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AITRON ROBOTICS PRODUCTMANUAL

China's high-end large-load industrial robot



Sales Department:18805352034
Mailbox:atxs@aitronfuture.com
address:No. 2 Fuzhou Rd. Yantai Economic & Technological
Development Zone, Yantai City, PRC



COMPANY INTRODUCTION

Yantai EDDIE AITRON Robot Technology Co., Ltd. is a wholly-owned subsidiary of Yantai EDDIE Precision Machinery Co., LTD. (Stock code :603638).The headquarters conducted robot project incubation in June 2015, and EDDIE AITRON Technology officially operated independently in October 2020. Focus on industrial robots and RV reductionIndependent research and development, production and sales of fast machine products, is committed to providing customers with complete sets of industrial robots and integrated applications and other automation solutions.

The company headquarters and R & D base are set up in Yantai Free Trade Zone EDDIE intelligent manufacturing Industrial Park (provincial and municipal key construction projects). EDDIE AITRON technology robot project total investment of 1.09 billion yuan, a total land area of 87573m, construction area of 68233.19m, the main construction of RV deceleration mechanism manufacturing line, robot body manufacturing line, technology research and development and experiment center, mobile robot manufacturing line, robot electrical control system key parts of the production line.

Stock Code
603638

More than
20,000 robots
are produced
annually

Annual output
of RV reducer
more than
600,000 units

ENTERPRISE CULTURE

ENTERPRISE VISION

Become a leading domestic and internationally renowned high-tech company

COWE VALUES

Integrity Innovation Win-win

PRODUCT CONCEPT

We are committed to providing customers with complete sets of industrial robots and integrated applications and other automation solutions

DEVELOPMENT COURSE

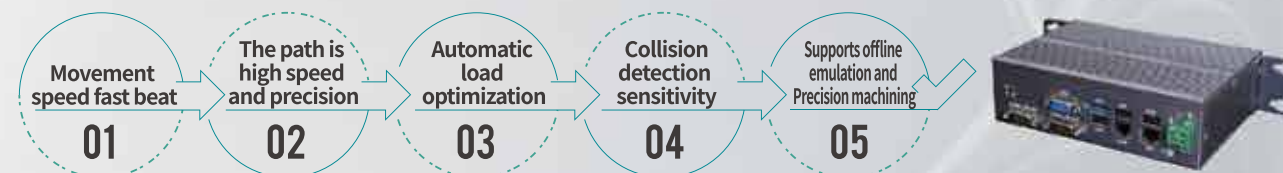
- 2025.06** ● EDDIE AITRON was awarded the honorary titles of "Green Factory" at the municipal level and "Morning Star Factory" at the provincial level
- 2024.08** ● EDDIE AITRON participated in the World Robot Conference with a four-machine integrated white-body spot welding service and was featured on CCTV
- 2023.12** ● AITRON Technology was selected as "High-tech Enterprise in Shandong Province.
- 2023.11** ● AITRON Technology industrial robot and Sumeida appeared in Shanghai CIIE.
- 2023.03** ● AITRON Technology signed a strategic cooperation agreement with Demagisen.
- 2023.02** ● AITRON Technology and Zhichang Group held a strategic cooperation signing ceremony, and the mass delivery ceremony of 150 210Kg large-load robots was held.
- 2022.01** ● AITRON technology industrial robot for the first time out of the country, sent to South Korea.
- 2020.10** ● Established Yantai AITRON Robot Technology Co., LTD.
- 2018.05** ● The robot has successfully achieved mass production, and independently developed and manufactured core components, which have been used in the production lines of many domestic enterprises such as Sany, Doosan, and Jungles.
- 2017.12** ● After more than 13,000 hours of performance testing, the robot has reached the quality standards of similar foreign products.
- 2017.01** ● Parent company EDDIE Precision is listed on the Main Board of Shanghai Stock Exchange (stock code: 603638).
- 2015.06** ● EDDIE Robot Business Division was established.

R&d and production advantages of the whole industrial chain

► Body R & D manufacturing and heat treatment technology

High rigid body, large load, high beat, high precision, suitable for more scenarios. The international leading casting and heat treatment technology is adopted to ensure the excellent rigidity of the robot body.

► Controller independent research and development



► Driver independent research and development

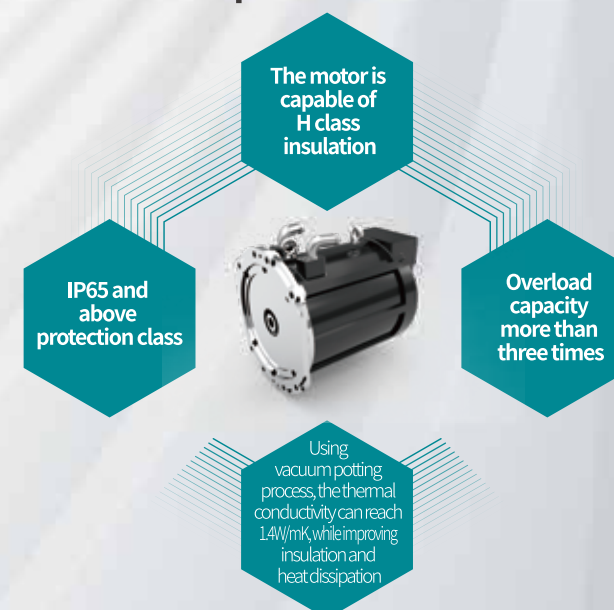


► Support a variety of model vibration suppression functions;

► Use a common DC bus book form, saving Energy consumption and space saving;

► Work safety technology based on international standards, built-in such as STO, SS1, SS2, SBC, etc.

► Motor independent research and development



► RV reducer independent development



TECHNICAL STRENGTH



Technology platform

- ◆ Provincial: Enterprise Technology Center of Shandong Province, High-tech Enterprise of Shandong Province
- ◆ Municipal: Innovative development private enterprise of Yantai
- ◆ CityJoint development platform: EDDIEPrecision/Tsinghua University/Shandong University/Yantai University joint development platform casting, heat treatment laboratory, quality testing room and simulation test platform

R&D team

- ◆ Has a high-quality, highly capable R & D team, there are doctor, master and professor-level senior engineers and other senior technical experts;
- ◆ In cooperation with Tsinghua University, Shandong University and other universities, industry experts and technical backbone formed the top R & D team in China;
- ◆ Industry-leading simulation R & D tools are used for forward development, and product development strength is strong;
- ◆ The core component RV reducer is independently developed and manufactured by Aichuang Technology
- ◆ Relying on leading technology such as robot controller, drive, system software platform, to provide customers with the best integrated system solutions.

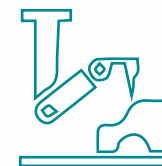
Process planning

- ◆ High-end, intelligent automated production line to ensure high quality and efficient delivery of products;
- ◆ EOL test system, 100% test;
- ◆ Highly automated production to ensure product consistency;
- ◆ Leading manufacturing process to ensure product quality.

Service guarantee

- ◆ Pre-sales, integrated solutions;
- ◆ After-sales, professional after-sales service team;
- ◆ In sale, technical guidance and structural design;
- ◆ 24-hour fast response and convenient service.

PROCESS CHARACTERISTICS



Spot welding process

- ◆ Graphical interface design, simple operation;
- ◆ Support a variety of brands of servo welding pliers, Pneumatic welding pliers, flexible configuration;
- ◆ High-performance dynamic control and trajectory planning algorithm to improve accuracy and tempo.



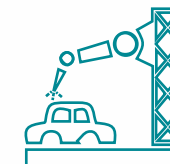
Stamping technology

- ◆ The interface is simple to use, and the process configuration is flexible;
- ◆ Based on industrial fieldbus, realize multiple machines Human communication;
- ◆ Safety detection mechanism to ensure safe communication between robots and equipment;
- ◆ High-performance dynamic control and trajectory planning algorithm to improve accuracy and tempo.



Arc welding process

- ◆ Support CAN, EtherCAT, Modbus RTU/TCPAnd other communication methods;
- ◆ Support collision detection, welding monitoring, a variety of swing welding, discontinuityWelding, intersecting line, multi-station reservation and other advanced functions;
- ◆ Support laser and position finding functions, which can realize the robot's accurate positioning and real-time tracking of welds.



