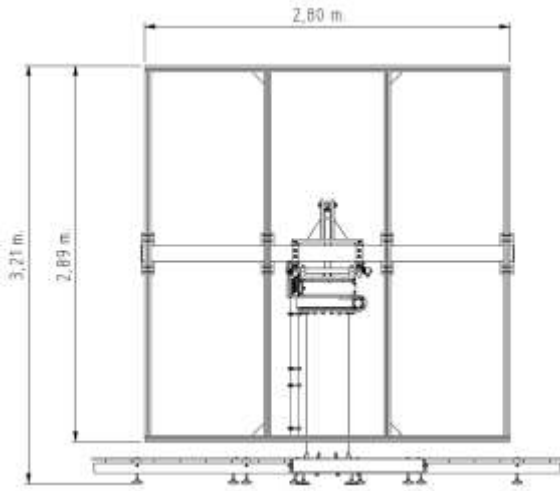


Dimensions



Description

These laboratory trackers are something unique in the market as they combine high accuracy subdegree sun tracking accuracies, with a sturdy tracking structure with aperture surfaces of as much as 10m², especially designed for holding different models of CPV or PV modules of different sizes.

They can be supplied with a complete weather station, including sun radiometric instrumentation, enabled for remote monitoring through internet.

Non invasive foundation kit is also available to avoid the construction of slab-type foundations where these are not possible.

Customization options are possible, we will design and supply to meet the needs of your research project.

Features

Performance

- > In agreement with local construction codes
- > Auto-calibration for maximum tracking accuracy
- > Mounted with an aluminum surface with channelled extruded profiles
- > Wide range of motion for maximum energy harvest

Reliability

- > Hot dip galvanized structure with additional painting coating upon demand
- > Controller design according to electrical safety and EMC standards
- > Controller thoroughly tested in harsh climatic conditions

Specifications

Mechanical

Aperture - Height	2.89 m
Aperture - Width	2.80 m
Aperture - Area	8.09 m ²
Coverage Radius	2.57 m
Maximum Height	3.21 m
Unloaded Weight	698 kg
Weight with modules	905 kg

Structural Properties

Max. Service Wind Speed	12 m/s
Max. Flexure @ Max. Service Loads	0.3 °
Max. Wind Load (resistance limit)	45 m/s
Lowest Resonance Frequency	3 Hz

Tracking Drive

Tracking Geometry	Az.-El.
Azimuth Range	±180 ° (adjustable)
Elevation Range	0 ° to 90 °
Azimuth Gearing	Worm gear
Elevation Gearing	Screw jack
Max azimuth speed	30 °/min
Max elevation speed	15 °/min
Max. Azimuth power consumption	20 W
Max. Elevation power consumption	100 W
Max Power consumption in idle mode	38 W
Max. time to stowage	6 min
Max. backlash	0.04 °
Axes turning angle measurement	Optical encoder
Limit switches	Soft and hard

Tracking Controller

Pointing Accuracy (Average)	0.05 °
Pointing Accuracy (Std. Dev.)	0.04 °
Min. Positioning Resolution	0.05 °
Position Resolution	0.018 °
Sun Ephemeris Mean Accuracy	0.01 with built-in GPS
Wind Stow Condition	15 m/s
Basic Connectivity	RS232-485, Modbus
Tightness Condition	IP65
Temperature Range	-10 °C to 60 °C

Surface Configuration

Collecting surface with channelled extruded profiles
allow different module sizes and configuration

