

AMBILIGHT

Innovative east-west oriented
systems for flat roofs

*AmbiLight Top Path
The new generation*

*For membrane-covered roofs
and metal roofs*

 **AmbiVolt**

www.ambivolt.com

The AmbiLight Family

The **AmbiLight family** offers a group of elaborate and fully developed flat roof frames which cover practically all requirements.

AmbiLight Top Path

The **AmbiLight Top Path** widens the ridge gap of the modules (can be adjusted on-site) to 25-32 cm. This affords you the following advantages:

- Optimum accessibility to the external skin
- Optimum accessibility to cabling
- Optimum accessibility for module cleaning

The **AmbiLight Top Path** is included with the new **AmbiLight Opti, AmbiLight Opti Plus, AmbiLight Eco** and **AmbiLight Eco Plus** systems.

AmbiLight Real Protect

AmbiLight Real Protect provides maximum protection for your external roof skin and is included as standard with the new Opti, Eco fund Eco Plus systems. Special highlights here are:

- 2 mm radius on the long edge of the feet
- Short edges of the feet chamfered
- Plastic protection layer compatible with all standard membrane-covered roofs
- Protection layer permanently UV-stable
- Absolutely no softener transfer into the protection layer
- Protection layer already applied on the feet at the factory
- This means very fast sheeting and no readjustment work of the protection layer if there is any shifting
- Protection layer is highly slip-resistant

Wind tunnel test and load reserve

Needless to say, all **AmbiLight systems** are tested in a wind tunnel. The individual ballast plans are calculated with at least 1.5 times safety against lifting up – and that is for the whole of the EU. The new **AmbiLight TopPath systems** have superb aerodynamics. They are completely ballast-free in wind zones 1 and 2 up to 15 m building height and lighter than 15 kg/m². Even in wind zone 4 with 15 m building height and terrain category III, 20 kg/m² load reserve is still sufficient.

Maintenance aisles and length adjustment

With the Top Path design, the **AmbiLight Opti, AmbiLight Opti Plus, AmbiLight Eco** and **AmbiLight Eco Plus systems** provide optimum access to the roof and PV system, whereby space is used very efficiently. Nor do they require any system interruption for dilatation adjustment or maintenance aisles, as both are already integrated into the system.

Price / Performance

AmbiLight Opti Plus is extremely inexpensive and includes both the new **Top Path** and **Real Protect** features at the same time.

Self-cleaning

With the **AmbiLight Opti** the water draining in most installation situations is via the module corner, and not via the module edge. This ensures even less susceptibility to dirt.

Transport and installation

The new **AmbiLight Opti, AmbiLight Opti Plus, AmbiLight Eco** and **AmbiLight Eco Plus systems** consist of components that are a maximum 2.1 m long. This ensures easier transport on the roads, in stores and on roofs. The system is installed by simply slotting the profiles into one another. The length of the profiles does not have to be adjusted. Re-arranging on the roof is easily possible without adjusting the profiles, even if, for example, there is no light dome where one is supposed to be. The integrated length adjustment means no dilatation gaps are required.

Water draining

All **AmbiLight systems** stand on large feet, which are sufficiently far apart so that water draining is even guaranteed with leaves or dirt on the roof.

Quantum leap: AmbiLight Top Path

The new generation



AmbiLight Opti

At a favourable price, **AmbiLight Opti** provides the best possible aerodynamic properties, and with the lowest ballast; it is suitable both with high snow loads and in coastal regions, and with the **Top Path** system it also provides the required accessibility to your roof. With **Real Protect**, the feet have a protection layer harmonised with the respective roof, so that any increased softener transfer from the roof into the system is ruled out. Chamfered feet edges round off the system by providing permanent protection for your roof.

With the feet profiles running parallel with the module ridge, **AmbiLight Opti** is usually set up at right angles to the gable of the building, regardless of the geographic direction. This provides optimum self-cleaning with water draining via the module corner. The actual incline angle is then constantly greater than 10 degrees on all modules.

The fastening distance of the module brackets is variable with **AmbiLight Opti**. An individual release is therefore not required for most modules. You should check this in the module's installation instructions. Please also check the roof's bearing capacity, and if necessary, that of the supporting shell as well. **AmbiLight Opti** is especially suitable when the system's feet are aligned at right angles to the bead of the supporting shell.

Where required, also check the burst strength of the heat insulation.



