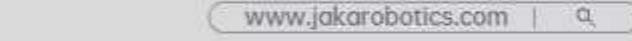




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JAKA official account JAKA OTA mini program

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JAKA®

Just Always Keep Amazing

Global Leader in Flexible Intelligent Robots



PRODUCT SELECTION GUIDE



No Teaching Pendant

Teaching JAKA collaborative robots is easy with JAKA APP, removing the need for traditional teaching pendants. The APP is available on tablets, smartphones and PCs.



Wireless Connection

With wireless connection it is easy to communicate and assign tasks to a cobot. No more wires attached! Enjoy a clean and safe space with JAKA cobots.



Safe Human-robot Collaboration

JAKA cobots are designed to work safely with humans – no need for a safety fence – thanks to collision detection, enabled by a built-in torque feedback module. Users may choose even the lightest of bumps to cause the cobot to stop, to avoid harm.

Graphic Programming

On any graphical device – PC, tablet or phone. The intuitive graphic programming software requires no prior programming experience. Anyone can set and adjust positions and tasks with ease.



Drag Teaching

Users and integrators can use drag teaching to deploy a cobot in just a few minutes. Simply move the cobot to any position, and it will memorize it instantly.



Plug-and-play

A few minutes is all it takes to install JAKA cobots. Whether on a horizontal surface or vertical, cobots can be easily mounted and ready to go. Flexible and light, cobots are compatible with numerous grippers and end effectors. All these make JAKA cobots truly plug-and-play, allowing users to deploy and re-deploy in any production environments.



Product Matrix



Flexible • Intelligent

Covering a variety of industries,
meeting the needs of different application scenarios

Suitable for a Large Range of Industries

Meet the needs of different application scenarios



JAKA Zu Collaborative Robots



Excellent flexibility and accuracy

» **Better Versatility and Flexibility**

It is easy to deploy, program or re-program JAKA Zu cobots. The number of applications is unlimited

» **Great Performance**

Cobots provide outstanding results thanks to repeatability of ± 0.02 mm and accuracy of ± 0.05 mm

» **Applicable Industries**

Automotive and auto parts, 3C electronics, advanced manufacturing, food and beverage, logistics, and more

» **Recommended Applications**

Palletizing, packaging, pick and place, assembly, machine tending



JAKA Zu s Collaborative Robots



Integrated force sensor and force control

Each JAKA Zu s cobot is equipped with an industrial force sensor and force control module which is easy to configure, debug, and program

» **Enhanced Interactivity**

Force sensor allows cobots to feel the objects and environment it comes into contact with

» **Ease of Use**

Simple configuration of force control through app with real-time force value display

» **Better Precision**

Several force control modes available, ensuring constant force accuracy

» **Greater Safety**

Full-arm collision detection and self-learning monitoring provide safe collaboration of cobot with humans and equipment

» **Applicable Industries**

Automotive and auto parts, 3C electronics, advanced manufacturing, packaging, metal and machining, and more

» **Recommended Applications**

Polishing, sanding, grinding, inspection, testing, palletizing, and more



JAKA Pro Collaborative Robots



Higher protection and reliability

Designed to operate in industrial application scenarios with high protection level requirements

» **Excellence in Harsh Environments**

Each JAKA Pro cobot possess IP68 protection level, making them immune to dust and water in the environment, and are fully functional at temperatures ranging from -10°C to 50°C

» **Greater Performance**

With repeatability of ± 0.02 mm cobots handle tasks precisely for up to 50,000 hours non-stop

» **Applicable Industries**

Automotive and auto parts, 3C electronics, food and beverage, agriculture, metal and machining, and more

» **Recommended Applications**

Painting, coating, spraying, CNC machine tending, welding, cutting, milling, grinding, and more



Suitable for a Large Range of Industries

Meet the needs of different application scenarios



JAKA All-in-one Collaborative Robots



Created to see what the human eye is not able to see



» Excellent Vision

JAKA All-in-one cobots are equipped with JAKA 2D Lens, accurately identifying very small differences, be it position, color or shape, in key components, 24/7

» Ease of Deployment

Thanks to a small controller, wireless connection, and IO connection, deployments of JAKA All-in-one cobots easy and fast

» Applicable Industries

Automotive and auto parts, advanced manufacturing, 3C electronics, logistics, medical devices, and more

