



Sun Tracer™ Dual-Axis Heliostat for Tower Receiver CSP ST44M3HEL25M Heliostat for mirror application up to 25m²

- With time-derived astronomical positioning for the automatic sun-tracking
- Dual-Axis solar tracker with embedded positioner
- Time controlled astronomical algorithm for sun tracking
- Simple installation and synchronization of sun time
- Usable for Heliostats, Tower Receiver CSP and Natural Daylighting System
- 14 hours of automatic tracking and sun mirroring
- User friendly web interface for monitoring, setting and upgrading
- USB communication port, RS485
- For surface area up to 25m² and max 450 kg
- Made in Europe

Sun Tracer™ Dual-Axis Heliostat
for mirror application up to 25m²
ST44M3HEL25M, Product code: 0105

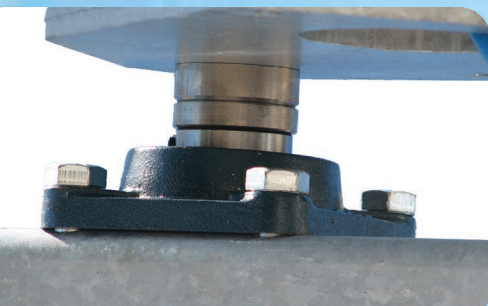
+61%
more energy

GREEN ENERGY

SAT CONTROL

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Mechanical Capabilities

Number of turning axis	Dual-Axis
Hour Angle Limit	100°, software and hardware limit
Elevation angle	15 - 90°, adjustable start
Type of hour-angle engine	Linear Motor SM4S900M3SP26A with stroke of 900mm and positioner SP26A
Type of elevation shaft and stroke	Linear motor SM4S900M3 with stroke of 900mm
Hour-angle shaft diameter and length	Square tube 110x110 mm, L=5000 mm (steel)
Turning speed of hour angle shaft	/
Turning speed of elevation shaft	/
Max. dynamic torque of the hour-angle shaft	/
Max. dynamic torque of elevation shaft	/
Destructive torque of the hour-angle shaft	/
Destructive torque of elevation shaft	/
Backstructure size	/
Type of backstructure clamp	Toothed scissors grippers - 48 pcs
Tube diameter for mounting	Square tube 200x200 mm, H=3500 mm (steel)
Max. dimensions of a mirror panel	8 mirror panels with dimensions of 1250 mm x 2500 mm with net surface of 25 m2
Max. weight of a mirror panel	/
Estimated service life	5.000 rotations of 200° (100°E + 100°W), or 10 years

Positioning System Data

Tracking accuracy	<0.1°
Operating Protocol	TdAPS (Time derived Astronomical Positioning System)
Type of positioner	Servo driver positioner with TdAPS arc logic function calc.
Type of timer	GMT clock with EOT and calendar
Type of application program for supervision and setting	Solar tracking system monitor via web site
Setting and changing data via PC	Yes, It can be setup 1000 parameters
Monitoring possibility via PC	Yes, It can be monitored 1000 parameters
Turned on the position sent from PC	Yes, it turn on position sent from PC, also all other setting can be commanded with string sent from PC

Communication Data

Type of communication interface	USB interface
Networking solution for control from centre	CAN BUS ***

Firmware - Software

Upgrading possibility via PC	Yes, firmware via PC with help of web wizard
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Electrical Data

Motor Power Supply	24 VDC ± 15% 4A(5A current capacity)
Backup battery	Backup for timer, position and data
Turning time interval	1 minute (0.25°)
Max. consumption during the operation of the hour-angle shaft	/
Max. Current of elevation shaft	/
Standby consumption (when is not moving)	60mA @ 24 VDC
Power supply connection	1 piece of 2 Wire Cable with an Internal Cu Conductor of 1,0 mm2 (not included with kit)

Environmental Data

Operating temperature	-25°C to +70°C (optionally with artic grease for teperatures from -40°C up to +70°C)
Operation at humidity	0% to 100%, relative humidity
Max. safe wind speed	<130km/h up to 180km/h

Corrosion, weather and chemical resistance

Neutral Salt Spray (3000 h, EN ISO 9227 NSS)	/
Hot-dip galvanizing (HDG, EN ISO 1461)	75-100 µm (equivalent of 50 years)

Packaging

Dimensions of a packed product	1 box of 5000(L) x 1500(W) x 500(H) mm
Product weight	300kg

Quality Certificates

International Protection Rating (IEC 60529)	IP33
Electromagnetic Compatibility (EMC Directive 89/336/EEC)	Yes
Low Voltage Equipment Directive (EEC Council Directive 73/23/EEC)	Yes

Optional Properties

Anti-Shadowing Function	No
Heliostat usage	Solar Mirror SolReflex® HM3CIM-3 ***

*** for additional payment

