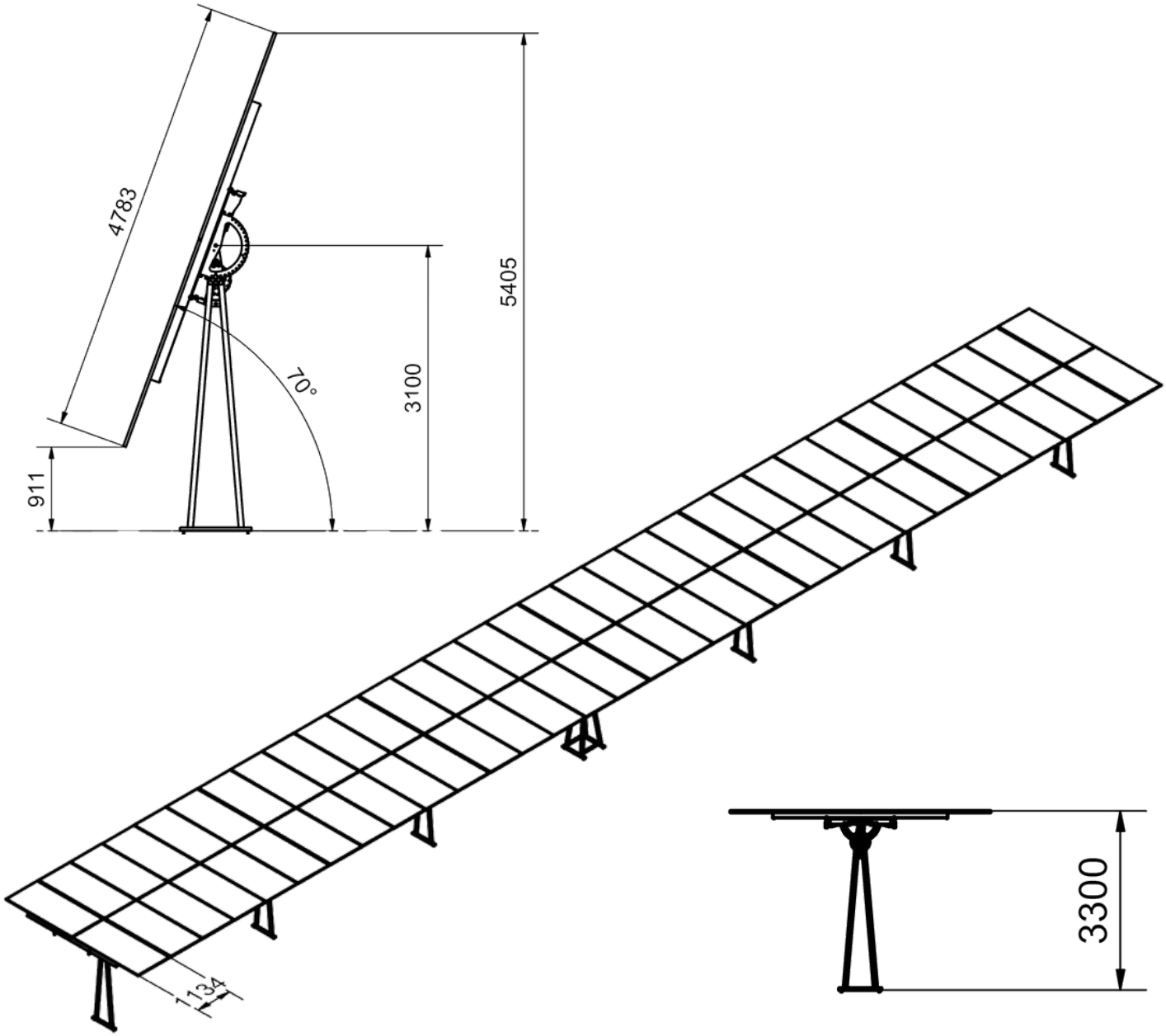
COBRASOL
PHOTOVOLTAIC-TRACKING-SYSTEMS

TECHNICAL **PRODUCT DATASHEET**

TRACKINGSYSTEM
COBRA-A2



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TECHNICAL **SPECIFICATION**

Scope of application	Horizontal single axis tracker for Agri-PV applications
Material	S235, S355, S550, C45 (Coatings: ZM pregalvanized, HDG, ZiNi & Topcoating)
Static	Structural analysis based on recognized engineering standards. Verification of structural safety of the tracking system is based on Eurocodes and general construction approvals. The load assumptions comply with DIN EN 1991-1 & national annex.
Module configuration	2 module rows in portrait/vertical configuration (2V/2P), string-conform table design
Module types	• framed Modules • bi-facial • module dimension: 1.134 x 2.384 x 30/35 mm • all commonly module manufacturer in 620Wp-class: ◦ JA Solar, Jinko, LONGI, Trina, Astroenergy, Canadian Solar, Aiko, Tongwei, etc.
Module fixation	Fastening with screws or rivets (optional)
Installation effort	Fast and easy installation due to pre-assembled components & supporting assembly tools
Tracking range	120° / ±60° (Service, Harvesting, Snow drop-off: ±70°)
Power per Tracker	up to approx. 140 kWp (depending on module type & power)
Tracker dimensions	• max. Length per Tracker: up to 120m / 400 ft • Width per Tracker: 4,8m / 16 ft • Height per Tracker: approx. 3,30m in 0° horizontal position (approx. 5,4m in 70° position) • ground clearance: 1,1m-1,3m at ±60° in operation mode (0,9m-1,1m at ±70° position)
Drive system	400V AC, 370W, grid-powered energy system (1 drive per tracker)
Flood protection	> 2,6m
Terrain access	free passage between the rows of trackers and between the supports
Tracking positions	• Wind safety position: 0° • Backtracking: ✓ • Snow drop-off: ✓ • Harvesting: 0° or ±70° • Maintenance & Service: ±70°
Monitoring systems	Gateway / MCU, CCU, TCU / APP controlled / Cloud dB / SCADA interface
Tracker Control System	Astronomical / RS-485 / Raspberry based on industrial level Hardware according to IEC 61131-2
Sensoring	• 1 x inclination/tilt sensor per Tracker • Wind speed sensor (optional: Snow, snow depth, Rain, Temperature, AI-based video capturing)
Compliance	CE 2006/42/EC / DIN EN 1991 (EUROCODE)
Protection class	IP65
Corrosivity	atmospheric corrosion category: C3 (moderate) / Soil class: II (medium)
Operating temperature	-20°C to +55°C (optional: -30°C to +30°C)
Foundation	• Screw foundations with embedment depths of 1.60-2.00 m, depending on soil conditions • optional: concrete foundation
max. Terrain incline	N-S 10°, O-W 10°
max. Wind speed 3-Sec Gust	• Tracking operation: up to 56 km/h / 35 mph • Wind safety position: up to 167 km/h / 105 mph
Design life time	Designed for a min. 25-year service life
Product Warranty	• 25 Years for rusting through of the tracker frame • 15 Years for instability of the tracker frame • 5 Years for gearbox and moving parts • 2 Years for electronic components like motor, control system, sensors
supplementary Documents	CobraSol Trackingsystem COBRA A2 – Installation Manual CobraSol Trackingsystem COBRA A2 – Operation and Maintenance CobraSol Trackingsystem COBRA A2 – Static report (EUROCODE)