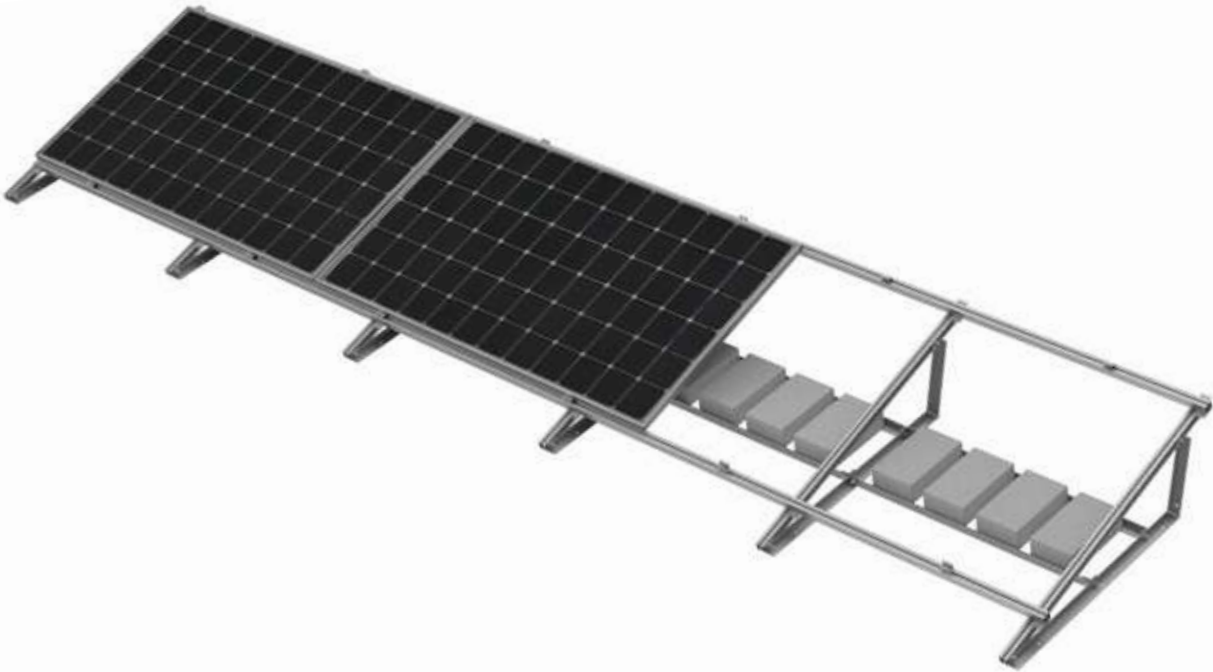


SHORT SIDE MOUNTING (SOUTH)



4. MOUNTING SYSTEMS

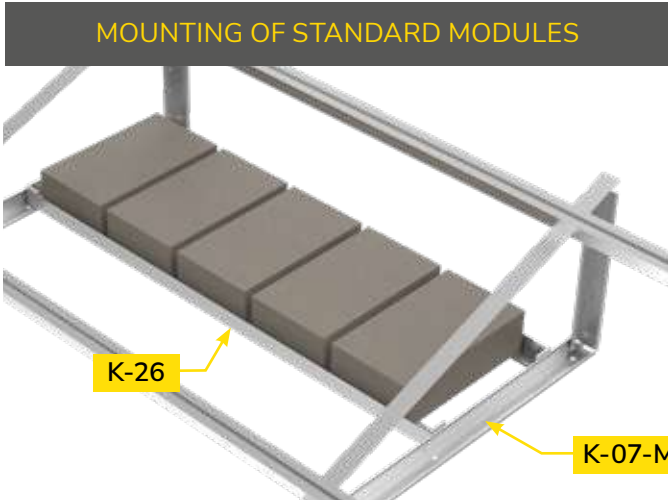
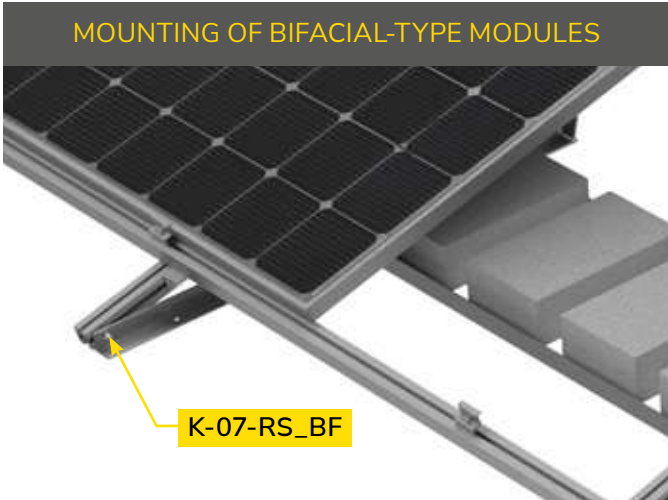
BALLASTED SYSTEM INSTALLED ON TRIANGLES



Material	Aluminium
Installaton method	Non-invasive mounting
Tilt angle	15-25°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	For ballasted systems only horizontal module orientation is permitted. Min. roof edge distance for systems for pitched roofs is 1000 mm.

