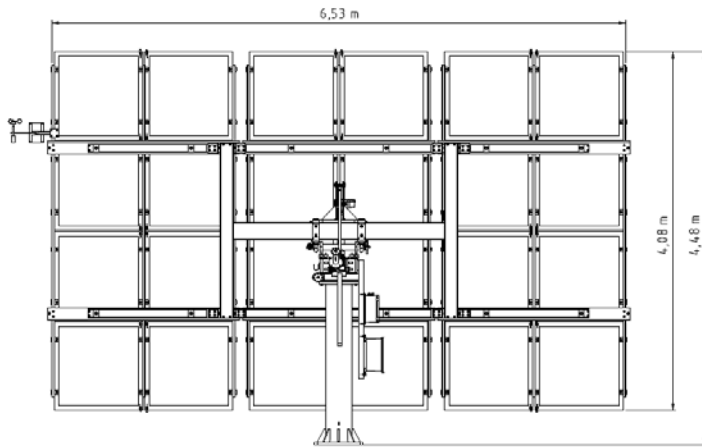


Dimensions



Description

The BSQ-D280/26 CPV Sun Tracker tracking system has been engineered, for BSQ's D280 HCPV module, to achieve optical quality stiffness, sub degree pointing accuracy, and extended tracking range, to deliver the highest energy production at cost effective cost. Using proprietary auto-calibrated open loop tracking control, the tracker achieves 0.1 degree minimum average pointing accuracy. It efficiently manages wind and night stow positions for safety and reliability. Supplied software monitors and controls system performance

Features

Performance

- Numerically optimized aperture surface for least structural weight and cost
- Auto-calibration for maximum tracking accuracy
- Landscape collecting surface profile for least shadowing loss
- Wide range of motion for maximum energy harvest

Reliability

- Hot dip galvanized structure
- Controller design according to electrical safety and EMC standards
- Controller tested in harsh climatic conditions

Specifications

Mechanical		Tracking Controller	
Aperture - Height (m)	4.08	Min. Pointing Accuracy (Average) (deg)	0.1
Aperture - Width (m)	6.52	Min. Pointing Accuracy (Std. Dev.) (deg)	0.04
Aperture - Area (m ²)	26.6	Min. Positioning Resolution (deg)	0.05
Coverage Radius (m)	3.84	Position Resolution (deg)	0.018
Maximum Height (m)	4.48	Sun Ephemeris Mean Accuracy (deg)	0.01 with built-in GPS
Unloaded Weight (kg)	1022	Wind Stow Condition (m/s)	12
Weight with modules (kg)	1598	Basic Connectivity.	RS-232-485, Modbus
		Tightness Condition.	IP65
		Temperature Range (°C)	-10 to 60
Structural Properties		Array Configuration	
Max. Service Wind Speed (m/s)	10	No. Panels	24
Max. Flexure @ Max. Service Loads (deg)	0.3	No. Panels per String	8
Max. Wind Load (resistance limit) (m/s)	28	No. Parallel Strings	3
Lowest Resonance Frequency (Hz)	3		
Tracking Drive			
Tracking Geometry	Az.-El.		
Azimuth Range (deg)	±160 (adjustable)		
Elevation Range (deg)	0 to 90		
Azimuth Gearing	Worm gear		
Elevation Gearing	Screw jack		
Tracking Mode Max. Speed (°/min)	15		
Manual Mode Speed (°/min)	18		
Max. Azimuth power consumption (W)	136		
Max. Elevation power consumption (W)	130		
Power consumption in idle mode (W)	47		
Max. daily energy consumption (Wh)	1250		
Max. time to stowage (min)	8		
Max. backlash (deg)	0.04		
Axes turning angle measurement	Optical encoder		
Limit switches	Soft and hard		