» Recommended Applications

Assembly, inspection, testing, packaging, palletizing, pick and place, sorting, and many more

Flexible and intelligent

Each cobot has its own strengths



JAKA MiniCobo



A cost-effective cobot for B2C businesses



» Ease of Programming

Anyone, with or without prior experience of programming, can effectively assign a task thanks to drag teaching and intuitive graphic programming APP

» Smaller Footprint

This elegant cobot arm can be installed anywhere on a working space, be it a desktop or coffee station

» Greater Versatility

JAKA MiniCobo can be easily re-programmed to provide users with more choices in different application scenarios

» Best Industries

Food and beverage, education, entertainment

» Recommended Applications

Pick and place, order picking, sorting, and many more

JAKA Zu Collaborative Robots

Ease of Integration
Plug-and-play
Simple deployment
Small footprint

Ease of Use
In-built torque feedback module
Drag teaching
Graphic programming

High Precision
Excellent repeatability
Great accuracy
MTBF 50,000 hours



	Product parameters	JAKA Zu® 3		JAKA Zu® 5		JAKA Zu® 7		JAKA Zu® 12		JAKA Zu® 18	
Product features	Maximum payload	3kg		5kg		7kg		12kg		18kg	
	Weight	12kg		23kg		22kg		41kg		35kg	
	Working radius	626mm		954mm		819mm		1327mm		1073mm	
	Repeatability	±0.02mm		±0.02mm		±0.02mm		±0.03mm		±0.03mm	
	Number of axis	6		6		6		6		6	
	Programming	Drag teaching and graphic programming									
Working range and speed	Teaching pendant	PC, mobile (PAD/mobile)									
	Robot joint	Working range	Maximum speed								
	Joint 1	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s
	Joint 2	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	120°/s	-85°,+265°	120°/s
	Joint 3	±175°	180°/s	±175°	180°/s	±175°	180°/s	±175°	120°/s	±175°	180°/s
	Joint 4	-85°,+265°	220°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s
	Joint 5	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s
	Joint 6	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s
Specifications	Maximum speed of the tool end	/	1.5m/s	/	3m/s	/	2.5m/s	/	3m/s	/	3.5m/s
	Power consumption	150W		350W		350W		500W		600W	
	IP classification	IP54									
	Tool I/O ports	Digital input 2									
		Digital output 2		Digital output 2		Digital output 2		Digital output 2		Digital output 2	
		Analog input 1		Analog input 1		Analog input 1		Analog input 1		Analog input 1	
Electrical cabinet	Base diameter	129mm		158mm		158mm		188mm		188mm	
	IP classification	IP44									
	I/O ports	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs	
	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP	
	Power	100-240VAC, 50-60Hz									
	Size	410×307×235 (mm) (W×H×D)									
	Weight	13.5kg		15.4kg		15.4kg		18kg		18kg	