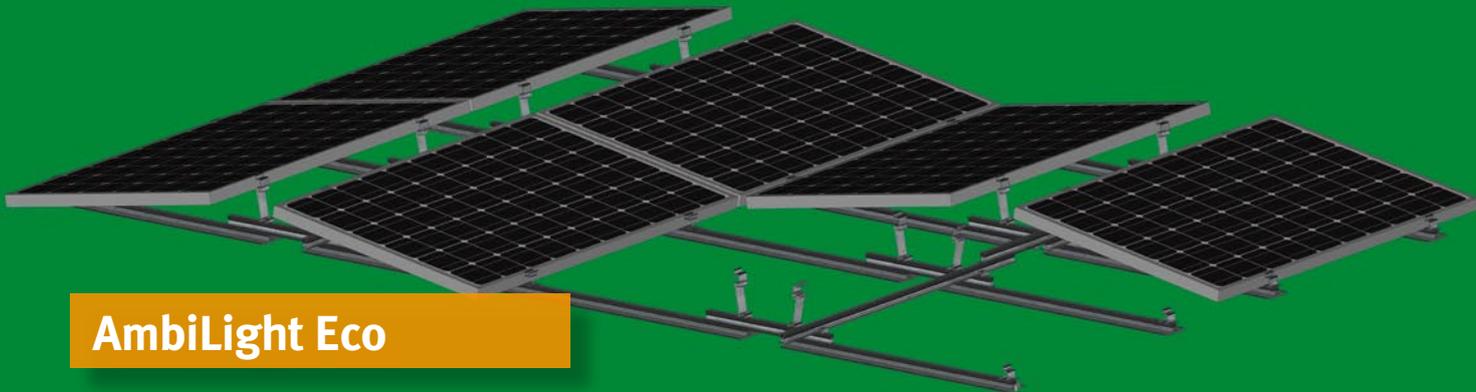
AmbiLight Opti Plus

At a favourable price, **AmbiLight Opti Plus** provides optimum aerodynamics and therefore minimum ballast; it is suitable both with high snow loads and in coastal regions, and with the **Top Path** system it also provides the required accessibility to your roof. With **Real Protect**, the feet have a protection layer harmonised with the respective roof, so that any increased softener transfer from the roof into the system is ruled out.

Chamfered feet edges round off the system by providing permanent protection for your roof. With the feet profiles running parallel with the module ridge, **AmbiLight Opti Plus** is usually set up at right angles to the gable of the building, regardless of the geographic direction. This provides optimum self-cleaning with water draining via the module corner. The actual incline angle is then constantly greater than 10 degrees on all modules.

Please note that an individual release of the module manufacturer may be required for **AmbiLight Opti Plus**. Please also check the load bearing capacity of the roof, and that of the supporting shell if required. **AmbiLight Opti Plus** is especially suitable when the system's feet are aligned at right angles to the bead of the supporting shell.

Where required, also check the burst strength of the heat insulation.

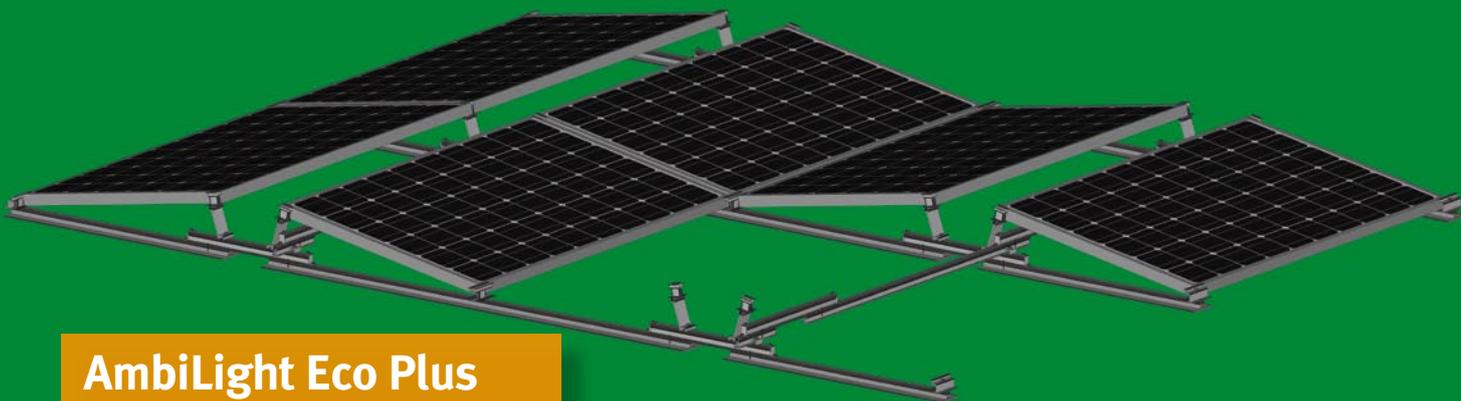


AmbiLight Eco

At a favourable price, **Ambilight Eco** provides optimum aerodynamics and therefore minimum ballast; it is suitable both with high snow loads and in coastal regions, and with the **Top Path** system it also provides the required accessibility to your roof. With **Real Protect**, the feet have a protection layer harmonised with the respective roof, so that any increased softener transfer from the roof into the system is ruled out. Chamfered feet edges round off the system by providing permanent protection for your roof.