3. PRODUCTS

4. MOUNTING SYSTEMS



□ FOR FLAT ROOFS

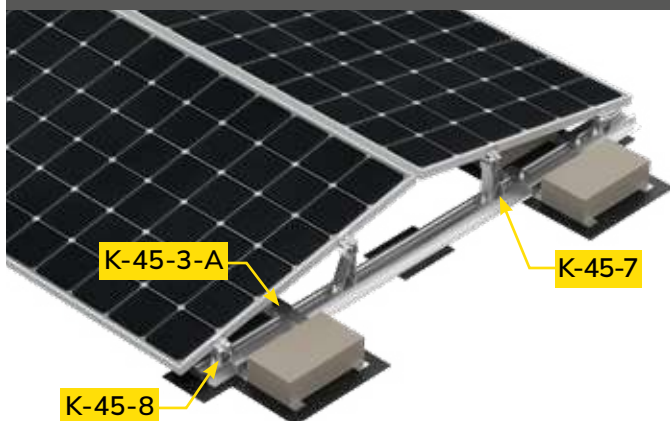
BALLASTED SYSTEM ON MEMBRANES



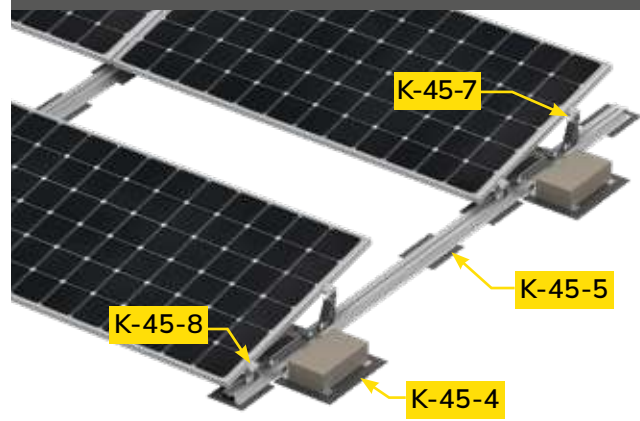
Material	Aluminium
Installation method	Non-invasive mounting
Tilt angle	11°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	For ballasted systems only horizontal module orientation is permitted. For ballasted systems on membrane the ballast is placed every other rail. Min. roof edge distance for systems for pitched roofs is 1000 mm.

3. PRODUCTS

EAST/WEST ARRANGEMENT



SOUTH ARRANGEMENT



4. MOUNTING SYSTEMS

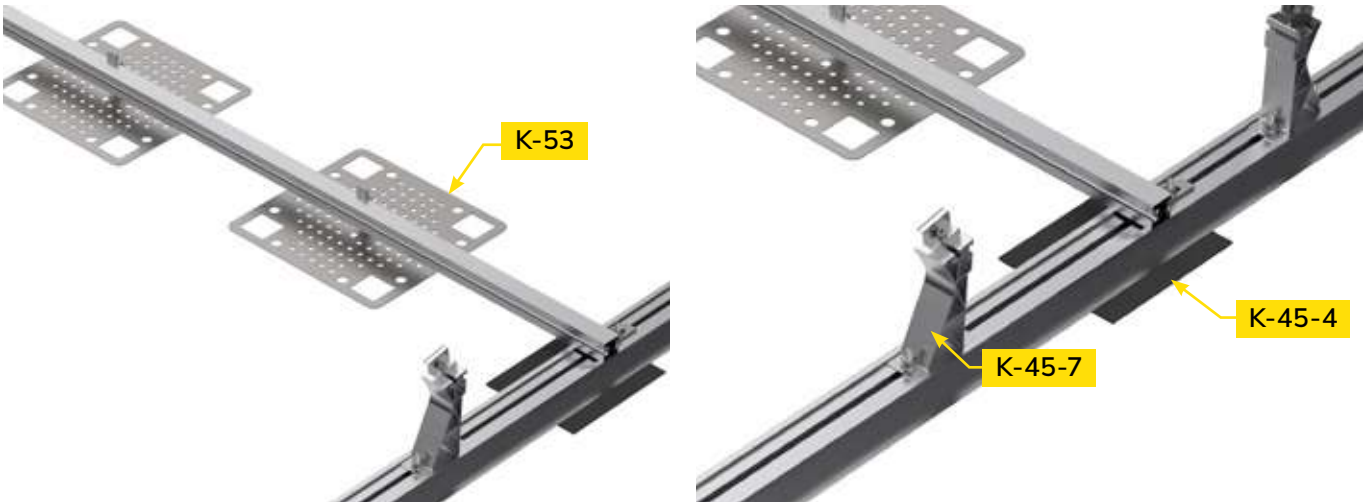
WELDED CONSTRUCTION WITH MOUNTING RAILS



Material	Stainless steel / aluminium
Installaton method	Non-invasive mounting
Tilt angle	11°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 1000 mm. To fulfill the requirements of the guarantee, installer must undergo a mounting plate assembly course at the plates manufacturer site.

