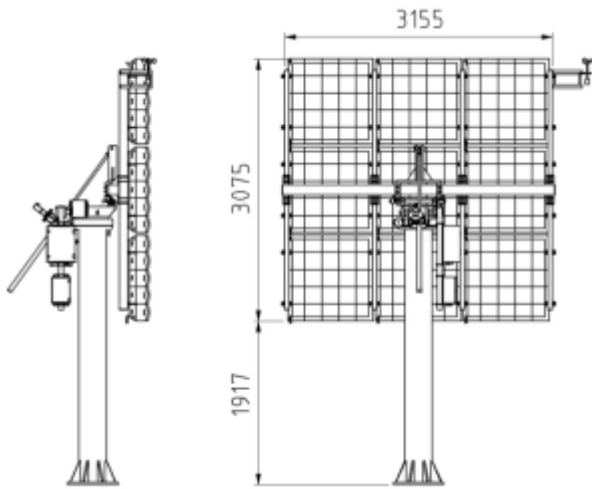


Dimensions



Description

The BSQ-D280/10 CPV System is specifically designed for the residential solar market where, if populated by BSQ HCPV modules, it can provide 2-3 times higher energy density than a conventional silicon PV roof mounted installation.

You do not have to care about the orientation or shading of your roof; this is a ground based system with the least installation footprint, that can be gracefully integrated into your garden, parking space, etc.

The BSQ-D280/10 CPV Sun Tracker is engineered for the BSQ's D280 CPV module to achieve optical quality stiffness, sub-degree pointing accuracy, and extended tracking range to deliver the highest energy production.

Features

Performance

- > In agreement with local construction codes
- > Auto-calibration for maximum tracking accuracy
- > Designed with high pole mount to avoid ground interferences
- > Wide range of motion for maximum energy harvest

Reliability

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

Specifications

Mechanical

Aperture - Height	3.08 m
Aperture - Width	3.15 m
Aperture - Area	9.70 m ²
Coverage Radius	2.20 m
Maximum Height	5.00 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

Standard Test Conditions according to IEC 62670-1 DNI 1000W/m²/T_a 25°C

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

Array Configuration

No. Panels	9 (2.52 kW@STC)
No. Panels per String	3
No. Parallel Strings	3