Spraying technology

- ◆ Graphical interface design, simple operation.
- ◆ Plan the spray path to ensure uniform and efficient coating and reduce production time.
- ◆ It allows users to conduct offline simulation on the computer before actual production, saving production line downtime and improving production efficiency.
- ◆ The integrated vision system is able to detect the shape and features of the workpiece surface to ensure that the robot can accurately track and spray the target area.



Palletizing process

- ◆ Graphical interface design, simple and efficient operation.
- ◆ Support simple and complex two modes, more open function, higher flexibility.
- ◆ New speed planning, greatly improve the running time, improve production capacity.
- ◆ Drag and drop Settings, users can manually drag the workpiece on the screen, saving programming time and improving efficiency.



APPLICATION SCENARIOS

Handling, welding, riveting, palletizing

PRODUCT CHARACTERISTICS

Peculiarity

01. Strong load capacity: It can carry up to 700kg of heavy objects, with enhanced wrist load capacity, effectively handling, stacking, loading or unloading large and heavy components
02. Wide range of motion: With a large working space and a long arm span of up to 2832mm, it can easily handle large structural components or car bodies, etc., meeting the operational requirements of various large workpieces
03. High precision and rigidity: It features outstanding precision and rigidity. Even under maximum load and maximum extension conditions, the robot can still maintain excellent repeat positioning accuracy

Project		Parameter
Wrist load rating(Kg)		700
Maximum working radius (mm)		2832
Freedom of motion		6
Rated load speed (°/s)	J1	80
	J2	80
	J3	80
	J4	100
	J5	100
	J6	160
Joint range of motion (°)	J1	± 180
	J2	-90~+64
	J3	-130~+30
	J4	± 360
	J5	± 122
	J6	± 360
Allowable load torque(N·m)	J4	3400
	J5	3400
	J6	1725

Project		Parameter
Alloy with negative moment of inertia (Kg.m ²)	J4	1098
	J5	1098
	J6	444
IP level	noumenon	IP54
	wrist	IP65
Body weight(Kg) Repeat positioning accuracy(mm) Installation method		2800 ±0.1 ground, ceiling
Installation environment	Ring wall temperature /humidity (Dew free)	0~45°C/ 20-85%RH (Dew free)
	Vibration value Less than 0.5g	Less than 0.5g
	Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.

Compact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.

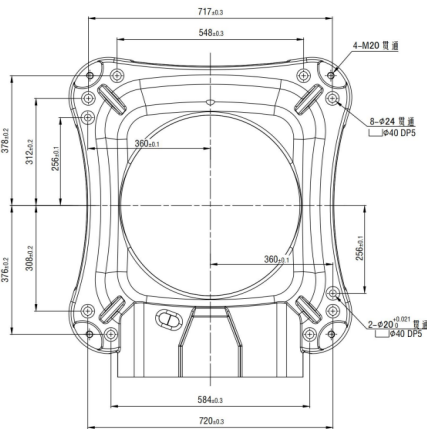


Overall dimensions (width * depth * height)	800mm*550mm*970mm
Weight	170Kg
Class of protection	IP54
Number of axes	6

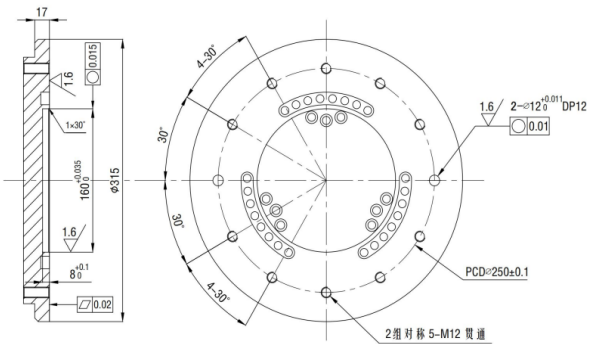
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	41KVA
Ambient temperature/humidity	0~45°C/20~85%RH(Dew free)
Vibration	0.5G (4.9m/s²) 以下
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
Expansion IO module	Extended CAN interface & 485 interface

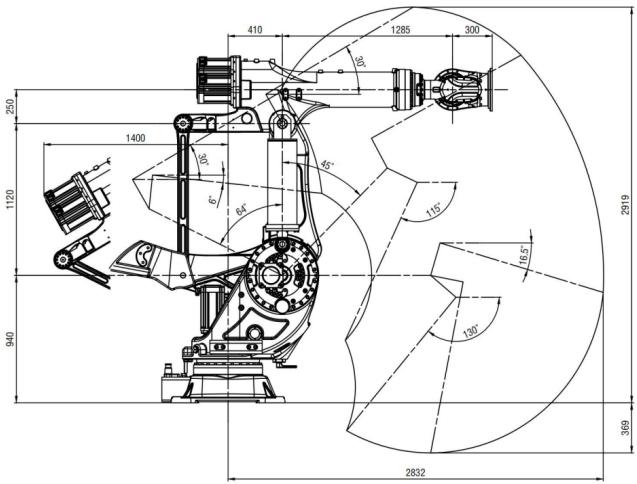
Base installation drawing



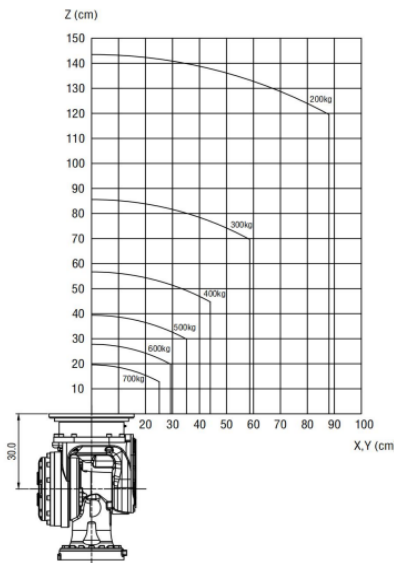
End mounting drawing



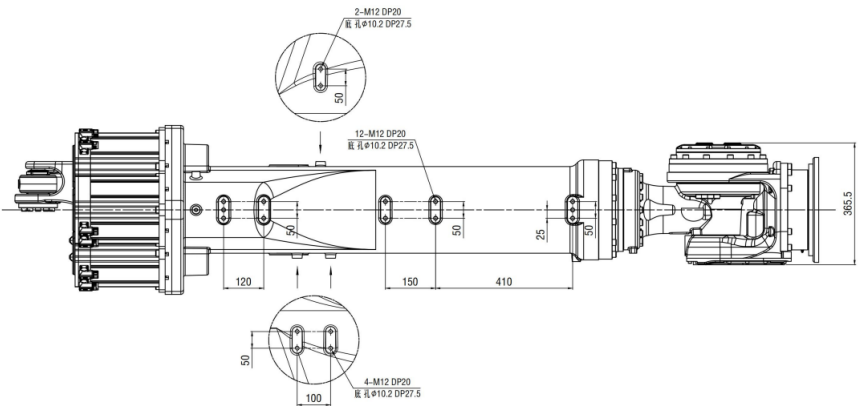
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT360R2655

APPLICATION SCEARIOS

Handling, assembling,
FDS, loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

01.

The 4-axis, 5-axis, 6-axis adopts the three-coaxial transmission structure, which makes the forearm structure more compact and reduces the mechanical jitter during high-speed operation.
02.

The robot adopts a two-axis coupled wrist structure, which has a compact wrist and high-speed motion performance.
03.

The robot has a strong load capacity and a wide range of work, which can be used for large load handling work and spot welding applications.

