

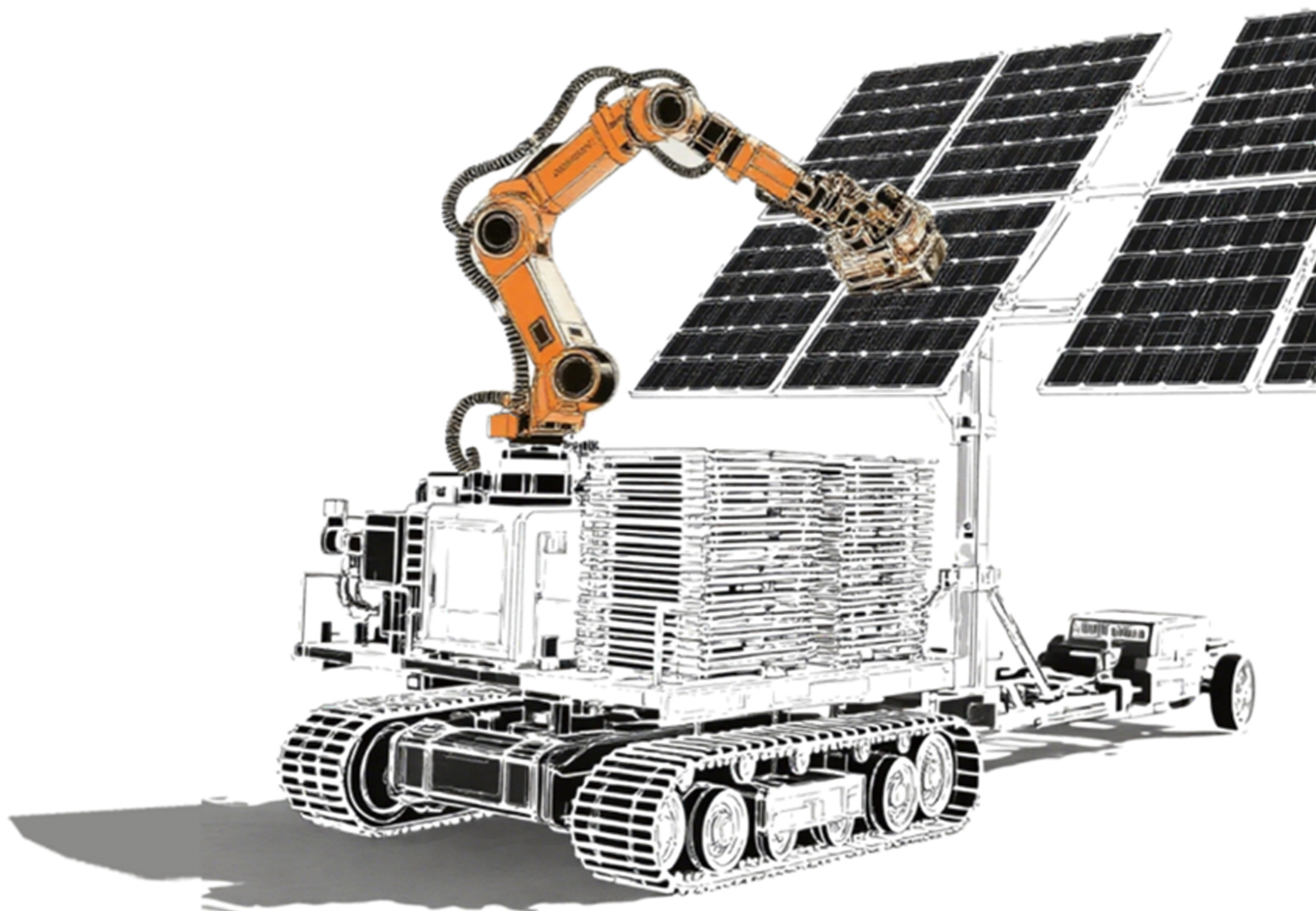


飒沓机器人
BOTUSMOV

新能源电站

建安运维机器人专家

Renewable Power Robotic Systems Specialist Product Manual





公司简介 Company Profile

飒沓机器人科技（苏州）有限公司是苏州大学与江苏省具身智能机器人技术重点实验室成果转化的高新科创企业，专注风光储热电站全生命周期产品与服务。公司拥有从机器人设计、电气控制到智能算法、垂类模型的全栈能力，依托云管端架构与多模态大模型，打造“智慧驱动、空地协同、软硬一体”的运维建安体系，已获国内外专利30余项，产品通过CE认证并远销海外。

公司与苏州大学共建新能源具身智能机器人研究院，并携手华为云生态、南方科技大学等顶尖机构共建研究生培养基地。秉承“让新能源全场景进入机器人时代”的使命，构建数字化、人机共融的并行作业新模式，为能源转型与可持续发展蓄力添彩。

Soochow Satabot Technology Co., Ltd. is a high-tech innovation enterprise resulting from the technology transfer achievements of Soochow University and the Jiangsu Provincial Key Laboratory of Embodied Intelligent Robotics. The company focuses on full lifecycle products and services for wind, solar, thermal, and energy storage power stations. With end-to-end capabilities spanning robot design, electrical control, intelligent algorithms, and vertical-specific models, Sata leverages a cloud-pipe-device architecture and multimodal large models to establish an intelligent, air-ground collaborative, and integrated hardware-software operations and maintenance system. The company has been granted over 30 patents both in China and internationally, and its products have obtained CE certification and are exported overseas.

