

QJAR

QJR6S-1



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CE

Specifications and Drawings of QJR6S-1

I. QJR6S-1 Robot basic specification table

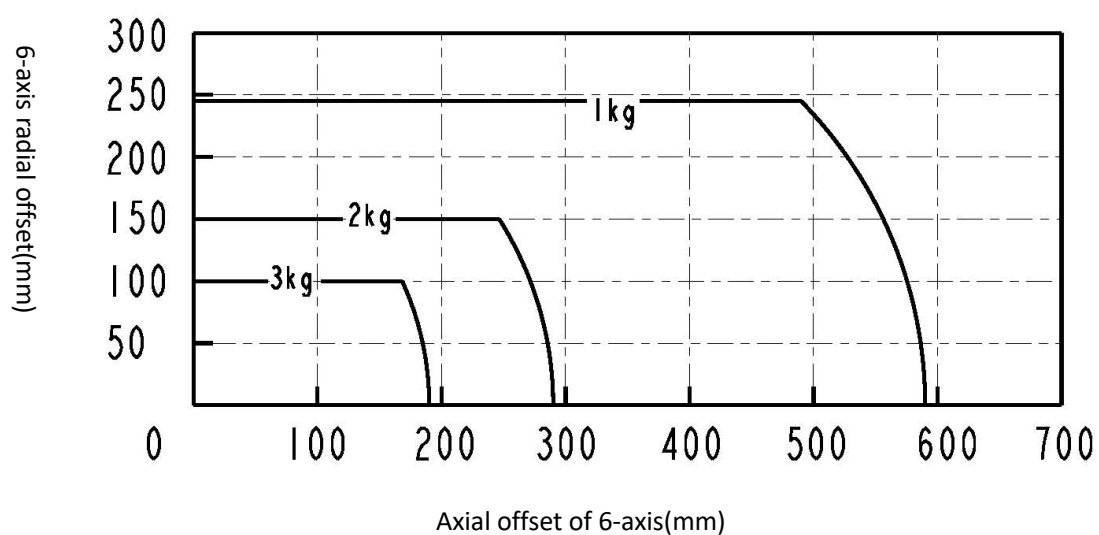
QJR6S-1 Basic specification sheet			
Body shape		Vertical multiarticular	
Degrees of freedom		6	
The payload		3/6kg	
Arm span		750.6mm	
Repeated positioning accuracy Δ^2		$\pm 0.03\text{mm}$	
Mechanical limit range	1axis	$\pm 172^\circ$	
	2axis	$+132^\circ, -82^\circ$	
	3axis	$+65^\circ, -190^\circ$	
	4axis	$\pm 172^\circ$	
	5axis	$\pm 120^\circ$	
	6axis	$\pm 360^\circ$	
Maximum speed	1axis	6.4 rad/s	366 $^\circ/\text{s}$
	2axis	6 rad/s	343 $^\circ/\text{s}$
	3axis	6.4 rad/s	366 $^\circ/\text{s}$
	4axis	6.5 rad/s	372 $^\circ/\text{s}$
	5axis	8.3 rad/s	475 $^\circ/\text{s}$
	6axis	11.5 rad/s	658 $^\circ/\text{s}$
Allow the torque	4axis	11 N.m	
	5axis	11 N.m	
	6axis	5.3 N.m	
Inertia moment	4axis	0.47 kg.m^2	
	5axis	0.47 kg.m^2	
	6axis	0.2 kg.m^2	
Body weight		39 kg	
Level of protection		IP65	
Installation environment	temperature	0~45 $^\circ\text{C}$	
	humidity	20%~80% RH(no condensation)	
	vibration	$<4.9\text{m/s}^2$ (0.5G)	
	other	Avoid flammable, corrosive gases and liquids; Avoid contact with water, oil, dust, etc. Keep away from electrical noise sources.	
The power capacity		1.5kVA	

