

2025/2026

PRODUCT CATALOGUE

Evacuated tube collectors:

**CPC OEM, CPC INOX,
CPC XL INOX**

Ritter Solartechnik is one of the leading manufacturers of highly efficient evacuated tube collectors.



Technical Leadership

The overall performance of ecological heating systems based on solar thermal energy is significantly dependent on how efficiently the solar collector converts sunlight into energy. The evacuated tube collectors offered by Ritter Solartechnik lead this sector. This is primarily thanks to their innovative design which is the result of many years of research and technological innovations.

The result: using the evacuated tube collector manufactured by Ritter Solartechnik in Baden-Württemberg, it is possible to achieve significantly higher energy yields than with other conventional collectors.

Ecological consequent

Ecology is close to our heart and technology is our passion. Together, they determine the way we act at Ritter Solartechnik. And this has been the case since the company was first established in 1988. We think and work in an ecologically consequent manner and develop our products accordingly.

This philosophy makes us one of the most innovative companies in the solar thermal energy sector. These results are an incentive for us to strive towards even more innovation: for our customers and for the sake of the environment.

Certified

All collectors fulfill the requirements of the EN 12975 / ISO 9806 and are awarded with the Solar Keymark label.

High-Efficient

Other system suppliers also benefit from this efficiency when they integrate Ritter Solartechnik collectors as OEM products in their solar thermal heating systems. Customised requirements on design can be realised as well as technical modifications or specifications. Apart from perfect compatibility, the collector is also convincing thanks to its careful workmanship, durability, high-quality design and a fair price/performance ratio.

Consistently high quality in series production, maximum flexibility during order processing and optimum adherence to deadlines are what distinguish OEM products offered by Ritter. The "Ritter collector" is regarded by experts as being synonymous with outstanding quality. Ritter customers, also including well-known companies in the heating industry rely on this outstanding quality.



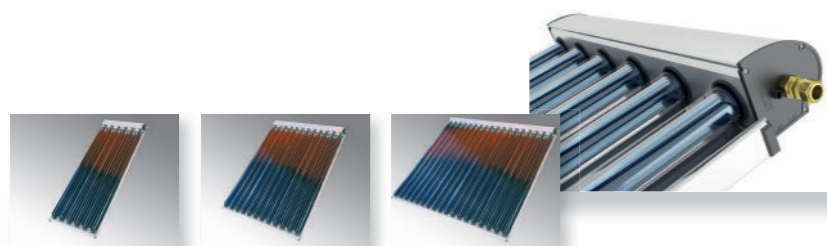
Ritter Solartechnik GmbH & Co. KG

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D-72135 Dettenhausen
www.ritter-solartechnik.de

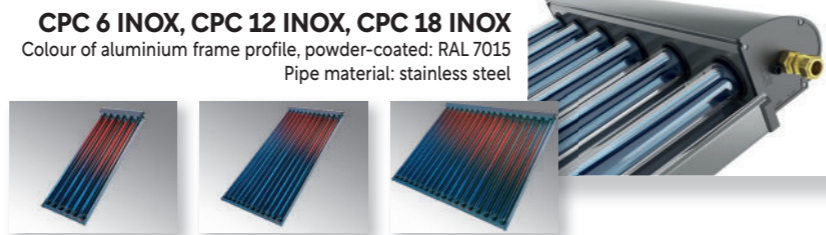
UID-Nr. DE 144175637
Place of jurisdiction: Stuttgart HRA 723663
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CPC 6 OEM, CPC 12 OEM, CPC 18 OEM
 Colour of aluminium frame profile, anodised: aluminium grey
 Pipe material: stainless steel



CPC 6 INOX, CPC 12 INOX, CPC 18 INOX
 Colour of aluminium frame profile, powder-coated: RAL 7015
 Pipe material: stainless steel



CPC 6 XL INOX, CPC 12 XL INOX
 Colour of aluminium frame profile, powder-coated: RAL 7015
 Pipe material: stainless steel

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For domestic hot water and heating applications, serial connectivity

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Technology

Ritter Solartechnik evacuated tube collectors are mass-produced products. They impress with excellent design, professional craftsmanship, high quality, and a high energy yield. For the development of the collectors, Ritter used its many years lasting experience with CPC technology in combination with the latest findings from manufacturing technology. High-quality, corrosion-resistant and tested materials ensure smooth operation over a long useful life. The well-known indestructibility of Ritter tubes was confirmed by positive test results in the hailstone test according to ISO 9806 and the thermal shock test.

Collector

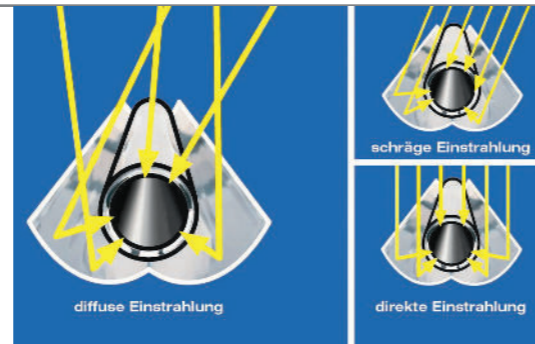
The CPC OEM / INOX / XL INOX evacuated tube collectors were developed especially for solar water heating and for solar backup heating. The low pressure loss allows several modules to be connected in series. The different available gross areas (1.16 m², 2.29 m², 3.4 m² and 1.45m², 2.87 m²) allow for accurate adjustments to water and/or space heating requirements. We also paid careful attention to details which are important for mounting the system: the solar system is delivered with a tented sun protection sheet to allow commissioning the system even during maximum solar irradiation. Hand straps which can be attached to the collector frame ensure safe and easy transport onto and across the roof and can be used as transport straps for quick crane mounting.

Sharp reflector edges are framed in the aluminium profile. The edges of the collector frame are sealed with rubber profiles. Only few screws are used in those places which need to be unfastened for maintenance; rivets are not used.



Mirror

In order to increase the efficiency of the evacuated tubes, a highly reflective, weatherproof CPC reflector (Compound Parabolic Concentrator) is placed behind the tubes. The reflector is produced from a metal sheet with protective coating using accurate roll forming technology. The special, improved geometry of the reflector ensures that direct and diffuse sunlight falls onto the absorber even when the angle of incidence is not ideal. This considerably improves the energy yield.



Tube

The evacuated tube is optimized in its geometry and performance. The evacuated tubes consist of two concentric glass tubes which are sealed in a semi-circular shape on one side and are joined to one another on the other side. The space between the tubes is evacuated and subsequently hermetically sealed (evacuated insulation).

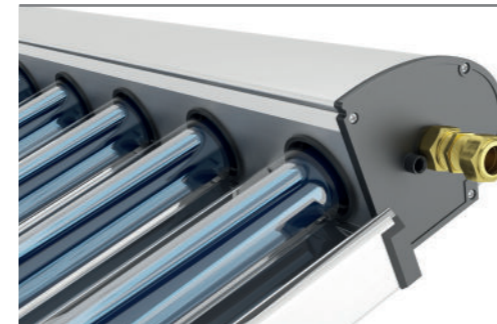
To use solar energy, the internal glass tube is coated with an environmentally friendly, highly selective layer on the outside, thus turning it into an absorber. The coating is protected in the evacuated space. The highly selective absorber layer is characterized by a very low emission coefficient and very good absorption rate. Due to the circular absorber design of the vacuum tubes, the tubes always work with ideal orientation to the sun. Everlasting vacuum leak proof due to pure glass connection between inner and outer glass tube, no glass-metal transitions, thermos flask principle.



Advantage: Glass-Glass-Connection (Principle of a Thermos flask). A preassembled barium getter in each tube allows fast indication of the vacuum inside.

Connection

For CPC OEM / INOX and CPC XL INOX, the flow and return pipes may be fitted on the left or the right of the manifold. Depending on the location of the flow pipe, the sensor is placed on the right or the left.



Manifold and U-Pipes

The manifold contains the insulated collecting and distributing pipe. Each evacuated tube contains a U-pipe that is directly flown through by the heat transfer medium. The U-pipe is connected to the collecting or distributing pipe.

The pipes are mass produced with just a minimum number of soldering points. This results in high leakage safety. A small specific content per area leads to the desired low heat capacity.



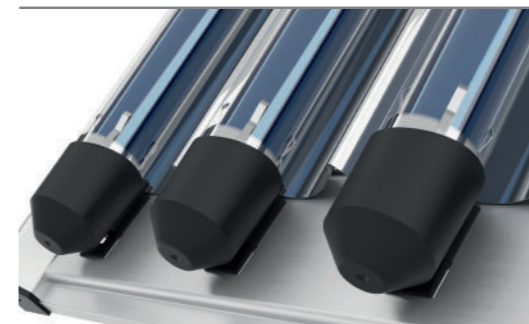
Heat Transfer Plate

Each U-pipe is pressed against the inside of the tube with the heat transfer plates. The heat transfer plates are made of aluminum so that even high stagnation temperatures have no effect on the metal's characteristics. The heat transfer plate is folded into both pipes.



Tube Retainer

The tube retainer can be mounted and demounted from the foot rail without using tools. Sharp edges are sealed with rubber profiles.



