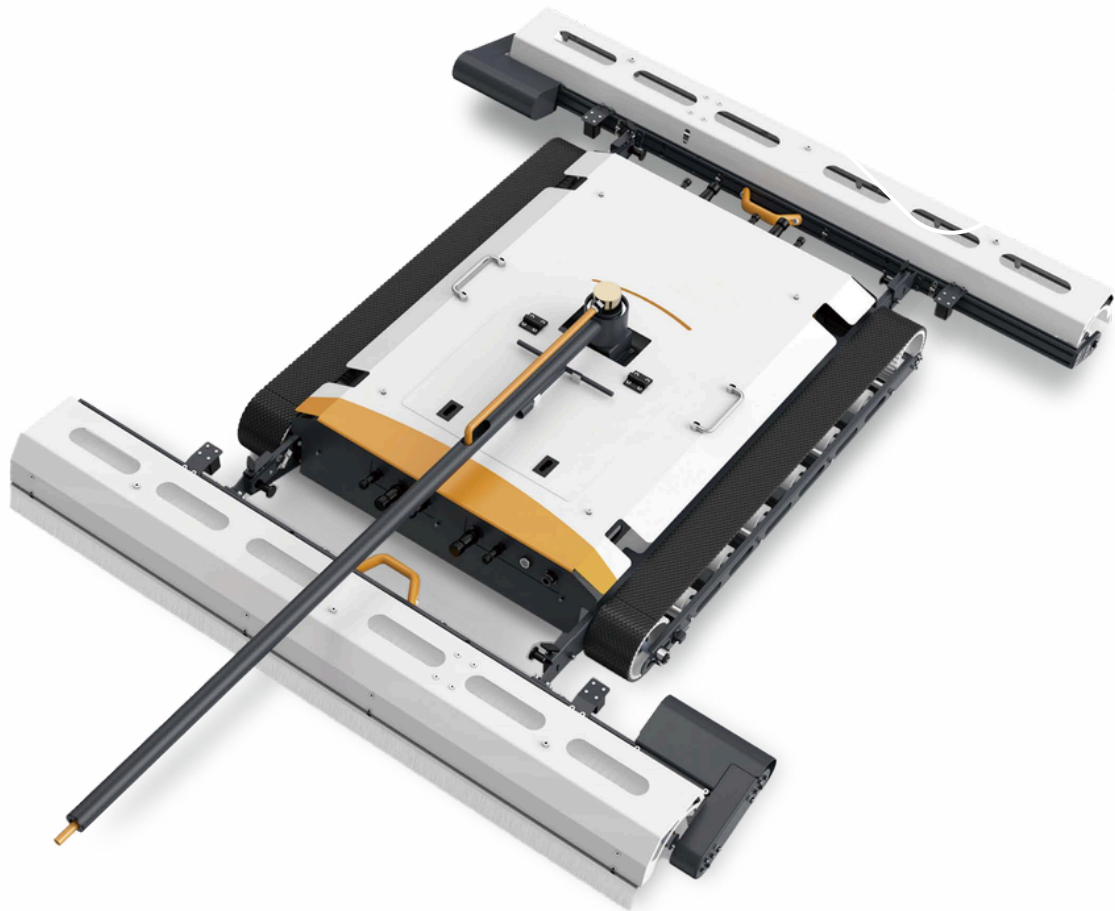



KOLOJIC
vision to venture

PV SOLAR CLEANING ROBOT

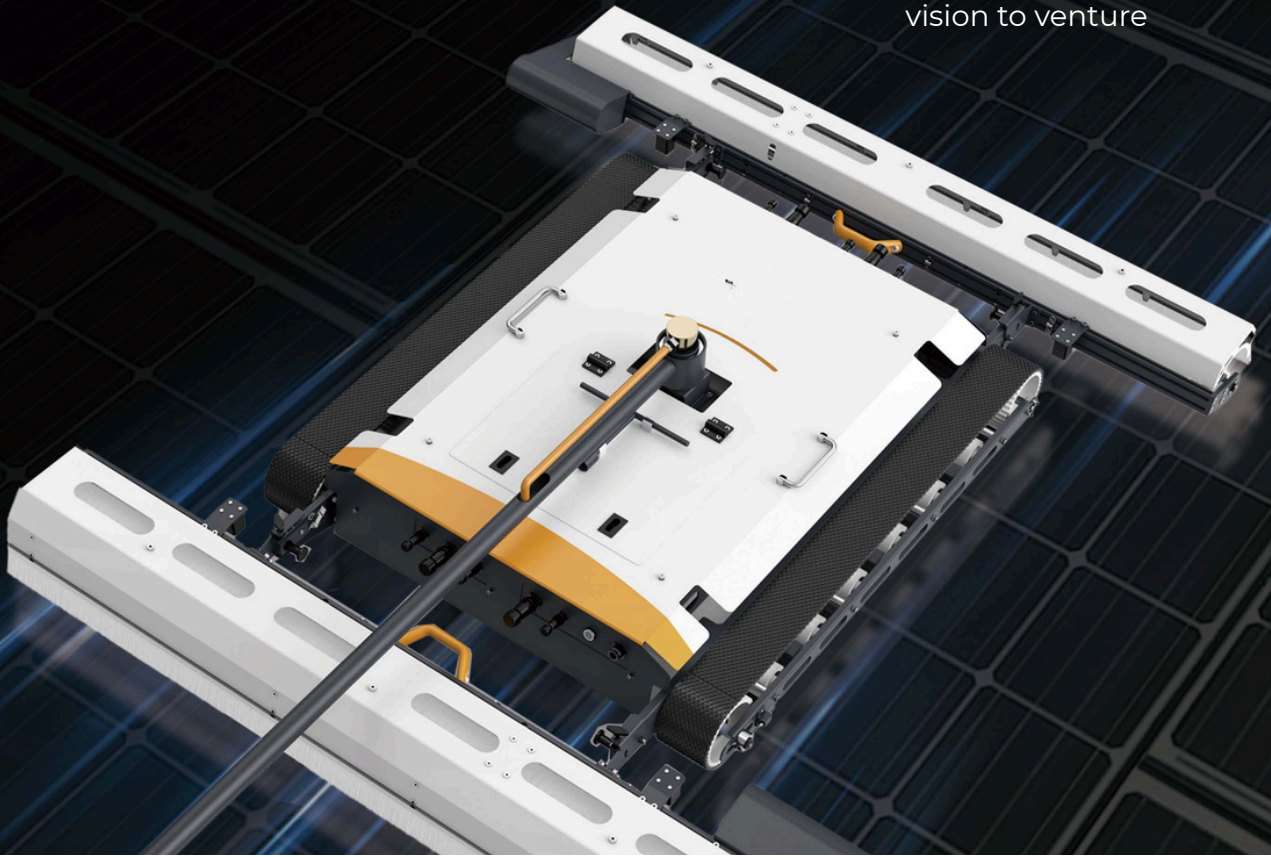
The Next Generation of Solar Care



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 United Kingdom

 www.kolojic.com



KC2

The KC2 remote-controlled crawler PV cleaning robot is built for hard-to-reach power plant areas. With a 1.8-meter cleaning width and integrated auto-tracking and path planning, it makes cleaning effortless and efficient.



