GMS® DOUBLE

Allows double use of ground

- / Complies with DIN SPEC 91434
- / Agri PV system: double use of the ground
- / Flexibility: Adaptable for a wide range of cultures and types of use
- / Structural crop protection: Safeguards against weather extremes

MKG GŐBEL

GMS® DOUBLE

The GMS® DOUBLE mounting system redefines the concept of space utilisation. Due to its raised design without row spacing, it uses 100% of the ground and thus provides plant operators with highest area yields. Furthermore, the raised construction allows additional use of the ground beneath the modules. This makes GMS® DOUBLE an interesting Agri-PV solution.

For the use of the ground area, there is a great variety of approaches: Plantations of berries and fruit trees, animal farming, storage areas, car parks, built-over floodplains, etc. GMS® DOUBLE adapts to the desired use with customised post spacing and heights, with the desired amount of light transmission and module inclination, and adaptation options (e.g. for nets). MKG GÖBEL will design the system to meet your project-specific requirements.

THE BENEFITS AT A GLANCE

/ Double use of the ground

Distances between poles of 3 to 5 metres (depending on the modules), 2 to 4 metres of clear headroom: There is a lot of space under the GMS® DOUBLE system, which can be used in many different ways.

/ Complies with DIN SPEC 91434

GMS® DOUBLE fulfils the requirements of DIN SPEC 91434: a maximum area loss of 10 %; height of at least 2.1 m. The agricultural yield must reach at least 66 % of the reference yield. Light availability and water distribution can be adapted to the individual needs of the respective crop using semi-transparent modules and rainwater collection and irrigation systems.

/ Structural crop protection

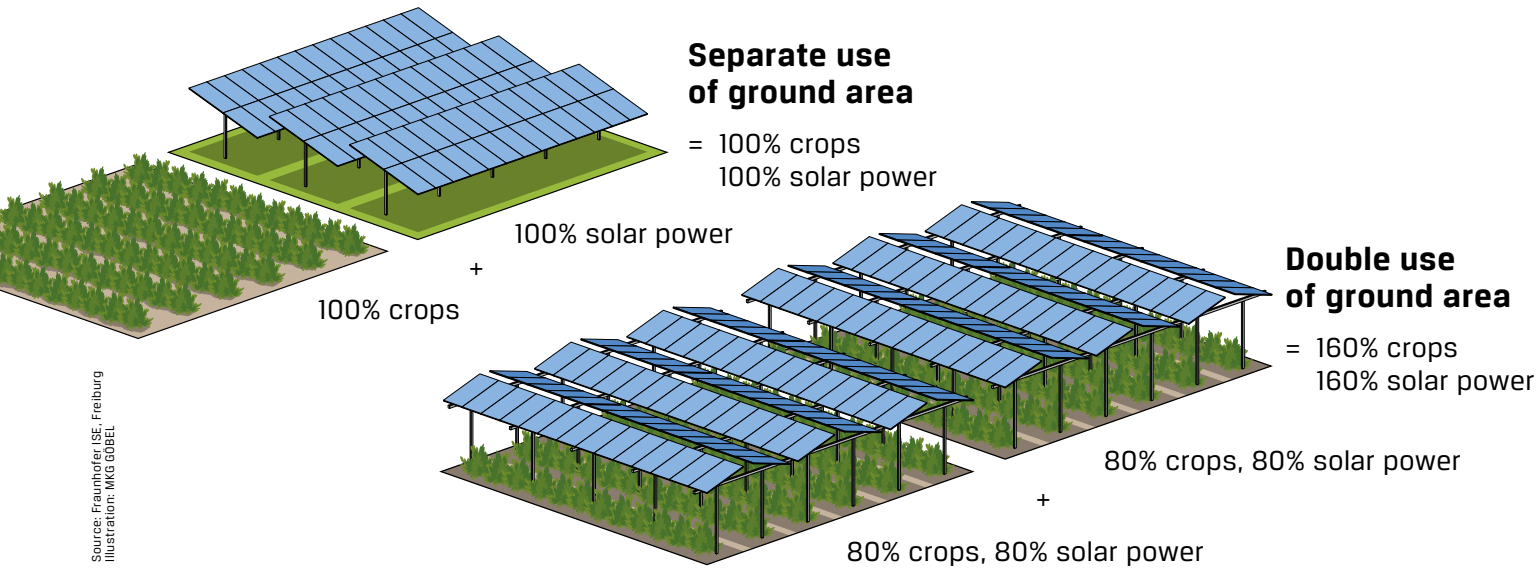
For agricultural use (Agri-PV), the roof protects against weather extremes (heavy rain, hail, excessive sunlight). GMS® DOUBLE can thus replace foil tunnels or greenhouses. Even watertight roofing is possible.