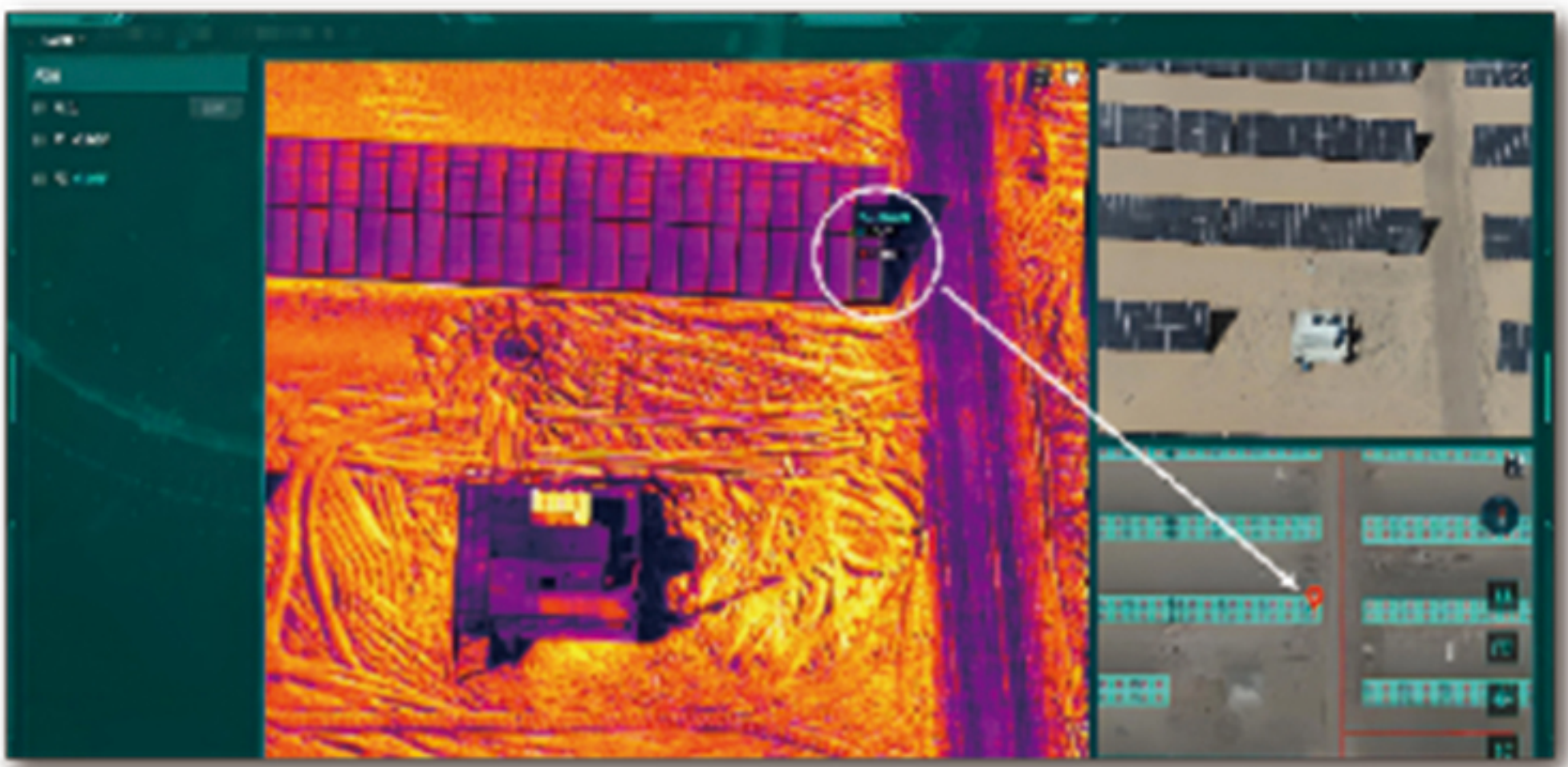
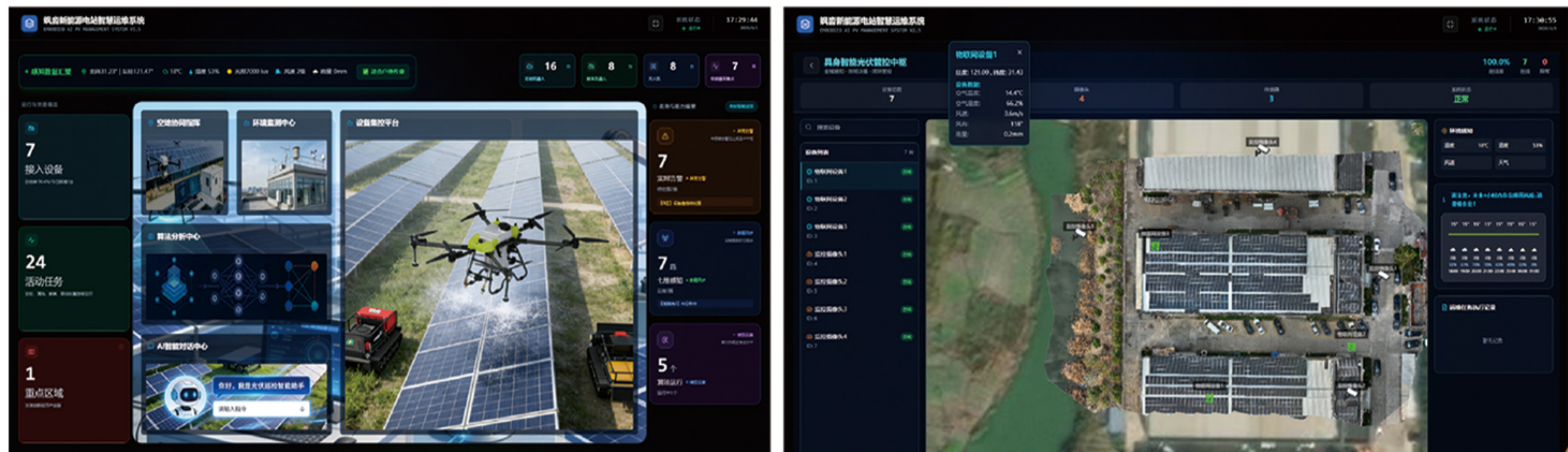
Botusmov has jointly established the New Energy Embodied AI Robot Research Institute with Soochow University. It has also partnered with top-tier institutions such as Huawei Cloud Ecosystem and Southern University of Science and Technology to build a graduate training base. Staying true to its mission — "Bringing new energy scenarios into the era of robotics" — the company is building a new model of digital, human-robot collaborative parallel operations, contributing to the energy transition and sustainable development.