Auto Speed
Control



Anti-Fall

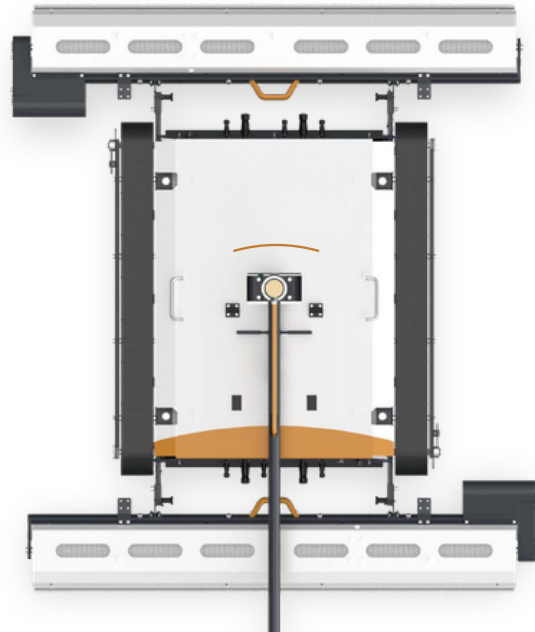


Full Auto



Durable

KC2 KEY FEATURES



1

Automatic Correction

The system intelligently corrects course deviations — caused by slippage or external forces — within seconds, ensuring stable cleaning paths.

2

Auto-Path for Easy Operation (Optional)

Smart path planning enables 18,000 m² daily cleaning with >99% coverage, cutting labor and O&M costs to guard your revenue.

3

Higher Speed Double Efficiency

Speed is adjustable up to 40 m/min, with presets of 30 or 20 m/min for heavy soiling like bird droppings. Light dust allows faster cleaning for efficiency

4

Edge Detection & Auto-Return Power-Off Lock / Auto-Brake

4 high-precision sensors detect panel edges for automatic stop and return. Travel motors lock within 0.5s during power loss to prevent rolling.
Note: Safety ropes are mandatory on 15-20° slopes.

SPECS

Robot	KC2 (Dual-Brush Version)	KC2 Plus (Dual-Brush Version)
Cleaning Width	1400mm	1800mm
Dimensions	1720*1550*300mm	1720*1950*300mm
Battery Runtime	SR 3.5h / LR 7h	SR 3h / LR 6h
Unit Weight	61.1KG	63.5KG
Brush Weight	14.5KG	16.5KG
Battery Weight	8KG	
Charging Time	8h (Per Lithium Battery)	
Travel Speed	20/30/40(Max) m/min (±2m)	
Suitable PV Tilt Angle	L 20° / M15° / H 10°	
Horizontal Reach	60cm	