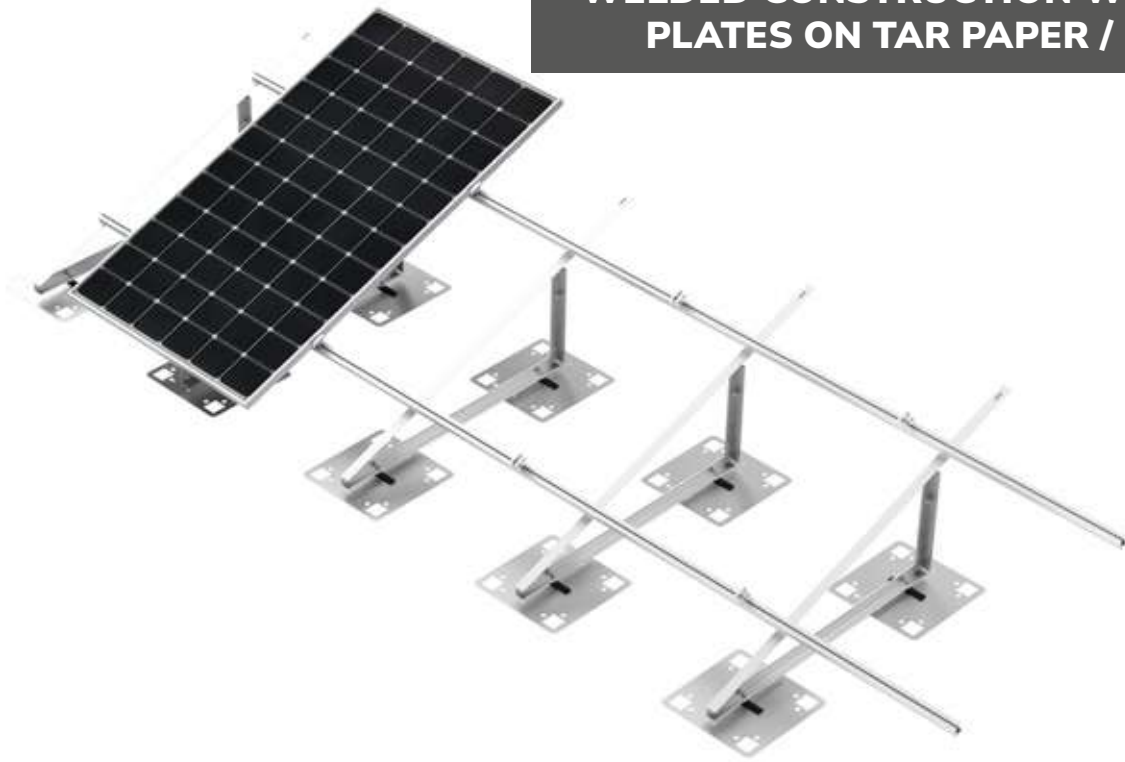
3. PRODUCTS

4. MOUNTING SYSTEMS

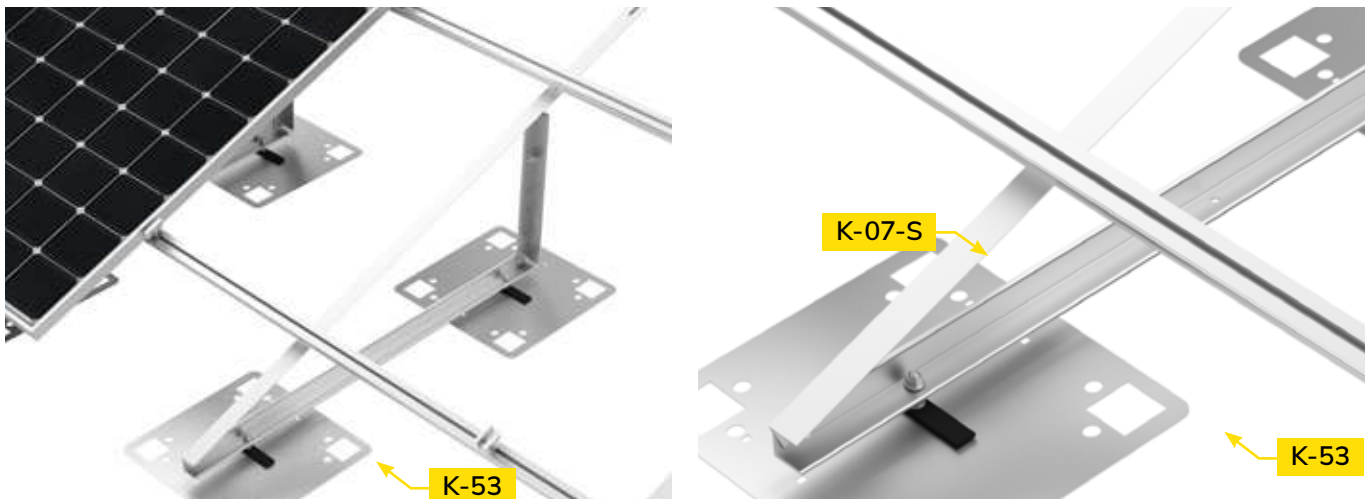


□ FOR FLAT ROOFS

WELDED CONSTRUCTION WITH MOUNTING PLATES ON TAR PAPER / MEMBRANE



Material	Stainless steel / aluminium
Installation method	Non-invasive mounting
Tilt angle	15-35°
Modules arrangement	Vertical
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 1000 mm. To fulfill the requirements of the guarantee, installer must undergo a mounting plate assembly course at the plates manufacturer site.



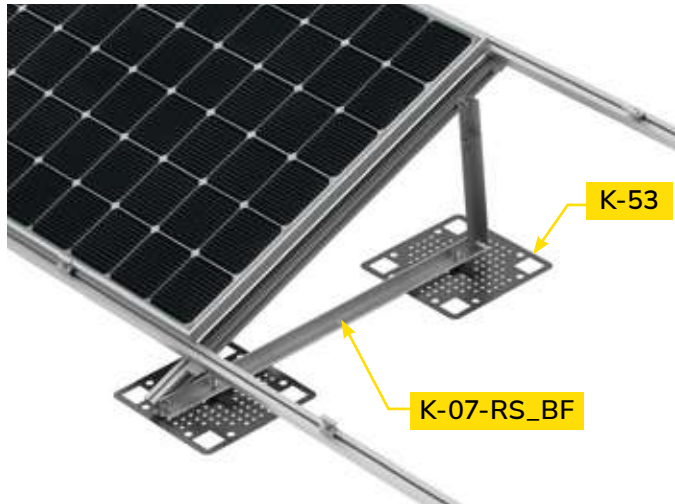
**SYSTEM ON TRIANGLES
FOR BIFACIAL TYPE MODULES**



3. PRODUCTS

Material	Aluminium
Installaton method	Non-invasive mounting
Tilt angle	15-25°
Modules arrangement	Horizontal
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 1000 mm. To fulfill the requirements of the guarantee, installer must undergo a mounting plate assembly course at the plates manufacturer site.