Evacuated tube collectors CPC 6 OEM, CPC 12 OEM, CPC 18 OEM

For domestic hot water and heating applications, serial connectivity

Pipe material: Stainless steel

Scope of delivery:

Fully pre-assembled unit comprising:

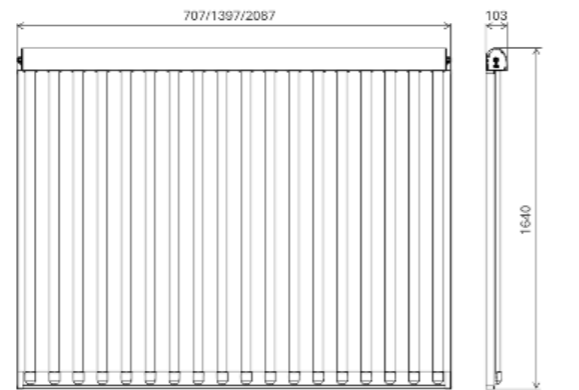
- Evacuated tubes based on the thermos flask principle
- Manifold with direct flow heat conduction unit and dry tube connection
- CPC reflector

Collectors are packed in individual boxes. In addition, there is a sun protection sheet over the evacuated tubes.

Installation types:

- On-roof installation
- Flat roof / wall installation

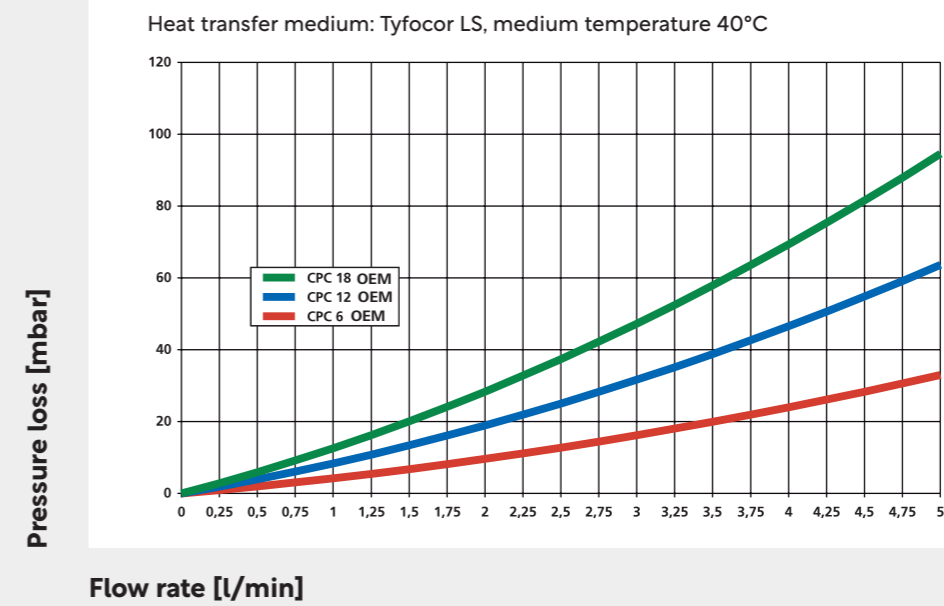
Note: The manifold must always be mounted on top. The minimum angle for on-roof and flat roof installation is 15°.



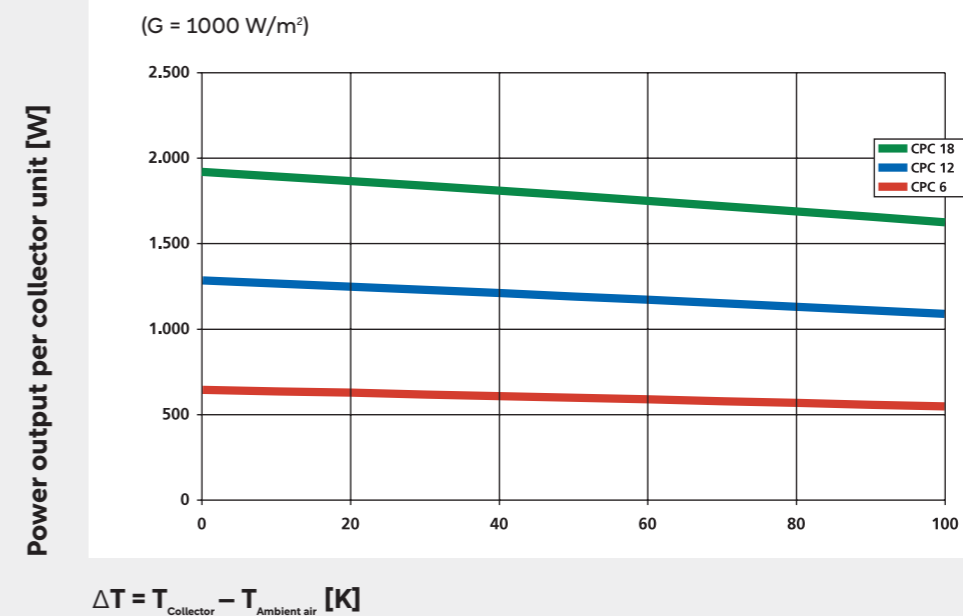
Series	CPC 6 OEM	CPC 12 OEM	CPC 18 OEM
Number of evacuated tubes	6	12	18
Collector energy output scale (50°C/75°C) (Solergy) ¹⁾	AA/AA	AA/AA	AA/AA
Annual collector energy output (50 °C Würzburg) kWh/Year	663	1326	1988
Energy output per collector module ²⁾ W	606	1212	1818
Energy output per collector module ³⁾ W	644	1288	1932
Product data according to Commission Regulation (EU) No 811/2013 and 812/2013 (Erp-relevant Data) regarding aperture area			
A _{sol} Collector aperture area m ²	1,00	2,00	3,00
η ₀ Zero-loss efficiency	0,644	0,644	0,644
η _{col} Collector efficiency %	61	61	61
a ₁ First-order coefficient W/(m ² K)	0,75	0,75	0,75
a ₂ Second-order coefficient W/(m ² K ²)	0,005	0,005	0,005
IAM Incidence angle modifier	1,00	1,00	1,00
Other product details			
Gross area m ²	1,16	2,29	3,42
Collector dimensions (length x width x height) m	1,64 x 0,71 x 0,10	1,64 x 1,40 x 0,10	1,64 x 2,09 x 0,10
Collector contents l	0,87	1,73	2,60
Weight of empty collector kg	17,5	32,7	48,0
Max. operation pressure bar	10	10	10
Max. stagnation temperature °C	301	301	301
Connection-diameter, compression fitting mm	15	15	15
Sensor sleeve mm	6	6	6
Colour (aluminium frame profile, anodized)	Aluminium grey		
Colour (plastic parts)	Black		
Conformity ⁴⁾	Pressure Equipment Directive 2014/68/EU		
Impact resistance test according to ISO 9806 mm	35		
Tests and licence	ISO 9806, Solar Keymark		
DIN CERTCO-licence number	011-7S134R		
Order No.	08-4054	08-4055	08-4056

¹⁾ Usable only with own Solar Keymark certification, details refer: <https://solar-heating-initiative.com> und www.dincertco.de
²⁾ At 1000 W/m² and 40 K temperature difference between the average collector temperature and ambient temperature
³⁾ At 1000 W/m² and 0 K temperature difference between the average collector temperature and ambient temperature
⁴⁾ Existing certification of collectors by TÜV SÜD Industrie Service GmbH for Ritter Solartechnik GmbH & Co.KG; Validity within Germany. A separate certification according to Pressure Equipment Directive can be applied for at TÜV when needed

Pressure loss of the tube collectors CPC 6/12/18 OEM



Power curve



Evacuated tube collectors CPC 6 INOX, CPC 12 INOX, CPC 18 INOX

For domestic hot water and heating applications, serial connectivity

Pipe material: Stainless steel

Scope of delivery:

Fully pre-assembled unit comprising:

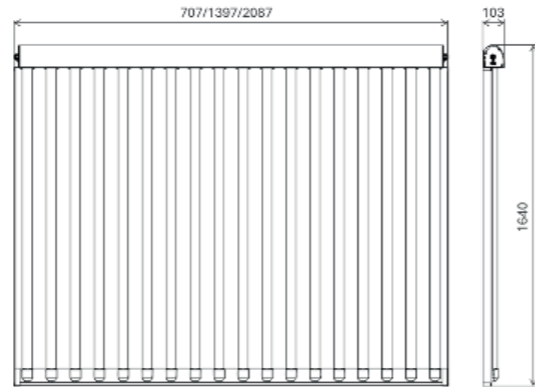
- Evacuated tubes based on the thermos flask principle
- Manifold with direct flow heat conduction unit and dry tube connection
- CPC reflector

Collectors are packed in individual boxes. In addition, there is a sun protection sheet over the evacuated tubes.

