MULTI-TRACKER CANOPY

Independent Tracking Arrays

An agrivoltaic rotating canopy allows large agricultural machinery like combines, sprayers and spreaders to move under the panels. It is suitable for sheep and cattle farms, with an average size of 5 hectares to 10 hectares. The solution consists of a rotating structure that can host bifacial solar modules at a height of more than 16 feet.

KEY PRODUCT BENEFITS

Adaptability

- Adjustable system height to accommodate the field operation requirement
- Compatible with all foundation types without the need of an adaptor: Round Post, I-Beam, Ground screw, and Helical

Pre-Assembly/ Assembly Efficiencies

- Light-weight components require no heavy or specialized equipment to handle
- Integrated wire management
- Integrated bonding and grounding

Livestock and Crops Accommodating Design

- Panel rotation optimized between energy and land production through AI Control system
- Automatically controlled based on crop's needs
- Integrated crop models and weather forecast
- Friendly design with no exposed components to harm livestock
- Elevated design to accommodate bigger animals
- Optional accessories for feeding and watering the animals
- Customizable solution based on the field operational requirements and topography

Quality and Lifetime Value

- Automotive industry standard in manufacturing
- All components are coated for corrosion protection

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GENERAL AND MECHANICAL

ROW LENGTH	Up to 90 individual 72-cell modules driven per controller/motor
TABLE SIZE	32-48 modules per independent structure
POSTS PER TABLE AND MODULE	Up to 4 posts per 40 modules
HEIGHT ADJUSTABILITY	Variable (9ft – 30ft) of leading edge
MATERIALS	Galvanized Steel (Standard G90, other thickness available)
TERRAIN FOLLOWING	Accommodates slopes up to 15%
WIND SPEED DESIGN	Wind speed fully configurable, up to 150 mph (240 km/h)
FOUNDATIONS	I-Beam, Round Post, Ground Screw and Helical
GROUND COVERAGE RATIO	Fully configurable as per request
ROTATIONAL RANGE	90 degrees – 90 degrees
SENSORS	Pyranometer, wind and snow sensors
MODULE ATTACHMENT	Direct Bolting Top Clamp
WIRE MANAGEMENT	Integrated wire management
BONDING AND GROUNDING	Integrated bonding and grounding
WARRANTY	20 years warranty

SERVICES

INSTALLATION	Available upon request
GEOTECHNICAL AND FOUNDATION DESIGN	Geotechnical investigation, pull testing, production testing, QC testing
DESIGN AND ENGINEERING	Complimentary site layouts Sealed and stamped structural engineering drawings (Canada, USA, and Caribbean)
CONSTRUCTION SUPPORT	Complimentary on-site installation training and commissioning

ELECTRICAL AND CONTROLS

SYSTEM VOLTAGE	Compatible with 1,000V and 1,500V module circuits
CONTROLLER	Option 1: Self-powered with battery backup Option 2: AC-powered 115V-240V
OPERATING TEMPERATURE	AC power: -40°C to +70°C (-40°F to +158°F) Self power: -30°C to +50°C (-22°F to +122°F)
TRACKING METHOD	Time and location-based algorithm with Backtracking, overcast and severe weather protection
REMOTE COMMUNICATION	Secure monitoring and control tracker array in real-time via an encrypted cloud portal and compatible with SCADA solutions available on-site
COMMUNICATION	Zigbee wireless communications to all tracker rows and weather stations through network control unit

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