4. MOUNTING SYSTEMS

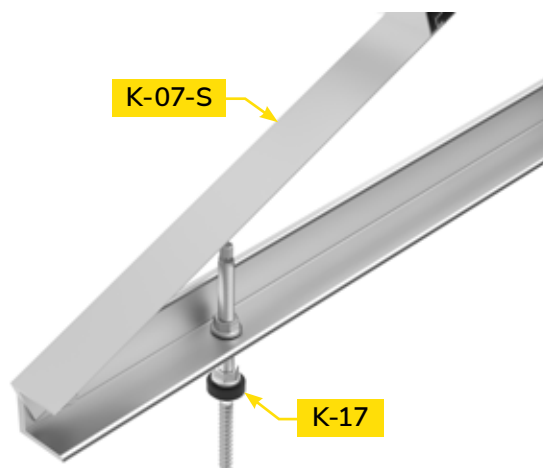


FOR FLAT ROOFS □

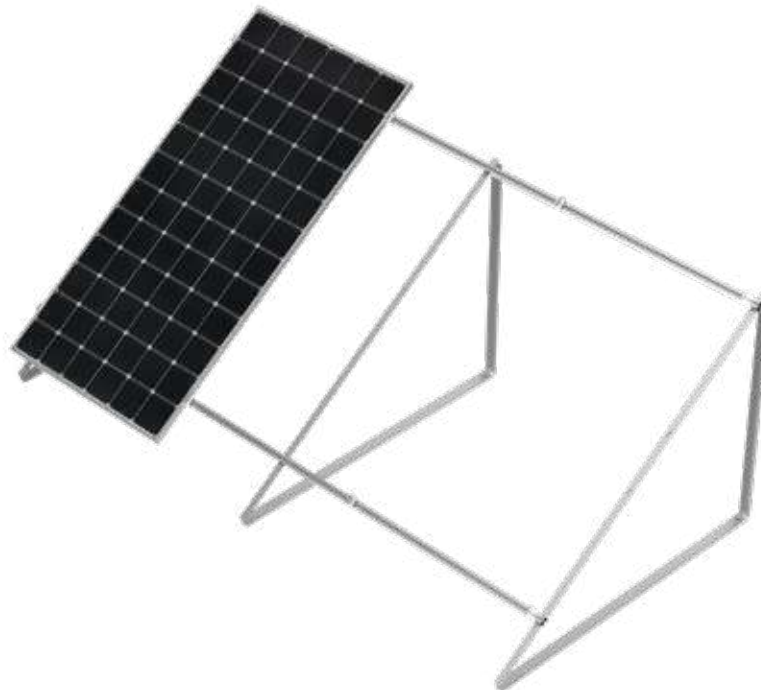
SYSTEM ON TRIANGLES



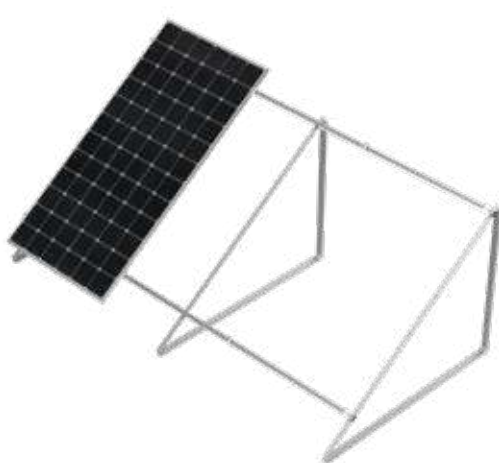
Material	Aluminium
Installaton method	Mounting to the roof structure / elevation
Tilt angle	15-35°
Modules arrangement	Vertical
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 1000 mm.