Installation types:

- On-roof installation
- Flat roof / wall installation

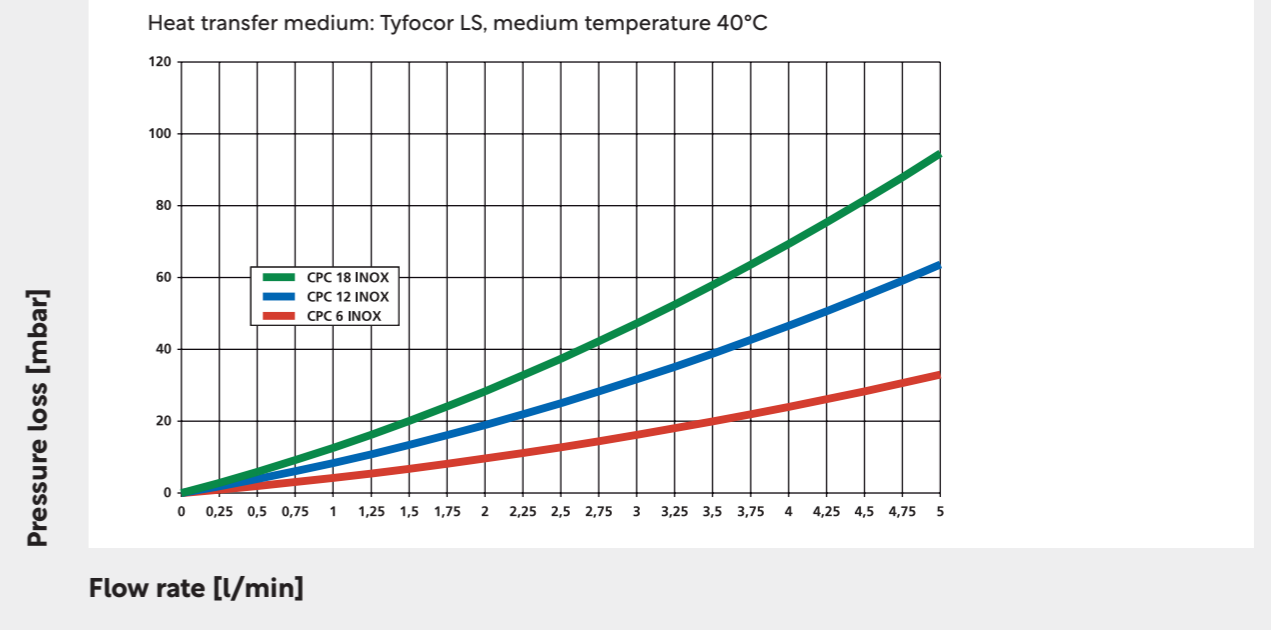
Note: The manifold must always be mounted on top. The minimum angle for on-roof and flat roof installation is 15°.



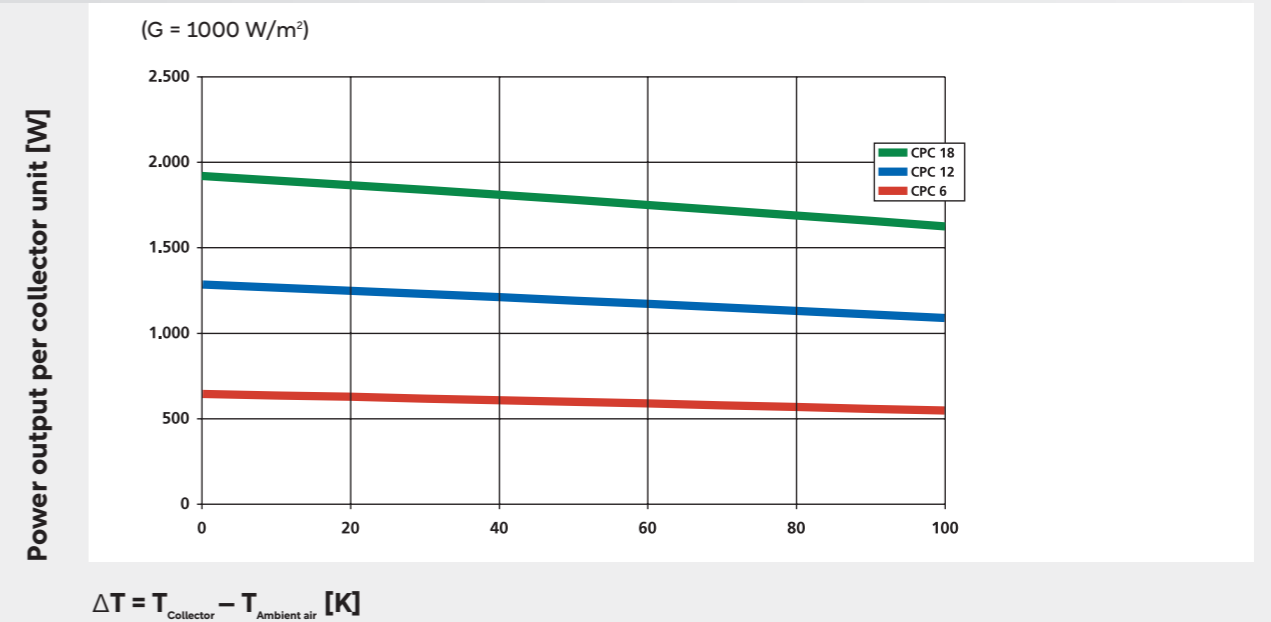
Series	CPC 6 INOX	CPC 12 INOX	CPC 18 INOX
Number of evacuated tubes	6	12	18
Collector energy output scale (50°C/75°C) (Solergy) ¹⁾	AA/AA	AA/AA	AA/AA
Annual collector energy output (50°C Würzburg) kWh/ Year	663	1326	1988
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a ₂ Second-order coefficient W/(m ² K ²)	0,005	0,005	0,005
IAM Incidence angle modifier	1,00	1,00	1,00
Other product details			
Gross area m ²	1,16	2,29	3,42
Collector dimensions (length x width x height) m	1,64 x 0,71 x 0,10	1,64 x 1,40 x 0,10	1,64 x 2,09 x 0,10
Collector contents l	0,87	1,73	2,60
Weight of empty collector kg	17,5	32,7	48,0
Max. operation pressure bar	10	10	10
Max. stagnation temperature °C	301	301	301
Connection-diameter, compression fitting mm	15	15	15
Sensor sleeve mm	6	6	6
Colour (aluminium frame profile, powder coated)	RAL 7015		
Colour (plastic parts)	Black		
Conformity ⁴⁾	Pressure Equipment Directive 2014/68/EU		
Impact resistance test according to ISO 9806 mm	35		
Tests and licence	ISO 9806, Solar Keymark		
DIN CERTCO-licence number	011-7S134R		
Order No.	08-9728	08-9729	08-9731

¹⁾ Usable only with own Solar Keymark certification, details refer: <https://solar-heating-initiative.com> und www.dincertco.de
²⁾ At 1000 W/m² and 40 K temperature difference between the average collector temperature and ambient temperature
³⁾ At 1000 W/m² and 0 K temperature difference between the average collector temperature and ambient temperature
⁴⁾ Existing certification of collectors by TÜV SÜD Industrie Service GmbH for Ritter Solartechnik GmbH & Co.KG; Validity within Germany. A separate certification according to Pressure Equipment Directive can be applied for at TÜV when needed

Pressure loss of the tube collectors CPC 6/12/18 INOX



Power curve



One-way transport pallet CPC

A wooden construction on the transport pallet prevents the vertically mounted collectors from slipping or tipping over.



Series	CPC 6 OEM / INOX	CPC 12 OEM / INOX	CPC 18 OEM / INOX
Dimensions L x W x H (H with collectors) [m]	1,16 x 0,85 x 1,85	1,16 x 1,54 x 1,85	1,16 x 2,22 x 1,85
Transport capacity per pallet (collector units)	9	9	9
Truck loading capacity, 13,6 loading metres (collector units)	288	153	108
Order No.	08-0723	08-0725	08-0700

Shut-off valve

Scope of delivery:

- 1x Shut-off valve, temperature resistant to 400°C
- 2x 15 mm Cutting rings with union nuts

Attention: Valve body and union nuts to reduce heat losses and as corrosion protection Insulate with UV and weather-resistant insulation



Order No.	08-5379
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Connection set CPC

Scope of delivery:

- 2x 90° Angled fittings
- 2x 15 x 12 Reducer sets
- 2x 15 mm Support sleeves
- 2x 12 mm Support sleeves

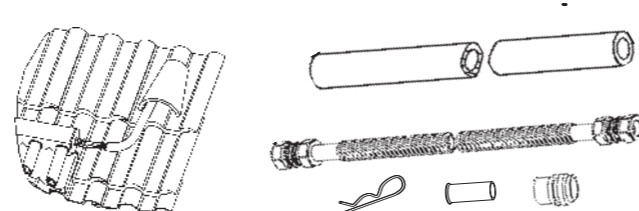


Order No.	08-9723
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Connection set CPC SPEED

Scope of delivery:

- 2x Corrugated hose of 1.3 m each, heat insulated
- 4x Straight fittings
- 2x 15 x 12 Reducer sets
- 2x 15 mm Support sleeves
- 2x 12 mm Support sleeves
- 2x Clip connector



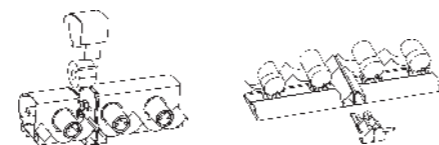
Order No.	08-9283
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Connecting set CPC OEM, anodised aluminium, aluminium grey, CPC INOX, powder-coated aluminium, RAL 7015

For visible connection of 2 collectors CPC

Scope of delivery:

- 1x Cover plate
- 1x Thermal insulation
- 1x Connection plug
- Various installation material



	CPC OEM	CPC INOX
Order No.	08-9739	08-9738

Sun cover tarpaulin

For collectors undergoing repairs and collectors that will not be running for more than one month.