II. QJR6S-1 Acceleration configuration table and corresponding load diagram of robot

1. Load upper limit 3kg state :

QJR6S-1 Acceleration configuration table			
Maximum acceleration	1axis	12 rad/s ²	687 °/s ²
	2axis	10 rad/s ²	572 °/s ²
	3axis	30 rad/s ²	1718 °/s ²
	4axis	60 rad/s ²	3437 °/s ²
	5axis	60 rad/s ²	3437 °/s ²
	6axis	80 rad/s ²	4583 °/s ²
Load upper limit		3kg	

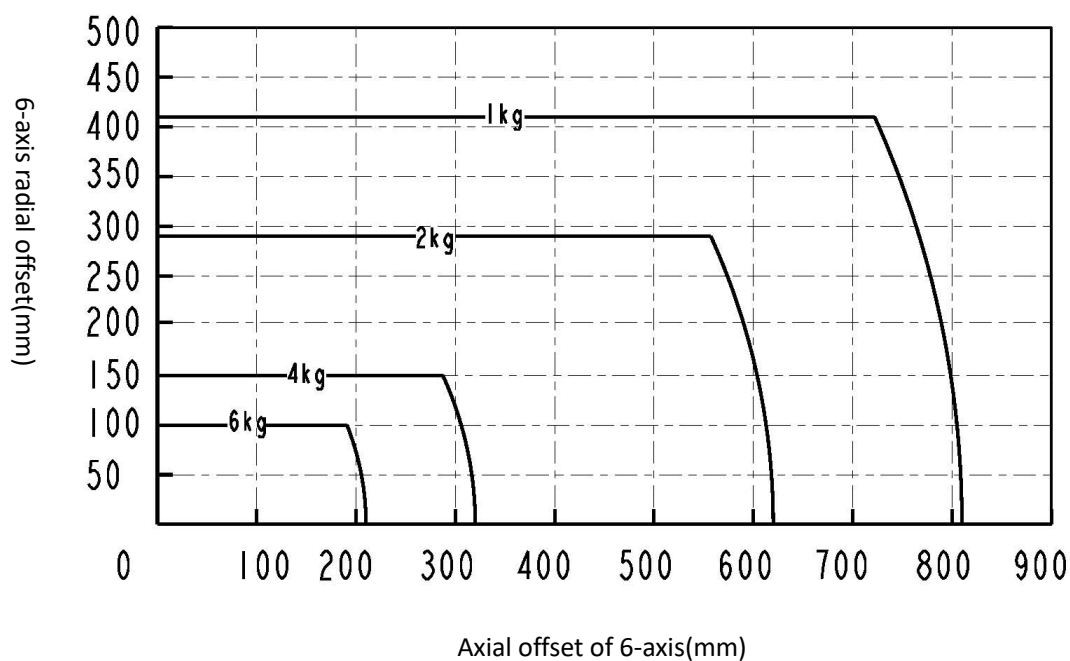
Robot Load Chart (The center of 5 axis is zero point)



