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Aurora
PV Cleaning Robot - 1P

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Suitable for tracker

Intelligent Algorithm for Auto-Correction

- Height Tolerance: 50 mm
- Longitudinal Deviation: 50 mm

Self-powered with Self-cleaning Capability

- Powered by an independent mini PV module and equipped with an automatic cleaning function, enabling flexible installation and reducing long-term O&M efforts.

Autonomous Cleaning with Intelligent Risk Avoidance

- Real-time integration with the plant, tracker, and weather monitoring systems enables autonomous cleaning planning and proactive risk avoidance through intelligent decision-making.

Multi-layer Protection

- The robot features IP65 dustproof and waterproof protection and an active wind protection mechanism, ensuring stable long-term operation in harsh outdoor environments.

Modular O&M

- A modular architecture allows flexible maintenance and upgrades, adapting to diverse PV plant environments and operational requirements.

OTA Remote Differential Upgrades

- Reduces upgrade time and storage pressure, completing a full-site upgrade in just 15 minutes.

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TECHNICAL PARAMETERS

GENERAL FEATURES

Dimensions (L×W×H mm)	L*450*350 (L≤3000)
Weight (kg)	45-50
Number of Motors (units)	2
Rated Power (W)	≤240
Operating Current (A)	2-4
Maximum Operating Distance (m)	4000 (battery-configurable)
Operating Speed (m/min)	18-22
System Voltage (V)	<36
Power Supply	Self-charging module
Battery Type/Capacity	LFP 20Ah (configurable)
Operating Temperature	-20°C~60°C
Low-Temperature Operation	Optional battery heating module (Low temperature batteries are optional)
Applicable Module Tilt Angle	0~60°
Working Angle	0~45°
Maximum Climbing Gradient	Max 25°
Tracker Misalignment Angle	10° (1m gap)
Module Height Difference (mm)	50
Module Misalignment (mm)	50
Communication	LoRa/4G/Bluetooth
Communication Protocol	Custom protocol
Operating Wind Speed (m/s)	15m/s
Maximum Wind Resistance (m/s)	55m/s
High Wind Protection	YES
Protection Rating	IP65
Corrosion Resistance	C4

www.trinasolar.com www.trinarobot.com

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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