Kawasaki Robotics

Standard specifications

KJ125J*E25

1st Edition : June 10, 2019
2nd Edition : October 04, 2019
3rd Edition : November 25, 2019

KAWASAKI HEAVY INDUSTRIES, LTD.

ROBOT DIVISION

Specification :	90101-2916DEC
(Arm) :	90151-0270DEB
(Controller) :	90152-0070DEB

*・・・F,G,R,S…

1. Specification of Robot

[1] Robot Arm (KJ125J)

1. Model	KJ125J-B
2. Type	Articulated robot
3. Degree of freedom	6 axes

4. Axis specification

Operating axis		Max. operating range
Arm rotation	(JT1)	+160 ° ～－ 160 °
Arm out-in	(JT2)	+130 ° ～－ 80 °
Arm up-down	(JT3)	+ 90 ° ～－ 75 °
Wrist roll	(JT4)	+720 ° ～－720 °
Wrist roll	(JT5)	+720 ° ～－720 °
Wrist roll	(JT6)	+410 ° ～－410 °

5. Repeatability	±0.15 mm (at the tool mounting surface)
6. Max. payload	Wrist : 8 kg (at the tool mounting surface) Upper arm : 5 kg (on the Upper Arm :Include painting equipments in pressurized compartment) Lower arm : 5 kg
7. Max. painting speed	1500 mm/s (at the center of tool mounting surface)

8. Load capacity of wrist

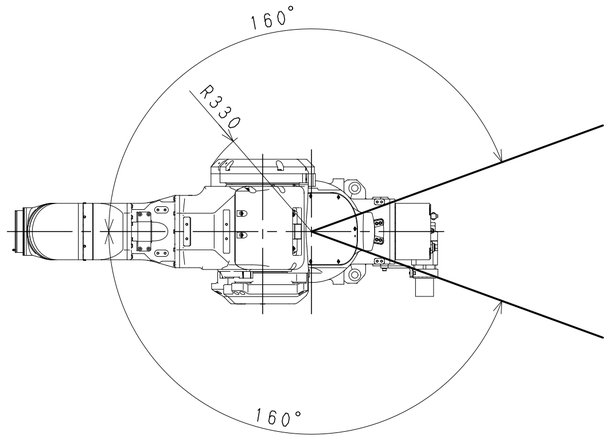
	Max. torque	Moment of inertia*
JT4	21.8 N･m	0.90 kg･m2
JT5	17.0 N･m	0.54 kg･m2
JT6	8.0 N･m	0.12 kg･m2

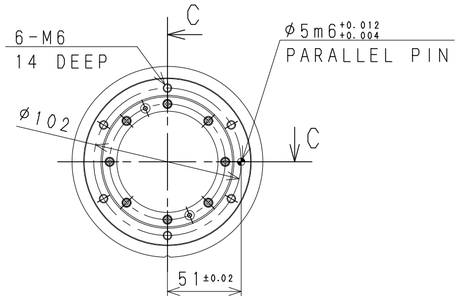
Note* Each value in this table shows allowable payload moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to each axis. If more detailed data is required for your application, please contact Kawasaki.

9. Driving motor	Brushless AC Servomotor
10. Working range	See attached drawing
11. Mass	190 kg (without options)
12. Color	Munsell 10GY9/1 equivalent
13. Installation	Floor and Wall mounting
14. Environment cond.	(Temperature) 0 ～ 40 ˚C, (Humidity) 35 ～ 85 %, no dew, nor frost allowed
15. Explosion proof	Pressurized and intrinsically safe
16. Air supply to the manipulator	Clean & dry air : 0.5 Nm^3/min, 0.4～0.7 MPa Dew point : －17 ℃ or less at atmospheric pressure. Solid material : 0.01 μm or less Oil content : Mist separation 99.9999% or more
17. Options	Adjustable Mechanical Stopper : JT1/JT2/JT3
	Painting equipment
	Solenoid valve for painting (up to 1 units can be equipped with)
18. Others	Consult Kawasaki about maintenance parts and spare parts.