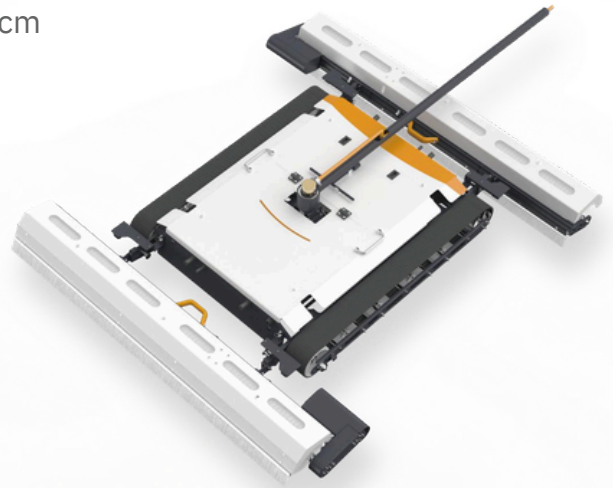
Remote Control

Battery life: 30h

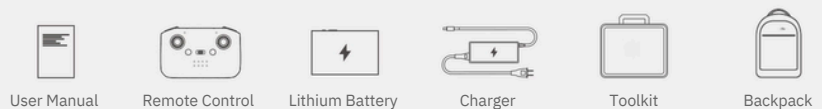
Charging time: 6-8h

Compatible charging voltage range: 5V/1A

Remote Control Charging Port Type: TP-C

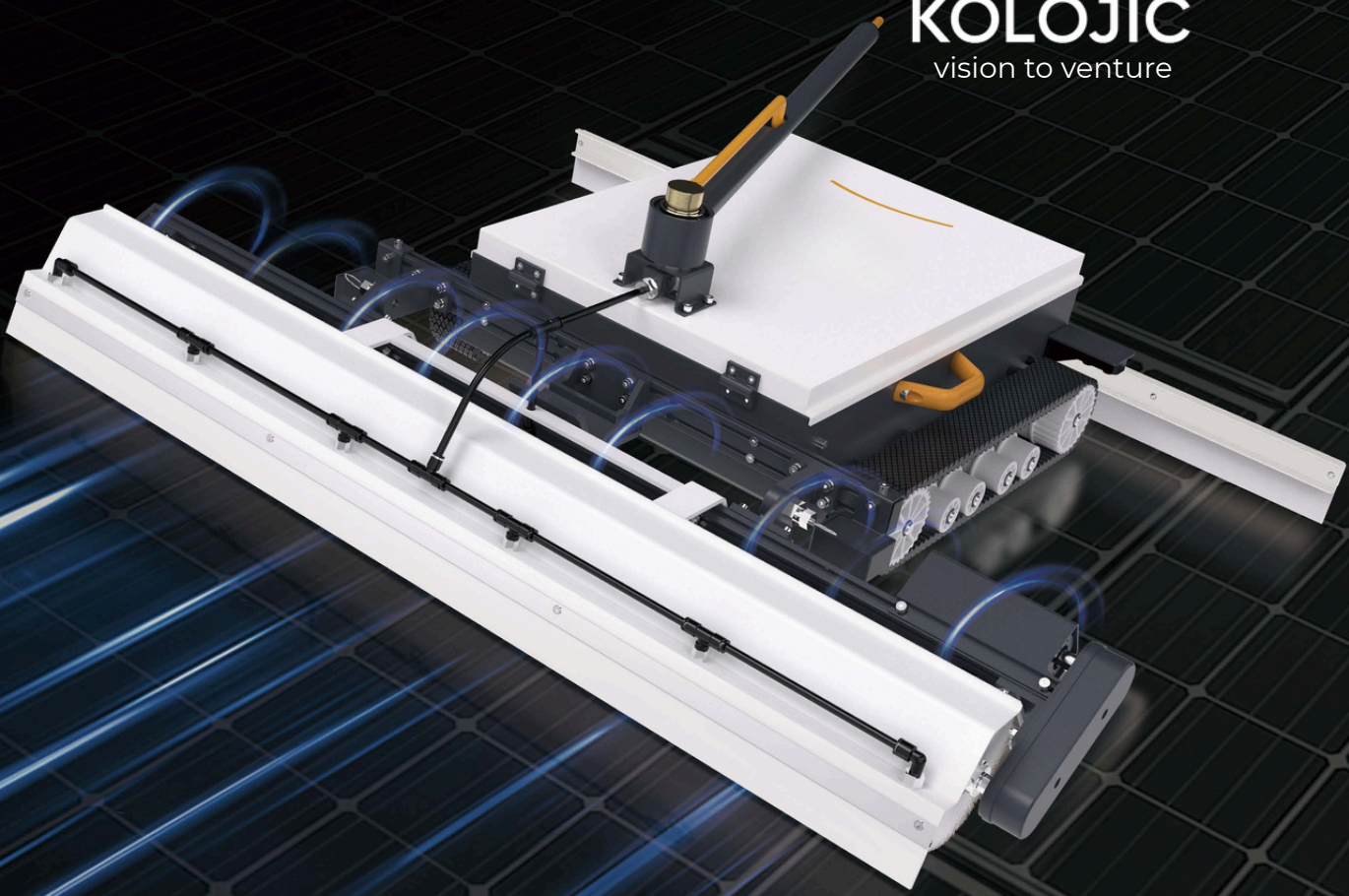


Configuration



KC2 / KC2Plus

	User Manual	Remote Control	Lithium Battery	Charger	Toolkit	Backpack
Standard	x1	x1	x1	x1	x1	x1
Single Roller + scraping	x1	x1	x2	x2	x1	x2
Standard	x1	x1	x1	x1	x1	x1
Dual Roller + scraping	x1	x1	x2	x2	x1	x2



KC3

The KC3 tracked, remote-control PV cleaning robot is tailored for the challenging environments of solar power plants. It addresses hard-to-reach areas where manual or pole-based cleaning is impossible. This robot enables efficient remote cleaning, significantly reducing labor costs compared to traditional methods.



Anti-Drop



Efficient



Lightweight



Crossing
Ability

KC3 KEY FEATURES



1

Automatic Correction

The system intelligently corrects course deviations — caused by slippage or external forces — within seconds, ensuring stable cleaning paths.

Note: For model KC3Pro and above.

2

Auto-Path for Easy Operation (Optional)

Smart path planning enables 12,000 m² daily cleaning with >99% coverage, cutting labor and O&M costs to guard your revenue.

Note: For model KC3Pro and above.

3

Higher Speed Double Efficiency

Speed is adjustable up to 40 m/min, with presets of 30 or 20 m/min for heavy soiling like bird droppings. Light dust allows faster cleaning for efficiency.

Note: For model KC3Pro and above.

4

Edge Detection & Auto-Return Power-Off Lock / Auto-Brake

4 high-precision sensors detect panel edges for automatic stop and return. Travel motors lock within 0.5s during power loss to prevent rolling. Note: Safety ropes are mandatory on 15-20° slopes.

Note: For model KC3Pro and above.

SPECS

Robot	KC3	KC3 Pro
Cleaning Width	1200mm	1400mm
Travel Speed	20m/min (±2m)	20/30/40(Max) m/min (±2m)
Suitable PV Tilt Angle	≤20°	L 20° / M15° / H 10°
Run Time Charging	SR 4-5h / LR 8-10h	SR 4-5h / LR 8-10h
Time	6-7h	8h
Dimensions	1300*1000*350mm	1550*1150*350mm
Unit Weight Brush	23KG	30KG
Weight Battery	7.5KG	11KG
Weight Horizontal	4*2KG	8KG
Reach	15cm	25cm

