

SOLAR TRACKING SYSTEM 
TERMS TRACKER MIRROR



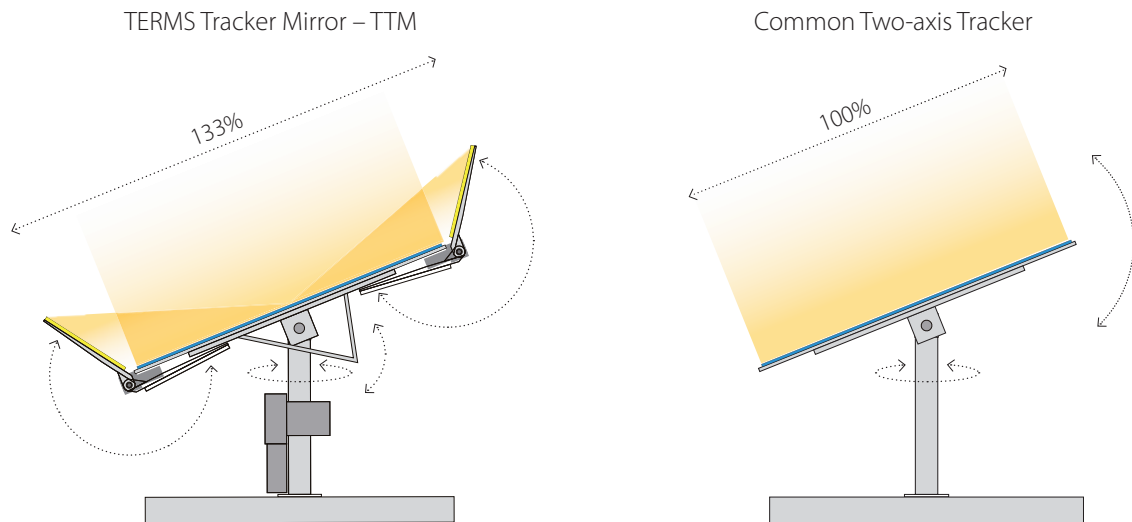
High-efficiency solar system
with mirror concentrator

Up to 21% more energy than a common two-axis tracker
Up to 63% more energy than a common fixed installation



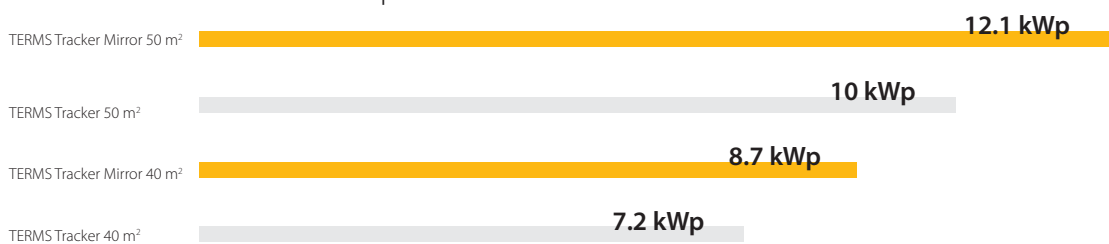
The new energy concentrator system has been developed in response to the demand of photovoltaic solar system operators for a higher efficiency of energy acquisition.

TERMS Tracker Mirror is built on the well-proven structure of the two-axis positioning device that automatically tracks the sun's position. The benefit of this tracker consists in the increase of the photovoltaic system's efficiency by up to 42% over the fixed installation. The exacting control of the PV panels' active surface in the new configuration with mirror wings brings an additional 21% to the PV system's efficiency. **TERMS Tracker Mirror guarantees the PV system's daylong peak output.**



The radiation concentrator accessory consists of AL-sheet mirrors that intensify the amount of the sun's radiation falling on the PV panels' surface. This results in an increased output and makes the electric energy production much more effective.

Tracker's Output Table



TTM Key Characteristics

- Higher output guarantee
- Output active optimizing
- Less PV panels needed
- Fully automated operation
- Low-maintenance mirrors
- Accessory mirror system 5-years economic return
- Highest-efficiency inverter's maximum output utilization
- Universal installation for other positioning systems

Mirror Wing Parking

- Mirror tilting under the PV panels' active surface
- Wind protection
- Dirt deposit protection

TTM Equipment

TERMS Tracker

- Armored concrete foundation footing
- Tracker's load-bearing foot with distributor and inverter
- Biaxial motion unit
- Slew Drive gear around vertical axis
- Screw Jack gear around horizontal axis
- Load-bearing structure for the PV panels
- Software TERMS intelligent control system
- Wind, sight, temperature and time sensors