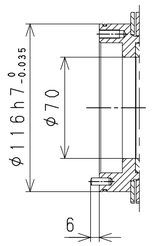
[2] Controller

1. Model	E25/E27		
2. Enclosure	Enclosed structure / Indirect cooling system		
3. Dimensions	See attached drawing		
4. Number of controlled axes	6 axes 7/8/9 axes(built-in addition, option)		
5. Servo control and drive system	Full Digital Servo System		
6. Type of control	Teach mode	Joint, Base, Tool, Fixed Tool (option) operation mode	
	Repeat mode	PTP, CP control mode Joint, Linear, Circular (option) interpolation	
7. Teaching method	Teaching or AS language programming		
8. Memory capacity	8 MB		
9. External operation signals	External Motor Power Off, External Hold, etc.		
10. General purpose signals	Input signals	32 channels (Includes dedicated signals)	
	Output signals	32 channels (Includes dedicated signals)	
11. Operation panel	Basic Operation Switches (Teach/Repeat SW, Emergency Stop SW, Control power lamp)		
12. Cable length	Power/Signal cable in non hazardous area		3 m
	Power/Signal cable in hazardous area		3 m
	Teach Pendant cable		10 m
13. Mass	See attached drawing		
14. Power requirement	AC200 V - AC220 V±10%, 50/60 Hz, 3 phases, Max 5.6 kVA(E27), Max 10 kVA(E25)		
15. Ground	Less than 10Ω(for Explosion proof) ,Less than 100 Ω (robot dedicated ground) Leakage current: max. 100 mA		
16. Ambient temperature	0 - 45 °C		
17. Relative humidity	35 - 85 % (non-condensation)		
18. Color	Munsell: 10GY9/1 equivalent		
19. Ex. Light Weight Teach Pendant	Intrinsically safe construction, Color display (5.7 inch TFT LCD) with touch panel Emergency Stop,Teach Lock and Enable Switches		
20. Options			
General purpose signals	Input signals	64/96/128 channels (Includes dedicated signals)	
	Output signals	64/96/128 channels (Includes dedicated signals)	
I/O connector	D-SUB 37pin(male,female) with cover		
Operation panel	Motor Power ON, Cycle start, RUN/HOLD, Error reset, Error lamp		
Power/Signal cable	in non hazardous area 5,7,10,15,20,25,30m in hazardous area 1,5,7,10,15m		Total length: max. 40 m
Teach Pendant cable	3,5,7,10,15,20,25,30m		
Teach pendant Connector Box	in non hazardous area 1,3,5,7,10,15m in hazardous area 1,3,5,7,10,15m		Total length: max. 30 m
Auxiliary storage	USB memory		
Brake release	Brake release switch		
AC Outlet	AC100V Outlet		
PC cable	1.5m, 3m		
Teach Pendant option	Cable hook, connector for TP less		
Others	Cooler, LED Light, Field BUS, Software PLC, Analog input/output, Conveyor Synchronization, Paint Equipment Control and so on		
21. Others	Consult Kawasaki about maintenance parts and spare parts.		