PRODUCT PARAMETERS

Project		Parameter
Wrist load rating(Kg)		360
Maximum working radius (mm)		2655
Freedom of motion		6
Rated load speed (°/s)	J1	110
	J2	88
	J3	100
	J4	110
	J5	110
	J6	143
Joint range of motion (°)	J1	±180
	J2	-70~+71
	J3	-66.5~+64.5
	J4	±360
	J5	±117.5
	J6	±360
Allowable load torque(N·m)	J4	1960
	J5	1960
	J6	1050

Project		Parameter
Allow negative moment of inertia (Kg·m²)	J4	260
	J5	260
	J6	160
IP level	noumenon	IP54
	wrist	IP65
Body weight(Kg)		1600
Repeat positioning accuracy(mm)		±0.1
Installation method		ground, ceiling
Installation environment	Ring wall temperature /humidity	0~45°C/75%以下 (Dew free)
	Vibration value	Less than 0.5g
	Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



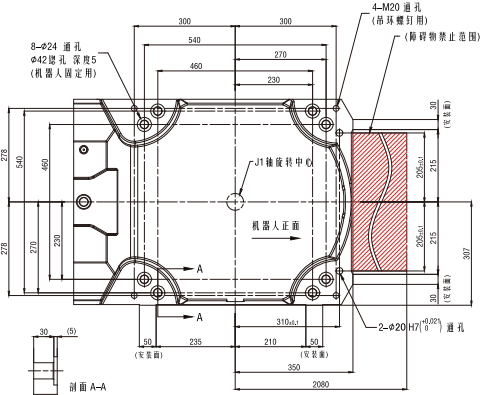
PRODUCT PARAMETERS

Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	170Kg
Class of protection	IP54
Number of axes	6

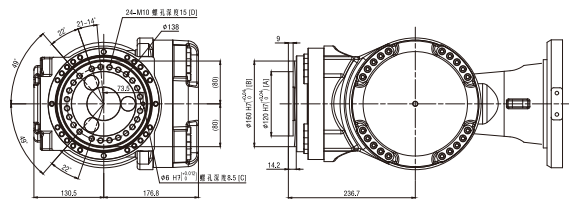
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	0.5G (4.9m/s²) 以下
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
	Digit quantity 16 in and 16 out
Expansion IO module	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
Extended CAN interface & 485 interface	

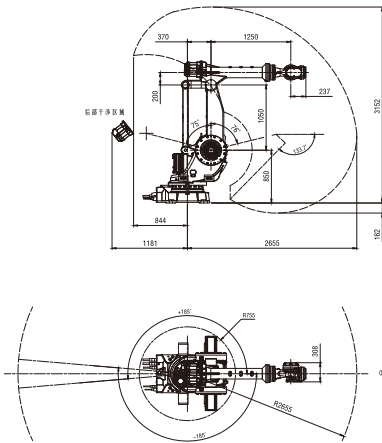
Base installation drawing



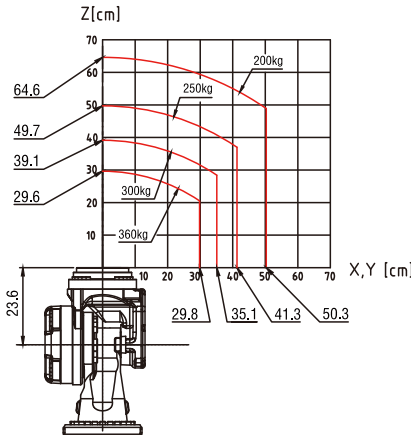
End mounting drawing



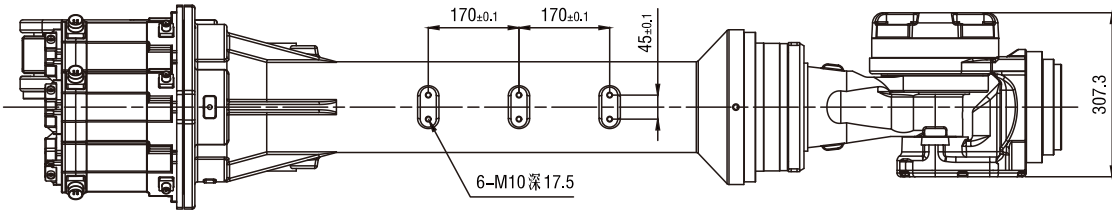
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT210R3100

APPLICATION SCEARIOS

palletizing, assembling, spot welding,
cutting, loading and unloading

PRODUCT CHARACTERISTICS

Pecularity

- 01. Less space, long wrist, improve accessibility in the application process, diversified application scenarios, suitable for a variety of market segments.
- 02. It can still work reliably under high loads, with good flexibility and high efficiency.
- 03. Low operation and maintenance cost, high average failure interval, and very easy to maintain, good economy

PRODUCT PARAMETERS

Project		Parameter	Project		Parameter	
Wrist load rating(Kg)		210	Allow negative moment of inertia (Kg·m²)	J4	149	
Maximum working radius (mm)		3100		J5	149	
Freedom of motion		6		J6	105	
Rated load speed (°/s)	J1	105	IP level	noumenon	IP54	
	J2	94		wrist	IP65	
	J3	100				
	J4	136	Body weight(Kg)			1200
	J5	129	Repeat positioning accuracy(mm)			±0.06
	J6	206	Installation method			ground
Joint range of motion (°)	J1	±182.5	Installation environment	Ring wall temperature /humidity	0~45°C/20~85%	
	J2	-82.5~+47.5		Vibration value		Less than 0.5g Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.
	J3	-68.5~+207.5				
	J4	±350				
	J5	±122.5				
	J6	±350				
Allowable load torque (N·m)	J4	1100		Other		
	J5	1100				
	J6	700				

FRC3.0 CONTROL CABINET

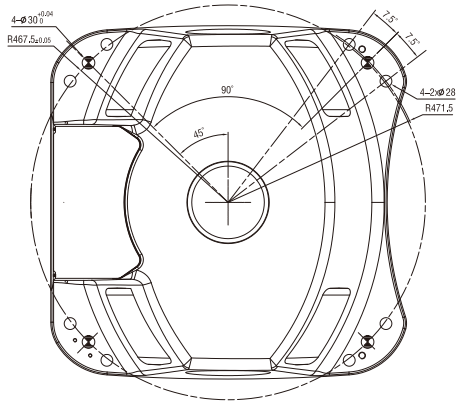
Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



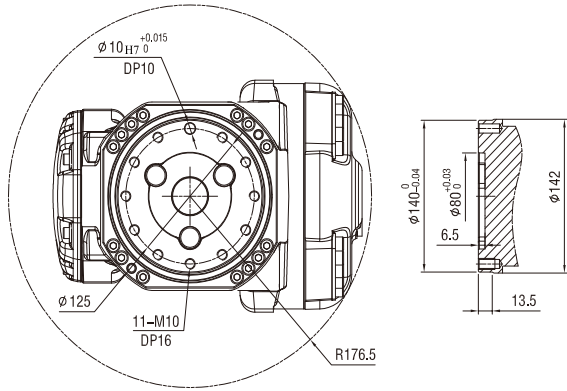
PRODUCT PARAMETERS	
Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

PRODUCT PARAMETERS	
Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g(4.9m/s²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
Encoder AB phase counting (differential signal interface)	
Extended CAN interface & 485 interface	