光伏电站智慧运维系统 Intelligent PV Plant O&M

依托云管端架构，以空地一体数据，集成环境感知、视觉识别和语义分析等人工智能算法实现机器人作业自动化。

Powered by cloud-edge architecture and air-ground integrated data, it integrates AI algorithms (environmental perception, visual recognition, semantic analysis) to automate robotic operations.



实时动态定位 Real-Time Kinematic

特点：GNSS 卫星定位，可达厘米级实时定位精度，广泛用于测绘、工程放样、无人机、机器人、光伏场地勘测。

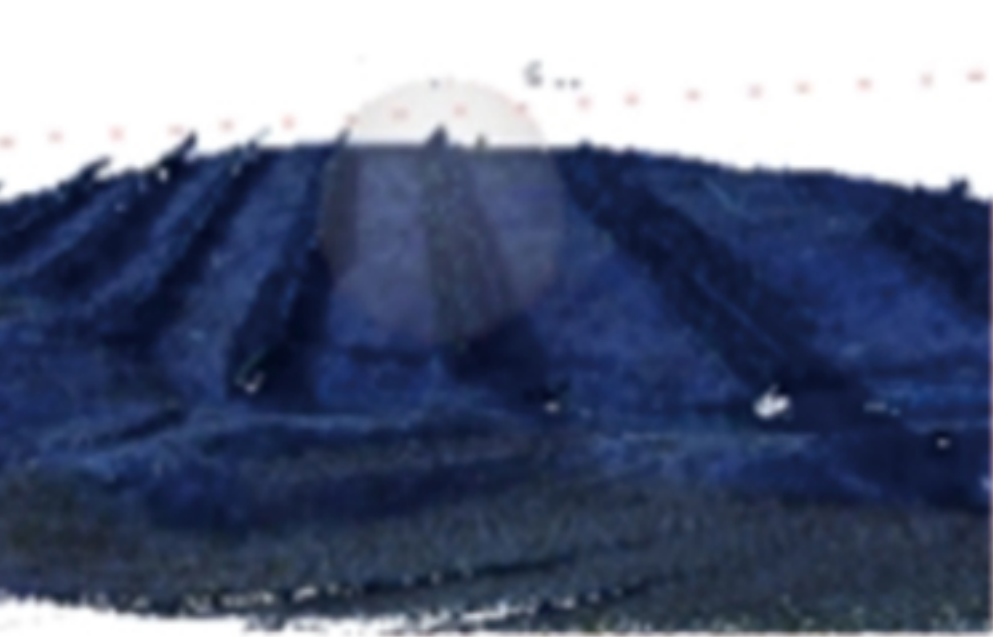
Features: GNSS satellite positioning, with centimeter-level real-time positioning accuracy. Widely applied in surveying and mapping, engineering stakeout, UAVs, robots and photovoltaic site investigation.



