

# NXS-7-LM

## INTELLIGENT OPERATION AND MAINTENANCE ROBOT



### PRODUCT INTRODUCTION

The NXS-7-LM intelligent operation and maintenance robot is an intelligent cleaning device specially designed for centralized solar photovoltaic power stations. It integrates the functions of photovoltaic panel cleaning and inspection, aiming to enhance the power generation efficiency of photovoltaic power stations, reduce operation and maintenance costs, and ensure the stable operation of power stations.

### PRODUCT FUNCTION

#### Multiple working modes

The entire vehicle supports both manual remote control and unmanned driving working modes

#### Efficient cleaning

Double-row roller brushes clean in opposite directions, directly attracting dust in confined Spaces to achieve efficient one-time cleaning

#### Continuous operation

The cleaning posture can be adjusted independently to support continuous cleaning of photovoltaic panels with different angles and heights

#### Intelligent perception

Real-time perception of the robot's pressure, Angle, centering distance and other information on the photovoltaic panels

#### Support visualization

Integrated control of data and graphics, large screen supervision in the background, and visualization of job paths

#### Intelligent inspection

Identification of abnormal conditions on photovoltaic panel surfaces and intelligent generation of inspection reports

TECHNICAL PARAMETER

|                           |                          |
|---------------------------|--------------------------|
| Working driving speed     | 60m/min                  |
| Single machine weight     | 2.3t                     |
| Obstacle-crossing ability | 10cm                     |
| Climbing ability          | 10°                      |
| Operation endurance       | 4h(Only for battery)     |
| Clean area                | ≥12000 m <sup>2</sup> /h |

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| Comprehensive cleaning efficiency | ≥95%                                 |
| Operating temperature             | -20℃~+60℃                            |
| Operation mode                    | Remote control mode, driverless mode |
| Fault detection size              | 10mm×10mm (visible light camera)     |
|                                   | 30mm×30mm (Infrared camera)"         |

ADAPTIVE ADJUSTMENT RANGE

- Ground height of lower edge of PV panel: 0.3-1.4m; Tilt Angle: 25°-41°
- Ground height of lower edge of PV panel: 0.1-0.55m; Tilt Angle: 33°-40°.

ACCESSORIES

- Generator(Optional)  
5.5kW diesel generator, rated voltage 48V; Single-cylinder, four-stroke, forced air cooling;  
Line control/key start/stop; 40L split-type large-capacity fuel tank;  
External dimensions: 700mm\*500mm\*580mm;  
Weight: 100kg.
- Battery  
Lithium iron phosphate battery, nominal voltage 51.2V, capacity 300Ah;  
Operating temperature :-30℃ to +70℃  
Dimensions: 810mm\*400mm\*391.2mm;  
Weight: 120kg.

CUSTOMIZED

Based on factors such as the Angle of the laid photovoltaic panels and the terrain features, intelligent operation and maintenance robots with corresponding technical conditions can be customized to meet users' multi-scenario usage needs.