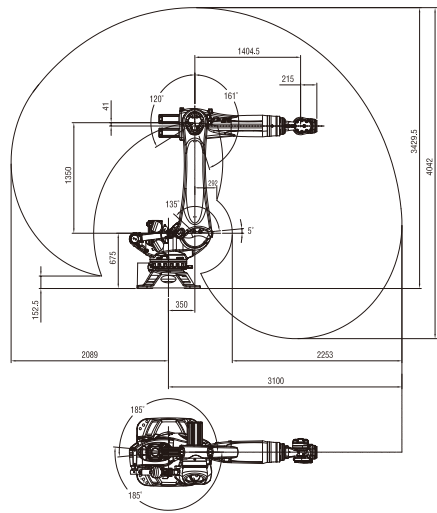
Base installation drawing



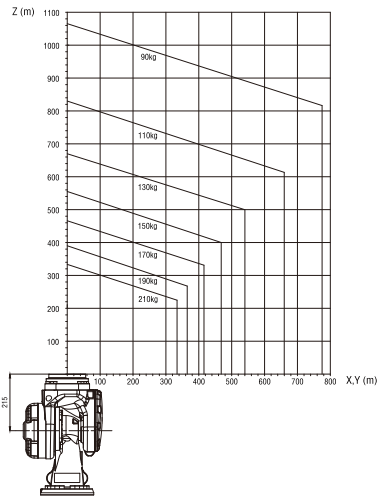
End mounting drawing



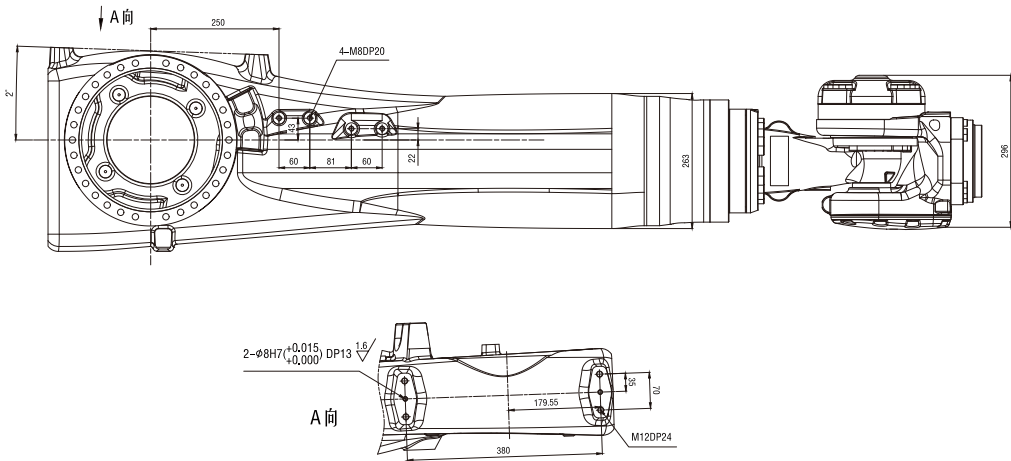
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT210R2700

APPLICATION SCEARIOS

Handling, palletizing, assembling, spot welding, cutting, loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

- 01. With two-axis coupling wrist structure, compact structure, large motion range, small volume, easy to adjust.
- 02. The 6-axis motor is installed inside the forearm, does not need the 6-axis drive shaft, compact structure, smooth transmission.
- 03. Good rigidity, stable operation under extreme load and arm span.

PRODUCT PARAMETERS

Project		Parameter
Wrist load rating(Kg)		210
Maximum working radius (mm)		2700
Freedom of motion		6
Rated load speed (°/s)	J1	123
	J2	115
	J3	112
	J4	179
	J5	172
	J6	219
Joint range of motion (°)	J1	±182.5
	J2	-82.5~+47.5
	J3	-62.5~+207.5
	J4	±350
	J5	±120
	J6	±350
Allowable load torque (N·m)	J4	1100
	J5	1100
	J6	700

Project		Parameter
Allow negative moment of inertia (Kg·m²)	J4	149
	J5	149
	J6	105
IP level	noumenon	IP54
	wrist	IP65
Body weight(Kg)		1140
Repeat positioning accuracy(mm)		±0.06
Installation method		ground
Installation environment	Ring wall temperature /humidity	0~45°C/20~85%RH (Dew free)
	Vibration value	Less than 0.5g
	Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.

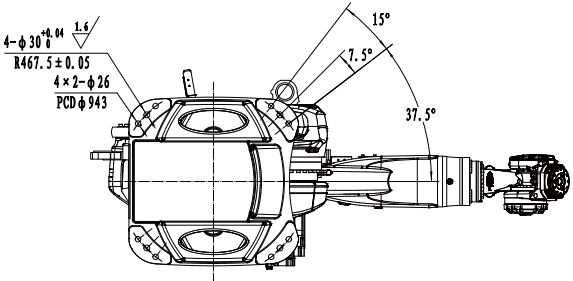


PRODUCT PARAMETERS

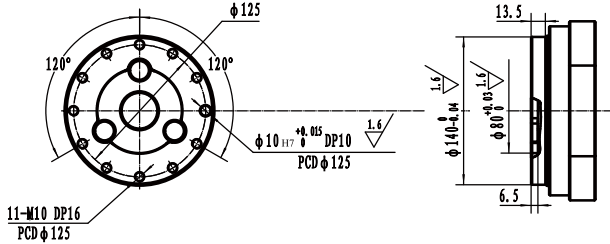
Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

PRODUCT PARAMETERS	
Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g (4.9m/s²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface) Extended CAN interface & 485 interface

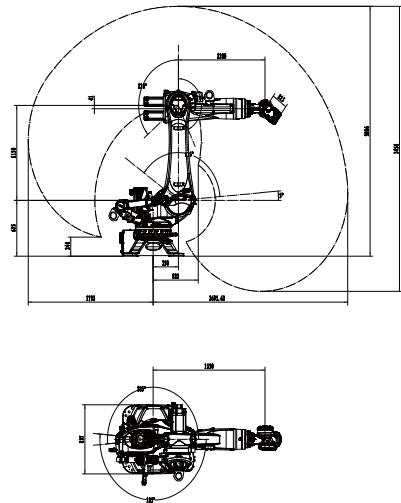
Base installation drawing



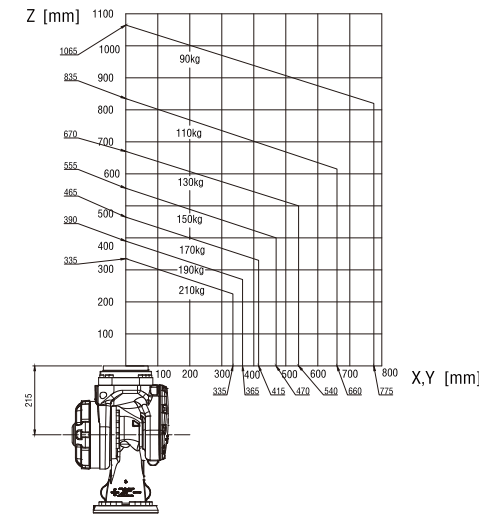
End mounting drawing



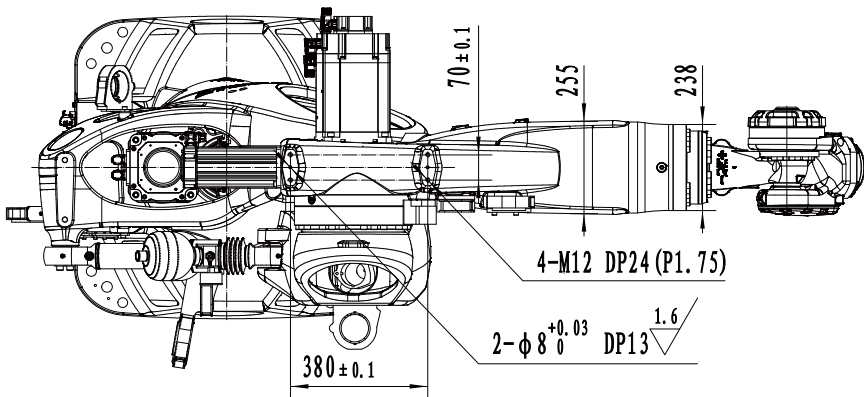
Range of motion diagram



Load curve



External mounting holes





AT180R3150

APPLICATION SCEARIOS

Handling, palletizing

PRODUCT CHARACTERISTICS

Peculiarity

- 01. The robot is designed as a four-axis robot with simple body structure, low cost, long arm span and wide working range.
- 02. The double parallelogram mechanism is used as the transmission mechanism to realize the wrist pitching action of the robot, which is convenient to manufacture.
- 03. The robot has 2 axes and 3 axes in parallel, stable structure, strong bearing capacity, large overall rigidity and light weight.