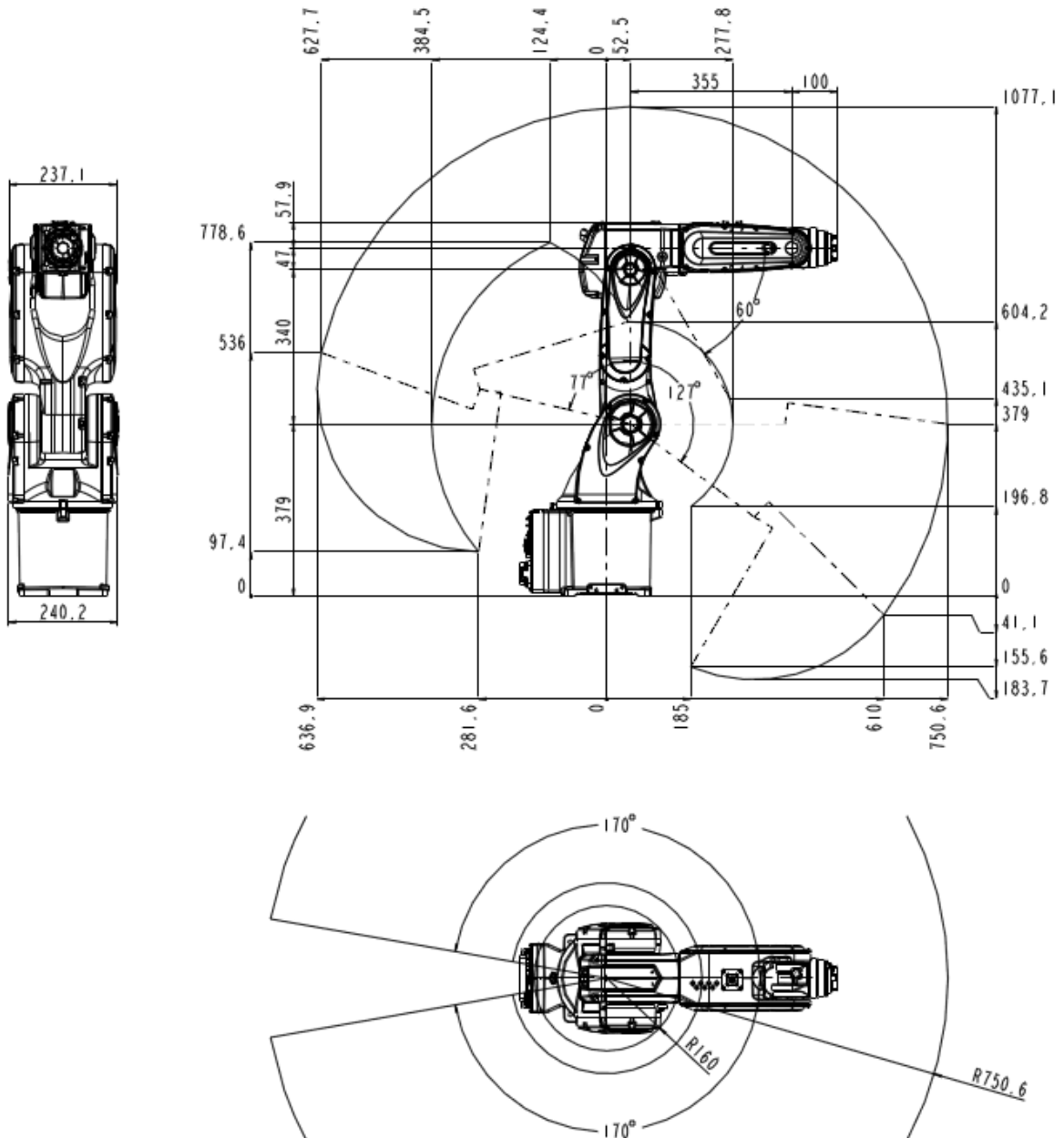
2. Load upper limit 6kg state :

QJR6S-1 Acceleration configuration table			
Maximum acceleration	1axis	10 rad/s ²	572 °/s ²
	2axis	5.5 rad/s ²	315 °/s ²
	3axis	15 rad/s ²	859 °/s ²
	4axis	25 rad/s ²	1432 °/s ²
	5axis	25 rad/s ²	1432 °/s ²
	6axis	30 rad/s ²	1718 °/s ²
Load upper limit		6kg	

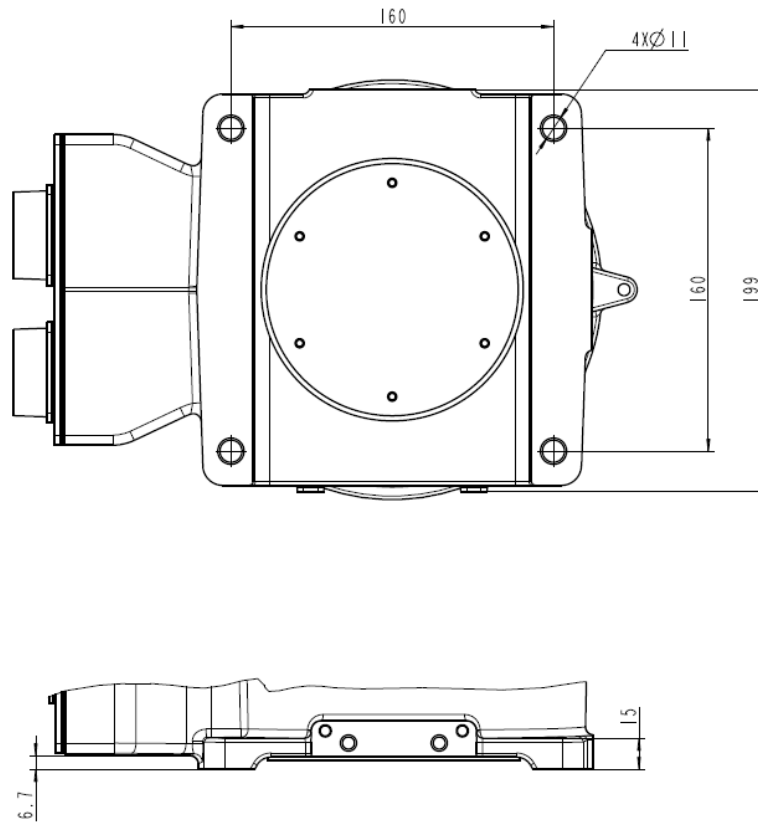
Robot Load Chart (The center of 5 axis is zero)



