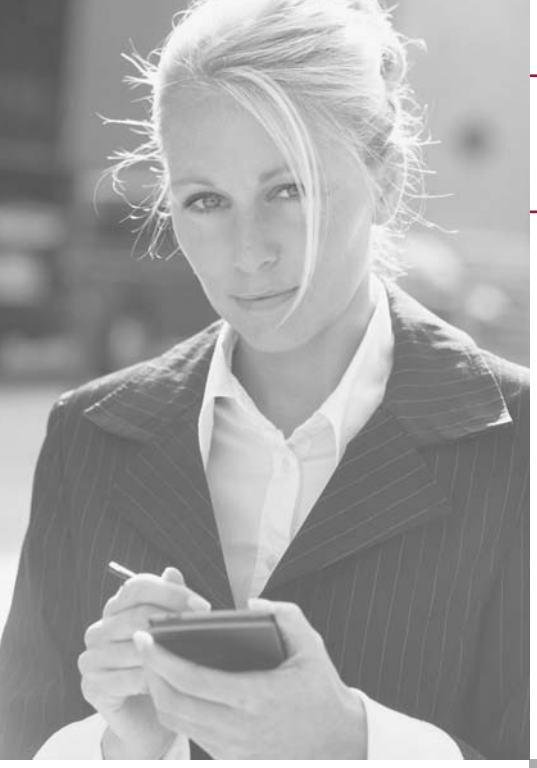


DEGER TOPtraker® 8.5

date 10/07

A high-yield solar electric power station ...

With this system it becomes a reality. If you use of TOP**traker** tracking systems, you have acknowledged the signs of our times: Apart from thinking and acting in accordance with environmental protection and nature, you also profit from increased yields and the associated amortization.

Maintenance-free. Long-lived. Recyclable.

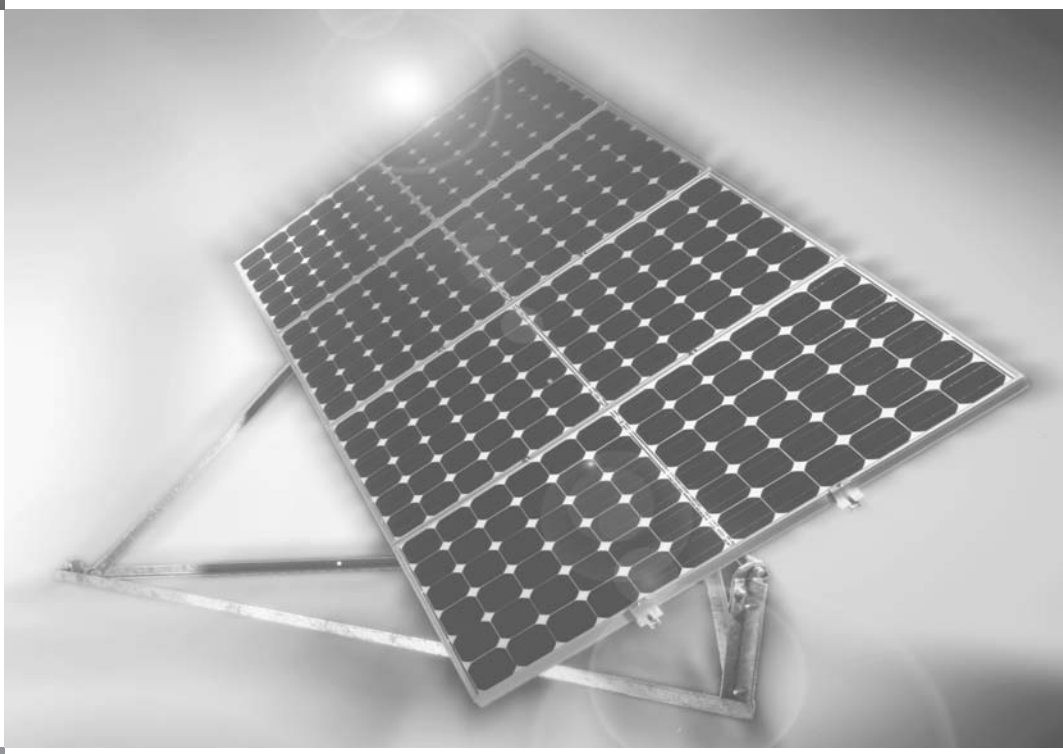
The systems designed to these exacting parameters are mass-produced in an ISO 9001-certified factory under environmentally sound conditions. Altogether, the TOP**traker** systems are 100% recyclable as true valuable substances. In comparison to rigid systems, after conclusion of the useful life 25% less electrical scrap will occur! The proven static design of the TOP**traker** is based on DIN 1055-4 (3/05).

Short assembly time.

Pre-mounted components and the low net weight permit an assembly time of less than 30 minutes.

Added yield 20-30%

Only possible with the patented system control DEGERconecter.



Tracking system for flat roofs, dumps and open spaces

Efficiency...

...using the example of a 100 kWp system in a region where rigid systems yield around 1,100 kWh/kWp per year.

Rigid system yield in 20 yrs:	2,200,000 kWh at 45 ct/kWh	=	€ 990,000,-
TOP**traker** yield in 20 yrs:	2,750,000 kWh at 45 ct/kWh	=	€ 1,237,500,-
		Profit	**€ 247,500,-**
	Higher purchase price of TOP**traker** vs. rigid approx.		€ 25,000,-
		End profit	**€ 222,500,-**

... greater yield – a higher return

Available at any time:

From your solar equipment retailer.