CPC 6/2 For 2 CPC 6 side by side	CPC 12	CPC 18
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Scope of delivery:

- 1x Sun cover tarpaulin
- 1x Assembly instruction



Order No.	08-1121	08-1121	08-1123
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On-roof installation set, material: Galvanised steel, aluminium

For mounting evacuated tube collectors on sloped roofs. CE certified according to EU-Construction Products Regulation and load calculations

CPC 6/2 OEM / INOX
For 2 CPC 6 side by side

CPC 6/3 OEM / INOX
For 3 CPC 6 side by side

CPC 12 OEM / INOX

CPC 18 OEM / INOX

Note:

When ordering, please note that the bearing rails and retaining clamps must be ordered separately

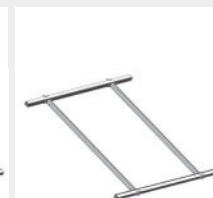
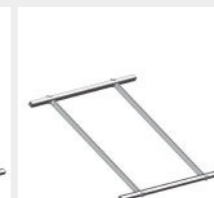
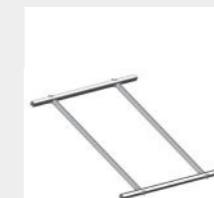


Set of bearing rails AD without retaining clamps

Material: Aluminium

Scope of delivery:

- 2x Horizontal rails
- 4x Mounting hooks
- 2x Vertical rails incl. corner joints
- 4x End cap for horizontal rails



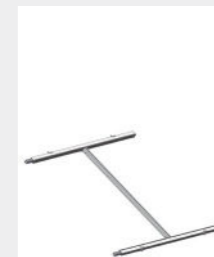
Order No.	08-4114	08-4115	08-4114	08-4115
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Rail extension sets AD without retaining clamps

For mounting several collectors as of type CPC 6/2 and CPC 12
Material: Aluminium

Scope of delivery:

- 2x Horizontal rails
- 4x Mounting hooks
- 1x Vertical rail incl. corner joints
- 2x End cap for horizontal rails
- 2x Click-connector for horizontal rails



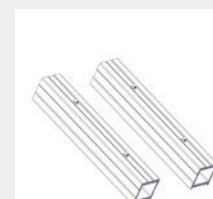
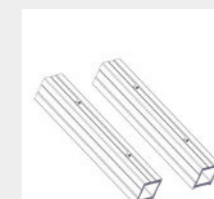
Order No.	08-4119	08-4119
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Connector set

For connecting 2 Sets of bearing rails-next to each other as of type CPC 6/3 and CPC 18 (Set of bearing rails to be ordered separately)
Material: Aluminium

Scope of delivery:

- 2x Click-connector for horizontal rails



Order No.	08-8158	08-8158
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Load extension rail AD

For high snow and wind loads a load extension rail AD is for each collector required. Additional retaining clamps for normal tiles, plane tiles, slate roofs or corrugated roofs necessary. Only feasible if additional rafters are available. To be mounted between the two outer vertical rails
Material: Aluminium

Scope of delivery:

- 1x Vertical rail incl. corner joints



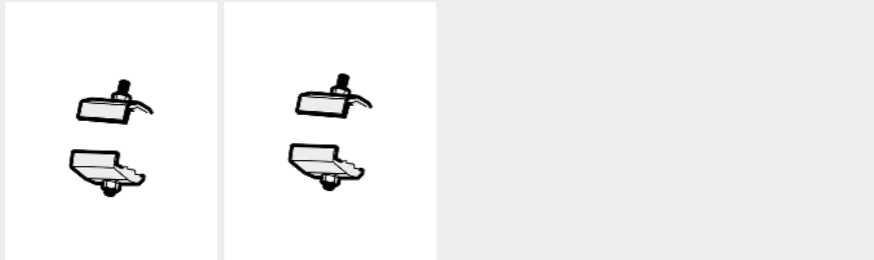
Order No.	08-8126	08-8126	08-8126	08-8126
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Set mounting hook, for CPC 6

Per each CPC 6, one accessory set mounting hook CPC 6 is required
Material: Aluminium

Scope of delivery:

- 1x Upper mounting hook
- 1x Lower mounting hook



Order No.	08-4127	08-4127		
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Set of retaining clamps for normal tiles

Per each vertical rail one set of retaining clamps for normal tiles is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Retaining clamps (galvanized steel)
- Various mounting material



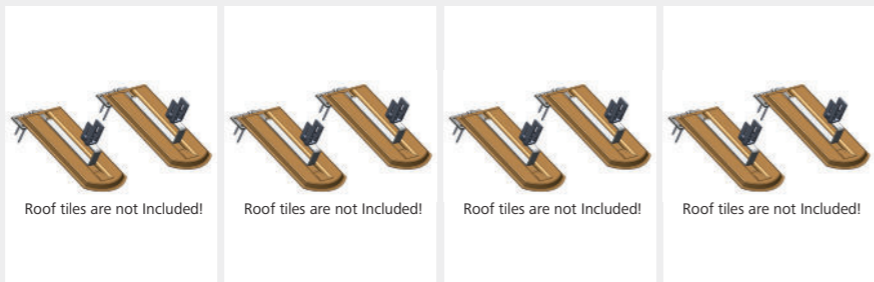
Order No.	08-4128	08-4128	08-4128	08-4128
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Set of retaining clamps for plane tiles

Per each vertical rail one set of retaining clamps for plane tiles is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Retaining clamps (galvanized steel)
- Various mounting material



Order No.	08-4121	08-4121	08-4121	08-4121
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Set of retaining clamps for slate roofs

Per each vertical rail one set of retaining clamps for slate roofs is required

Material: Aluminium

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Base plates (aluminum)
- 2x Threaded sockets (stainless steel)
- 2x Threaded rods (stainless steel) incl. gaskets
- Various mounting material



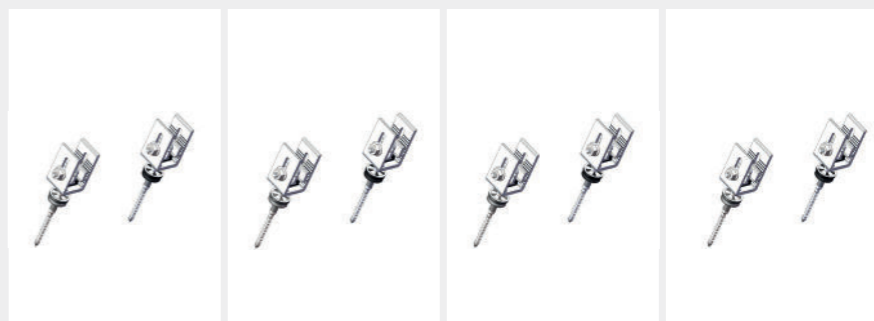
Order No.	08-4122	08-4122	08-4122	08-4122
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Set of retaining clamps for corrugated and trapezoidal sheet roofs

Per each vertical rail one set of retaining clamps for corrugated roofs is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Hanger bolts (stainless steel) incl. gaskets



Length of hanger bolt: 180 mm for profile heights of the corrugation / trapezoidal sheet: 41-60 mm

Order No.	08-4123	08-4123	08-4123	08-4123
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Length of hanger bolt: 200 mm for profile heights of the corrugation / trapezoidal sheet: 61-80 mm

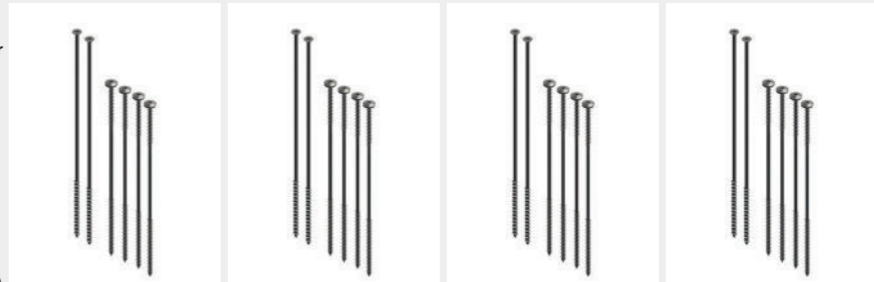
Order No.	08-4124	08-4124	08-4124	08-4124
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Set over-rafter insulation

Per each vertical rail one set over-rafter insulation is required. Only possible with existing counter battens. Only possible in combination with Set of retaining clamps for normal tile.

Scope of delivery:

- 4x Double threaded screws with under head thread (stainless steel)
- 2x Countersunk screws (stainless steel)



Insulation thickness: < 120 mm

Order No.	08-4125	08-4125	08-4125	08-4125
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Insulation thickness: 120 mm - 180 mm

Order No.	08-4126	08-4126	08-4126	08-4126
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Slope correction AD L15 OEM

- For On-roof installation of vacuum tube collectors
- For the correction of the collector inclination on roofs with a slope of 15° to 25°
- Roof fixation with roof hook and multi-head connector as in the mounting set AD tile
- Per collector one set of slope correction AD is necessary
- Additional load extensions are possible

Scope of delivery:

- 2x Triangular rack, complete, hinged (aluminum)
- 4x Mounting hook pre-assembled (aluminum)
- 4x Storm hook, pre-assembled (aluminum)
- 2x Diagonal braces (aluminum)
- 4x Adapter rail for multi-head connector (aluminum)
- Assembly material

Warning: 2 sets of retaining clamps must be ordered separately per slope correction



Order No.	08-4172	08-4172
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Load extension slope AD L15

- For load extension on a slope correction AD tile plus, with higher requirements related to wind and snow loads

Scope of delivery:

- 1x Triangular rack, complete, hinged (aluminum)
- 2x Mounting hook pre-assembled (aluminum)
- 2x Storm hook, pre-assembled (aluminum)
- 2x Adapter rail for multi-head connector (aluminum)
- Assembly material

Warning: 1 set of retaining clamps must be ordered separately per load extension slope.