JAKA Zu[®]s Collaborative Robots



Interactivity

Integrated force sensor
Integrated force control

Ease of Use

Simple force control configuration
Real-time force value display

Adjustability

Various force control modes
Option to install force sensor

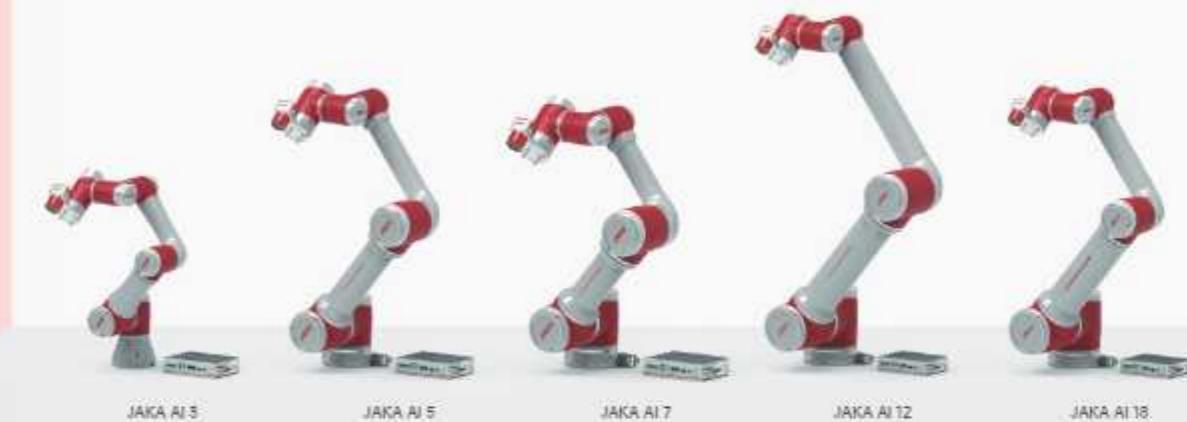
Safety

Full-arm collision detection
Self-learning monitoring

	Product parameters	JAKA Zu [®] 3s		JAKA Zu [®] 5s		JAKA Zu [®] 7s		JAKA Zu [®] 12s		JAKA Zu [®] 18s		
Product features	Maximum payload	3kg		5kg		7kg		12kg		18kg		
	Weight	12kg		23kg		22kg		41kg		35kg		
	Working radius	626mm		954mm		819mm		1327mm		1073mm		
	Repeatability	±0.02mm		±0.02mm		±0.02mm		±0.03mm		±0.03mm		
	Number of axis	6		6		6		6		6		
	Programming	Drag teaching and graphic programming										
Working range and speed	Teaching pendant	PC, mobile (PAD/mobile)										
	Robot joint	Working range	Maximum speed									
	Joint 1	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s	
	Joint 2	-85°+265°	180°/s	-85°+265°	180°/s	-85°+265°	180°/s	-85°+265°	120°/s	-85°+265°	120°/s	
	Joint 3	±175°	180°/s	±175°	180°/s	±175°	180°/s	±175°	120°/s	±175°	180°/s	
	Joint 4	-85°+265°	220°/s	-85°+265°	180°/s	-85°+265°	180°/s	-85°+265°	180°/s	-85°+265°	180°/s	
	Joint 5	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	
Specifications	Joint 6	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	
	Maximum speed of the tool end	/	1.5m/s	/	5m/s	/	2.5m/s	/	5m/s	/	3.5m/s	
	Power consumption	150W		350W		350W		500W		600W		
	IP classification	IP54										
	Tool I/O ports	2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		
Force sensor parameters	Base diameter	129mm		158mm		158mm		188mm		188mm		
	End tool	Range (Fx/Fy)	100N/250N	200N/400N	100N/250N	200N/400N	100N/250N	200N/400N	250N	400N	250N	400N
	Interface type	Ethernet interface	Serial port									
	Protection class	IP64										
	Base	Range (Fx/Fy)	500N	1600N	1600N	1600N	1600N	4000N	4000N	4000N	4000N	
Electrical cabinet	Interface type	Ethernet interface										
	Voltage	24V										
	Protection class	IP64										
	IP classification	IP44										
	I/O ports	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		
Communication	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		
	Power	100-240VAC, 50-60Hz										
	Size	410×307×235 (mm) (W×H×D)										
	Weight	13.5kg		15.4kg		15.4kg		18kg		18kg		

JAKA All-in-one Collaborative Robots

- Smart**
Equipped with vision system to recognize objects
- Simple**
Plug-and-play; Wireless connection
- Small**
Small footprint; Compact design



	Product parameters	JAKA Ai 3		JAKA Ai 5		JAKA Ai 7		JAKA Ai 12		JAKA Ai 18	
Product features	Maximum payload	3kg		5kg		7kg		12kg		18kg	
	Weight	12kg		23kg		22kg		41kg		35kg	
	Working radius	626mm		954mm		819mm		1327mm		1073mm	
	Repeatability	±0.02mm		±0.02mm		±0.02mm		±0.03mm		±0.03mm	
	Number of axis	6		6		6		6		6	
	Programming	Drag teaching and graphic programming									
Working range and speed	Teaching pendant	PC, mobile (PAD/mobile)									
	Robot joint	Working range	Maximum speed								
	Joint 1	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s
	Joint 2	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	120°/s	-85°,+265°	120°/s
	Joint 3	±175°	180°/s	±175°	180°/s	±175°	180°/s	±175°	120°/s	±175°	180°/s
	Joint 4	-85°,+265°	220°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s	-85°,+265°	180°/s
	Joint 5	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s
Specifications	Joint 6	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s
	Maximum speed of the tool end	/	1.5m/s	/	3m/s	/	2.5m/s	/	3m/s	/	3.5m/s
JAKA Lens 2D parameters	Power consumption	150W		350W		550W		500W		600W	
	IP classification	IP54									
	Tool I/O ports	2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output		2 digital input, 2 digital output, 1 analog output	
	Base diameter	129mm		158mm		158mm		168mm		168mm	
	Lens focal length	8mm	16mm								
	Color mode	B&W/Color									
	Vision	>70mm*50mm	>35mm*25mm								
MiniCab cabinet	Precision	>0.08mm	>0.04mm								
	Communications interface	Ethernet interface (TCP/IP protocol)									
	Resolution	2592(H) x1944(V)									
	Frame rate	24FPS									
	Input power	DC30-60V									
	Input current	40A									
	Size	180x28x47(mm)(LxWxH)									
	IP classification	IP20									
	I/O ports	7-way port; Input and output configurable									
	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP	
	Weight	About 1.7 kg (Including accessories)									