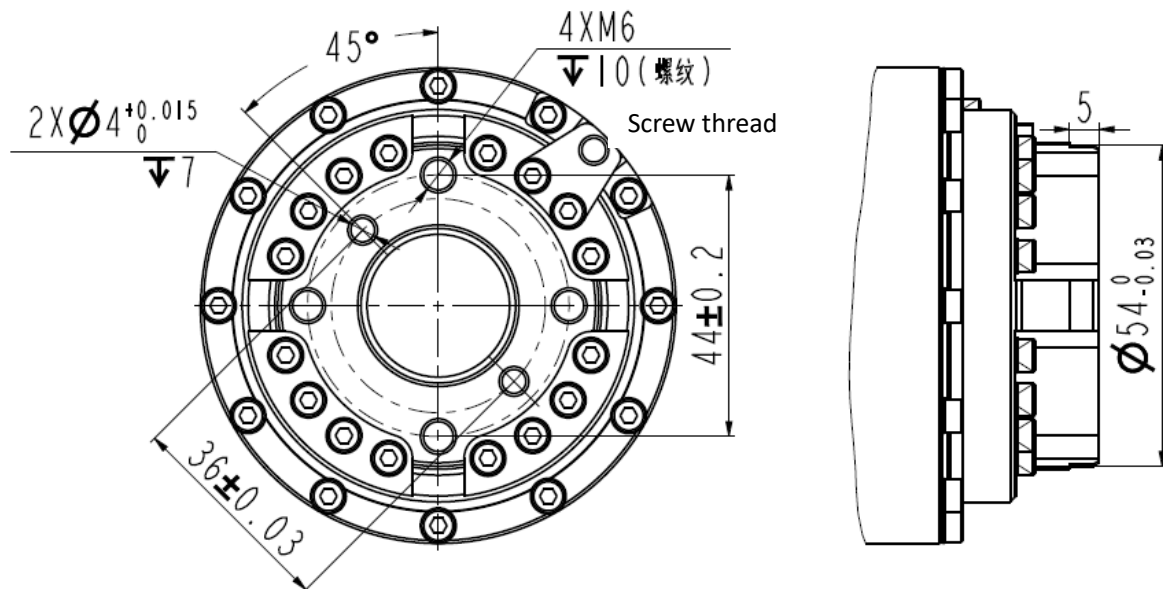
III. QJR6S-1 Diagram of the robot's overall size and maximum motion range



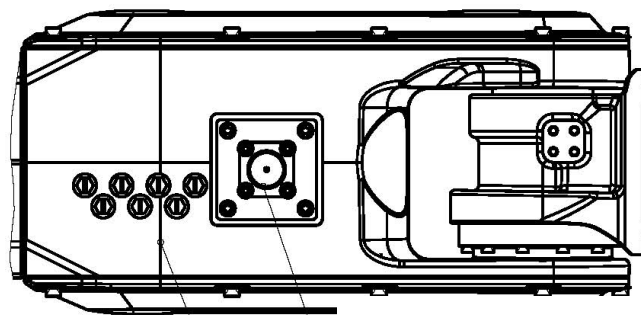
IV. QJR6S-1 Robot base mounting dimension drawing