SYSTEM ON TRIANGLES FOUNDATION-MOUNTED

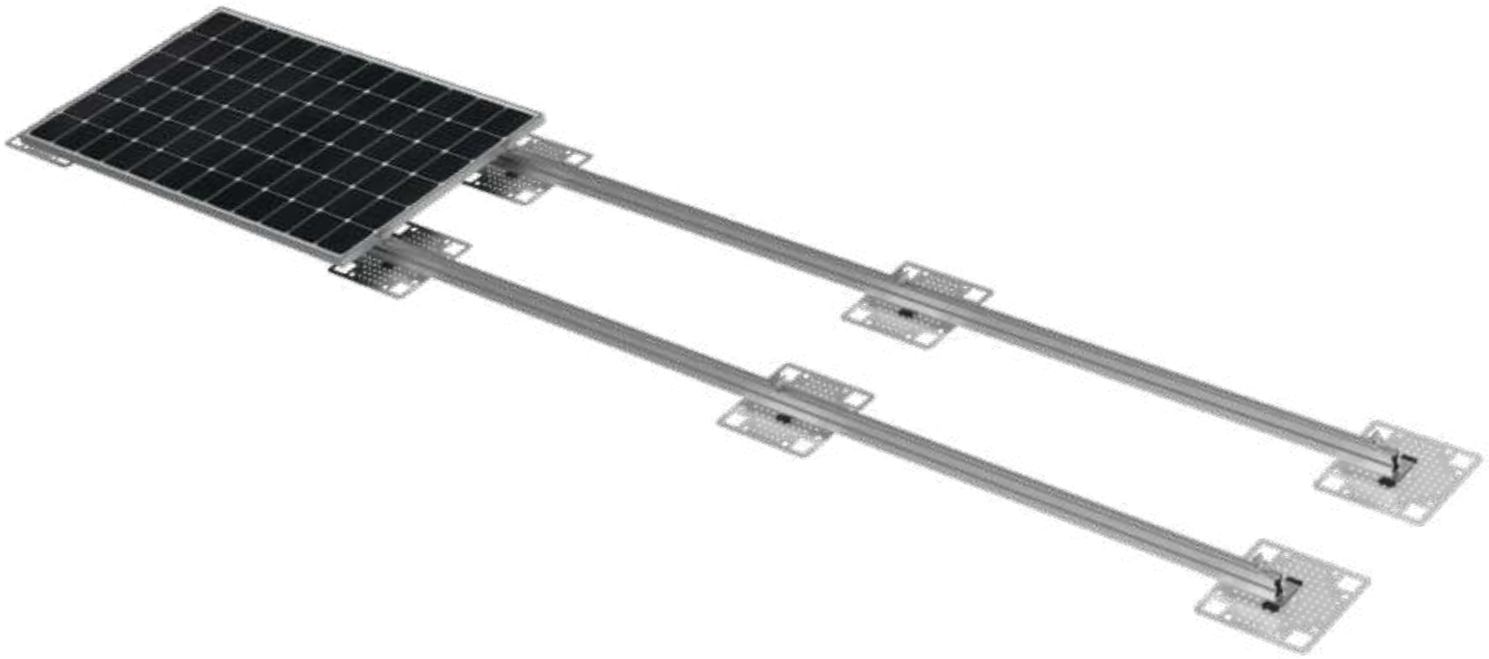


Material	Aluminium
Installation method	Mounting on the foundation
Tilt angle	36°
Modules arrangement	1 vertical row or 2 horizontal rows
Product warranty	10+5 years
Notes	Solar modules and parts of free-standing systems may extend max 500 mm beyond the last support. Mounting on the previously prepared foundation.

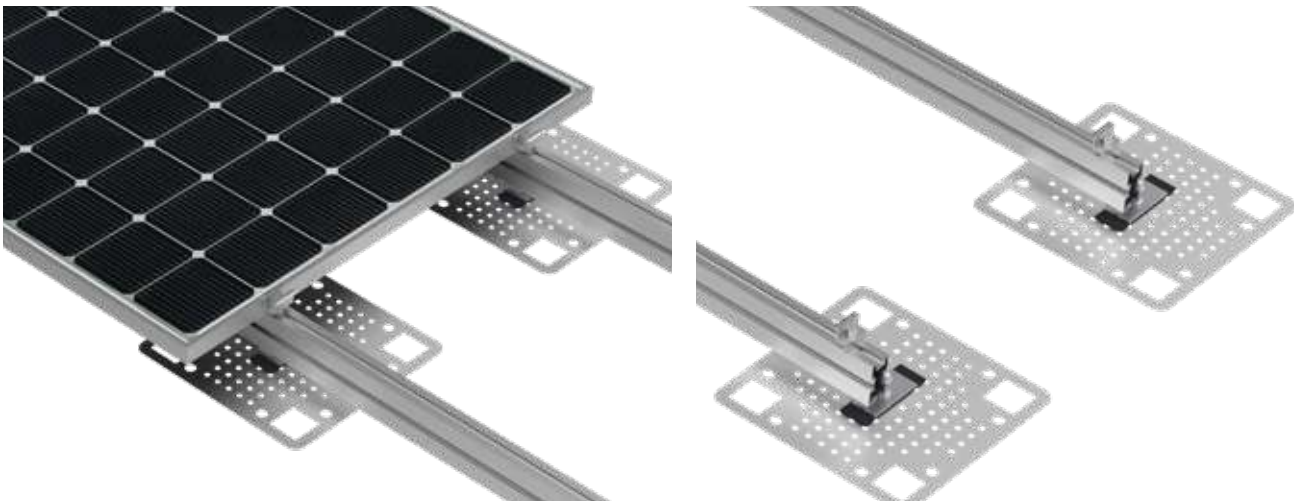


□ FOR FLAT / DOME / PITCHED ROOFS

WELDED CONSTRUCTION ON TAR PAPER / MEMBRANE



Material	Stainless steel / aluminium
Installation method	Non-invasive mounting
Tilt angle	Equal to the roof slope
Modules arrangement	Parallel to the roof
Product warranty	10+5 years
Notes	Min. roof edge distance for systems for pitched roofs is 300 mm. Enables installation on cylindrical and dome roofs. To fulfill the requirements of the guarantee, installer must undergo a mounting plate assembly course at the plates manufacturer site.



DOUBLE-SUPPORT SYSTEM FOR BIFACIAL MODULES



Material	Stainless steel / aluminium
Installaton method	Pile driver / excavator
Tilt angle	0-35° (regulated)
Modules arrangement	2 rows vertical 4 horizontal rows for modules up to 1070 mm wide, above that 3 horizontal rows
Product warranty	10+5 years
Notes	Mounting the K-25 profile along the longer side of the module.