JAKA Pro Collaborative Robots



	Product parameters		JAKA Pro 5		JAKA Pro 12		JAKA Pro 16	
Product features	Maximum payload:	5kg		12kg		16kg		
	Weight	23.5kg		41kg		74kg		
	Working radius:	954mm		1327mm		1713mm		
	Repeatability	±0.02mm		±0.02mm		±0.02mm		
	Number of axis	6		6		6		
	Programming	Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming		
	Teaching pendant	PC/Mobile device (PAD/mobile)		PC/Mobile device (PAD/mobile)		PC/Mobile device (PAD/mobile)		
Working range and speed	Robot joint	Working range:	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	
	Joint 1	±360°	180°/s	±360°	120°/s	±360°	120°/s	
	Joint 2	-85° +265°	180°/s	-85° +265°	120°/s	-85° +265°	120°/s	
	Joint 3	±175°	180°/s	±175°	120°/s	±175°	120°/s	
	Joint 4	-85° +265°	180°/s	-85° +265°	180°/s	-85° +265°	180°/s	
	Joint 5	±360°	180°/s	±360°	180°/s	±360°	180°/s	
	Joint 6	±360°	180°/s	±360°	180°/s	±360°	180°/s	
Specifications	Maximum speed of the tool end	/	3m/s	/	3m/s	/	3.9m/s	
	Power consumption	350W		500W		750W		
	IP classification	IP68		IP68		IP68		
	Tool I/O ports	Digital input 2		Digital input 2		Digital input 2		
		Digital output 2		Digital output 2		Digital output 2		
		Analog input 1		Analog input 1		Analog input 1		
Electrical cabinet	Bose diameter	158mm		188mm		246mm		
	IP classification	IP44		IP44		IP44		
	I/O ports	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		
	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		
	Power	100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		
	Size	410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		
	Weight	15.4kg		18kg		18kg		

JAKA Lens 2D



Product description

JAKA Lens 2D integrated camera adopts 2D high-resolution industrial camera, and is equipped with a special light source module and optional camera lens to provide users with comprehensive functions and experience of 2D vision. After professional industrial design, it is small and lightweight, and has a delicate appearance. It can realize 2D vision function by external fixed installation or by installing it at the end of the robot.

Flexible and convenient	Customizable	High integration
Digital lens integration Flexible adaptation to various scenarios	Drag dragging and graphic programming Various functions are available	Software and hardware integration Easy and fast deployment



Product Features

Integrated design

A 2D camera that integrates three major modules of camera, lens, and light source. An integrated robot control cabinet that integrates a vision system and access it through a web.

Easy operation

The control cabinet is embedded with intelligent vision algorithms, process-guided project editing, one-button automatic hand-eye calibration, and flexible communication interfaces to adapt to the robot body.

Scenario-adaptable

Supports hardware parameter selection of multiple models, supports third-party brand camera extensions, supports custom external light sources, and is suitable for as many application scenarios as possible.