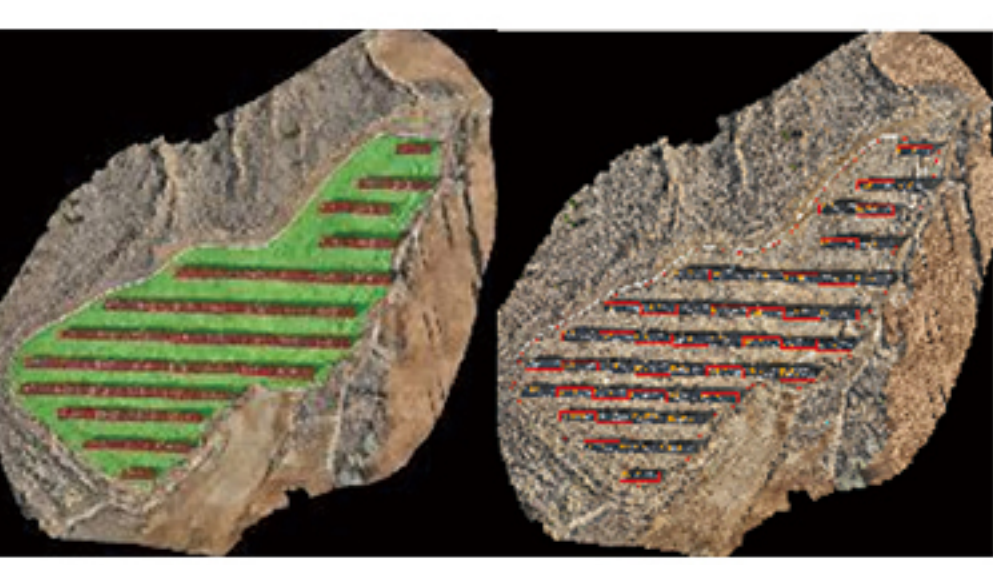
1. 无人机测绘 UAV Mapping



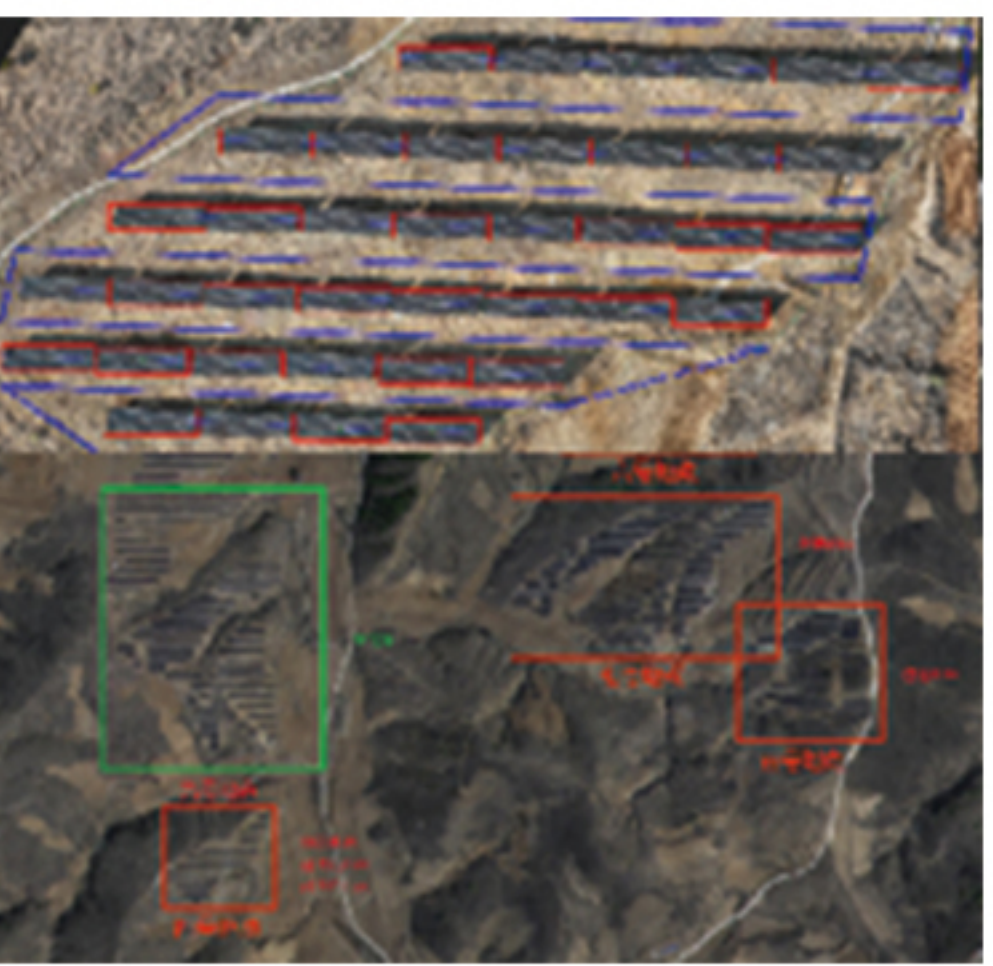
2. 三维地形分析 3D Terrain Analysis



3. 区域组串分割 Zone & String Segmentation



4. 地形路径方案 Terrain Path Planning



5. 人机智能运维工单 Man-Machine O&M Work Orders



1、真实场景 Real Scenarios



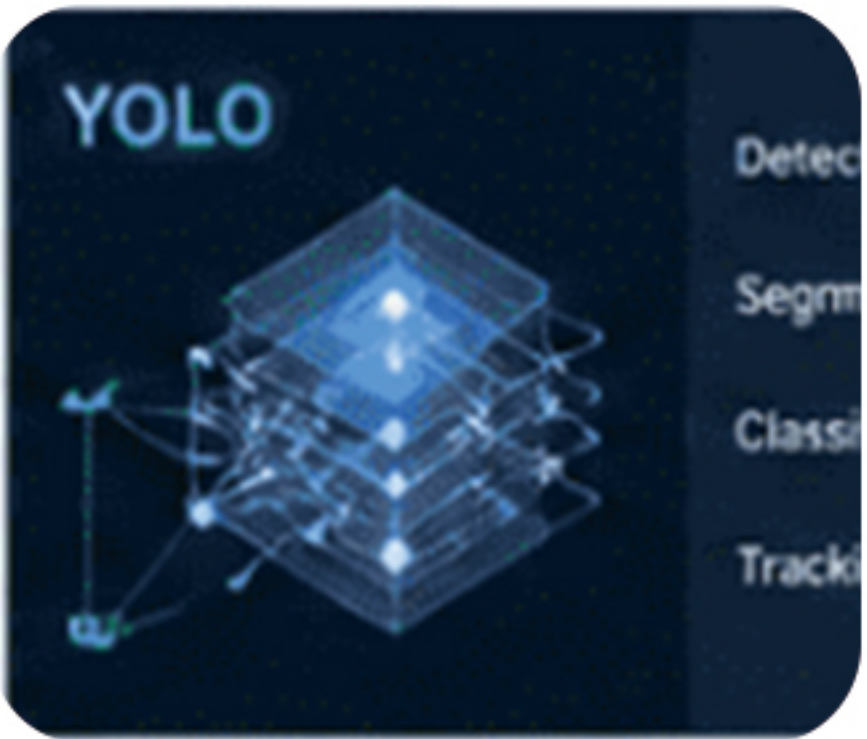
2、数据采集 Data Collection



3、数据标注 Data Annotation