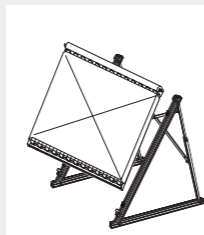


Order No.	08-8148	08-8148
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Flat roof / wall installation, material: Stainless steel, aluminium

For flat roof or wall installation

**CPC 12
OEM / INOX**



**CPC 18
OEM / INOX**

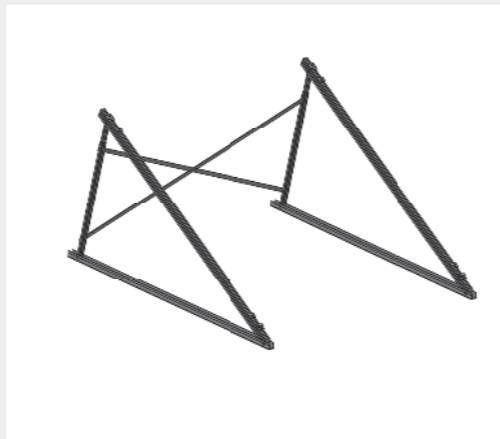


Mounting set FD/WD L15 OEM

- For flat roof and wall mounting of vacuum tube collectors
- In accordance with EU building product regulation, CE certificate and with stress verification
- For use on flat roofs with an adjustable angle of 30°, 45° and 55°
- For use on facades with an adjustable angle of 45° or 60°

Scope of delivery:

- 2x Triangular rack, complete, hinged (aluminum)
- 4x Mounting hook pre-assembled (aluminum)
- 4x Storm hook, pre-assembled (aluminum)
- 2x Diagonal braces (aluminum)
- 4x Dowel screw (stainless steel) for concrete slabs
- Assembly material



Order No.	08-4170	08-4170
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Load extention FD/WD L15

- For load extention with mounting set FD/WD, by higher requirements related to snow and windloads
- To be used on Flat roofs, open-air areas and on facades
- For each collector it is possible to use one set load extention FD/WD

Scope of delivery:

- 1x Triangular rack, complete, hinged (aluminum)
- 2x Mounting hook pre-assembled (aluminum)
- 2x Storm hook, pre-assembled (aluminum)
- 2x Dowel screw (stainless steel) for concrete slabs
- Assembly material



Order No.	08-8132	08-8132
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Installation details

Flatroof mounting on concrete slabs

A maximum inclination angle of 45° is recommended when mounting a flatroof mounting system with concrete slabs on terraces houses, bungalows, halls and garages. Hereby each triangular rack has to be doweled to at least 2 concrete slabs. To protect the roof membrane a suitable structural protection mat has to be placed between roof and concrete slab. The required weight of the concrete slabs in relation to the inclination angle and the height of the building is to be taken from the load table in the technical references.

Wall mounting

For wall mounting an inclination angle of 45° is recommended. At smaller angles the strain on the wall anchor especially during snow can be very high. The mounting of the triangular racks in reliance to the facade is to be determined on site. The wall mounting in combination with the material that will be used on site (dowel etc.) has to be checked for suitability and sustainability before being used.

**Evacuated tube collectors
CPC 6 XL INOX, CPC 12 XL INOX**

For domestic hot water and heating applications, serial connectivity

Pipe material: Stainless steel

Scope of delivery:

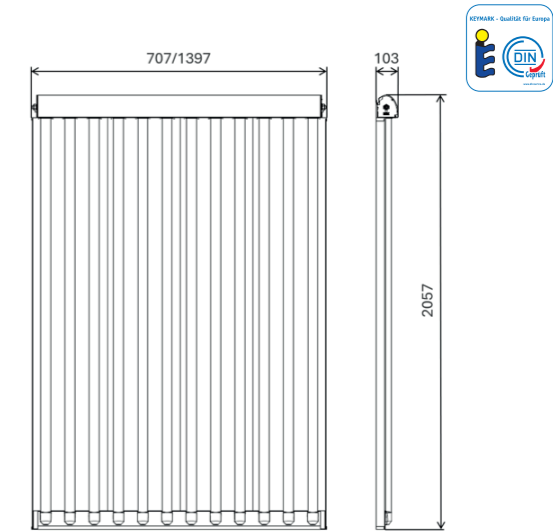
- Fully pre-assembled unit comprising
- Evacuated tubes based on the thermos flask principle
- Manifold with direct flow heat conduction unit and dry tube connection
- CPC reflector

Collectors are packed in individual boxes. In addition, there is a sun protection sheet over the evacuated tubes.

Installation types:

- On-roof installation
- Flat roof / wall installation

Note: The manifold must always be mounted on top. The minimum angle for on-roof and flat roof installation is 15°.



Series		CPC 6 XL INOX	CPC 12 XL INOX
Number of evacuated tubes		6	12
Collector energy output scale (50°C/75°C) (Solergy) ¹⁾			AA/AA AA/AA
Annual collector energy output (50°C Würzburg) kWh/Year		855	1703
Energy output per collector module ²⁾ W		782	1558
Energy output per collector module ³⁾ W		831	1655
Product data according to Commission Regulation (EU) No 811/2013 and 812/2013 (Erp-relevant Data) regarding aperture area			
A _{sol} Collector aperture area	m ²	1,29	2,57
η ₀ Zero-loss efficiency		0,644	0,644
η _{col} Collector efficiency	%	61	61
a ₁ First-order coefficient	W/(m ² K)	0,75	0,75
a ₂ Second-order coefficient	W/(m ² K ²)	0,005	0,005
IAM Incidence angle modifier		1,00	1,00
Other product details			
Gross area	m ²	1,45	2,87
Collector dimensions (length x width x height)	m	2,06 x 0,71 x 0,10	2,06 x 1,40 x 0,10
Collector contents	l	1,06	2,11
Weight of empty collector	kg	21,1	39,9
Max. operation pressure	bar	10	10
Max. stagnation temperature	°C	301	301
Connection-diameter, compression fitting	mm	15	15
Sensor sleeve	mm	6	6
Colour (aluminium frame profile, powder coated)		RAL 7015	
Colour (plastic parts)		Black	
Conformity ⁴⁾		Pressure Equipment Directive 2014/68/EU	
Impact resistance test according to ISO 9806	mm	35	
Tests and licence		ISO 9806, Solar Keymark	
DIN CERTCO-licence number		011-7S134R	
Order No.		08-9733	08-9734

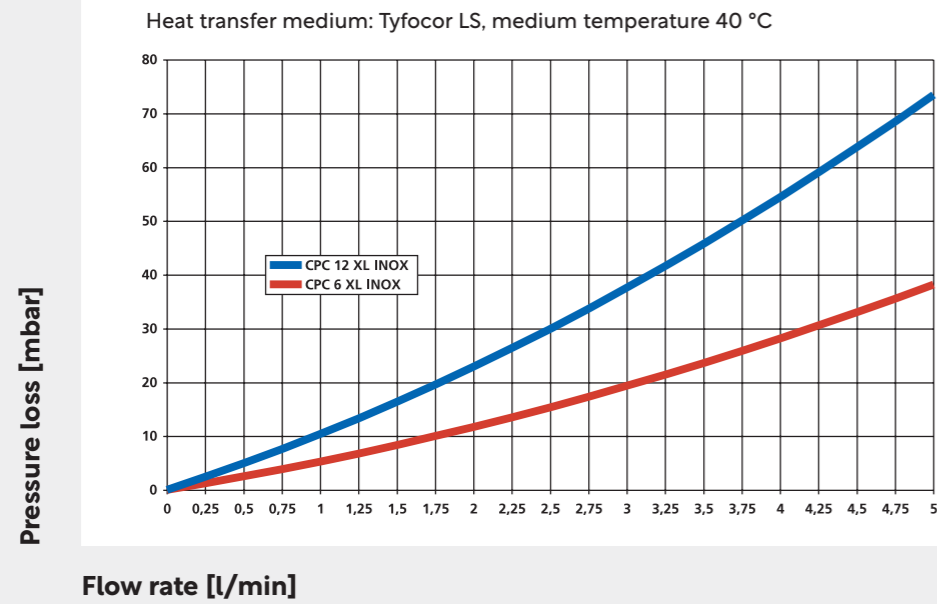
¹⁾ Usable only with own Solar Keymark certification, details refer: <https://solar-heating-initiative.com> und www.dincertco.de

²⁾ At 1000 W/m² and 40 K temperature difference between the average collector temperature and ambient temperature

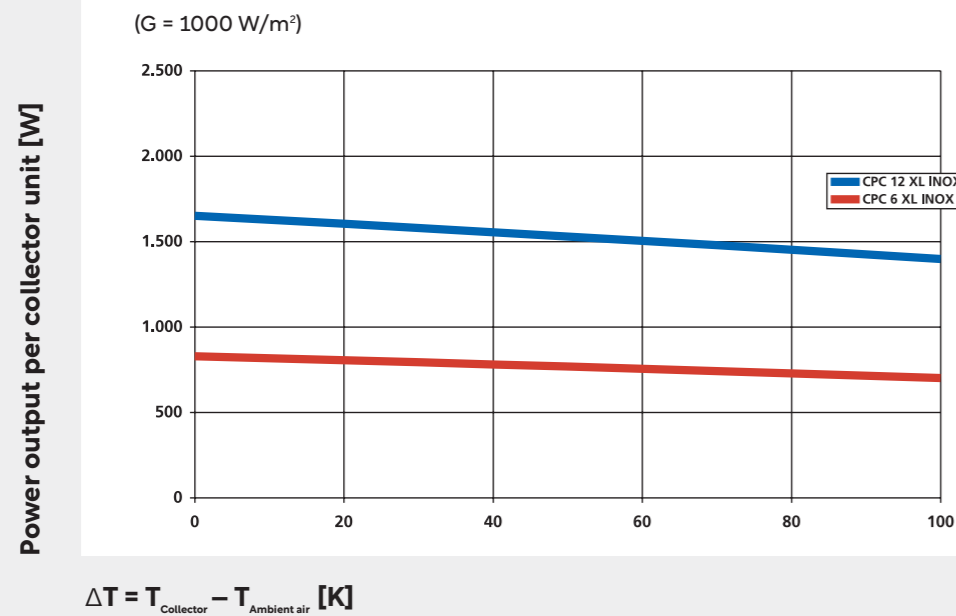
³⁾ At 1000 W/m² and 0 K temperature difference between the average collector temperature and ambient temperature

⁴⁾ Existing certification of collectors by TÜV SÜD Industrie Service GmbH for Ritter Solartechnik GmbH & Co.KG; Validity within Germany. A separate certification according to Pressure Equipment Directive can be applied for at TÜV when needed

Pressure loss of the tube collectors CPC 6/12 XL INOX



Power curve



One-way transport pallet CPC

A wooden construction on the transport pallet prevents the vertically mounted collectors from slipping or tipping over.