/ Control of the light conditions

With an east-west orientation, the light moves across the ground during the course of the day. The quantity of transmitted sunlight can be regulated by module row spacing, and can be further increased with semi-transparent modules.

/ Profitable electricity yield curve

When aligned east-west, GMS® DOUBLE allows longer electricity production on summer days than south-facing systems. The daily yield curve is wider and flatter, the midday peak less pronounced.

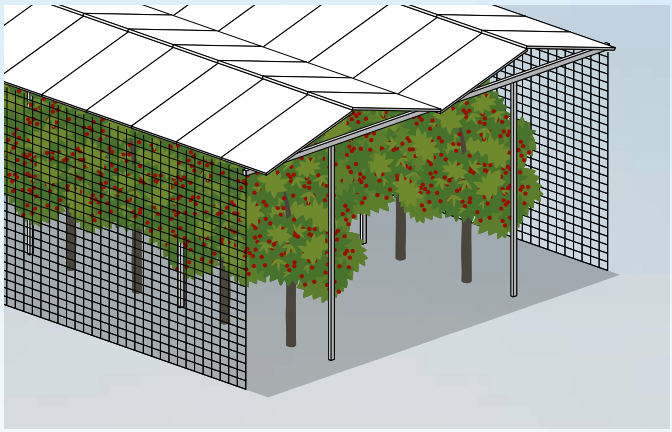


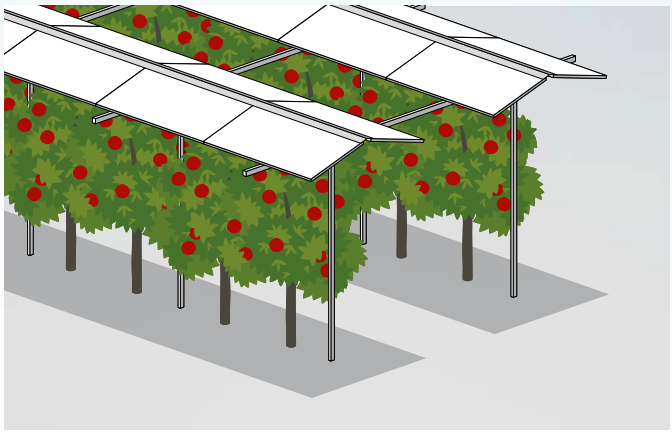
Source: Fraunhofer ISE, Freiburg
Illustration: MKG GÖBEL

APPLICATIONS

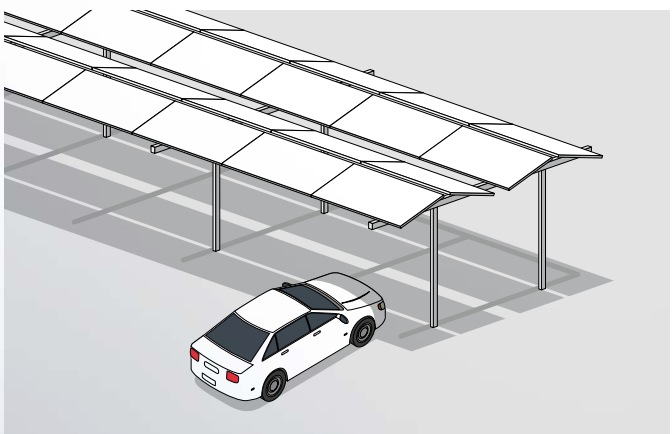
Modules over posts, south or east-west orientation