4、模型训练 Model Training



7、持续迭代 Continuous Iteration



6、现场验证 On-site Verification



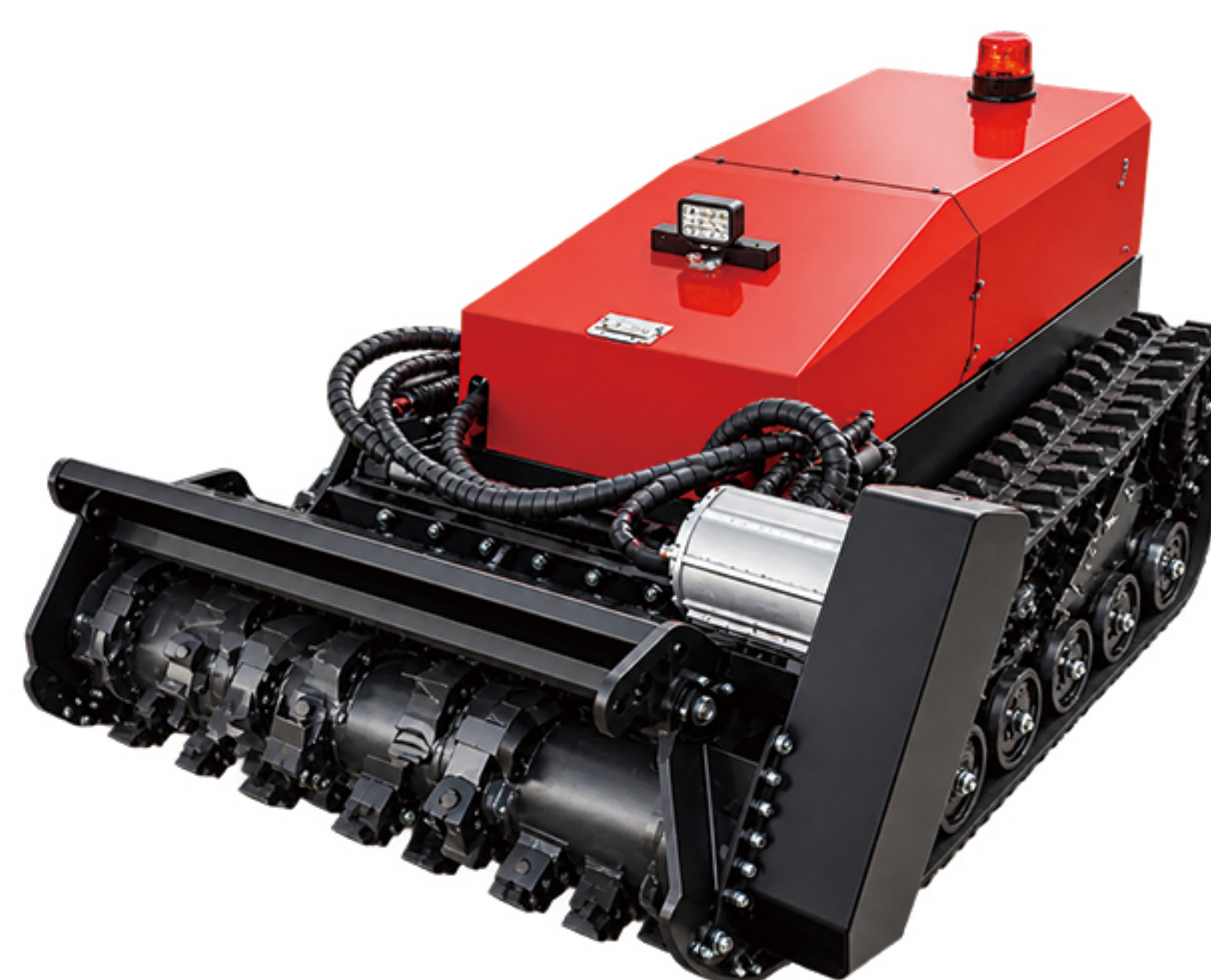
5、机器人部署 Robot Deployment



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Aerial Working Platform



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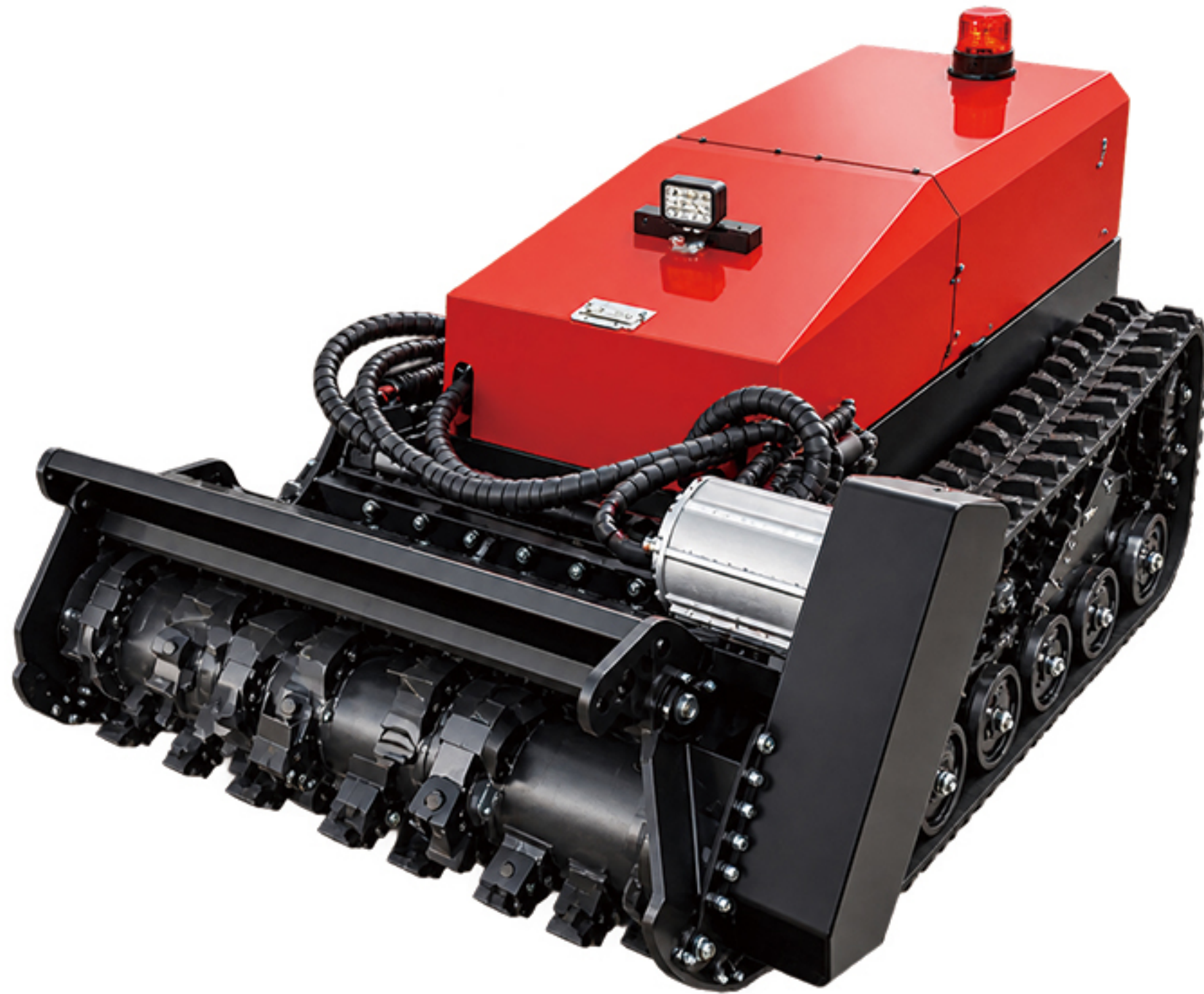
混合动力割草机器人Hybrid mower robot

