Solar Collectors

On-Roof Installation (First Fix)

Please leave these instructions with the User
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Health and safety

- Use safety helmet.
- Use safety shoes.
- Use safety harness for protection against falling.
- Use safety gloves.
- Use safety goggles.
- Include the collector in the lightning protection device of the building.

- Danger of lightning in stormy weather
- Heavy load
- Beware of tripping
- Beware of slippery surfaces
- Beware of high temperatures

Handle collector by grasping the profile.
### 3.0 Kit Contents and Components

<table>
<thead>
<tr>
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<th>SOL 200 P</th>
<th>SOL 250 P</th>
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</table>
A- Rail  
B- Joining Plate  
C- End Clamp  
D- Join Stud Plate  
E- Support Bracket  
F- Lower Bracket  
G- Under Tile Beam  
H- Upper Bracket  
J- T-Bolts M8x30  
K- M8 Nuts  
L- M8 Washers  
M- 8x60mm Wood screws  
N- Captive 8mm washer  
O- Instructions
3.1 Hydraulic kit contents and components

S1- End Cap
S2- Joining Piece
S3- Elbow
S4- Manual Air Vent (Optional part)
S5- Tee Piece (Optional part)
S6- Clip
S7- Plug for manual Air Vent (Optional part)
S8- Auto Air Vent (Optional part)
S9- 2m Pipe Kit
S10- Straight Connector with Fittings
S11- Temperature Sensor
S12- Sensor Elbow
Weight and dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (kg)</th>
<th>Pressure (bar)</th>
<th>X (mm)</th>
<th>Y (mm)</th>
<th>Z (mm)</th>
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<tr>
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<td>35</td>
<td>10</td>
<td>1147</td>
<td>1753</td>
<td>87</td>
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<tr>
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<td>2187</td>
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<tr>
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5.0 Fixation position

<table>
<thead>
<tr>
<th></th>
<th>a (mm)</th>
<th>b (mm)</th>
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<tr>
<td>SOL 200 P</td>
<td>1187</td>
<td>1250-1550</td>
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<tr>
<td>SOL 250 P</td>
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<td>1750-1950</td>
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SOL 200 L 1793 700-900

\[ a(\text{mm}) \quad b(\text{mm}) \]

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\[ 125 \quad 125 \]

\[ < \quad < \quad < \quad < \]

\[ 300 \quad 300 \quad 300 \quad 300 \]
6.0 Installation

The illustrations in this manual may differ from the equipment supplied.
Profiled Tile

1

2

3

4

Slate and Flat Tile

1

2

Appropriate roofing material

3
6.0 Installation

<table>
<thead>
<tr>
<th></th>
<th>a (mm)</th>
<th>b (mm)</th>
<th>c (mm)</th>
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<tr>
<td>Z1</td>
<td>≤50</td>
<td>≤80</td>
<td>≤105</td>
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<tr>
<td>Z2</td>
<td>58</td>
<td>87</td>
<td>112</td>
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</table>
6.0 Installation

- Ensure proper spacing of 300mm between brackets.
- Align brackets correctly to avoid misalignment.
- Use approved mounting hardware as specified.
6.0 Installation

3

4
6.0 Installation
Design limit snow load on the ground =
Sol 200 P / Sol 200 L = 2.3kN/m²
Sol 250 P = 1.9kN/m²

NOTE: This limit will be reduced for installations where abutments create additional risks of drifting or falling snow. In high snow load areas (greater than 1kN/m²) it is recommended that a snow fence is fitted at maximum distance of 0.5m above the collector.

The maximum wind load to be borne by the mounting structure depends on the height and geographical area of the site among other factors. This structure must be installed in accordance with the provisions of the EN1991 standard. Consult your official dealer if in doubt.
LEGISLATION

Please note the following instructions regarding laws, regulations and technical rules. When setting up solar energy installations, the laws and regulations at local, state, European and international level that apply to the country in question must be observed. Generally acknowledged technical regulations apply; these are usually formulated in the form of standards, guidelines, provisions, regulations and technical rules laid down by local and national bodies, energy supply companies, trade organisations and technical committees in the relevant fields. The installation of solar units may require improved rain resistance with regard to roof, wall and sealing technology and this must be taken into account accordingly. To meet regulations for the prevention of accidents, it may be necessary to use safety equipment (straps, scaffolding, supports, etc.). Such safety equipment is not supplied. Installation must only be carried out by technically qualified and authorised personnel with a recognised qualification (verified by a state or national body) in the relevant technical area.

RECOMMENDATIONS

- Use a safety harness when working at height.
- The structure of the roof must be assessed for its suitability prior to commencing work.
- Consult a Structural Engineer if you are unsure of the collector’s siting.
- Loading due to snow may exceed the capability of the property’s structure.
- Wind loads may cause excess forces on the structure and cause damage.
- The Installer is responsible for the suitability of the site and its sub-structure.
- An anchor plug and bolt may be used to secure the collector on a suitable roof surface.
- The collector should be sited to avoid damage from falling debris and vandalism.
- All pipe work within this installation must be Earth bonded.
- In exposed areas, the collector must be protected against the risk of lightning.
- The system must be inspected on completion of the work.
- A further inspection is recommended annually.
- Avoid installing the collector in shaded areas.
- The general recommended torque setting for nuts and bolts is 10Nm.
- Large arrays will require specialist piping, pump groups and design.
- The collector must not be installed on an uneven roof surface.
- Do not apply excessive force when installing the collector.
- Hot, exposed surfaces that can be touched must be insulated to protect against injury.
- Lubrication is not required for the 'O' ring connections.
- A separate second array can be installed behind the first if necessary.
- The mounting at 90° on a wall must be possible (on the on-roof profile) but only if the panel is covered on the top with a cover which is build by the installer.

MAINTENANCE

It is recommended that the following checks are carried out on an annual basis:
1) Check the collector installation for any signs of damage or any build up of debris.
2) Check for any corrosion to the collector or the mounting system and repair if necessary.
3) Check the tightness of the fasteners. Where fasteners cannot be readily accessed, the overall security of the collector installation may indicate whether problems exist.
4) Check the fittings and pipe work for any signs of fluid leakage or damage, includin the condition of the pipe insulation, and repair if necessary. Check inside the building for any evidence of leaks.
5) Check for any foliage growth that may cause shading of the collectors.
6) Check for any signs of fluid leakage or damage to the inside of the building.
7) Check the condition of any ballast used to secure the system.
8) In areas where there may be a build up of dirt on the collector, only nonabrasive cleaning materials and methods should be used to clean the collectors and mounting system components.