Remote Control

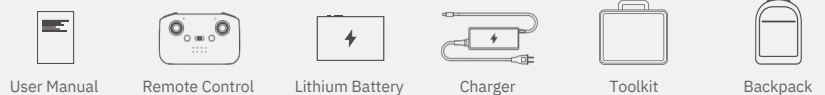
Battery life : 30h Charging time : 6-8h

Compatible charging voltage range: 5V/1A

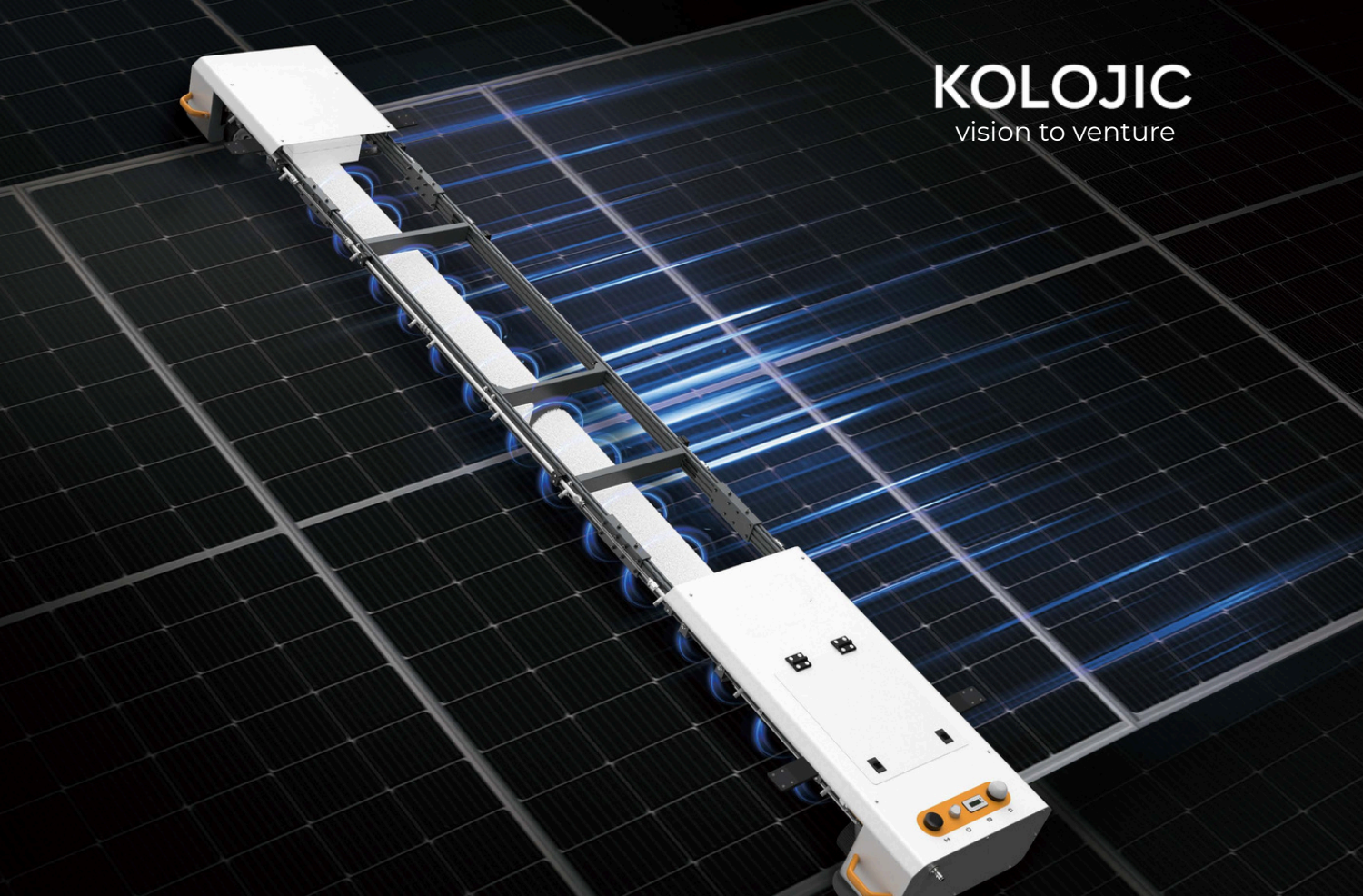
Remote Control Charging Port Type: TP-C



Configuration



		User Manual	Remote Control	Lithium Battery	Charger	Toolkit	Backpack
KC3	Standard	x1	x1	x2	x2	x1	x2
	Long-Range	x1	x1	x4	x4	x1	x4
KC3Pro	Standard	x1	x1	x1	x1	x1	x1
	Long-Range	x1	x1	x2	x2	x1	x2



KM2

The KM2 remote-controlled suspended PV cleaner glides over panels and adapts to diverse terrains up to 50°. It cleans 76% faster than traditional methods, setting a new efficiency benchmark.



General



Efficient

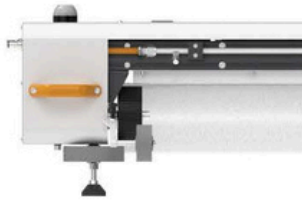


High pass
rate



Cross the
bridge

KM2 KEY FEATURES



1

One KM2 fits all solar panel sizes

The innovative patent-pending KM2 features a modular three-section design (upper, middle, lower) that adapts to various solar panel sizes, slashing procurement costs.

Replacement is quick and easy, takes just 20 minutes.

3

Wide Gaps. Support Beams. Faster Cleaning.

Equipped with two telescopic bridges to span gaps up to 60cm, improving cleaning efficiency without manual relocation. Custom sizes available.

2

Any Terrain. Unmatched Efficiency

The product operates by being suspended on PV modules and is suitable for power stations with slopes up to 50°. It is compatible with various plant types — including mountainous, utility-scale, fishery-PV, and agro-PV — delivering large-scale, high-angle, and highly effective cleaning.

4

Upgraded rapid board feeder, achieves board loading in just 20s

Top triple-pulley design maximizes effort reduction. With just two operators, it enables equipment positioning within 20s, significantly boosting efficiency and reducing labor costs.

SPECS

Model	PV size(MM)	Brush size(MM)	Net weight(KG) <small>Battery Not Included</small>
KM201	1640-1650	1640	40
KM202	1990-2000	2000	45
KM203	2268-2278	2278	50
KM204	2370-2384	2384	55
KM205	3310-3320	1640*2	60
KM206	4010-4020	2000*2	65
KM207	4566-4576	2278*2	70
KM208	4768-4788	2384*2	75
Customized	Custom sizes available	Custom sizes available	-

KX4 Robot

Speed: $\leq 15\text{m/min}$

Step Obstacle: $\leq 40\text{mm}$

Tilt: $\leq 50^\circ$

Gap Span: $\leq 600\text{mm}$ (with accessory)

Runtime: 6-8h

Height Misalignment: $\leq 30\text{mm}$

Charging: 7-8h

Operating Temp: -20°C to 60°C

Battery: 6.5kg/unit.

Cleaning Modes: Dry / Wet



Configuration



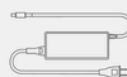
Telescopic arm
60cm bridge kit
x2



Remote Control
x1



Lithium Battery
x2



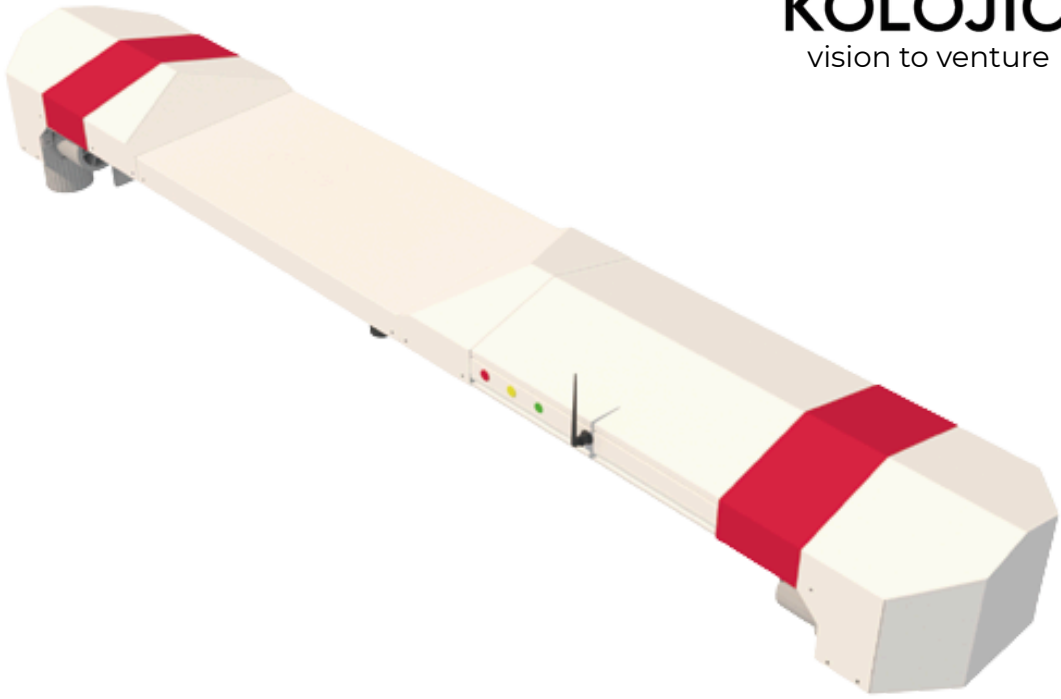
Charger
x2



Tool Kit
x1



Backpack
x2



KM3

Advanced dry-cleaning technology designed to maximize energy yield in the harshest environments.



