efika

FlexClean Series Robot
Product Datasheet

Introduction:

EFIKA delivers advanced robotic cleaning solutions for solar installations of all sizes—small, medium, and large-scale. Our systems are engineered to adapt to diverse panel configurations and operate autonomously using solar power, rechargeable batteries, or AC/DC sources. By maintaining optimal panel cleanliness even in harsh weather conditions, our robots can enhance energy output by up to 40%. Built entirely in-house, EFIKA's technology ensures consistent performance and reliability across all site types.

FlexClean Series

The FlexClean Series robots have been designed specifically to accommodate unlimited parallel panel configurations for ground or rooftop flush installations.

Product Description:

Wireless remote controlled mobile robot, with free 360-degree movement over the solar array. The robot requires the presence of one (1) operator to drive the robot.

The robot features dry/wet cleaning high speed rotary brush, certified for anti-scratch, considering convenient brush width size to cover the intended area with minimum number of strokes.

The robot can source power either from direct AC 220V power cable, or from built-in batteries that are specially sized according to the total operating time/cycle.



FlexClean Series 2.5

Technical Details:

Brush

The robot features a single rotating brush:

Brush Length:	1.5 – 2.5 m (optional upon selection)
Brush Diameter:	0.16 m
Brush Rotation Speed:	190 RPM
Brush Motor:	AC 500W
Brush Material:	Certified polypropylene plastic bristles
Brush Design:	Helical to allow exits for dust

Remote Control

Control Features:	Motion speed, motion direction 360*, brush on/off
Body:	Hard light weight plastic, with hanging strap
Connectivity:	RF
Range:	200m
Battery:	Basic AA battery pack, replaceable
Protection Rating:	IP65

Power

AC cabled models:

Power Source:	220V AC
Power Cable:	2x2 mm^2 for length < 50m, 2x4 mm^2 for length > 50m
Robot Rated Power:	1200-1400 Watt

Battery powered models:

Power Source:	LiFePO4 Battery
Battery Description:	12V 20-60Ah (depending on required operating hrs./charge)
Robot Rated Power:	1200-1400 Watt

Water

Water inlet:	Universal 360 rotating inlet
Pressure:	3-6 bar
Average consumption:	10L/min.

General Features

Weight	55-60 kg
Robot Speed	6 – 12 m/min
Operating temperature	10°C～ 65°C