More sun for the money

DEGERenergie
Tracking Systems

DEGER TOPtraker® 8.5

art.no.: 28 11 120

date 10/07

	TOPtraker 8.5
For solar energy capacity	500 ... 1.250 Wp
Module area up to	8,5 m²
Burden	300 kg
Rotation angle east - west	180°
Elevation inclination angle	30 ... 50°
Control unit	DEGER**conecter**
Operating voltage	20 ... 40 VDC
east - west drive	420 mm stroke path
Internal power consumption: control mode	0,01 Watt
with operating drives	5 Watts
Power consumption per year	0,3 kWh
Weight	115 kg
Maintenance	maintenance-free
Geographic region	10th ... 60th degree of latitude

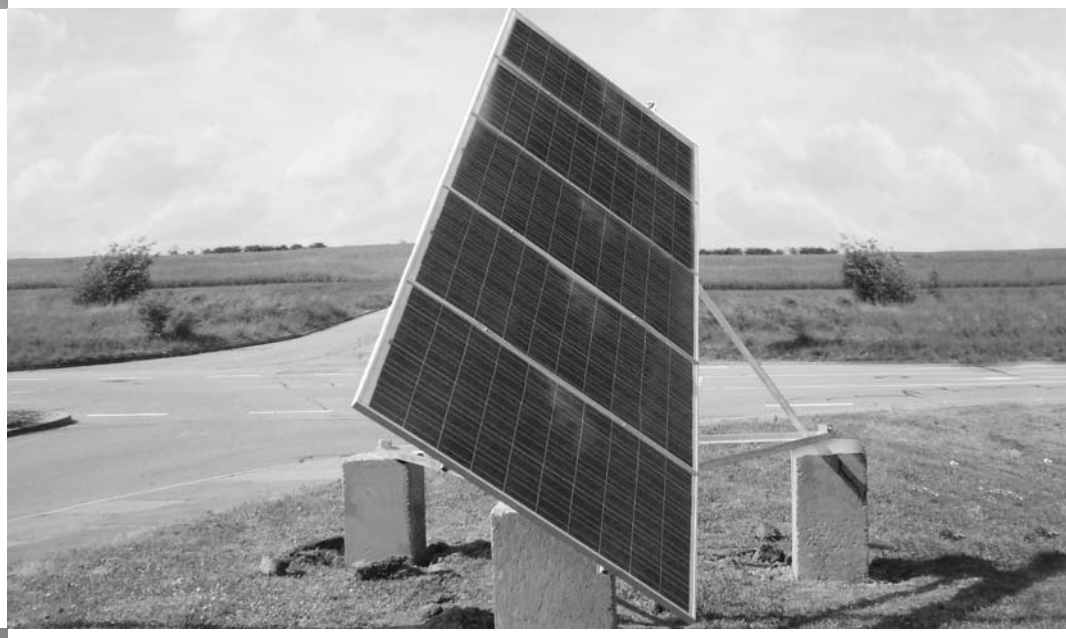
Single-axis active tracking system for up to 8.5 m². For 500 Wp up to 1.250 Wp depending upon module type.

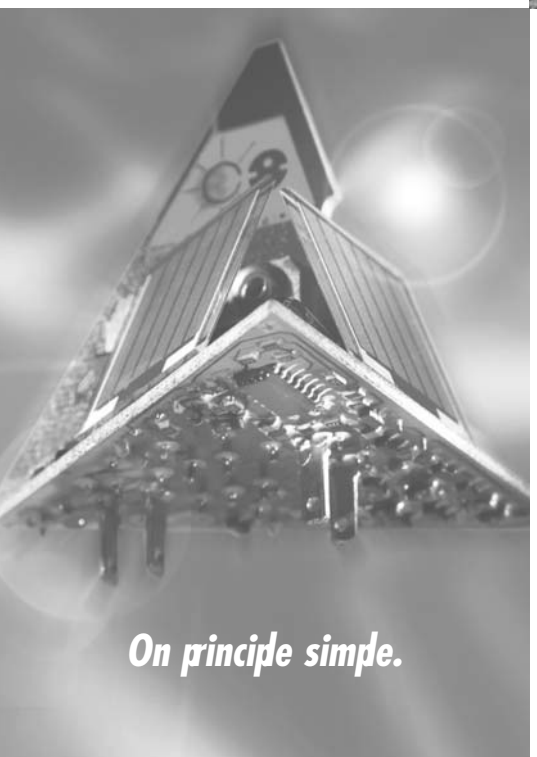
Fields of application

- To increase output for all photovoltaic applications.
- For flat roofs, open spaces and dumps.
- For all usual modules.

Scope of delivery

Complete tracking system in optimised azimuth axis, DEGER**conecter** control electronics, aluminium solar module carrier system, to fit the respective module type, construction plan.





The operating principle

The control unit DEGER**conecter** detects the brightest spot in the sky and rotates the module area into this direction. The DEGER TOP**traker** has the mechanics of a single-axis tracking unit built in. During the daily and yearly course, loss angles result between module area and the sun. These cannot be completely counterbalanced with any mechanical method. However, by the available degree of freedom of the mechanics and the momentary position of the sun the DEGER**conecter** can calculate the smallest loss angle and then adjust the module area with the smallest possible deviation. This technology works also with cloudy sky, rain and fog; i.e. if on a day that at first begun sunny, in the afternoon clouds draw up from the west, the module area will rotate slightly back toward the east according to the irradiation. With a totally cloud-covered sky, the module area is rotated into the direction of the strongest irradiation in order to make the best also from bad weather situations.

Benefits

As a result of the simple construction, the low weight, as well as pre-assembled components, the assembling time per system will usually be less than 30 minutes. Thus with almost identical costs an enormous yield increase is achieved with the TOP**traker**.

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Tracking Systems