SAT CONTROL
Want to get more?

www.solar-motors.com

STL36 solar tracker

Code: 0194

- 25 years operational life
- up to 10 year warranty – optional
- ultra low maintenance
- low power consumption
- easy installation set up
- equipped with powerful analytics
- backtracking function included
- designed and manufactured in EU

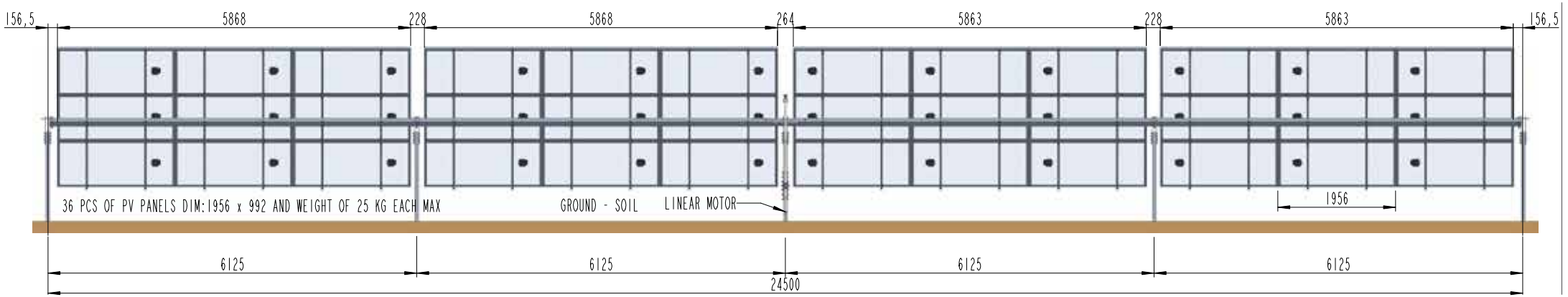
*compared to the fixed system per year and is thepend from location

+20%
more energy*

- > Low maintenance
- > Made in EU
- > 25 year lifetime

Cost effective tracking solution for commercial PV plants

Sat Control STL36 solar tracker delivers low maintenance tracking solution for commercial solar plants. Developed and manufactured in EU. Up to 10-year warranty.



Mechanical Capabilities	
Number of turning axis	Single-Axis
Hour Angle Limit	100˚, software and hardware limit 50°E to 50°W
Elevation angle	horizontal in-line tracker
Type of hour-angle motor	Linear Motor SM4S700M3 with stroke of 700 mm
Backstructure size	3 m wide
Type of backstructure clamp	Toothed scissors gripers OBJZZSV12-144 pcs
Total lenght of tracker	24,5 m (4 sections by 6,125 m)
Total width of tracker	3,0 m
Occupied area with the tracker	24,5 m x 7,5 to 9 m
Max. dimensions of a solar panel	36 pieces of 1,00 m x 195,6 m in total 70 m²
Max. weight of one solar panel	25 kg (900 kg for all 4 arrays)
Estimated service life	25 years (replacement of DC motor each 7-10 years)
Electrical Data	
Motor Power Supply	24 VDC +5% / -15% (5A current capacity) SMPS must have 150% inrush current
Backup battery	No or CR 2512 coin, depend from model of positioner
Standby consumption (when is not moving)	35 mA ±25% @ 24VDC optional +25mA wireless radio communication
Power supply connection	1 piece of 2 Wire Cable with an Internal Cu Conductor cross section of 6.0 mm² (not included with kit)
Junction Box	190 (L) x 140 (W) x 70 (H) mm with connection harness

Wind speed during operation				
Terrain category according to standard [2]	I	II	III	IV
Basic wind speed at the height of 10 m v_b [m/s]	12.7	14.3	15.1	15.6
Average wind speed at the height of z = 1.7 m v_m [m/s]	11.1	10.0	9.1	8.5
Wind gusts at the height of z = 1.7 m v_s [m/s]	17.0	17.0	17.0	17.0
Wind gusts at the height of 10 m V_{max} [m/s]	19.5	24.3	28.1	31.6

Publicly released information on wind zones mostly shows wind at the height of 10 m. Please make sure that you compare the same categories of wind speeds.

Sat Control DC motor

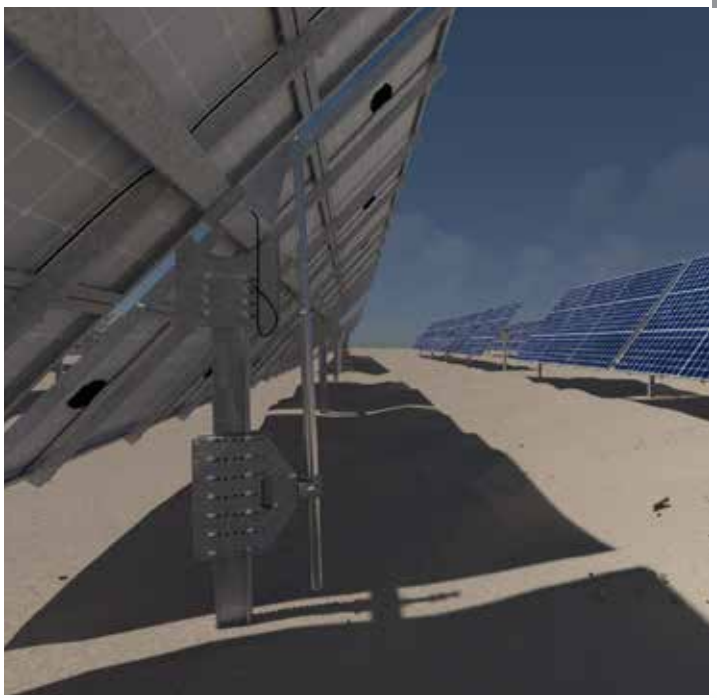
- DC mechanism
- Ultra low energy consumption
- Stainless steel / high carbon
- ACME stainless steel spindle
- Plasox® corrision protection
- Developed and manufactured in EU