型号Model	MC700	MC700 Air
长x宽x高L × W × H	1600×1150×970mm	1600×1150×970mm
车体重量Machine Weight	400kg	400kg
割草幅度Cutting Width	700mm	700mm
割茬高度Cutting Height	20-200mm	20-200mm
最大发动机功率Max.Engine Power	15.5kW (20.8HP) @3600rpm	15.5kW (20.8HP) @3600rpm
行驶速度Travel Speed	0-4km/h	0-4km/h
工作效率Working Efficiency	≥2500 m²/h(低速行驶时实际割草效率) (Actual Mowing Capacity at Low Speed)	≥2500 m²/h(低速行驶时实际割草效率) (Actual Mowing Capacity at Low Speed)
最大安全倾角Max Safe Incline Angle	35°	35°
续航能力(纯电)Battery Life / Endurance	≤0.4 h(需启动发电机供电) (Start generator for power supply)	≤0.4 h(需启动发电机供电) (Start generator for power supply)
APP功能APP Function	状态监测 Data QueryStatus Monitoring 数据查询 Data Query	不适用 Not Applicable

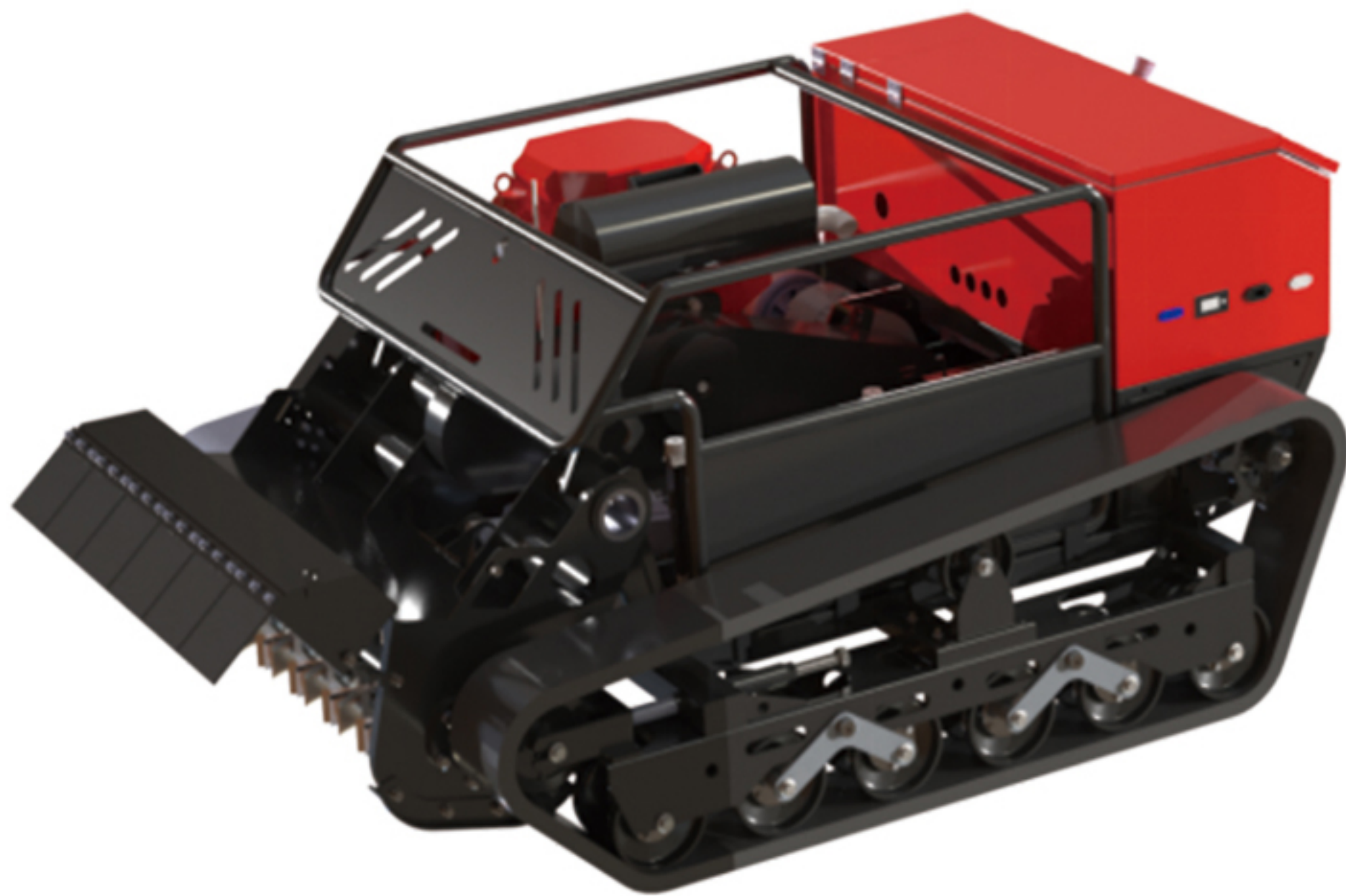


纯电垂刀拓荒机器人Electric vertical-blade clearing robot

型号Model	MCR100E
长x宽x高L × W × H	2080×1250×640mm
车体重量Machine Weight	882kg
液压油顶升降幅度 Hydraulic Jack Lifting Range	0-400mm
拓荒宽度Clearing Width	1m
最大转速Max Rotating Speed	3500rpm
行驶速度Travel Speed	1.5m/s
工作效率Working Efficiency	400*1m²/h
最大作业角度Max. Working Angle	35°
单次工作时长Single Working Duration	5-7 h
电池标称容量/能量 Rated Battery Capacity/Energy	420Ah/30kwh