PRODUCT PARAMETERS

Project		Parameter	Project		Parameter
Wrist load rating		180	allowable load moment of inertia (Kg.m ²)	J4	250
Maximum working radius		3150		noumenon wrist	IP54 IP65
Rated load speed (°/s)	J1	130	Body weight (Kg)		1800
	J2	130	Repeat positioning accuracy(mm)		±0.1
	J3	130	Installation method		ground
	J4	300	Installation environment	Ring wall temperature /humidity	0~45°C/20~85%
Joint range of motion (°)	J1	±177.5		Vibration value	Less than 0.5g
	J2	-82.5~+39.5		Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.
	J3	-68~+66.5			
	J4	±300			

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



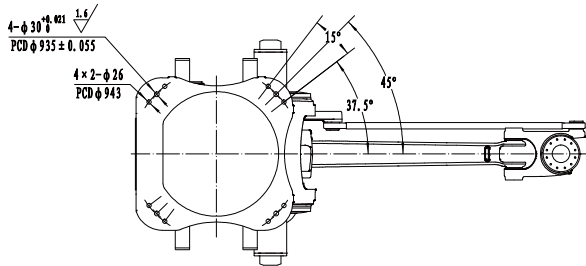
PRODUCT PARAMETERS

Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	4

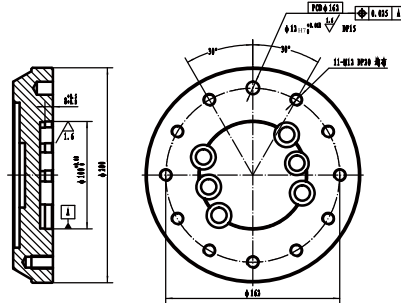
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g (4.9m/s ²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
	Extended CAN interface & 485 interface

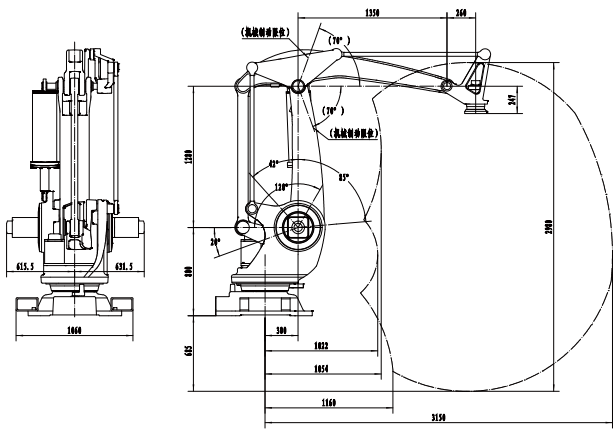
Base installation drawing



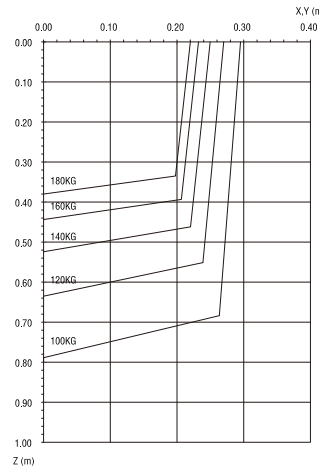
End mounting drawing



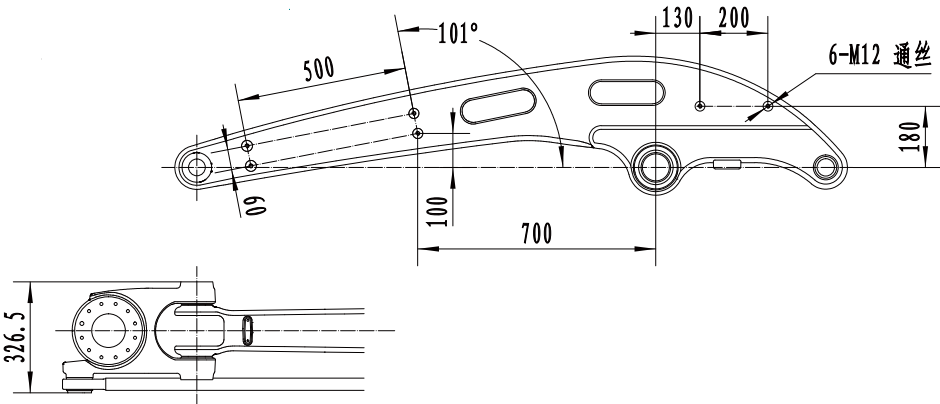
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT120R2230

APPLICATION SCEARIOS

Handling, palletizing, assembling,
loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

01.
- The robot is widely used in machine tool loading and unloading, palletizing, handling, gluing and other application scenarios, especially in scenarios requiring high tempo, high trajectory accuracy and complex field processes (multi-variety workpiece transformation processing).
02.
- Adopt a more optimized overallThe robot design scheme makes the medium-load robot reach 4m/s, thus realizing the high-speed operation of the medium-load robot. Its high-speed beat exceeds the same level of products.
03.
- The robot can meet the requirements of ground installation, top lifting, tilt installation, and can be applied to a variety of working conditions.

PRODUCT PARAMETERS

Project		Parameter
Wrist load rating(Kg)		120
Maximum working radius (mm)		2230
Freedom of motion		6
Rated load speed (°/s)	J1	130
	J2	110
	J3	120
	J4	170
	J5	170
	J6	252
Joint range of motion (°)	J1	±182.5
	J2	-151.5~+62.5
	J3	-77.5~+167.5
	J4	±360
	J5	±117.5
	J6	±360
Allowable load torque (N·m)	J4	800
	J5	800
	J6	260

Project		Parameter
Allow negative moment of inertia (Kg·m²)	J4	88
	J5	58
	J6	54
IP level		noumenon wrist IP54 IP65
Body weight (Kg)		700
Repeat positioning accuracy(mm)		±0.06
Installation method		ground, ceiling
Installation environment	Ring wall temperature /humidity	0~45°C/20~85%RH (Dew free)
	Vibration value	Less than 0.5g Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.
	Other	

FRC3.0 CONTROL CABINET

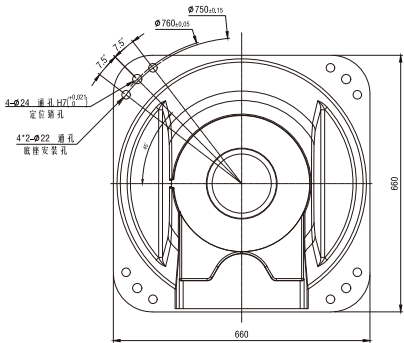
Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



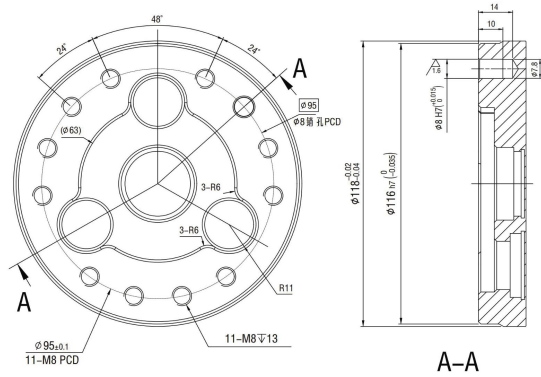
PRODUCT PARAMETERS	
Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

PRODUCT PARAMETERS	
Heavy-duty cable length	7m
Input power supply	380V 3AC(+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g (4.9m/s²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
	Digit quantity 16 in and 16 out
Expansion IO module	Analoginput2 channels, 0~10V
	Analogoutput2 channels, 0~10V
	Encoder AB phase counting (differential signal interface) Extended CAN interface&485 interface