Series	CPC 6 XL INOX	CPC 12 XL INOX
Dimensions L x W x H (H with collectors) [m]	1,16 x 0,85 x 2,25	1,16 x 1,54 x 2,25
Transport capacity per pallet (collector units)	9	9
Truck loading capacity, 13,6 loading metres (collector units)	288	153
Order no.	08-0723	08-0725

Shut-off valve

Scope of delivery:

- 1x Shut-off valve, temperature resistant to 400 °C
- 2x 15 mm Cutting rings with union nuts

Attention: Valve body and union nuts to reduce heat losses and as corrosion protection Insulate with UV and weather-resistant insulation



Order no.	08-5379
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Connection set CPC

Scope of delivery:

- 2x 90° Angled fittings
- 2x 15 x 12 Reducer sets
- 2x 15 mm Support sleeves
- 2x 12 mm Support sleeves

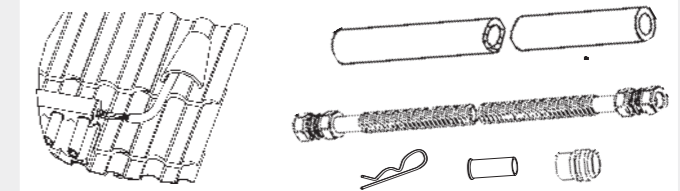


Order no.	08-9723
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Connection set CPC SPEED

Scope of delivery:

- 2x Corrugated hose of 1.3 m each, heat insulated
- 4x Straight fittings
- 2x 15 x 12 Reducer sets
- 2x 15 mm Support sleeves
- 2x 12 mm Support sleeves
- 2x Clip connector



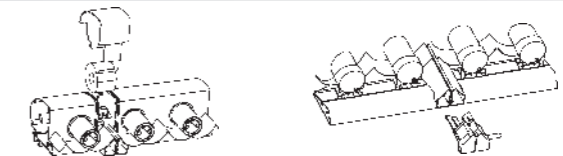
Order no.	08-9283
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Connecting set CPC INOX, material: Aluminium powder-coated, RAL 7015

For visible connection of 2 collectors CPC XL

Scope of delivery:

- 1x Cover plate
- 1x Thermal insulation
- 1x Connection plug
- Various installation material



Order no.	08-9738
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Sun cover tarpaulin

For collectors undergoing repairs and collectors that will not be running for more than one month

CPC 6/2 XL INOX
For 2 CPC 6 XL side by side

CPC 12 XL INOX

Scope of delivery:

- 1x Sun cover tarpaulin
- 1x Assembly instruction



Order no.	08-1122	08-1122
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On-roof mounting, material: Aluminum, stainless steel, galvanised steel

For mounting evacuated tube collectors on sloped roofs. CE certified according to EU-Construction Products Regulation and load calculations

Note:
When ordering, please note that the bearing rails and retaining clamps must be ordered separately

CPC 6/2 XL INOX
For 2 CPC 6 next to each other



CPC 6/3 XL INOX
For 3 CPC 6 next to each other



CPC 12 XL INOX



Set of bearing rails AD without retaining clamps

Material: Aluminium

Scope of delivery:

- 2x Horizontal rails
- 4x Mounting hooks
- 2x Vertical rails incl. corner joints
- 4x End cap for horizontal rails



Order No. 08-4116



Order No. 08-4117



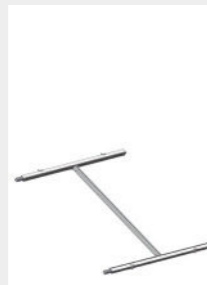
Order No. 08-4116

Rail extension sets AD, without retaining clamps

For mounting several collectors as of type CPC 6/2 and CPC 12
Material: Aluminium

Scope of delivery:

- 2x Horizontal rails
- 4x Mounting hooks
- 1x Vertical rail incl. corner joints
- 2x End cap for horizontal rails
- 2x Click-connector for horizontal rails



Order No. 08-4120



Order No. 08-4120

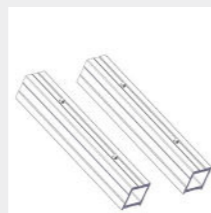
Connector set

For connecting 2 Sets of bearing rails next to each other as of type CPC 6/3 and CPC 18 (Set of bearing rails to be ordered separately)

Material: Aluminium

Scope of delivery:

- 2x Click-connector for horizontal rails



Order No. 08-8158

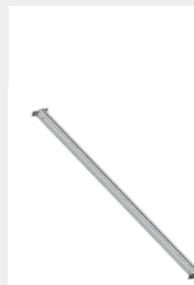
Load extension rail XL AD

For high snow and wind loads a load extension rail AD is for each collector required. Additional retaining clamps for normal tiles, plane tiles, slate roofs or corrugated roofs necessary. Only feasible if additional rafters are available. To be mounted between the two outer vertical rails.

Material: Aluminium

Scope of delivery:

- 1x Vertical rail incl. corner joints



Order No. 08-8127



Order No. 08-8127



Order No. 08-8127

Set mounting hook, for CPC 6

Per each CPC 6, one accessory set mounting hook CPC 6 is required
Material: Aluminium

Scope of delivery:

- 1x Upper mounting hook
- 1x Lower mounting hook



Order No. 08-4127



Order No. 08-4127

Set of retaining clamps for normal tiles

Per each vertical rail one set of retaining clamps for normal tiles is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Retaining clamps (galvanized steel)
- Various mounting material



Bestell-Nr. 08-4128



Bestell-Nr. 08-4128



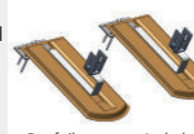
Bestell-Nr. 08-4128

Set of retaining clamps for plane tiles

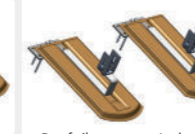
Per each vertical rail one set of retaining clamps for plane tiles is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Retaining clamps (galvanized steel)
- Various mounting material



Roof tiles are not included!



Roof tiles are not included!



Roof tiles are not included!

Order No. 08-4121

Order No. 08-4121

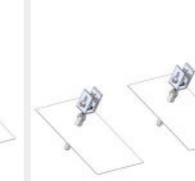
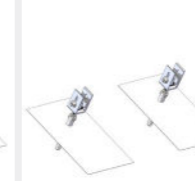
Order No. 08-4121

Set of retaining clamps for slate roofs

Per each vertical rail one set of retaining clamps for slate roofs is required
Material: Aluminium

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Base plates (aluminum)
- 2x Threaded sockets (stainless steel)
- 2x Threaded rods (stainless steel) incl. gaskets
- Various mounting material



Order No. 08-4122

Order No. 08-4122

Order No. 08-4122

Set of retaining clamps for corrugated and trapezoidal sheet roofs

Per each vertical rail one set of retaining clamps for corrugated roofs is required

Scope of delivery:

- 2x Multi-connectors (aluminum)
- 2x Hanger bolts (stainless steel) incl. gaskets



Length of hanger bolt: 180 mm for profile heights of the corrugation / trapezoidal sheet: 41-60 mm

Order No. 08-4123 08-4123 08-4123

Length of hanger bolt: 200 mm for profile heights of the corrugation / trapezoidal sheet: 61-80 mm

Order No. 08-4124 08-4124 08-4124

Set over-rafter insulation

Per each vertical rail one set over-rafter insulation is required. Only possible with existing counter battens. Only possible in combination with Set of retaining clamps for normal tile.