Visual parameters

Lens 2D parameters	Lens 2D CGC500-F08	Lens 2D CGC500-F16
Resolution	2592×1944	2592×1944
Max frame rate	24fps	24fps
Data interface	Gige	Gige
Color mode	Black and white / color	Black and white / color
Lens focal length	8mm	16mm
Object distance	>100mm	>100mm
Vision	>70×50mm	>35×25mm
Precision	>0.08mm	>0.04mm
Image processing	Soft-trigger image acquisition, single frame processing time within 1s	Soft-trigger image acquisition, single frame processing time within 1s

JAKA Lens VPS

Product description

JAKA Lens VPS 2.0 is developed based on high-performance AI-SoC chip, equipped with high-speed and large-capacity memory and storage space, and embedded with high-performance acceleration engine, which can realize target detection, object recognition, human pose feature point extraction, behavior understanding, and target state AI functions such as detection. The camera is placed on the top of the cobot working area, and the camera can monitor the behavioral norms or intrusions of the inspected objects (people and objects) in real time based on deep learning to ensure the safety of robots and people. The camera has a Gigabit Ethernet port, which supports industrial data extraction and video visualization processing, as well as video recording during alarm periods.



High reliability	High performance	High convenience
Isolate external factors The protection effect is stable and reliable	High speed combined with high storage capacity	No complicated software installation required Browse the web for easy access

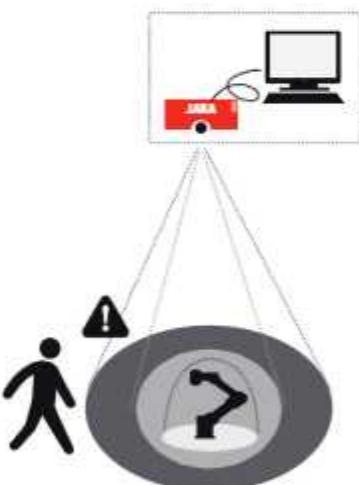
Product Features

Built-in neural network accelerator for AI recognition and analysis of video

Event recording function, which can record key video segments, eliminate redundant information, trace back, and analyze more conveniently

Plug and play, no need to install software, access settings via browser

It can perform AI detection functions such as helmet wearing, personnel target tracking, personnel labor intensity, and video scoring calculation



Visual protection system working diagram

Basic parameters

Hardware platform	CMOS camera, embedded system, DSP, AI engine, etc.
Dimensions	101.7mm×72mm×51.1mm
Installation method	Directly above, sideways (any angle)
Communication interface	Ethernet interface, RS485, PNP optocoupler isolation DI and DO

Visual parameters

Resolving power	830 w pixels
Response time	200 ms
Installation height	2.5 mm (suggested)
Communication interface	5 m~2.6 m (adjustable)

JAKA MiniCobo

Product introduction

The JAKA MiniCobo adopts an intelligent control and drive control module, which has both lightweight design and superior product performance. At the same time, the rich secondary development interface creates infinite possibilities for the development of more scenarios.

The JAKA MiniCobo has a small and rounded appearance, simple and intuitive operation, produces almost no noise and features good performance. The cobot is highly recommended for education, retail, entertainment and other B2C industries.

 Ideal for B2C  Cost-effective  Lightweight

	Weight	 9.4kg	Payload	 1.0kg	Working radius	 580mm	Repeatability	 ±0.1mm
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Application case



Product features	Product model		
	MiniCobo		
	Payload	1kg	
	Weight(W cable)	9.4kg	
	Work radius	580mm	
	Repeatability	±0.1mm	
	Axis	6 axes	
	Programming	Graphical programming, free-drive	
	Teach pendant	MT (PAD/Mobile) APP	
	Collaborative operation	Accordance with GB 11291.1-2011	
Working range and speed	Robot joint	Working range	Maximum speed
	Joint1	±360°	180°/s
	Joint2	±120°	180°/s
	Joint3	±150°	180°/s
	Joint4	±360°	180°/s
	Joint5	±120°	180°/s
	Joint6	±360°	180°/s
Physical properties and others	Maximum speed of the tool end	/	1.5m/s
	Rated power	150W	
	Temperature range	0-50°C	
	IP Specification	IP40	
	Installation	Installation at any angle	
	Tool I/O	Digital input 2	
		Digital output 2	
		Analog input 1	
	Tool I/O power	24DC	
	Tool I/O size	M8	
Electrical cabinet	Materials	Aluminum, PC	
	Base diameter	124mm	
	Cable length	6m	
	Device	20-60VDC	
	Iout	40A	
	Size	180×128×47(mm)(L×W×H)	
	IP Level	IP20	
	I/O	7 Digital input, I/O configurable	
	I/O Power	24VDC	
	Fixed Form	Panel/Guide Rail	