General



Efficient

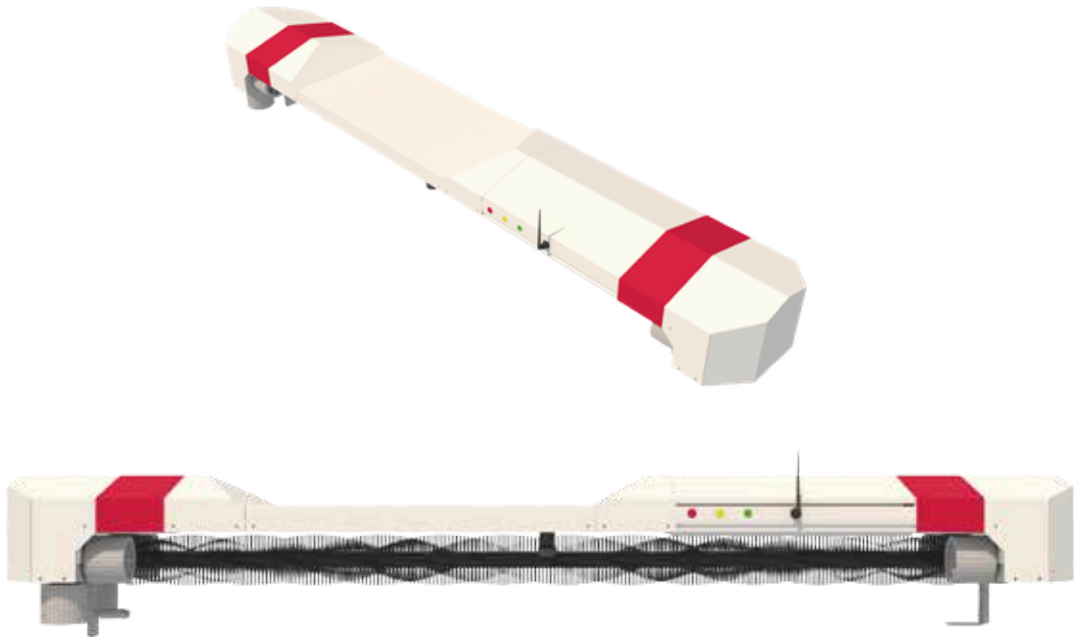


Durable



Remote
Control

KM3 KEY FEATURES



1

Power & Endurance

Dual-mode charging using integrated solar panels and wireless induction for 24/7 readiness

2

Desert Resilience

Heat-tested for 60°C environments with IP65 sealing and high-velocity wind resistance up to 55m/s.

3

AI Navigation

Intelligent obstacle crossing (up to 40mm) and 4-wheel drive for climbing angles up to 25°

4

Smart Control

Full-station LoRaWAN coverage with real-time monitoring via Web, Bluetooth, or 4G LTE

5

Precision Engineering

Lightweight, aerodynamic chassis (20% lighter than standard models) to reduce wind resistance and protect your panels

Adaptibility

End face obstacle crossing 50MM (customizable)	50MM (customizable)
Plane obstacle crossing 50MM (customizable)	50MM (customizable)
Climbing ability 25°	25°
Module inclination angle 0-45°	0-45°

Communication Monitoring

Network Standard	RS485, LoRa, LTE, Bluetooth
Data Protocol	ModBus
Monitoring and management	Web, Bluetooth, 4G
Control method	Automatic, local, remote

General Parameters

Power supply mode	Self-powered
Charging mode	Self-back PV panel charging, wireless
Operating temperature	-20°C~60°C
Standby ambient temperature	-25°C~65°C
Operating humidity	0-95% non-condensing
Safe operating wind speed	15m/s (Wind force 7)
Maximum wind speed tolerance at parking space	55m/s (15-force wind)
Cleaning efficiency	99.5%
Standard cleaning frequency	1 time/day
Protection level	IP65
Product lifespan	25 years



KR2

The KR2 Smart O&M Robot is an intelligent cleaning device designed for centralized solar PV plants. It combines panel cleaning and inspection to enhance power generation, reduce operating costs, and ensure stable plant performance.



Smart
Inspection



High
Efficiency

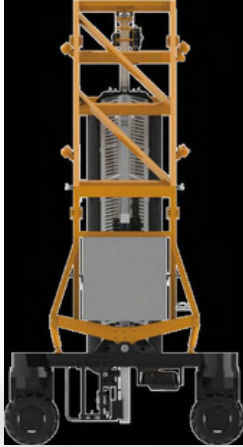


Smart
Connectivity



obstacle
crossing

KR2 KEY FEATURES



1

Dual Brushes + Suction

Enclosed, dust-free cleaning with counter-rotating dual brushes for one-pass efficiency.

2

Smart Inspection

Integrated AI inspection with dual cameras for automated, real-time fault detection and report generation.

3

Gradeability & Obstacle Crossing

4-wheel electric drive enables slope and obstacle climbing during fully-loaded operation.

4

Smart Connectivity

Wireless link control for real-time robot communication and platform integration, ensuring uninterrupted operation and data flow.