FREE-STANDING

DOUBLE-SUPPORT SYSTEM FOR BIFACIAL MODULES

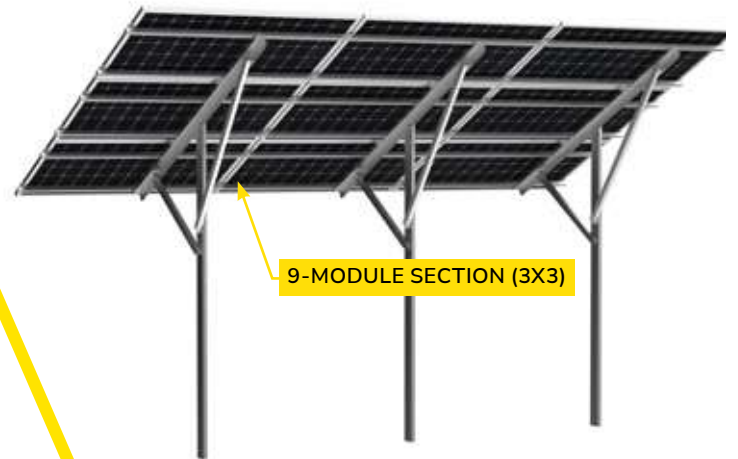
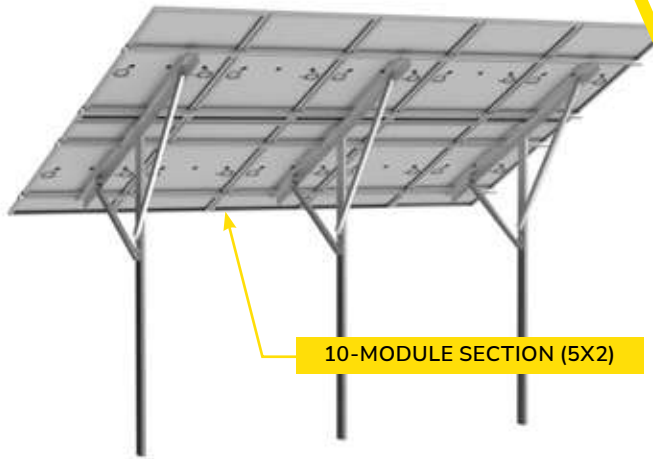


Material	Stainless steel / aluminium
Installation method	Pile driver / excavator
Tilt angle	23-27° (regulated)
Modules arrangement	2 vertical rows Up to 5 horizontal rows
Product warranty	Up to 25 years
Notes	Ground mount solutions designed for large-scale projects.

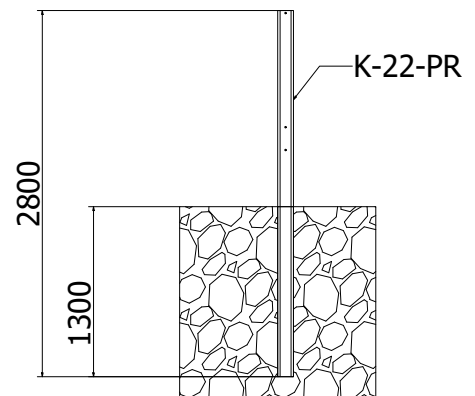
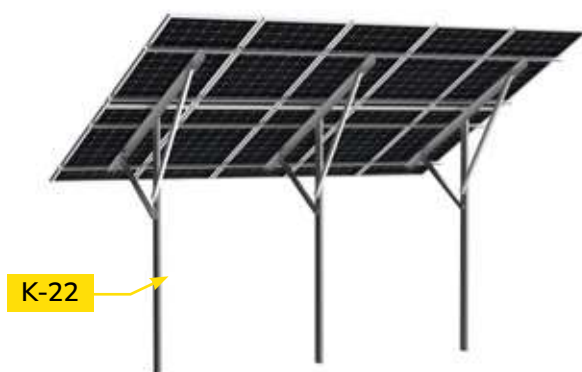


SINGLE-SUPPORT SYSTEM

2 VERTICAL ROWS / 3 HORIZONTAL ROWS



Material	Hot-dip galvanised steel / aluminium Steel with Magnelis® coating / aluminium
Installation method	Pile driver / excavator
Tilt angle	25-30°
Modules arrangement	2 vertical rows 3 horizontal rows
Product warranty	10+5 years
Notes	For two-arm systems with 2 vertical rows arrangement max solar module height is 1800 mm. For higher modules installation the double-support system should be used. Solar modules and parts of free-standing systems may extend max 500 mm beyond the last support. Insertion depths for single support systems is 1300 mm. Support dimensions are specified on the last page of the installation manual.



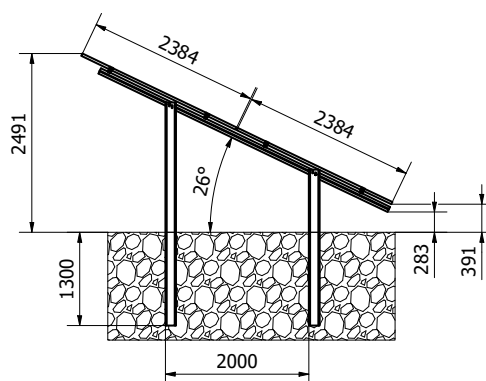
FREE-STANDING

DOUBLE-SUPPORT SYSTEM

4 HORIZONTAL ROWS / 2 VERTICAL ROWS



Material	Steel with Magnelis® coating / aluminium
Installation method	Pile driver / excavator
Tilt angle	0-35° (regulated)
Modules arrangement	4 horizontal rows 2 vertical rows
Product warranty	10+5 years
Notes	Insertion depths for double support systems is 1300 mm. Solar modules and parts of free-standing systems may extend max 500 mm beyond the last support. For double-support systems the only possibility of elevating the front part of the system is to use two high supports. Support dimensions are specified on the last page of the installation manual.