V. QJR6S-1 Installation dimension drawing of robot end

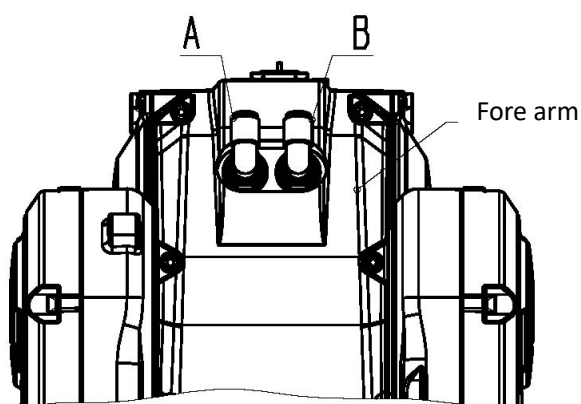


VI. Schematic diagram of robot reserved gas path and I / O interface position

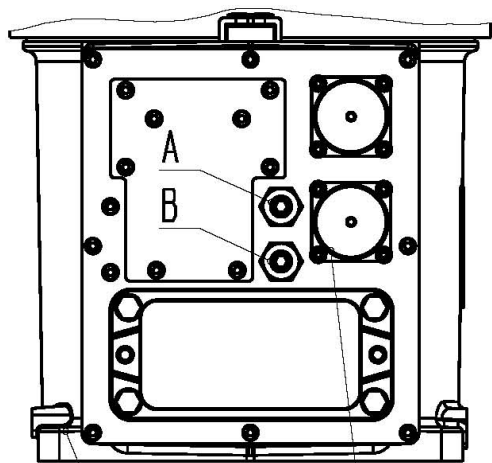


wrist

Round connector plug WF16J10Z, I/O line: $0.3\text{mm}^2 \times 10\text{C}$
Pairing: Round connector plug WF16K10TE



Fore arm



base

Round connector plug **WF28J12Z-3**, I/O line: $0.3\text{mm}^2 \times 10\text{C}$
Pairing: Round connector plug **WF28K12TE-3**,
10A cold pressing female **YK1.5-20.4-1.OAU**
(1.OAU is optional according to the need)

explain:

1. Base A and B are air inlets: R1/8 screw thread, with cone plug, the external diameter is $\phi 6\text{mm}$
2. Fore arm A and B are air outlets, the external diameter is $\phi 6\text{mm}$
3. The base and the fore arm position circular connector plug are connected in the same position

VII. QJR6S-1 Configuration table of robot products

QJR6S-1Configuration table of robot products	
Motor	Domestic
Harmonic reducer	Shimpo/Leader
Drive control integration	Googol/QJAR

VIII. QJR6S-1Controller cabinet

QJR6S-1controller cabinet	
Control hardware	Googol drive control integration
Control cabinet software	Googol system
Power Supply	Single phase AC220V(+10%,-10%)
Rated power	2.5KW
Power capacity	1.5KVA
Size of control cabinet	453x248x327mm
Weight of control cabinet	10kg
Ambient temperature	0-45℃
Maximum humidity	20%~80% RH (no condensation)
Protection level	IP21
Operation panel	On the control cabinet
Programming unit	Color touch screen teaching box
Security	Emergency stop, automatic mode stop, remote mode stop
Input and output	Digital IO 16 input 16 output,analog signal 4 input 4 output

QJR6S-1controller cabinet	
Control hardware	QJAR drive control integration
Control cabinet software	QJAR system
Power Supply	Single phase AC220V(+10%,-10%)
Rated power	2.5KW
Power capacity	1.5KVA
Size of control cabinet	530*270*400mm
Weight of control cabinet	20kg
Ambient temperature	0-45℃
Maximum humidity	20%~80% RH (no condensation)
Protection level	IP54
Operation panel	On the control cabinet
Programming unit	Color touch screen teaching box
Security	Emergency stop, automatic mode stop, remote mode stop
Input and output	Digital IO 15 input 21 output