混合动力垂刀拓荒机器人Hybrid vertical-blade clearing robot



型号Model	MCR700	MCR700 Air
长x宽x高L × W × H	1760x1300x805mm	1760x1300x805mm
车体重量Machine Weight	500kg	500kg
割草幅度Cutting Width	700mm	700mm
割茬高度Cutting Height	15-250mm	15-250mm
最大发动机功率Max.Engine Power	16.5kW (22.1HP) @3600rpm	16.5kW (22.1HP) @3600rpm
行驶速度Travel Speed	0-4km/h	0-4km/h
工作效率Working Efficiency	≥2500 m²/h(低速行驶时实际割草效率) (Actual Mowing Capacity at Low Speed)	≥2500 m²/h(低速行驶时实际割草效率) (Actual Mowing Capacity at Low Speed)
最大安全倾角Max Safe Incline Angle	35°	35°
续航能力(纯电)Battery Life / Endurance	≤0.4 h(需启动发电机供电) (Start generator for power supply)	≤0.4 h(需启动发电机供电) (Start generator for power supply)
APP功能APP Function	状态监测 Data QueryStatus Monitoring 数据查询 Data Query	不适用 Not Applicable

液压垂刀拓荒机器人Hydraulic Land-Clearing Robot



型号Model	MCR317	MCR317Air	MCR317Plus	MCR317Pro
长x宽x高L × W × H	3655×1430×1271mm			
车体重量Machine Weight	1500kg			
割草幅度Cutting Width	1317mm			
发动机 Engine	洋马 28.2kW / 久保田 36.48 kW Yanmar 28.2kW / Kubota 36.48kW			
最大扭矩Max Torque	140 N·m @ 1950 rpm			
理论作业效率 Theoretical Working Efficiency	约 4000 m²/h Approx. 4000 m²/h			
续航时间Endurance	6h			
最大爬坡能力Max Climbing Ability	45°			
遥控距离Remote Control Range	≤200m			
控距离Remote Control Range	基础机身 Base Chassis 发动机 Engine	控制器 Controller 线控底盘 Wire-Controlled Chassis 状态监控 Status Monitoring	控制器 Controller 线控底盘 Wire-Controlled Chassis 状态监控 Status Monitoring 视觉控制器	控制器 Controller 线控底盘 Wire-Controlled Chassis 状态监控 Status Monitoring 视觉控制器 Visual Controller 激光雷达

光伏清洗无人机Solar Panel Cleaning Drone



型号Model	H40	H50
飞机尺寸Drone Size	展开尺寸 Unfold: 1875mm*2035mm*890mm 折叠尺寸 Fold: 1290mm*760mm*890mm	
旋翼数量Number of Propeller	6 旋翼，三叶桨结构 6 rotors, three-blade propeller	
空机重量Drone Weight(withh no load)	44.2kg	
飞行速度Speed	0.2-10m/s	
续航时间Flight Duration	7-21min	
无人机载水量Water Tank Capacity	40L	
清洗流量Flow	6-8L/min	
清晰喷头Cleaning Nozzle	扇形清洗喷头 4 个，喷嘴出水角度 15° 4 fan-shaped cleaning nozzles, nozzle water outlet angle 15°	
清洗幅宽Cleaning Width	水平面幅宽 3 米 Horizontal 3 meters wide	
清洗模式Cleaning Method	摆臂交叉清洗 Swing arm cross cleaning	
25kg绞盘缓降模组 25kg Winch Slow-Down Module	选配 Optional	——
50kg绞盘缓降模组 25kg Winch Slow-Down Module	——	选配 Optional

工程机光伏清扫车Engineering Solar Panel Sweeper



型号Model	V20	V30
核心车桥Core Axle	干湿车桥Dry/Wet Axle	湿式制动车Wet Brake
整车重量Gross Weight	5.5t	
尺寸Overall Dimensions	6.7×2.4m×2.9m	
额定功率Rated Power	46.2kw	
燃油箱Fuel Tank	120L	
行走速度Travel Speed	30/10km/h	
最大工作高度Max Working Height	≥3.5m	
最大工作半径Max Working Radius	≥6.5m	
滚刷长度Brush Length	2-6m(可调Adjustable)	
主泵流量Main Pump Flow	160L/min	

光伏打桩机Engineering Solar Panel Sweeper



配置项Configuration	光伏打桩机Engineering Solar Panel Sweeper	
动力系统Power System	久保田 4 缸发动机，总功率 49.6 hp，额定转速 2600 rpm Kubota 4-Cyl, 49.6hp, 2600rpm	
钻孔直径/深度Drilling Performance/Depth	80-400 mm/0-6m(支持接杆延伸) (Extendable)	
减速机扭矩Reducer Torque	13000N · m	
钻杆转速Rod Speed	180r/min	
爬坡角度Climbing Angle	30°	
前后/左右最大倾斜Max Tilt (F/R)/(L/R)	20°/15°	
行走速度Travel Speed	0-3km/h	
履带板宽TrackWidth	400mm	
油泵规格Pump Spec	40/40/32	
主流泵Main Pump	三联泵Tri-Pump	
滑架仰俯角度Mast Angle	120°	
钻臂摆动角度Arm Swing	左右15° ±15°	