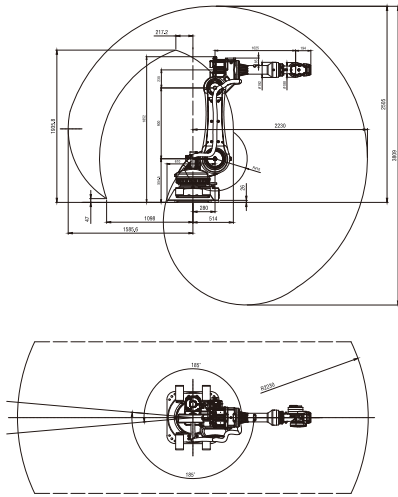
Base installation drawing



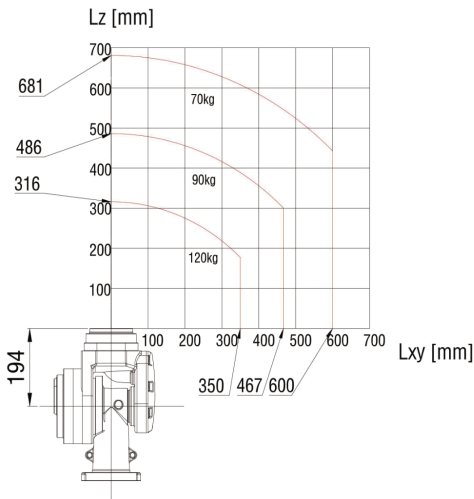
End mounting drawing



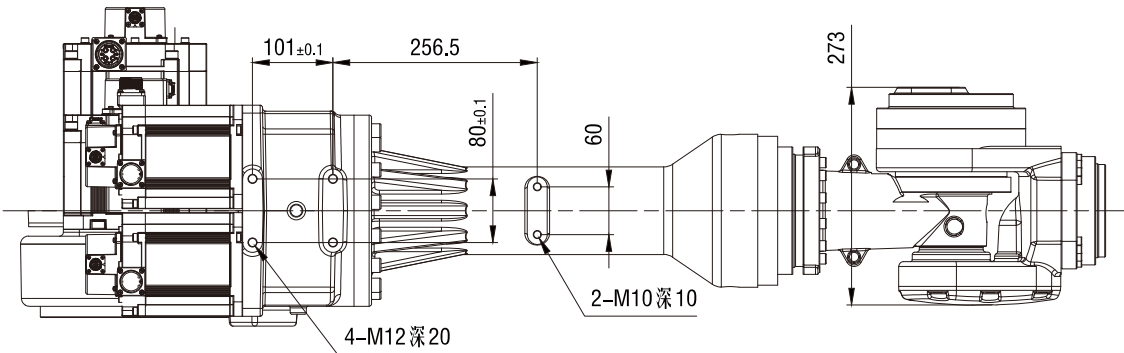
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT120R2400

APPLICATION SCEARIOS

Handling, palletizing

PRODUCT CHARACTERISTICS

Peculiarity

01.

Shorten the beat time by optimizing the motion trajectory and acceleration design, especially suitable for the intensive code operation at the end of the production line.
02.

Short arm radius, slim wrist, small footprint, suitable for complex production line layout.
03.

The structure is stable, the vibration is small during operation, and the long-term stability is maintained.
04.

Process cable design, less wear, longer service life, long maintenance interval and low cost.

PRODUCT PARAMETERS

Project			Parameter		
Wrist load rating(kg)			120		
Maximum working radius(mm)			2400		
Rated load speed(°/s)	J1	145	IP level	noumenon wrist	IP54
	J2	120			IP65
	J3	120	Body weight(kg)	925	
	J4	360			
Joint range of motion (°)	J1	± 165	Repeat positioning accuracy (mm)		± 0.05
	J2	-85~+40	Installation method		ground
	J3	± 65.5	Installation method	Ring wall temperature /humidity	0~45°C/20~85% Dewfree
	J4	± 300		Vibration value	Less than 0.5g
			Installation environment	Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



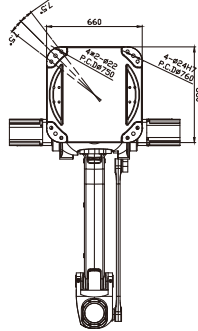
PRODUCT PARAMETERS

Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

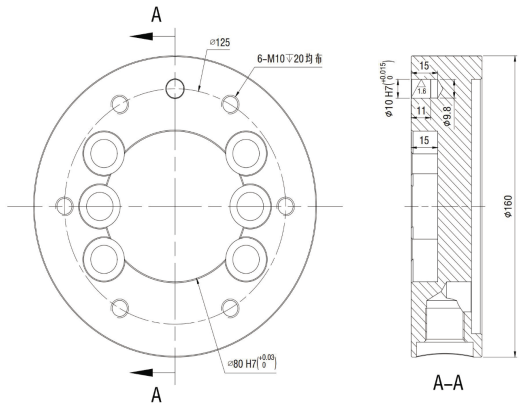
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g (4.9m/s²)
Standard communication interface	Modbus、ModbusTCP、EtherCAT
Extended communication interface	Profinet、EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
Extended CAN interface&485 interface	

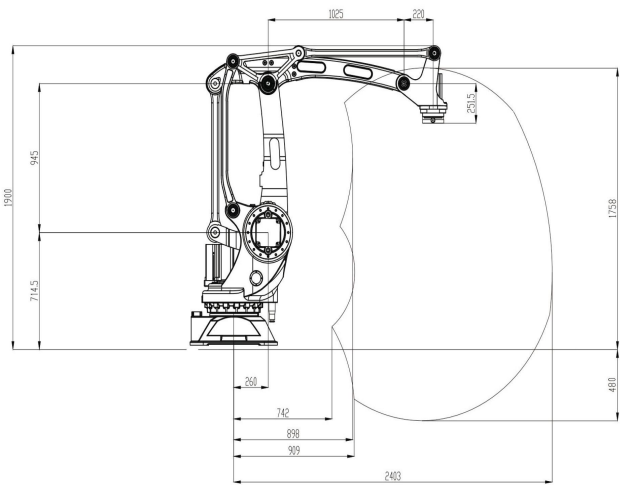
Base installation drawing



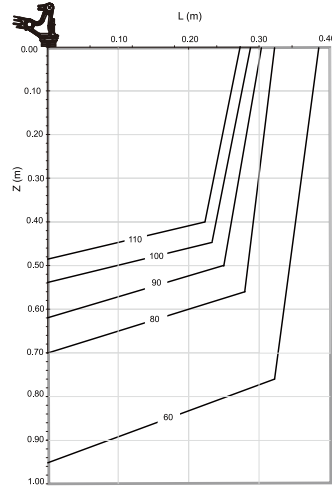
End mounting drawing



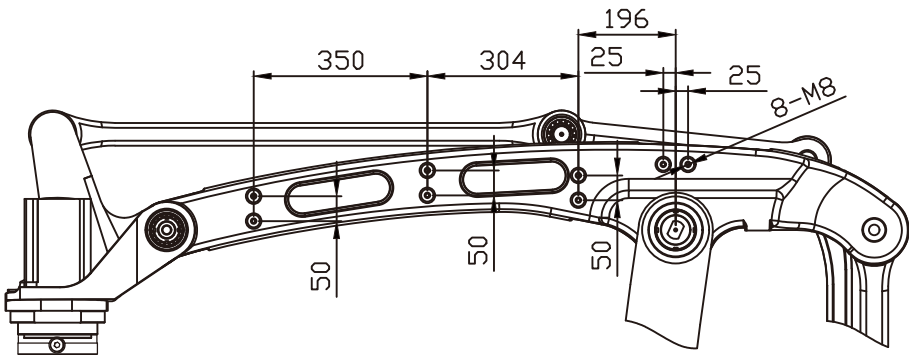
Range of motion diagram



Load curve



External mounting holes





AT80R2050

APPLICATION SCEARIOS

Handling, assembling,
loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

- 01. High-speed 6-axis loading and unloading, line speed 4m/s, from the actual use of the effect, lighter weight combined with advanced algorithms, so that the robot has reached the domestic leading beat level.
- 02. The robot swivel arm half turn small, reduce the floor area.
- 03. The movement range is large, the movement range of the upper arm is 220°, and the movement range of the lower arm is 275°.
- 04. The wrist adopts compact design, small and flexible, optimized wrist structure easily control the narrow space operation.