SPECS



KR2 Robot

Max Speed: ≥ 60 m/min

Obstacle Climbing: ≥ 10 cm

Gradeability: $\geq 10^\circ$

Operation Modes: Remote Control, Autonomous

Cleaning Capacity: $\geq 12,000$ m²/h

Cleaning Rate: $\geq 95\%$

Operating Temp: -20°C to 60°C

Max Runtime: ≥ 12 h

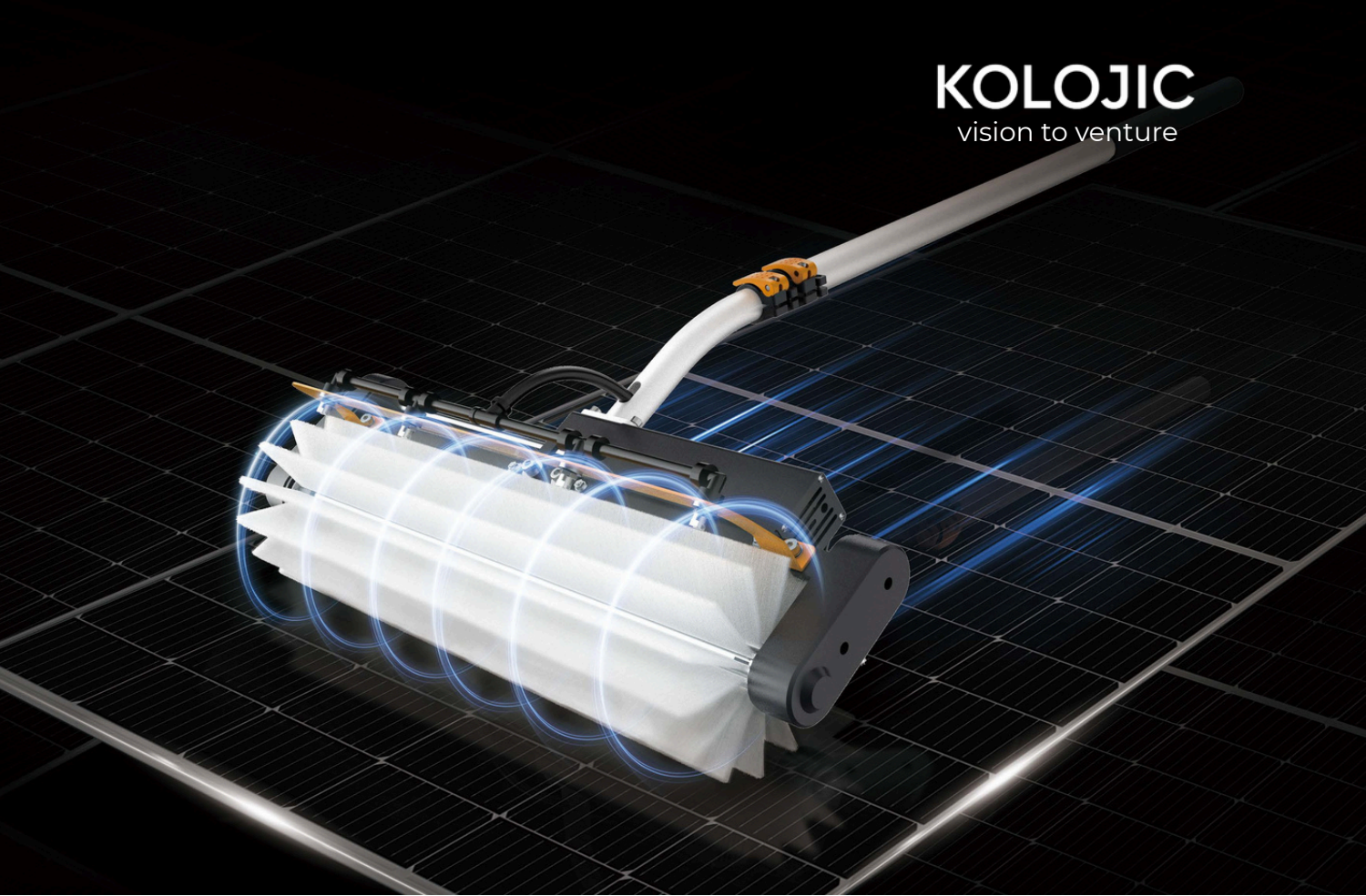
Fault Detection Resolution: 10mm x 10mm (Visible Light Camera)

30mm x 30mm (Infrared Camera)

Adaptive Adjustment Range:

KA5S: For panels with ground clearance of 30–140cm, tilt angle
adapts to 25° – 41°

KA5M: For panels with ground clearance of 10–55cm, tilt angle
adapts to 33° – 40°



KB2

KB2 rolling brush solar panel cleaning machine, patented product, suitable for cleaning various solar panels within. This product has a fast brush head speed, light weight, easy operation, high efficiency, and can be used in one machine for both dry cleaning and washing.



Dry/Wet



Waterproof

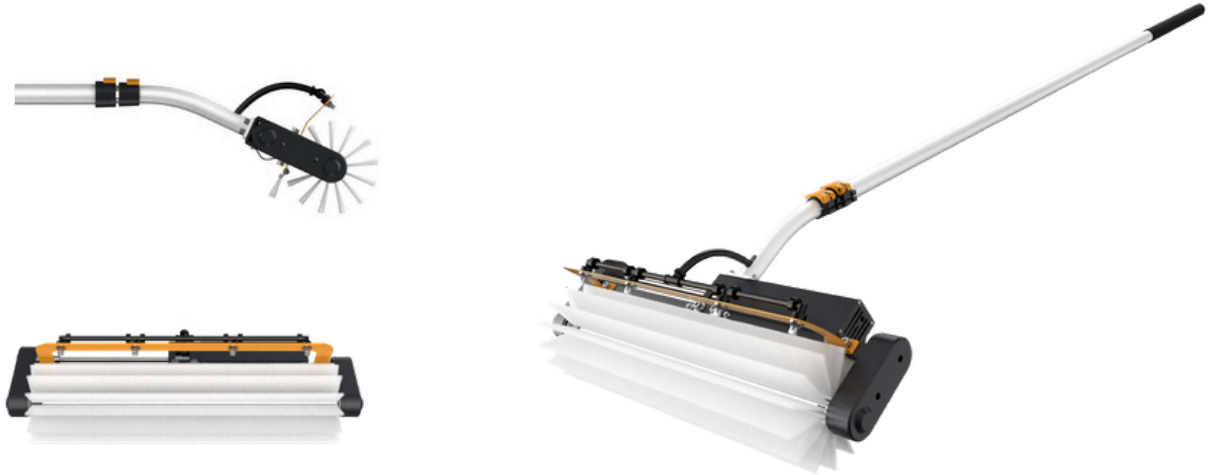


Efficiency



Self-Driving

KB2 KEY FEATURES



1

Effective for both dry and wet cleaning

A dual-mode brush designed for effective dust removal (dry) and squee-gee-like water clearance (wet), preventing splash-back and ensuring a high-efficiency clean in both modes.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

2

Rain-resistant & fully waterproof

Built for outdoor cleaning with reinforced waterproof protection. Its core components — moulded waterproof motor and export-grade waterproof connectors—deliver submersible grade sealing to effectively prevent water ingress, short circuits, and oxidation, ensuring reliable operation even in rain.