滑移装载机Skid Steer Loader Sweeper



型号Model	CZ525Y
离去角Angle of Departure	20°
铲斗铰接点离地最小距离Carry Positiont	206mm
铲斗铰接点离地最大距离 Height to Bucket Hinge Pin	1880mm
卸料角度Dump Angle	36°
卸料高度/距离Dump Height/ Reach	1271mm/750mm
离地间隙Ground Clearance	128mm
机器高度Height	1309mm
机器不带辅具的长度Length (w/out Bucket)	1942mm
铲斗铰接点离地最小时反转角度 Rollback @carry Position	23°
铲斗铰接点离地最大时反转角度 Rollback Fully Raised	99°
机器宽度Width	1050mm
轨距Width(w/Bucket)	1250mm

曲臂式高空作业平台 Articulated Boom Lift



型号Model	V09	V12	V14	V14N	V16	V16N	V18	V20
最大工作高度 Max. Working Height	11.3m	14.2m	15.8m	15.8m	17.8m	17.7m	20.2m	22.5m
最大平台高度 Max.Platform Height	9.3m	12.2m	13.8m	13.8m	15.8m	15.7m	18.2m	20.5m
最大跨越高度 Max. Up and Over Height	4.3m	6.2m	7.1m	7.0m	7.6m	7.5m	8.0m	9.4m
最大作业半径 Max. Working Radius	6.25m	6.5m	7.4m	7.5m	8.9m	8.9m	11.6m	11.8m
整车长度(收车) Length(Stowed)	5.2m	5.6m	6.3m	6.5m	6.9m	7.2m	8.49m	8.49m
整车宽度(收车) Width(Stowed)	1.27m	1.68m	1.95m	1.76m	2.2m	1.90m	2.49m	2.49m
整车高度(收车) Height(Stowed)	2.0m	1.98m	2.0m	2.0m	2.1m	2.0m	2.38m	2.38m
额定承载能力 Max. Lift Capacity	200kg	230kg	230kg	230kg	230kg	230kg	230kg/350kg	230kg/350kg
行驶爬坡度 Driving Gradeability	35%	30%	35%	35%	30%	30%	45%	45%
整机重量Weight	4600kg	4810kg	5340kg	5960kg	6185kg	5904kg	9423kg	9685kg
电池Battery	48V/300Ah	48V/220Ah	48V/220Ah	48V/300Ah	48V/300Ah	48V/300Ah	48V/400Ah	48V/400Ah
柴油Diesel	——	——	可选Optional	——	可选Optional	——	可选Optional	可选Optional

直臂式高空作业平台Telescopic Boom Lift



型号Model	J16	J18	J20	J24Li	J26Li	J28D	J32D
最大工作高度 Max. Working Height	18m	20.5m	21.6m	26.5m	28.3m	30m	34m
最大平台高度 Max.Platform Height	16m	18.5m	19.6m	24.5m	26.3m	28m	32m
最大作业半径 Max. Working Radius	11.2m	13.2m	14.5m	20m	21.5m	20.6m	21.4m
整车长度(收车) Length(Stowed)	8.3m	9.8m	10.3m	10.9m	11.7m	12.79m	14.17m
整车宽度(收车) Width(Stowed)	2.49m	2.49m	2.49m	2.49m	2.49m	2.58m	2.5m
整车高度(收车) Height(Stowed)	2.64m	2.64m	2.64m	2.92m	2.92m	2.87m	3.09m
整机重量Weight	7800kg	8520kg	9100kg	14860kg	15434kg	16800kg	19250kg
额定承载能力 Max. Lift Capacity	300kg	300kg	300kg	300kg/450kg	300kg/450kg	300kg/480kg	300kg/480kg
行驶爬坡度 Driving Gradeability	45%	45%	45%	45%	45%	45%	45%
电池Battery	48V/400Ah	48V/400Ah	48V/400Ah	80V/460Ah	80V/460Ah	——	——
发动机 Engine	——	——	——	——	——	康明斯 Cummins	康明斯 Cummins

剪叉式高空作业平台 Scissor Lift



型号Model	Z06W	Z08N	Z08W	Z10W	Z12W	Z14W	Z13D	Z16D
最大工作高度 Max. Working Height	7.8m	9.8m	9.8m	11.8m	13.8m	15.8m	15m	18m
最大平台高度 Max.Platform Height	5.8m	7.8m	7.8m	9.8m	11.8m	13.8m	13m	16m
整车长度(收车) Length(Stowed)	2.45m	2.45m	2.45m	2.45m	2.45m	2.85m	4.2/4.81m	4.2/4.81m
整车宽度(收车) Width(Stowed)	1.18m	0.85m	1.18m	1.18m	1.18m	1.36m	2.28m	2.28m
整车高度(收车) Height(Stowed)	2.24m	2.36m	2.36m	2.48m	2.60m	2.87m	3.03m	3.25m
整机重量Weight	2050kg	2100kg	2150kg	2800kg	2900kg	3900kg	7350kg	8850kg
额定承载能力 Max. Lift Capacity	320kg	230kg	320kg	320kg	320kg	230kg	680kg	680kg
行驶爬坡度 Driving Gradeability	25%	25%	25%	25%	25%	25%	45%	45%
充电器Charger	24V/30A	24V/30A	24V/30A	24V/30A	24V/30A	24V/36A	——	——
电池Battery	24V/200Ah	24V/200Ah	24V/200Ah	24V/200Ah	24V/200Ah	48V/280Ah	——	——
发动机 Engine	——	——	——	——	——	——	久保田/洋马 Kubota/Yanmar	

自行套筒式高空作业平台Mast Lift with Jib



型号 Model	M10
最大工作高度 Max. Working Height	11.2m
最大平台高度 Max. Platform Height	9.2m
最大水平延伸距离 Max. Horizontal Reach	3m
安全工作载荷 Loading Capacity	200kg
整车长度 Length	2.8m
整车宽度 Width	0.99m
整车高度-收车 Height(Stowed)	1.99m
整机重量 Weight	2950kg±20kg
离地间隙(中心) Ground Clearance(Center)	70mm



沐光而立 顺风顺水
Steer Ahead AI Well-Bred

飒沓机器人科技(苏州)有限公司

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