The fastening distance of the module brackets is variable with **Ambilight Eco**. An individual release is therefore not required for most modules. You should check this in the module's installation instructions. Please also check the load bearing capacity of the roof, and that of the supporting shell if required. **Ambilight Eco** is especially suitable when the system's feet are aligned at right angles to the bead of the supporting shell.

Where required, also check the burst strength of the heat insulation.



AmbiLight Eco Plus

At a superb price, **Ambilight Eco Plus** provides optimum aerodynamics and therefore minimum ballast; it is also suitable in coastal regions, and with the **Top Path** system it also provides the required accessibility to your roof. With **Real Protect**, the feet have a protection layer harmonised with the respective roof, so that any increased softener transfer from the roof into the system is ruled out. Chamfered feet edges round off the system by providing permanent protection for your roof.

Please note that an individual release of the module manufacturer may be required for **Ambilight Eco Plus**.

Please also check the load bearing capacity of the roof, and that of the supporting shell if required. **Ambilight Eco Plus** is especially suitable when the system's feet are aligned at right angles to the bead of the supporting shell. Where required, also check the burst strength of the heat insulation.

System comparison

AmbiLight east-west oriented installation systems	AmbiLight Opti	AmbiLight Eco	AmbiLight Opti Plus	AmbiLight Eco Plus
Specifics	Optimum with most roof conditions, optimum self-cleaning; feet run parallel to the long module edge	Feet run at right angles to the long module edge. Inexpensive	Optimum with most roof conditions, optimum self-cleaning; feet run parallel to the long module edge Inexpensive	Feet run at right angles to long module edge. Superb price
Benefits				
No cuts to measure required	+	+	+	+
Integrated dilatation adjustment	+	+	+	+
Self-cleaning	Optimised via the module corner	Via the long module edge	Optimised via the module corner	Via the long module edge
AmbiLight Real Protect	+	+	+	+
AmbiLight Top Path	+	+	+	+
Covered area	90%	90%	90%	90%
Mostly only ballasting of the corner modules (also in coastal regions)	+	+	+	+
Roof and cable accessibility after installation	+	+	+	+
Foot area in % of the module area (165 * 99 cm module)	11.0%	15.4%	11.0%	7.7%
Feet per centre module (edge modules have more feet)	One foot with 149 * 12 cm	Two half feet with 210 * 12 cm	One foot with 149 * 12 cm	One half foot with 210 * 12 cm
Maximum snow load (kg/m ²) with concrete	Practically unlimited; module-dependent			
Maximum snow load (kg/m ²) with EPS (pressure stability 6,200 kg/m ²)	680	950	680	480
Maximum snow load (kg/m ²) with rock wool insulation (pressure stability 1,100 kg/m ²) without using additional feet	107 Additional feet available, if required	155	107	71
Special release	Not required		Required	
Suitable modules	Approx. 100 cm wide; any length; 27-50 mm frame height			
Basic structure				
Maximum set-up height with 40 mm module (mm)	293	253	293	253
Incline angle of the modules against the set-up level	10°	10°	10°	10°
Large module field along shorter module edge	220–230 cm for 2 modules; can be adjusted on-site			
Large module field along longer module edge	Module length + 2 cm			

Subject to technical changes

East-west oriented installation – optimum area usage

Comparing an east-west oriented installation with a south and a south-west facing stand configuration

Orientation	30° S/W stand-mounted	30° S stand-mounted	10° E/W AmbiLight
Area	1.000 m ²	1.000 m ²	1.000 m ²
Amount of modules	241 units	241 units	482 units
Power	59 kWp	59 kWp	118 kWp
Spec. yield	939 kWh/kWp a	998 kWh/kWp a	856 kWh/kWp a
Total annual yield	55.401 kWh/a	58.882 kWh/a	101.008 kWh/a
Annual yield/m ²	55 kWh/ m ²	59 kWh/ m ²	101 kWh/ m ²

The falling module prices and the increasing value of roof space mean that **AmbiLight** increases in importance all the time.

With **AmbiLight systems** you utilise an area to its maximum with minimum costs and installation work.

- Low ballast to ballast-free
- Low own weight
- Rain is allowed to run off the roof unobstructed
- Minimum installation effort
- Optimum accessibility
- Penetration-free installation for flat and membrane-covered roofs
- Conventional installation on flat metal roofs
- Pre-assembled brackets can be screwed on from above (top-to-bottom mounting)
- For framed and frameless modules
- Wind tunnel tested and certified by the Institute for Industrial Aerodynamics
- Low installation height
- Awarded the innovation label by the Bavarian Ministry for Technology
- Protected utility model
- Patent pending
- Also including installation on request

AmbiVolt is the photovoltaic specialist for flat and membrane-covered roofs. With long-standing years of experience in setting up photovoltaic systems on large industrial roofs, AmbiVolt guarantees the optimum utilization of your roof surface for maximum yields.

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