4

Self-driven brush for easy operation by all users

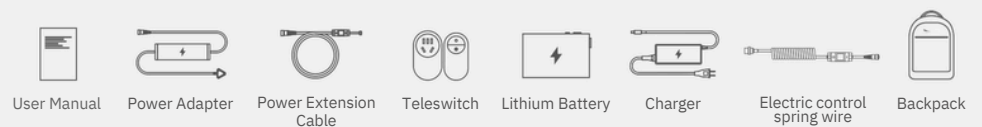
The self-propelled brush head drives the cleaner forward for effortless push-pull operation with the telescopic pole.

SPECS



KB2 Cleaner	Powered	Lithium Battery	Dual-use
Runtime	-	3.5-4.5h	3.5-4.5h
Charging Time	-	6-7h	6-7h
Li-ion Voltage	-	24V	24V
Li-ion Capacity	-	26AH	26AH
Cable Length	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Hose Length	9m	9m	9m
Motor Voltage	24V	24V	24V
Motor Power	150W	150W	150W
Motor Speed	680r/min	680r/min	680r/min
Cleaning Width	60cm	60cm	60cm
Brush Material	Nylon	Nylon	Nylon
TEL Material	Aluminium Alloy	Aluminium Alloy	Aluminium Alloy
TEL Length	3.5 / 5.5 / 7.5m	3.5 / 5.5 / 7.5m	3.5 / 5.5 / 7.5m

Configuration



Powered	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■



KB3

KB3 Dual-Head Solar Cleaner delivers efficient cleaning with dual-motor driven, counter-rotating brushes and built-in water spray. Suitable for large-scale applications including commercial rooftops, agro-PV systems, fishing-solar farms, and mountainous solar plants.



Stable



Efficiency



Waterproof



Durable

KB3 KEY FEATURES



1

Balanced dual-head power enhances stability

Dual-brush counter-rotation delivers balanced power for stable, straight-line operation — more controlled and effortless than single-brush or roller designs.

2

Water-curtain rapid cleaning - thorough and highly efficient

KB3 features 4 fan-spray nozzles (front/rear) that form a powerful water curtain, rapidly flushing contaminants off panels and improving cleaning efficiency by 75%.

* Function exclusive to brushless motor version.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

4

Rain-resistant & fully waterproof

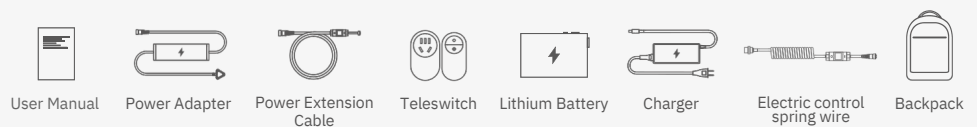
Weatherproof design with sealed motor and connectors for reliable operation in rain. Prevents water damage and corrosion.

SPECS



KB3 Cleaner	Powered	Lithium Battery	Dual-use
Runtime Charging	-	3.5-4.5h	3.5-4.5h
Time Battery	-	6-7h	6-7h
Voltage Battery	-	24V	24V
Capacity Cable	-	26AH	26AH
Length Hose	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Length Motor	9m	9m	9m
Voltage	24V	24V	24V
Power (BDC/BLDC)	240/300W	240/300W	240/300W
Speed (BDC/BLDC)	300/350r/min	300/350r/min	300/350r/min
Cleaning Width	65cm	65cm	65cm
Brush Material	Nylon	Nylon	Nylon
TEL Material	Aluminium Alloy	Aluminium Alloy	Aluminium Alloy
TEL Length	3.5/5.5/7.5m	3.5/5.5/7.5m	3.5/5.5/7.5m

Configuration



Powered	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■



KB4

KB4 Single-Head Solar Cleaner features a built-in water outlet for pressurized brushing and efficient cleaning. Lighter and more manoeuvrable than dual-head models, it's ideal for compact solar installations with limited working space.



Easy to handle



Retractable



Waterproof



Durable

KB4 KEY FEATURES



1

Self-Adapting Angle - Prevents Brush Deviation

During cleaning, the brush self-adapts to the panel's tilt within an adjustable range, ensuring full contact and even pressure distribution for straight, easy-to-control operation.

2

Adjustable length up to 7.5m

The telescopic pole features a quick-lock mechanism for adjustable length, available in 3.5/5.5/7.5m models. Cleans everything from your feet to distant panels, spanning up to 4 rows in vertical arrays.

* Custom lengths available – contact us.

3

Pure copper brushless motor — Built to Last

Outlasts brushed motors with 10,000+h lifespan and dust/water resistance for tough conditions.

4

Rain-resistant & fully waterproof

Weatherproof design with sealed motor and connectors for reliable operation in rain. Prevents water damage and corrosion.