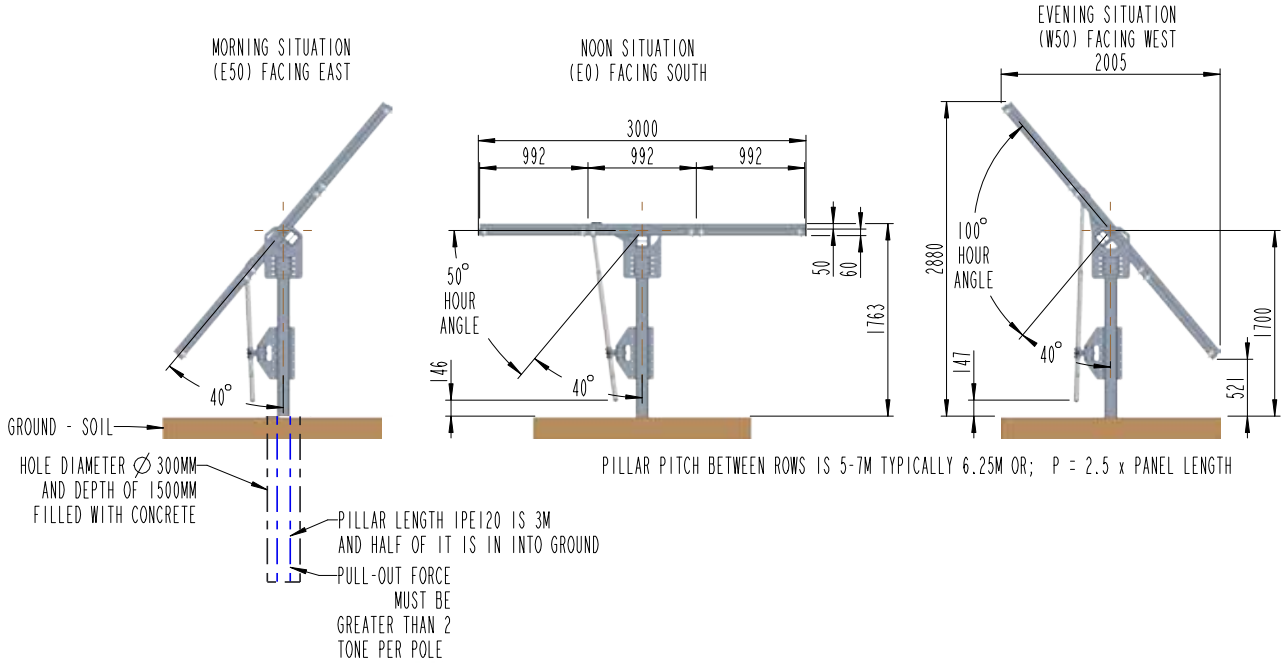
TdAPS (Time derived Astronomical Positioning System)

> Minimum power consumption

> Optimal for all weather conditions

Sat Control TdAPS positioning system offers optimal tracking control in commercial solar plants. It delivers higher reliability and features lower power consumption than sensor positioning.