Concentrator

- Accessory structure for two symmetric mirror surfaces
- Mirrors made of high-reflection Al-sheets
- Two drives for mirror tilting into the parking and active positions
- Software TERMS control system upgrade

PV Systems Comparison


Fixed System



= **100%**
Energy

TERMS Tracker System



+  = **140%**
More Energy

Software TERMS

TERMS Tracker Sight System



+  +  = **142%**
More Energy

Software TERMS

Sight Exposition Sensor

TERMS Tracker Mirror System

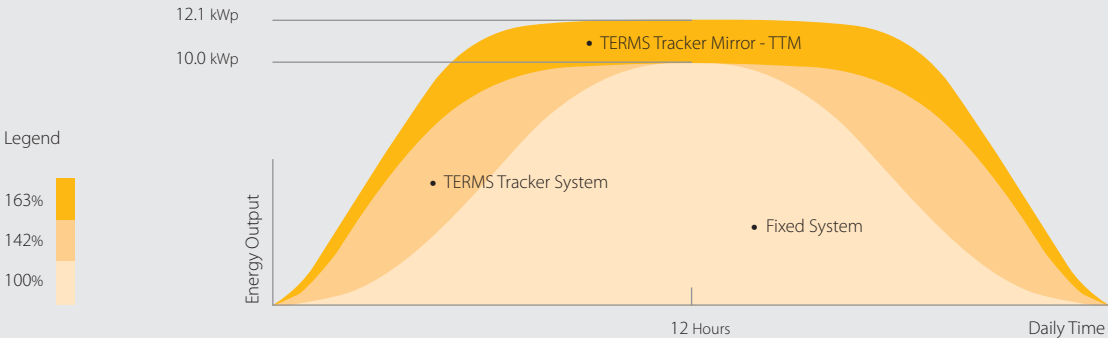


+  +  = **163%**
More Energy

Software TERMS

Sight Exposition Sensor

Output Increase Comparison blue sky, sunny day



We further produce



Software TERMS Control System

The intelligent ATMEL 8/16-bit AVR XMEGA micro-control system was developed for controlling photovoltaic trackers without the need for a master system. It allows controlling one single tracker or data exchange with up to 252 control units. There is an option for a master system control or information transfer.



Sight Exposition Sensor

The tracker's sight sensor in connection with the control unit allows active influence on the tracker's control with the stress on the maximum effectiveness of the whole equipment. The sensor provides the control unit with information on the exposure intensity from various directions; the control unit tilts the tracker into the optimal position.



TERMS Tracker

The two-axis positioning device of our own design with automatic tracking of the sun's position. When high-performance SANYO or SUNPOWER photovoltaic panels are installed, this system gains 42 % more energy than the fixed installation.
TT 40 tracker output 7.2 kWp (6 x 5 PVP SANYO HIP 240HDE), active surface 42 m², tracker size (WxLxH) 4.3 x 9.7 x 5 m
TT 50 tracker output 10.1 kWp (7 x 6 PVP SANYO HIP 240HDE), active surface 58 m², tracker size (WxLxH) 5.2 x 11.3 x 6 m



Solar Shelter

The Solar Shelter is the assembly of a technological container and two-axis rotary Solar Tracker equipment located on the container's roof. The unique design is predestined for "off-grid" applications in locations where there is no electricity distribution grid. The electricity obtained from the solar panels is consumed by installed technology or it can be conserved in an accumulator set inside the container.



Solid Container

The TERMS technology containers are designed for interior and exterior installations of technology devices and components. The "Solid" standard series of containers is primarily designed for highly exposed locations. The well-trying and robust structure, with enhanced protection against forcible trespassing, meets even the most demanding requirements of our customers.



Mini Container

The "Mini" technology container is the ideal solution for locations lacking enough space on building roofs and shared sites. The mature design respects minimum size parameters and retains the maximum utility value required.



Scout Container

The "Scout" production series is primarily designed for respectful location in a natural environment. With its shape and ecological materials used, it does not disturb the landscape character and becomes its natural constituent.

TERMS, a.s. is a significant technology company specializing in automatics, telecommunication technology and energy production since 1991. The TERMS Company employs a team of more than ninety highly qualified staff and a team of more than seventy external collaborators. In 2002, the solar system division was established with business activities in the Czech Republic and the European Union. The TERMS Company developed and produces its own patented Tracker positioning system designed for developing solar power stations from tens of kWp to units of MWp of the installed output. All the production processes are controlled by an international quality assurance system.



TERMS, a .s., proudly represents the following International component manufacturers

SANYO, SUNPOWER – CZ and SK representation, FRONIUS – business and service partner, SMA – business partner

we.know.how
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