Scope of delivery:

- 4x Double threaded screws with under head thread (stainless steel)
- 2x Countersunk screws (stainless steel)



Insulation thickness: < 120 mm

Order No. 08-4125 08-4125 08-4125

Insulation thickness: 120 mm - 180 mm

Order No. 08-4126 08-4126 08-4126

Slope correction AD L19 OEM

- For On-roof installation of vacuum tube collectors
- For the correction of the collector inclination on roofs with a slope of 15° to 25°
- Roof fixation with roof hook and multi-head connector as in the mounting set AD tile
- Per collector one set of slope correction AD is necessary
- Additional load extensions are possible

Scope of delivery:

- 2x Triangular rack, complete, hinged (aluminum)
- 4x Mounting hook pre-assembled (aluminum)
- 4x Storm hook, pre-assembled (aluminum)
- 2x Diagonal braces (aluminum)
- 4x Adapter rail for multi-head connector (aluminum)
- Assembly material

Warning: 2 sets of retaining clamps must be ordered separately per slope correction



Order No. 08-4173

Load extension slope AD L19

- For load extension on a slope correction AD tile plus, with higher requirements related to wind and snow loads

Scope of delivery:

- 1x Triangular rack, complete, hinged (aluminum)
- 2x Mounting hook pre-assembled (aluminum)
- 2x Storm hook, pre-assembled (aluminum)
- 2x Adapter rail for multi-head connector (aluminum)
- Assembly material

Warning: 1 set of retaining clamps must be ordered separately per load extension



Order No. 08-8149

Flat roof / wall installation, material: Galvanised steel, aluminium

CPC 12 XL INOX

For flat roof or wall installation

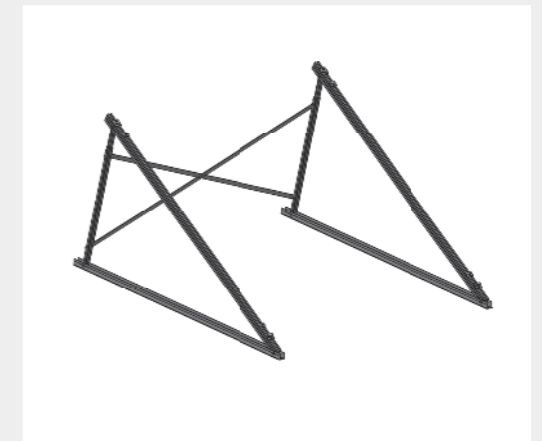


Mounting set FD/WD L19 OEM

- For flat roof and wall mounting of vacuum tube collectors
- In accordance with EU building product regulation, CE certificate and with stress verification
- For use on flat roofs with an adjustable angle of 30°, 45° and 55°
- For use on facades with an adjustable angle of 45° or 60°

Scope of delivery:

- 2x Triangular rack, complete, hinged (aluminum)
- 4x Mounting hook pre-assembled (aluminum)
- 4x Storm hook, pre-assembled (aluminum)
- 2x Diagonal braces (aluminum)
- 4x Dowel screw (stainless steel) for concrete slabs
- Assembly material



Order No. 08-4171

Load extension FD/WD L19

- For load extension with mounting set FD/WD, by higher requirements related to snow and windloads
- To be used on Flat roofs, open-air areas and on facades
- For each collector it is possible to use one set load extension FD/WD

Scope of delivery:

- 1x triangular rack, complete, hinged (aluminum)
- 2x mounting hook pre-assembled (aluminum)
- 2x storm hook, pre-assembled (aluminum)
- 2x dowel screw (Stainless steel) for concrete slabs
- Assembly material



Order No. 08-8133

Installation details

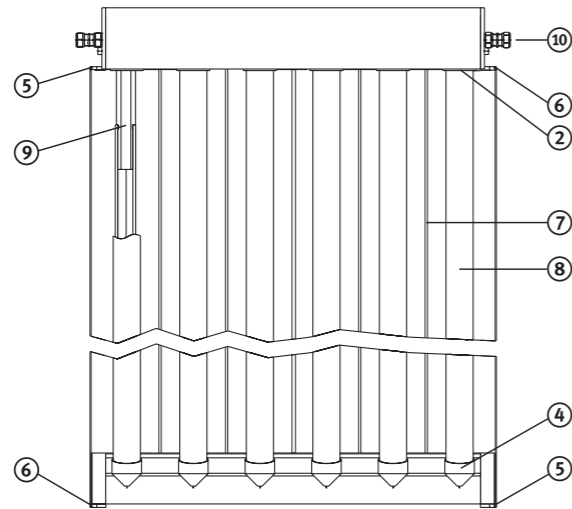
Flatroof mounting on concrete slabs

A maximum inclination angle of 45° is recommended when mounting a flatroof mounting system with concrete slabs on terraces houses, bungalows, halls and garages. Hereby each triangular rack has to be doweled to at least 2 concrete slabs. To protect the roof membrane a suitable structural protection mat has to be placed between roof and concrete slab. The required weight of the concrete slabs in relation to the inclination angle and the height of the building is to be taken from the load table in the technical references.

Wall mounting

For wall mounting an inclination angle of 45° is recommended. At smaller angles the strain on the wall anchor especially during snow can be very high. The mounting of the triangular racks in reliance to the facade is to be determined on site. The wall mounting in combination with the material that will be used on site (dowel etc.) has to be checked for suitability and sustainability before being used.

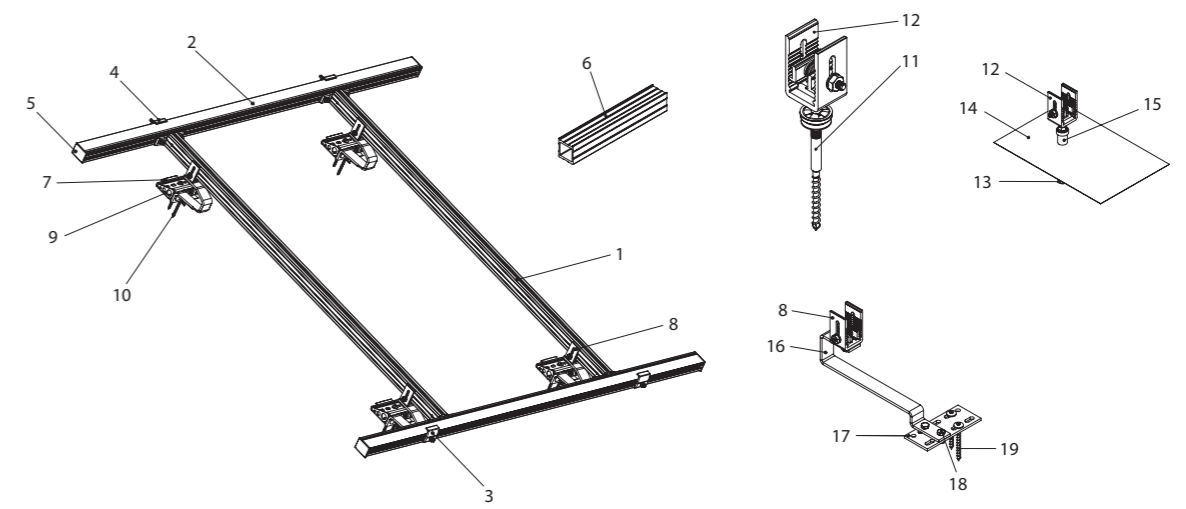
Spare parts for CPC 6/12/18 OEM / INOX and CPC 6/12 XL INOX



Item	Description	Packing units	CPC 6/12/18 OEM / INOX and CPC 6/12 XL INOX		
			Order no.	Order no.	Order no.
02	Sealing ring, tube rubber, black, EPDM 55	1	88-9001	88-9001	88-9001
04	Tube retainer, black, PBT 40	1	88-8001 ¹⁾	88-8001	88-8001
04	Tube retainer OEM	1	08-0999 ²⁾	–	–
04	Set OEM tube retainer (1 x 88-8001 and 1 x 08-0999)	1	08-1061	–	–
05	Rubber bung for side profile, left, TPE 90	1	08-0885	08-0885	08-0885
06	Rubber bung for side profile, right, TPE 90	1	08-0886	08-0886	08-0886
07	CPC reflector plate, 3-fold, for 3 tubes, Al	1	88-2011	88-2011	–
07	CPC XL reflector plate, 3-fold, for 3 tubes, Al	1	–	–	88-2013
08	Evacuated tube, L=1500 mm, Borosilicate glass in shock- and insecure proof individual packaging	1	88-1042	88-1042	–
08	Evacuated tube, L=1500 mm, Borosilicate glass	6	08-1036	08-1036	–
08	Evacuated tube, L=1500 mm, Borosilicate glass	12	08-1037	08-1037	–
08	Evacuated tube, L=1500 mm, Borosilicate glass	18	08-1916	08-1916	–
08	Evacuated tube, L=1920 mm, Borosilicate glass in shock- and insecure proof individual packaging	1	–	–	88-1040
08	Evacuated tube, L=1920 mm, Borosilicate glass	6	–	–	88-1040
08	Evacuated tube, L=1920 mm, Borosilicate glass	12	–	–	88-1041
08	Evacuated tube, L=1920 mm, Borosilicate glass	18	–	–	88-1918
09	Heat transfer plate spare parts set, CPC, Al	1	88-2522	88-2522	–
09	Heat transfer plate spare parts set, CPC XL, Al	1	–	–	88-2520
10	Straight fitting, 15 mm, MS	1	08-6059	08-6059	08-6059
No fig.	Angled fitting, 90°, 15 mm, MS	1	08-6064	08-6064	08-6064
No fig.	15x12 mm, reducer for olive connection, MS	1	08-9209	08-9209	08-9209
No fig.	12 mm support sleeve, MS	1	08-6046	08-6046	08-6046
No fig.	15 mm support sleeve, MS	1	08-6047	08-6047	08-6047