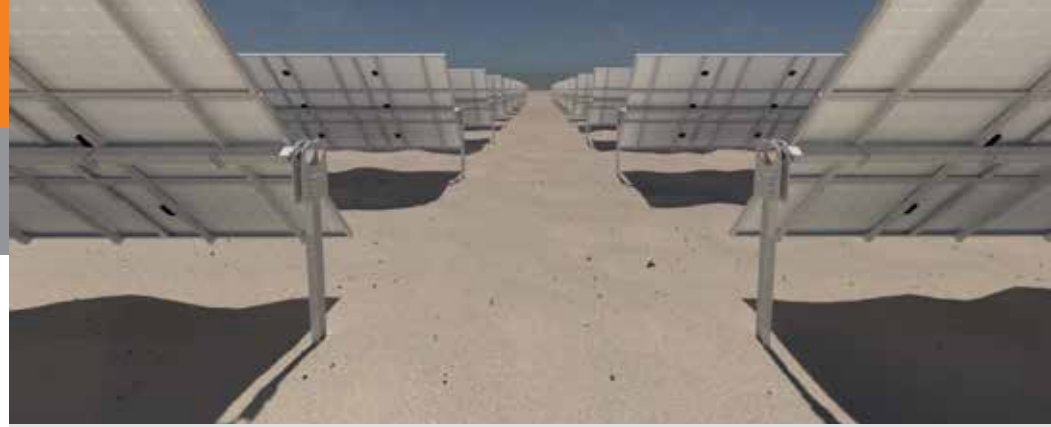
Positioning System Data	
Tracking accuracy	< 0.5°
Operating Protocol	Modbus TdAPS (Time derived Astronomical Positioning System)
Type of Positioning System	Servo driver positioner with TdAPS arc logic function calc.
Type of positioner	Din Rail positioner NANO or MICRO and external cables
Type of timer	GMT clock with EOT and calendar
Type of application program for supervision and setting	Solar tracking system monitor via Sigma's web site or Helios analytics dapand from positioner type
Setting and changing data via PC	Yes
Monitoring possibility via PC	Yes
Turned on the position sent from PC	Yes
Turning time interval	1-15 min.
Communication Data	
Type of communication interface	Modbus via RS485 or USB interface, depend from positioner type
Networking solution for control from centre	Modbus via RS485
Firmware - Software	
Upgrading possibility via PC	Yes, firmware via RS485 via Sigma's web site or PC with help of Helios Analytics

Sat Control positioning system

- Visualization, control and monitoring for large-scale plants
- Integration of Sat Control equipment into existing control-room technology
- Data interface in accordance with the MODBUS communication standards in the field of automation technology
- Simple and fast installation, high reliability
- Meets the requirements of the EU Low-Voltage Directive for grid safety management
- Compatibility with all major third party component/application providers

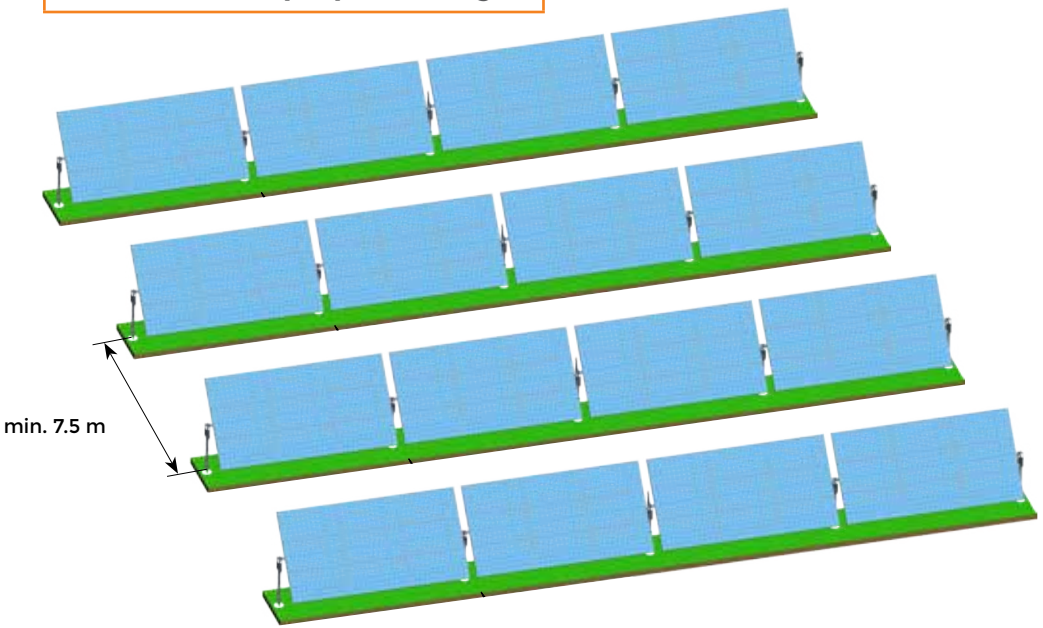
STL36 scaling for PV plants

STL36 solar tracker features backtracking anti-shadowing function.
It's smart design enables the use of the plot for agricultural purposes.



> **Backtracking included**

> **Smart multi-purpose design**



Environmental Data	
Operating temperature	From-25 C° to +70 C°
Operation at humidity	0% to 100%, relative humidity
Max. safe wind speed in working position	20 m/s (72 km/h)
Max. safe wind speed in safe wind position (horizontal)	50 m/s (180 km/h) - see table
Corrosion, weather and chemical resistance	
Hot-dip galvanizing (EN ISO 1461)	50–75 µm (equivalent of 50 years)
Material of linear motors and/or protection	stainless steel
Packaging	
Dimensions of a packed product HQ 40 container	12,0 m x 0,5 m x 0,5 m and 1,6 m x 0,8 m x 1,0 m
Product weight	748 kg
Quality Certificates	
International Protection Rating (IEC 60529)	IP63
Electromagnetic Compatibility (EMC Directive 336/89/EEC)	Yes
Low Voltage Equipment Directive (EEC Council Directive 23/73/EEC)	Yes
Optional Properties	
Anti-Shadowing Function or backtracking	Yes, included
Heliostat usage	No

CE
Made in Europe

Worldwide patented design.

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