VERTICAL DESIGN DEDICATED TO ASSEMBLY OF BIFACIAL MODULES



3. PRODUCTS

Material	Steel with Magnelis® coating / aluminium
Installation method	Pile driver / excavator
Modules arrangement	2 modules in 2 horizontal rows
Product warranty	10+5 years
Notes	Insertion depth is 1300 mm. Enables installation of modules sized up to 2278x1140 mm.

4. MOUNTING SYSTEMS



CARPORT



Material	Steel with black powder coating
Installation method	Mounting on the foundation
Notes	Parking space provided for two vehicles.



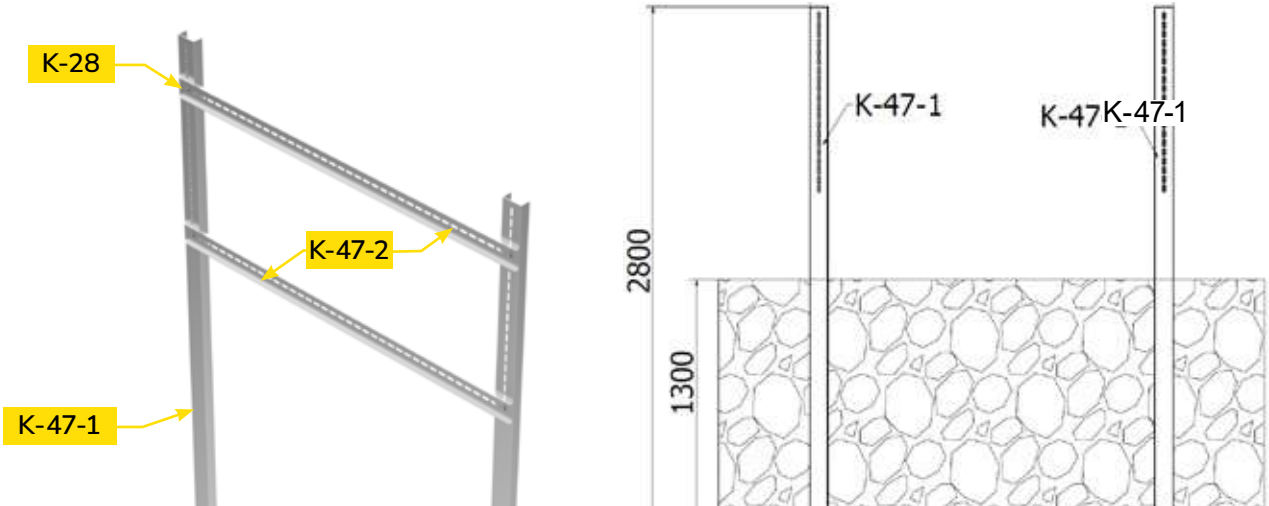
RACK FOR HANGING THE INVERTER



Material	Steel with Magnelis® coating
Installaton method	Pile driver / excavator
Product warranty	10+5 years
Notes	Insertion depth is 1300 mm.

3. PRODUCTS

4. MOUNTING SYSTEMS



TOTAL WEIGHT OF MOUNTING STRUCTURE IS CALCULATED AT B2B PLATFORM AND SPECIFIED ON MODULE SELECTION BAR IN „MOUNTING SYSTEM” TAB”

TRAINING OFFER

PREPARATORY TRAINING COURSE FOR CERTIFIED RES INSTALLER EXAMINATION

We operate an Accredited Training Centre of the Office of Technical Inspection (Urząd Dozoru Technicznego, UDT) in the scope of Certified RES Installer training. By taking part in this training course, you will learn about the general topics related to photovoltaics and gain the basic theoretical knowledge concerning the operation of PV systems. You will learn how to size and connect PV systems to the power grid, and how to install and adjust them. Finally, you will also learn how to upgrade and maintain PV systems.

For organised groups of 15 or more people, we offer the option of organising a closed training course.

For more information, visit the website of the Office of Technical Inspection:

WWW.UDT.GOV.PL

WEBINARS

We hold regular remote training sessions (webinars) with manufacturers to keep our customers and employees up-to-date on current technologies and news from the PV market.

If you are interested in this form of education, we invite you to like and follow our social media profiles:



TRAINING COURSES FOR INSTALLER LICENSE RENEWAL

If you have already completed a Certified RES Installer training and obtained a license, keep in mind that this license is **valid for 5 years**. To prolong its validity, the Office of Technical Inspection requires participation in a training course for installer licence renewal, which can be taken at the KENO headquarters.

To renew your license, you have to:

- + Meet the conditions for certification specified in Art. 136 para. 3 of the Act on Renewable Energy Sources (Dz. U. [Journal of Laws] of 2015, item 478, as amended),
- + Complete refresher training within 12 months prior to the expiration date of the certificate,
- + Install, upgrade or maintain in proper working order at least 5 RES micro-installations, small installations or installations, with a total installed thermal capacity not exceeding 600 kW.

REMEMBER! The application for certificate renewal must be submitted **at least 30 days before the certificate expires!**

PRODUCT TRAINING

We organize certified product training courses, conducted by experts and representatives of manufacturers of photovoltaic systems found in our offer. They give you an opportunity to expand your knowledge and learn about the latest technology and solutions used in their equipment.

CERTIFIED MOUNTING PLATES ASSEMBLY COURSES

To fulfill the requirements of the guarantee, installer must undergo a mounting plate assembly course at the plates manufacturer site.