PRODUCT PARAMETERS

Project		Parameter	Project		Parameter
Wrist load rating(Kg)		80	Allow negative moment of inertia (Kg·m ²)	J4	30
Maximum working radius (mm)		2050		J5	30
Freedom of motion		6		J6	15
Rated load speed (°/s)	J1	160	IP level	noumenon wvist	IP54 IP65
	J2	120			
	J3	120	Body weight (Kg)	530	
	J4	225			
	J5	225			Repeat positioning accuracy(mm)
	J6	225	Installation method	地面、吊装	
Joint range of motion (°)	J1	±182.5			Installation environment
	J2	-135~+80			
	J3	-75~+200	Vibration value	Less than 0.5g Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.	
	J4	±360			
	J5	±120			
	J6	±360			
Allowable load torque (N·m)	J4	440	Other		
	J5	300			
	J6	180			

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



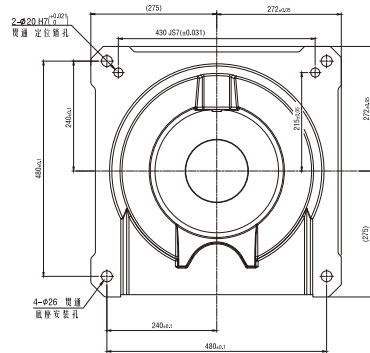
PRODUCT PARAMETERS

Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

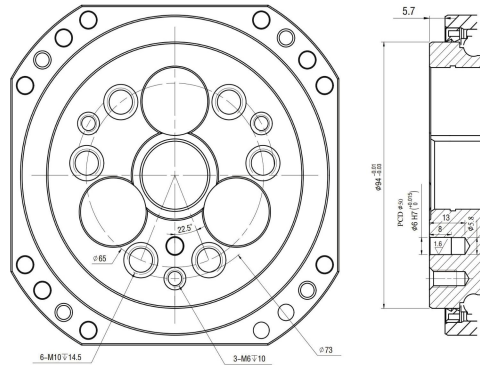
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g (4.9m/s²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
Extended CAN interface & 485 interface	

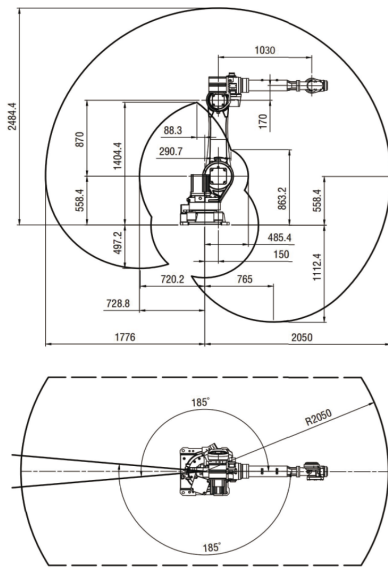
Base installation drawing



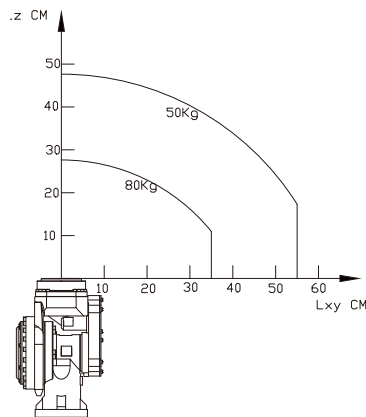
End mounting drawing



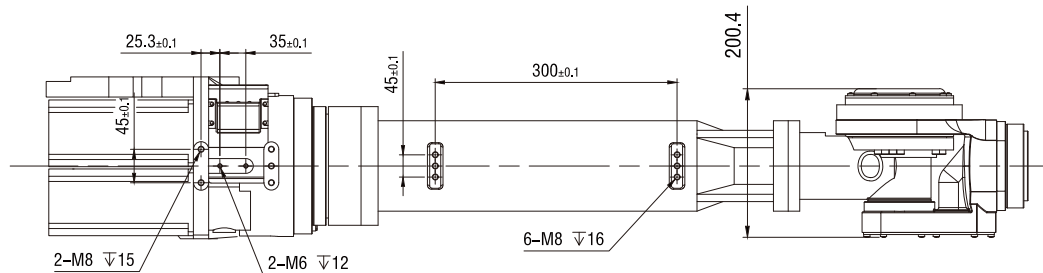
Range of motion diagram



Payload diagram



External mounting hole position and the widest dimension of the forearm





AT30R1831

APPLICATION SCEARIOS

Handling, assembling,
loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

- 01. 4 axis 5 axis 6 axis using hypoid gear transmission, accuracy to maintain better, stronger bearing capacity, in the use of the same time, simple structure, high efficiency, low cost.
- 02. The lower arm adopts hollow structure to facilitate the welding line routing.
- 03. The hollow structure of the wrist, on the one hand, is convenient for welding, on the other hand, it has the advantages of flexibility, small interference, smooth wire feeding and gas protection welding.

PRODUCT PARAMETERS

Project		Parameter	Project		Parameter	
Wrist load rating(Kg)		30	Allow negative moment of inertia (Kg·m ²)	J4	3.1	
Maximum working radius (mm)		1831		J5	3.1	
Freedom of motion		6		J6	1.3	
Rated load speed (°/s)	J1	210	IP level	noumenon	IP54	
	J2	210		wrist	IP65	
	J3	265	Bodyweight(Kg)		320	
	J4	331	Repeat positioning accuracy(mm)		±0.08	
	J5	342	Installation method		ground, ceiling	
	J6	572				
Joint range of motion (°)	J1	-185.5~+173.5	Installation environment	Ring wall temperature /humidity	0~45°C/20-85%RH (Dew free)	
	J2	-152.5~+94		Vibration value	Less than 0.5g	
	J3	-85.5~+217.5				
	J4	±197.5		Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.	
	J5	±177.5				
	J6	±447.5				
Allowable load torque (N·m)	J4	62				
	J5	62				
	J6	38.2				

FRC3.0 CONTROL CABINET

Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



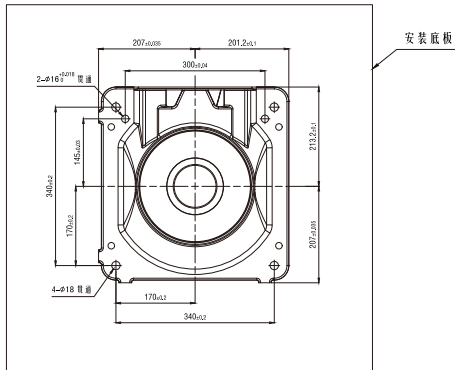
PRODUCT PARAMETERS

Overall dimensions (width*depth*height)	800mm*550mm*970mm
Weight	140Kg
Class of protection	IP54
Number of axes	6

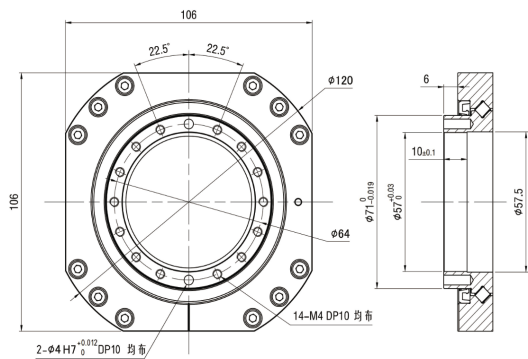
PRODUCT PARAMETERS

Heavy-duty cable length	7m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max)	26KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g(4.9m/s ²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface) Extended CAN interface & 485 interface

