



European-Made PV Structures

Photovoltaic tracker trackerAGRI

11
years of
experience

2
manufacturing
facilities

7GW+
delivered
PV structures

1.5GW
annual
production
capacity



Energy5

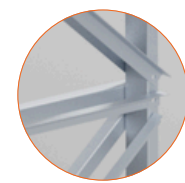
- ISO 9001 | ISO 14001 | ISO 45001
- EN 1090 EXC1-EXC4 (TÜV Rheinland certified)
- Wind tunnel tested in Germany

GENERAL PARAMETERS	
Structure type	1P
Maximum tracker length	98 m
Ground clearance	400-3000 mm
Rotation range	60°
Maximum N-S slope	5°
Compatibility	All modules, robot cleaning solution

STRUCTURE AND FOUNDATIONS	
Material	Magnelis® or Zn-Al-Mg (ZAM) coated steel
Foundation method	Driven piles, mechanically anchored, concrete foundations
Module fastening method	Stainless steel bolts and fasteners

SENSORS AND MEASUREMENTS	
Ultrasonic wind speed and direction sensor	
Snow level sensor	

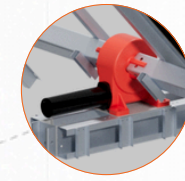
ENVIRONMENTAL CONDITIONS	
Operational in temperatures as low as -40°C	



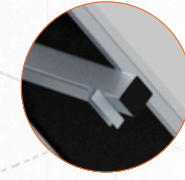
LATTICE PILES
Enhanced structural stability
Made of Magnelis®/ZAM-coated steel



GAS SPRINGS
Support smooth movement of long tracker rows while stabilizing tilt angles at row ends



GEARBOX AND MOTOR
Ensures stable tracker rotation even under extreme weather conditions while providing torque locking in all operating states



TORQUE TUBE
Square or hexagonal profile



BEARING
Maintenance-free component ensuring smooth tube rotation

DRIVE SYSTEM	
24V DC motor - PWM motor control with soft start/stop functionality	
Self-locking worm gearbox	
Reduced structural stress	
Extended component lifetime	
Stability under wind loads	

SAFETY AND OPERATING CONDITIONS	
<10 m/s - full range <14 m/s - limited range >14 m/s - safe position protecting the system	
Active snow shedding mode (up to 60°) East/West directional switching	
Automatic return to operation Sensor signal loss response Safe mode during power loss	
Extreme weather mitigation: snow, flood and wind	

CONTROL SYSTEM	
Autonomous control of each tracker	
Centralized plant management	
SCADA integration	
Alarm system and safety logic	
NCU TCU	

COMMUNICATION AND INTEGRATION	
Communication	Zigbee (mesh), RS485
Topology	Self-healing network
Security	AES-128 encryption
SCADA	Modbus compatible

CONTROL ALGORITHMS	
Astronomical clock - sun position-based control (astronomical calculations)	
BACKTRACKING - row-to-row shading reduction for maximum energy yield	
3D BACKTRACKING - terrain-aware optimization for maximum performance	

POWER SUPPLY	
AC grid (110V-230V)	
PV-powered with optional battery backup	
Integrated backup system (configurable)	

MONITORING AND DATA	
Real-time operational monitoring	
Operational data logging*	
Historical data analysis*	
Alarm and notification system	

*Extra-cost solution

WARRANTY AND EXPERIENCE

Warranty
10-year structural warranty
25-year Magnelis® coating warranty

Up to 25%
higher energy yield through solar tracking

PRODUCTION AND LOGISTICS

Lead time
from 5 weeks
after contract signing

Components in stock
>100 MW
available in stock

100%
In-house manufacturing of steel and aluminum components

INSTALLATION AND SUPPORT

- Fast and easy installation
- No specialized tools required
- Technical support on-site and off-site
- Customized project support
- On-site training

3D TERRAIN ANALYSIS

- Pile length optimization
- Soil stability assessment
- High-resolution 3D models
- Layout optimization
- Accurate cut & fill
- Pile alignment verification
- Reduced installation risk

COST AND TIME OPTIMIZATION

- Lower LCOE
- Higher return on investment
- Bankable alternative to fixed-tilt systems
- Long-term reliability

GLOBAL SUPPLY CHAIN

- 15 export countries
- Proven logistics network across Europe



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