Training schedule & registration in TRAININGS tab at:

WWW.B2B.KENO-ENERGY.COM

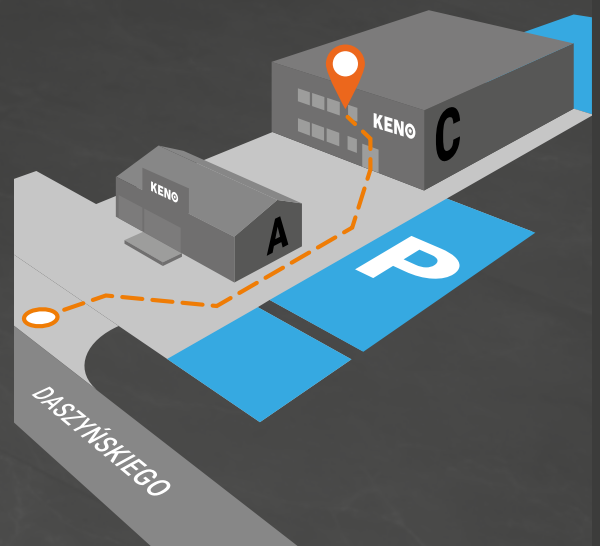


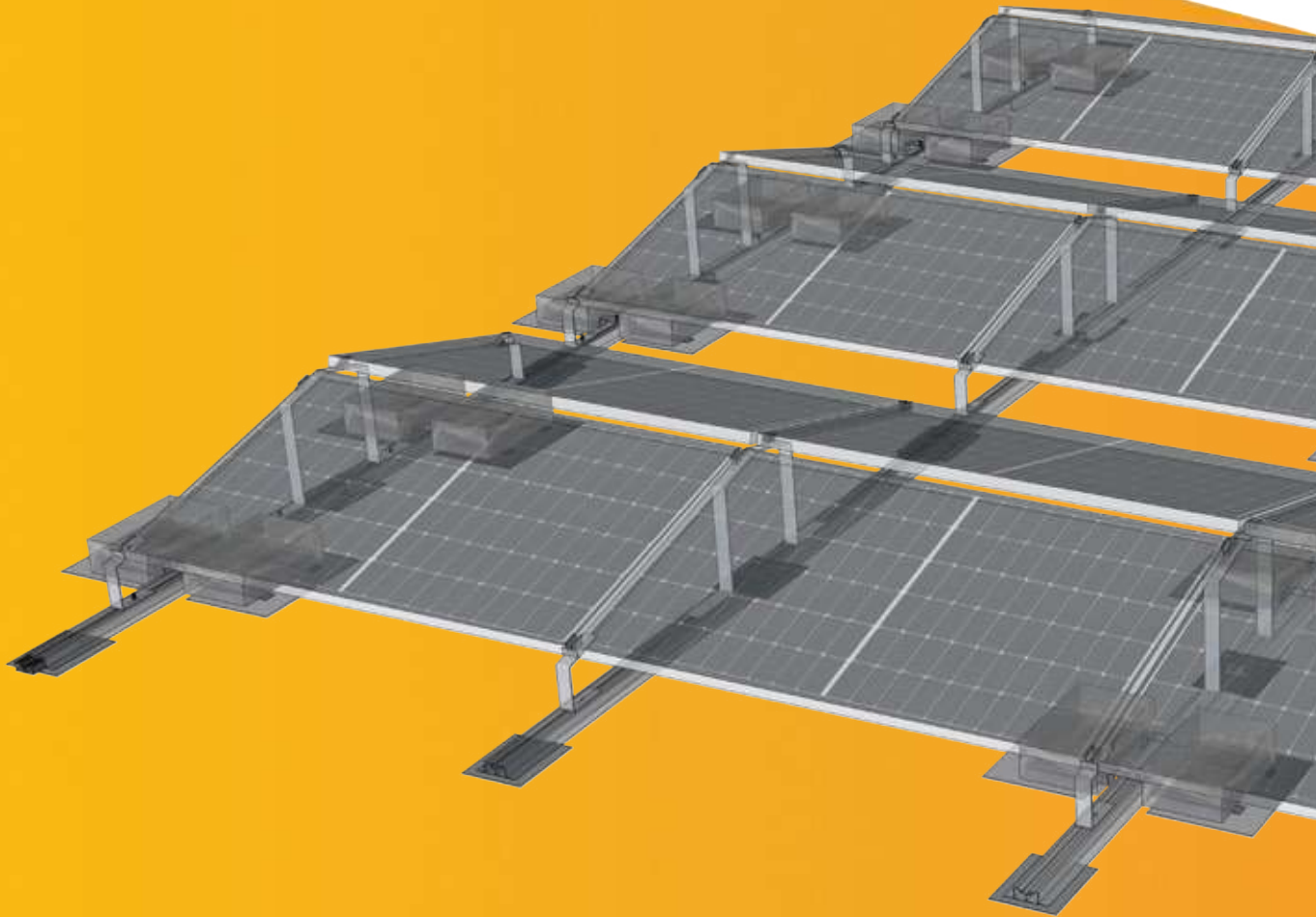
TRAINING SITE

Firma **KENO** is located in Gliwice (Ostropa district) at Daszyńskiego 609 Street, close to A4 motorway exit, 7 km from the city centre.

Training sessions take place in Building C, located directly behind the building at Daszyńskiego Street. The modern training room is located on the second floor.

Ample free parking is available for training course participants on company premises in front of and behind Building C. Electric car users can use a charger located near the entrance to the training building.





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WARSAW WAREHOUSE

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