SPECS

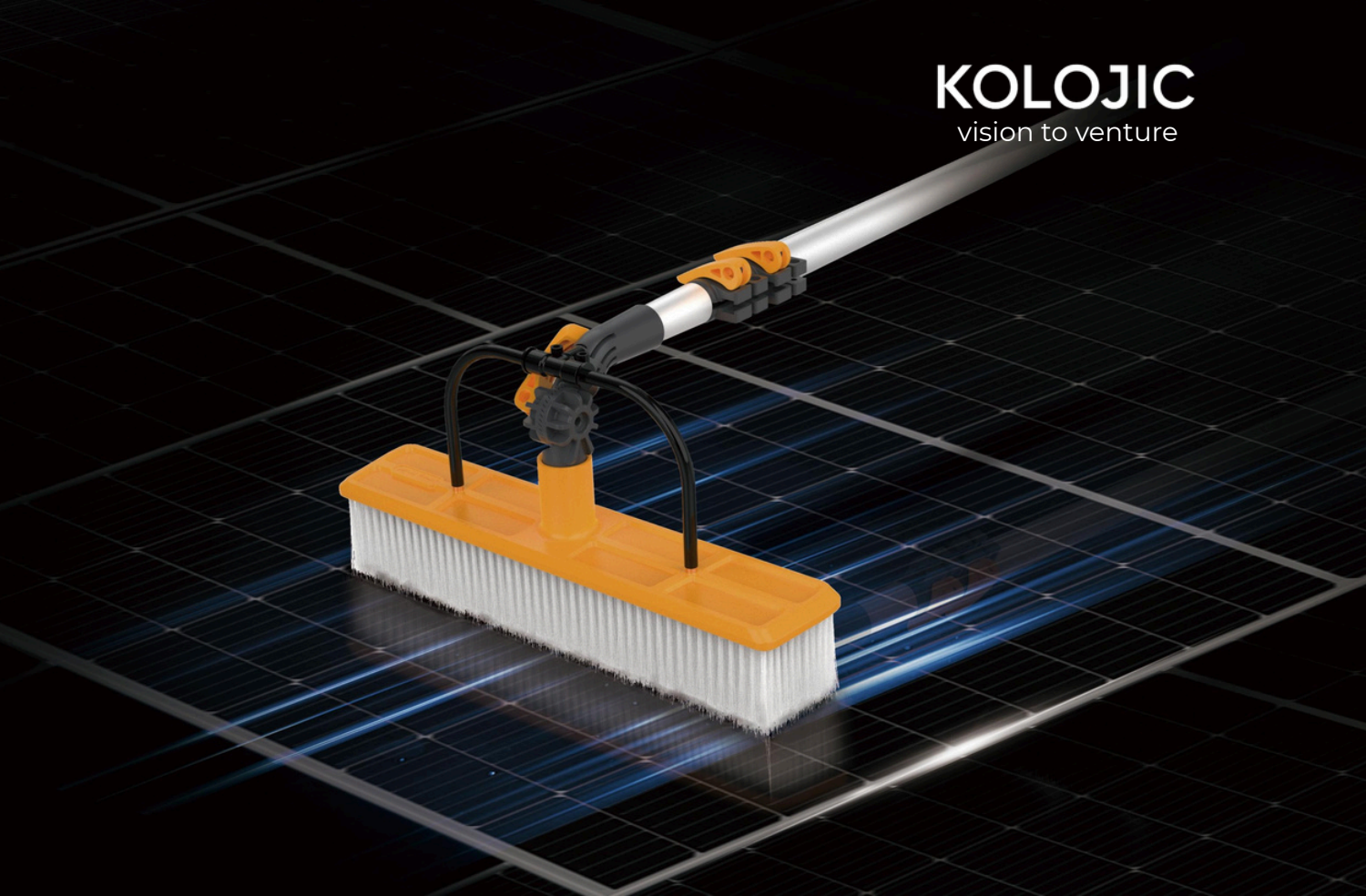


KB4 Cleaner	Powered	Lithium Battery	Dual-use
Runtime Charging	-	6-7h	6-7h
Time Battery	-	6-7h	6-7h
Voltage Battery	-	24V	24V
Capacity Cable	-	26AH	26AH
Length Hose Length	14 / 16 / 18m	5 / 7 / 9m	14 / 16 / 18m
Motor Voltage	9m	9m	9m
Power (BDC/BLDC)	24V	24V	24V
Speed (BDC/BLDC)	120/150W	120/150W	120/150W
Cleaning Width	300/350r/min	300/350r/min	300/350r/min
TEL Material	30cm	30cm	30cm
TEL Length	Aluminium Alloy	Aluminium Alloy	Aluminium Alloy
Water Pump	3.5/5.5/7.5m	3.5/5.5/7.5m	3.5/5.5/7.5m
	24V/100W	24V/100W	24V/100W

Configuration



Powered	■	■	■	■	■	■	-	-	-	-
Lithium Battery	■	-	-	-	-	-	■	■	■	■
Dual-use	■	■	■	■	■	■	■	■	■	■



KB5

A handheld manual cleaning brush with 3.6-11.4m telescopic pole and internal water supply for efficient cleaning. Ideal for solar panels, high-rise glass, facades, and floors.



Adjustable



Telescopic

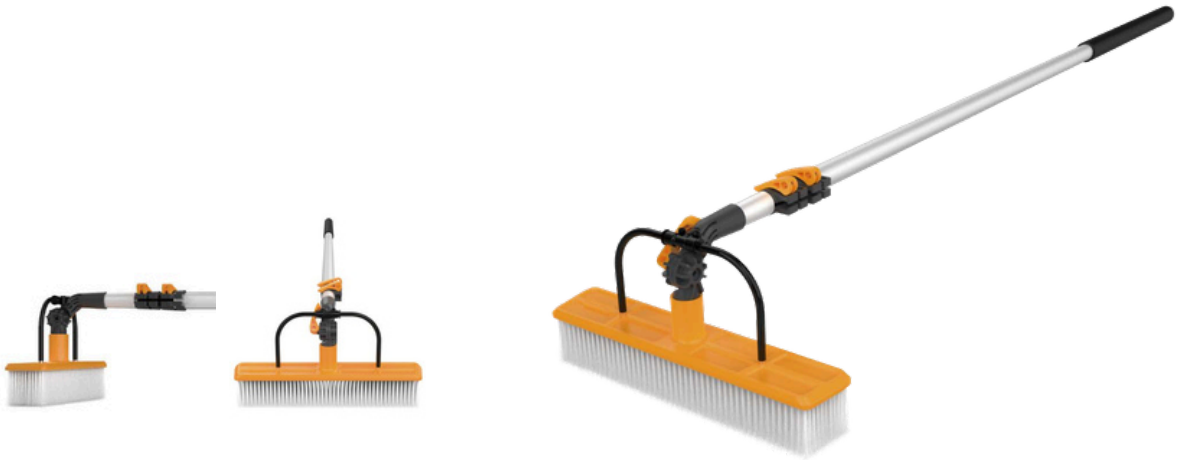


Lightweight



High-Quality

KB5 KEY FEATURES



1

Adjustable Brush Angle

Wide-angle brush adjustment enables thorough and convenient cleaning. Patented hundred-blade rotating design.

2

Adjustable length up to 11.4 m

Telescopic poles use high-strength aluminum alloy and carbon fiber for durability with light weight. Carbon fiber models come in 10m and 11.4m lengths, while aluminum alloy options include 3.6m/4.8m/6m/7.5m/9m.

3

Lightweight Design

Brush head weighs only 520g. Versatile for solar panels, elevated surfaces and more.

4

Quality Materials – Dependable Performance

Pure Copper Dual Nozzles; Pressure-Resistant PU Hose; High Quality Telescopic Pole; Light weight High-Strength Panel; Premium Brush Fibers; Long-Lasting Durability

SPECS

KB5 Cleaner Standard Edition / Dual-Use Edition

TEL Material	Aluminium Alloy
TEL Length (m)	3.6 4.8 6.0 7.5 9.0
Hose Length (m)	23.6 24.8 26 27.5 29
Brush Width (cm)	35/55

TEL Material	Carbon Fiber
TEL Length (m)	10 11.4
Hose Length (m)	30 31.4
Brush Width (cm)	35 / 55



Water Pump

Voltage	DC 24V
Power	120W
Power Adapter	AC100-240V , DC 24V

Configuration



User Manual



Water Flow Control Valve



Tap Connector



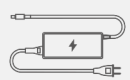
Anti-Freeze Hose



Water Intake Hose



Self-Priming Water Pump



Power Adapter

Standard	■	■	■	-	-	-	-
Dual-Use	■	■	■	■	■	■	■

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