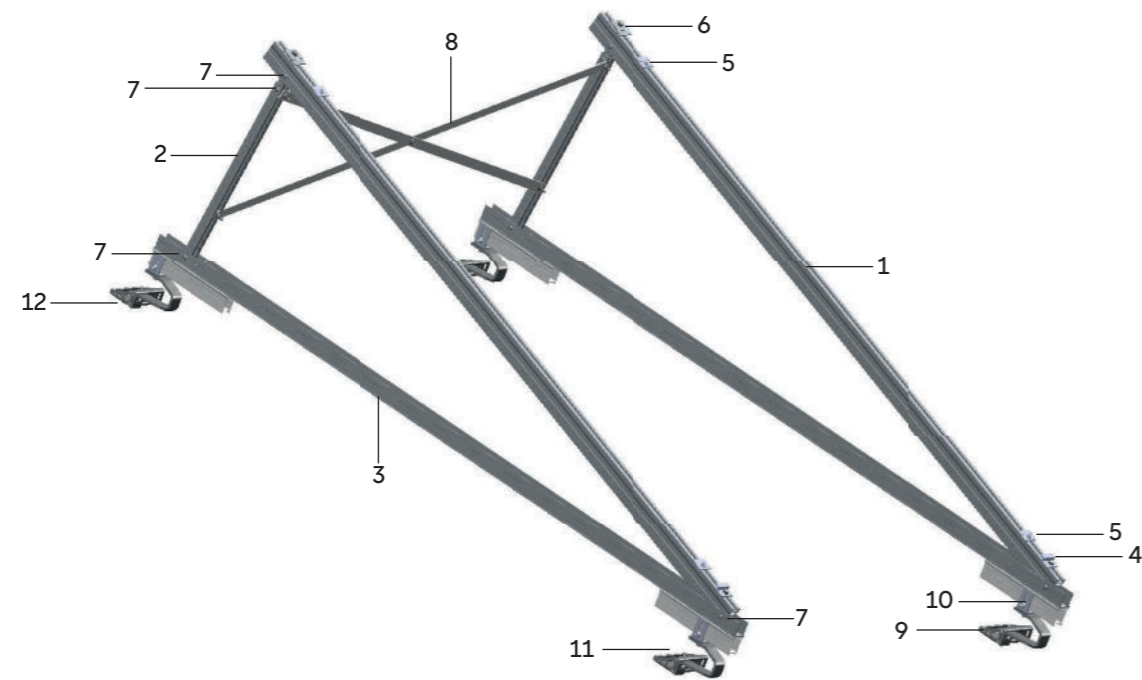
¹⁾ Delivery until 01/2015²⁾ Delivery from 02/2015 on

Accessories for on-roof mounting-sets



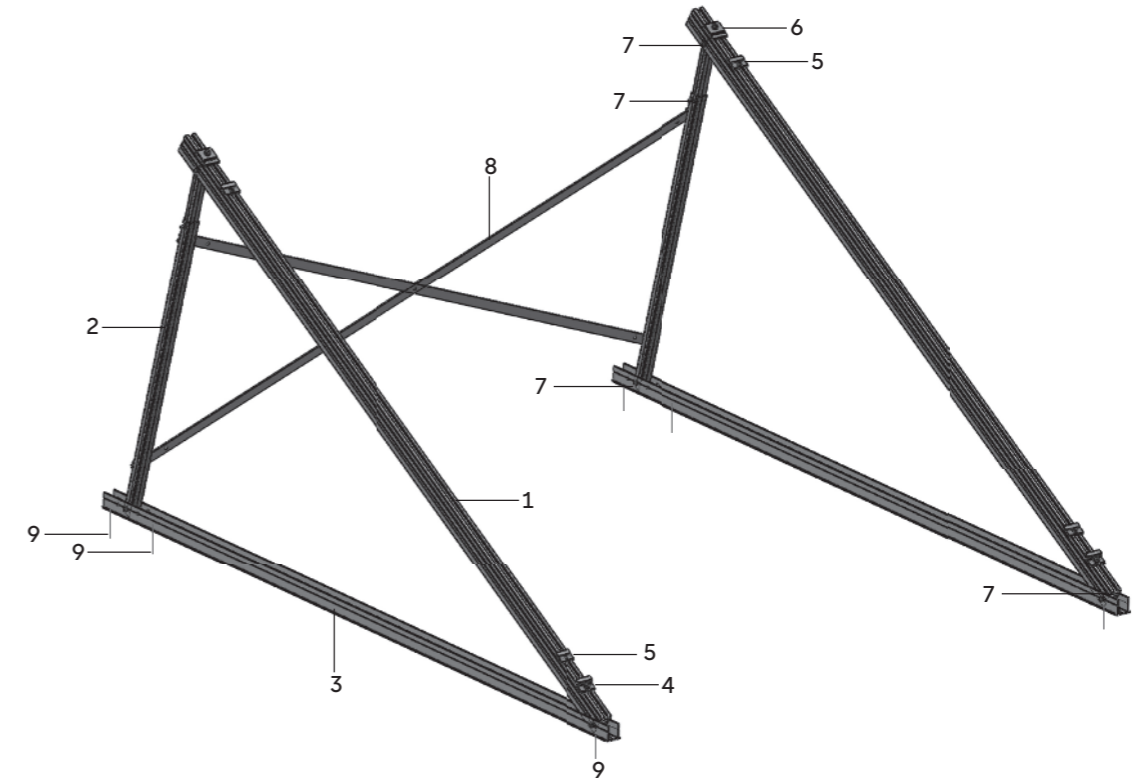
For On-roof installation			CPC 6/12/18 OEM / INOX	CPC 6/12 XL INOX
Item	Description	Packing units	Order no.	Order no.
01	Vertical rails Plus L15 incl. joints	1	08-4057	–
01	Vertical rails Plus L19 incl. joints	1	–	08-4058
02	Horizontal rails Plus R12 Upper/Lower	1	08-4227	08-4227
02	Horizontal rails Plus R18 Upper/Lower	1	08-4228	08-4228
02	Horizontal rails Plus OEM21 Upper/Lower	1	–	–
03	Mounting hooks lower incl. T-head screws	1	08-4061	08-4061
04	Mounting hooks upper incl. T-head screws	1	08-4062	08-4062
05	End cap black for Horizontal rails	2	08-4063	08-4063
06	Connector set Plus	2	08-8158	08-8158
07	Roof hook Plus for normal tiles	1	08-4064	08-4064
08	Multi-head connector, complete for Roof hook	1	08-4065	08-4065
09	Support bracket for Roof hook Plus	1	08-4066	08-4066
10	Screw set Flat head screw 8 x 120 mm	20	08-4067	08-4067
11	Hanger bolt 180 mm Corrugated roofs, complete	1	08-4068	08-4068
11	Hanger bolt 200 mm Corrugated roofs, complete	1	08-4069	08-4069
12	Multi-head connector, complete for hanger bolt	1	08-4070	08-4070
13	Threaded sockets Slate roofs 18,5 x 100 mm	1	08-4081	08-4081
14	Base plates Slate roofs 311 x 200 mm	1	08-4082	08-4082
15	Threaded rods M 10 x 100 mm, complete	1	08-4083	08-4083
16	Roof hook Plus for Plane tiles	1	08-4084	08-4084
17	Base plates Plane tiles	1	08-4085	08-4085
18	Screw set Hex bolt M 8 x 20 mm	20	08-4086	08-4086
19	Screw set Flat head screw 8 x 80 mm	20	08-4087	08-4087

Accessories for slope-correction sets



For Slope correction			CPC 6/12/18 OEM / INOX	CPC 6/12 XL INOX
Item	Description	Packing units	Order no.	Order no.
01	Bearing rail slope L15	1	08-4168	-
01	Bearing rail slope L19	1	-	08-4169
02	Telescopic rod Slope L15	1	08-4163	-
02	Telescopic rod Slope L19	1	-	08-4164
03	Bottom track Slope L15, complete	1	08-4176	-
03	Bottom track Slope L15, complete	1	-	08-4177
04	Lower Mounting hooks FD, complete	1	08-4157	08-4157
05	Storm claw fastener, complete	1	08-4158	08-4158
06	Upper Mounting hooks FD, complete	1	08-4159	08-4159
07	Screw FW/WD	20	08-4160	08-4160
08	Diagonal cross Slope L15 und L19, complete	1	08-4165	08-4165
09	Roof hook Plus for normal tiles	1	08-4064	08-4064
10	Multi-head connector, complete for Roof hook	1	08-4065	08-4065
11	Support bracket for Roof hook	1	08-4066	08-4066
12	Screw set Flat head screw 8 x 120 mm	20	08-4067	08-4067

Accessories for flat-roof mounting-sets



For Flat-roof installation			CPC 6/12/18 OEM / INOX	CPC 6/12 XL INOX
Item	Description	Packing units	Order no.	Order no.
01	Bearing rail FD/WD L15	1	08-4151	-
01	Bearing rail FD/WD L19	1	-	08-4152
02	Telescopic rod FD/WD L15	1	08-4153	-
02	Telescopic rod FD/WD L19	1	-	08-4154
03	Bottom track FD/WD L15	1	08-4155	-
03	Bottom track FD/WD L19	1	-	08-4156
04	Lower Mounting hooks FD, complete	1	08-4157	08-4157
05	Storm claw fastener, complete	1	08-4158	08-4158
06	Upper Mounting hooks FD, complete	1	08-4159	08-4159
07	Screw FW/WD	20	08-4160	08-4160
08	Diagonal cross FD/WD L15 and L19, complete	1	08-4161	08-4161
09	Screw set FD with dowels	20	08-8385	08-8385

Tube in hand specimen

Individual tubes with a length of 30 cm, incl. heat transfer plate and pipes



OEM / INOX

Order no.	08-0239
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Collector models

Collector model with 3 tubes, complete functional tube collector in mini-format

L x W = 400 x 400 mm

OEM:

Colour of aluminium frame profile: Anodised, aluminium grey
Pipe material: Stainless steel

INOX:

Colour of aluminium frame profile: RAL 7015 powder-coated
Pipe material: Stainless steel



OEM

INOX

Order no.	08-4038	08-9744
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Individual part collector model

Description	Packing units	Order no.
Single tube for collector model	1	08-0307



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