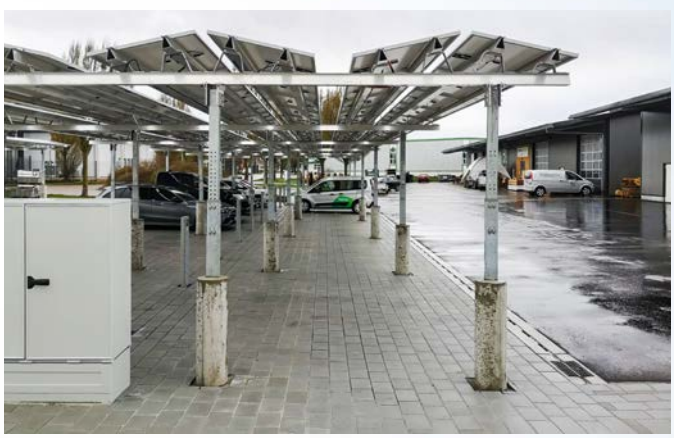
Ridge over posts, east-west orientation





Car park roofing / carport

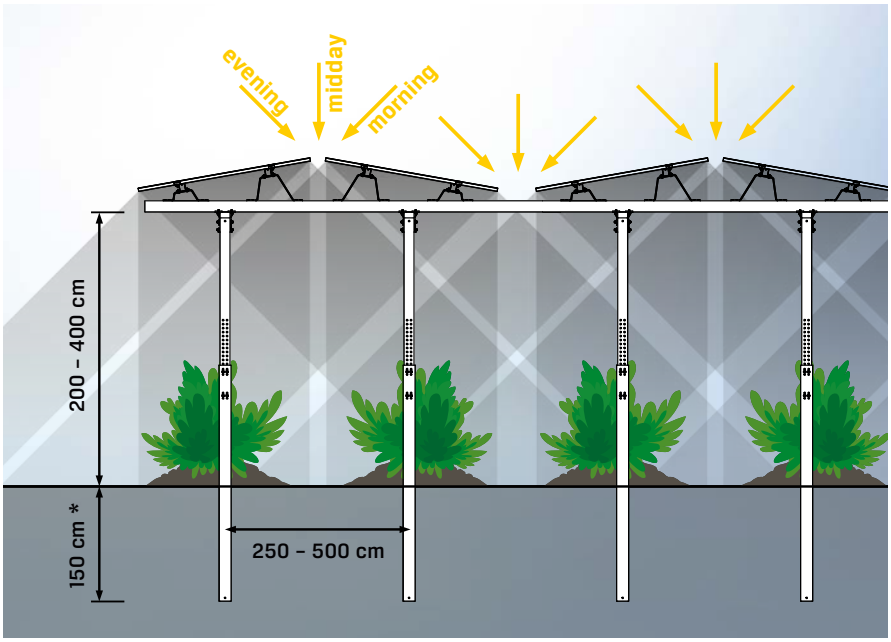




TECHNICAL DATA

System	GMS® DOUBLE
Construction	• Modular system, optimised for raised design • Split posts for height compensation, adaptable to the terrain • Sloping terrain up to 5% (higher on request)
Material	• Posts: hot-galvanised steel (batch galvanised – EN ISO 1461) • Framework: hot-galvanised steel (batch galvanised – EN ISO 1461) • Purlins, heads, small parts: aluminium EN AW 6063 T66 • Fastening elements: stainless steel 1.4301
Foundation	Rammed posts, concrete foundation, or drill holes (in rocky ground)
Structural calculation	Project specific, complies with Eurocode DIN EN 1991, DIN EN 1993, DIN EN 1999, wind tunnel test
Module orientation	1 module vertically, 1 module horizontally
Angle of inclination	Standard: 12° (other angles on request)
Light transmittance	0 – 90 % (project-specific)

Technical data subject to change without notice



* varies according to ground conditions

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Certified according to DIN EN ISO 9001:2015

Industrial safety certified ISO 45001:2018 and SCC

SICHERHEITS CERTIFIKAT CONTRAKTOREN

MKG 2024-006 | Studio2.de