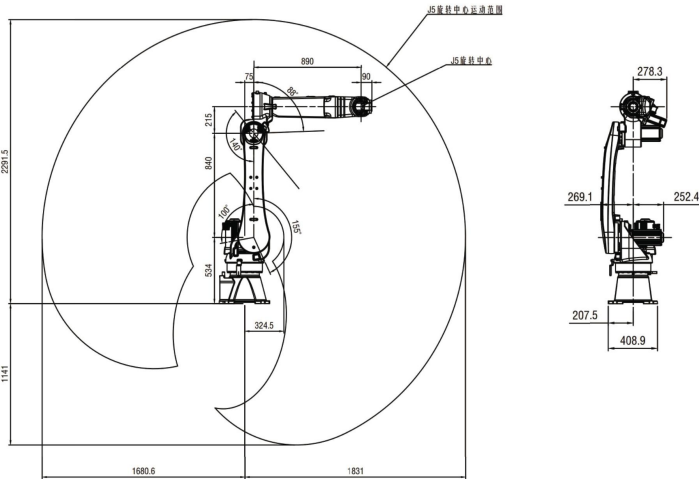
Base installation drawing



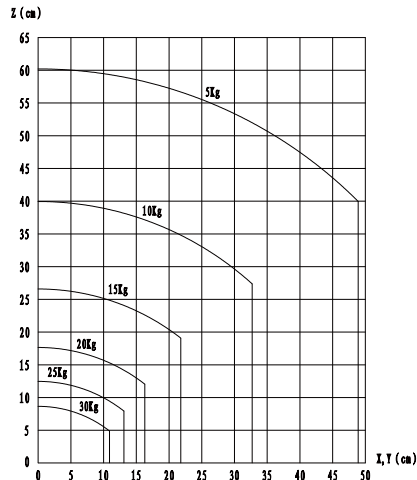
End mounting drawing



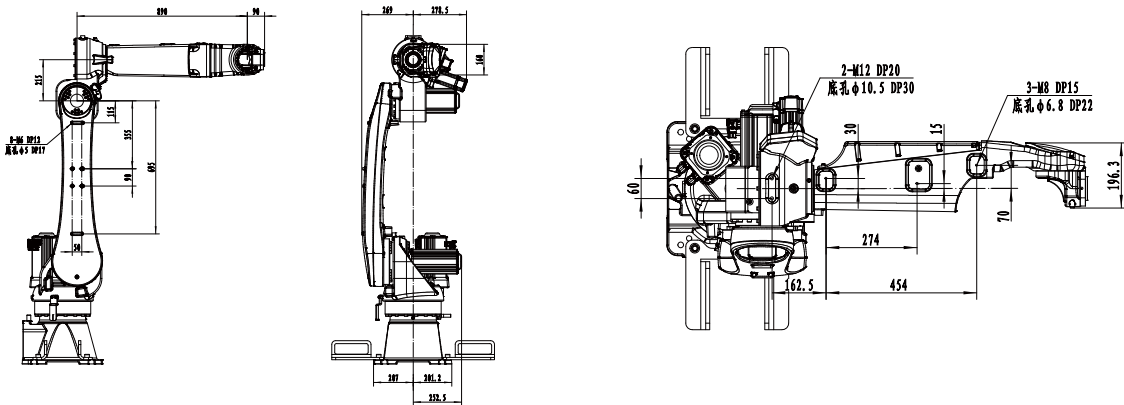
Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm





AT12R1450

APPLICATION SCEARIOS

Handling, welding, palletizing,
loading and unloading

PRODUCT CHARACTERISTICS

Peculiarity

01. 5 axis 6 axis using belt rotation, simple structure, suitable for small robots, to meet the robot 5 axis 6 axis transmission chain long characteristics, low cost, light weight, smooth transmission.
02. 4 axis 5 axis harmonic reducer, high transmission efficiency, smooth operation, low noise.
03. 6-axis using belt + gear ring drive direct deceleration, no reducer, simple structure, low cost.
04. The robot can meet the requirements of ground installation, top lifting, tilt installation, and can be applied to a variety of working conditions.
05. The robot has light weight, compact structure, high speed, high precision, high scalability and easy operation.

PRODUCT PARAMETERS

Project		Parameter	Project		Parameter
Wrist load rating(Kg)		12	Allow negative moment of inertia (Kg.m ²)	J4	0.65
Maximum working radius (mm)		1450		J5	0.65
Freedom of motion		6		J6	0.17
Rated load speed (°/s)	J1	140	IP level	noumenon	IP54
	J2	171		wrist	IP65
	J3	170	Body weight(Kg)		195
	J4	183	Repeat positioning accuracy(mm)		±0.06
	J5	170	Installation method		ground, ceiling
	J6	718	Installation environment	Ring wall temperature /humidity	0~45°C/20~85%RH (Dew free)
Joint range of motion (°)	J1	±179		Vibration value	Less than 0.5g
	J2	-172.5~+87.5		Other	Keep away from corrosive gases or liquids or explosive gases; Keep away from water, oil and dust; Keep away from electrical interference sources.
	J3	-80.5~+147.5			
	J4	±187.5			
	J5	±147.5			
Allowable load torque (N.m)	J6	±357.5			
	J4	22			
	J5	22			
	J6	9.8			

ARCM1.0 CONTROL CABINET

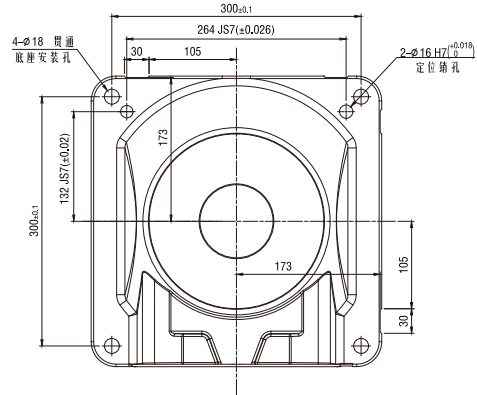
Ompact structure, light weight, flexible installation, the use of separate module design, easy to disassemble structure, easy maintenance.



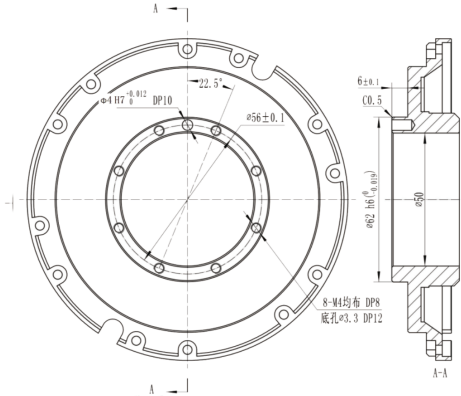
PRODUCT PARAMETERS	
Overall dimensions (width*depth*height)	600mm*507mm*815mm
Weight	105Kg
Class of protection	IP54
Number of axes	6

PRODUCT PARAMETERS	
Heavy-duty cable length	5m
Input power supply	380V 3AC (+10%, -15%)
Power capacity(Max.)	16KVA
Ambient temperature/humidity	0~45°C/20~85%RH (Dew free)
Vibration	Less than 0.5g(4.9m/s ²)
Standard communication interface	Modbus, ModbusTCP, EtherCAT
Extended communication interface	Profinet, EtherNet/IP
IO modules	Digit quantity 15 in and 16 out
Expansion IO module	Digit quantity 16 in and 16 out
	Analog input 2 channels, 0~10V
	Analog output 2 channels, 0~10V
	Encoder AB phase counting (differential signal interface)
	Extended CAN interface & 485 interface

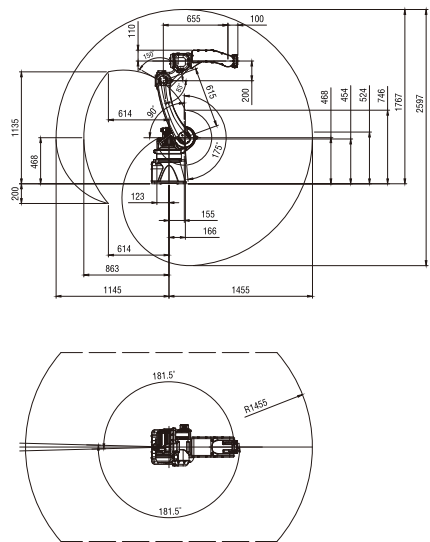
Base installation drawing



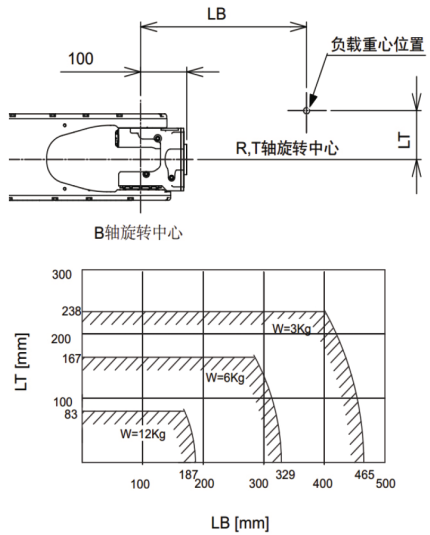
End mounting drawing



Range of motion diagram



Load curve



External mounting hole position and the widest dimension of the forearm