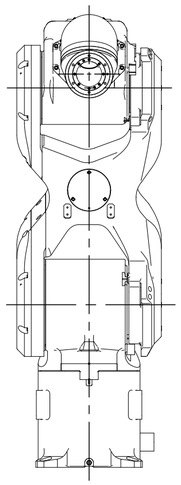


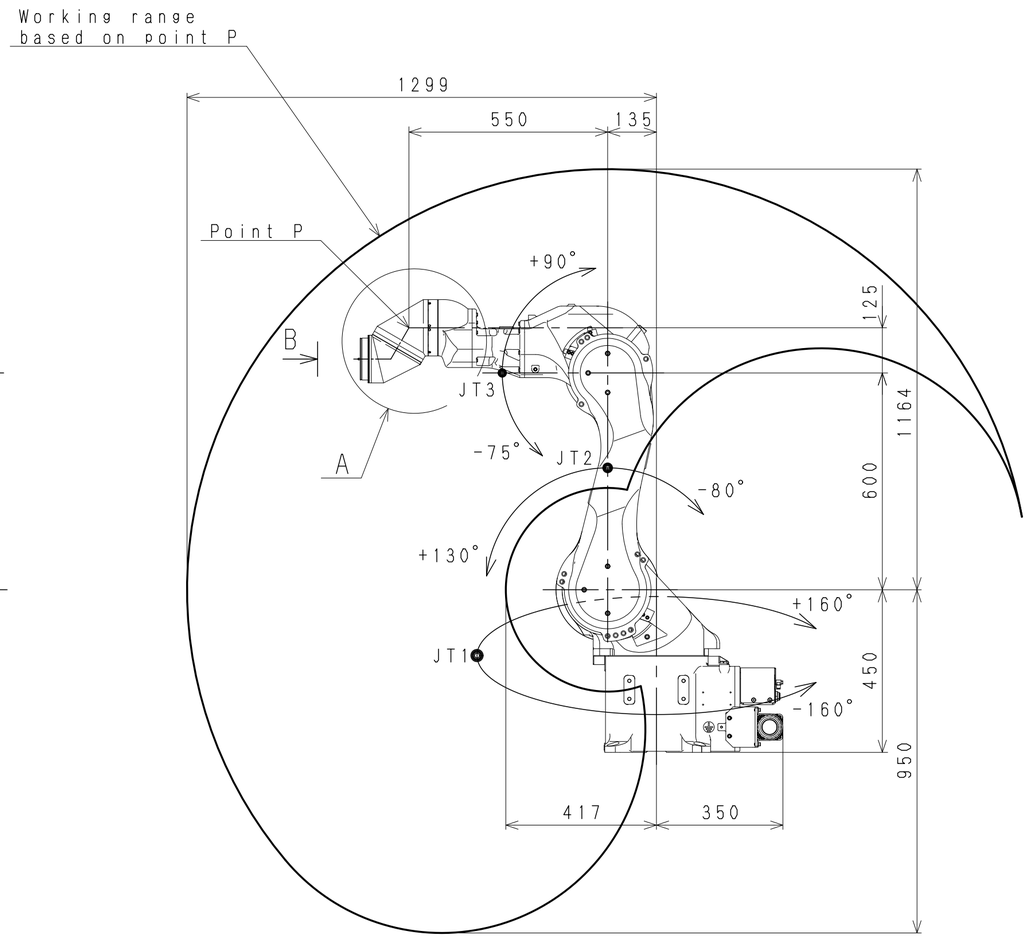


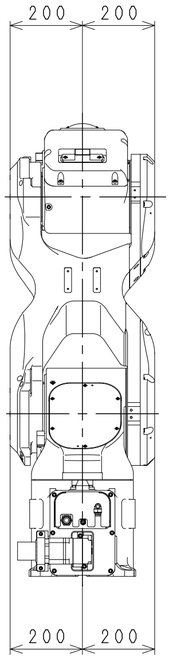
VIEW B

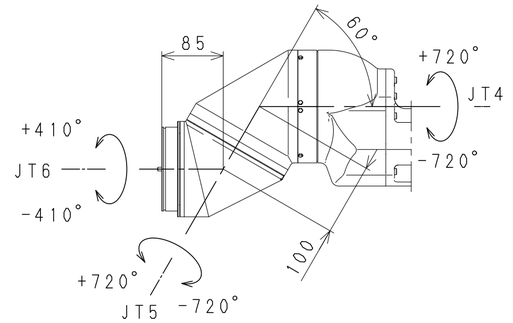


SECTION C-C

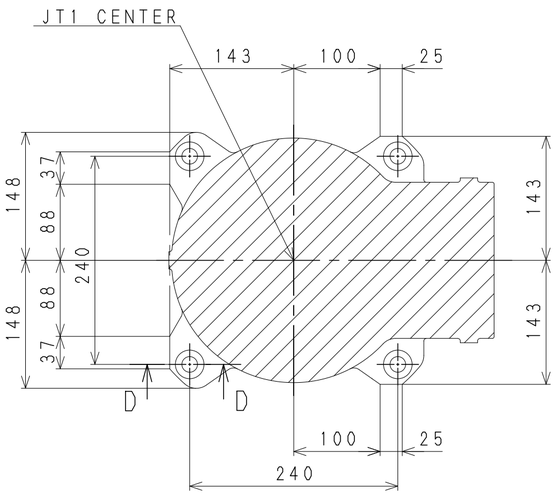




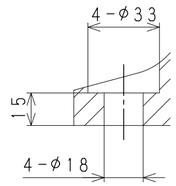




DETAIL A

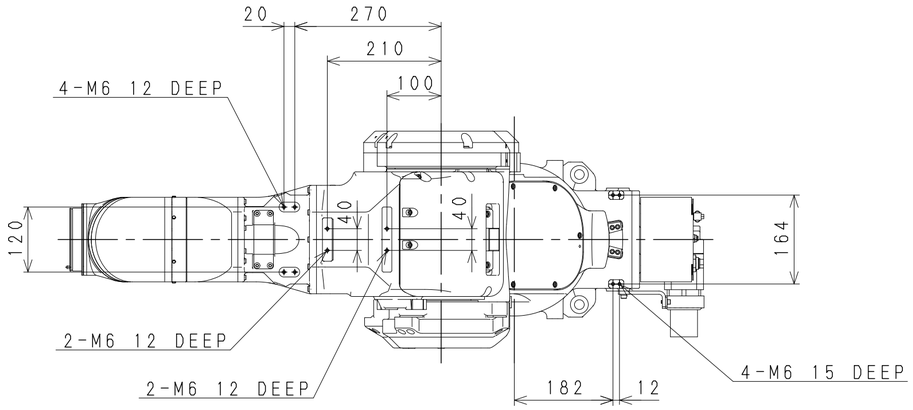


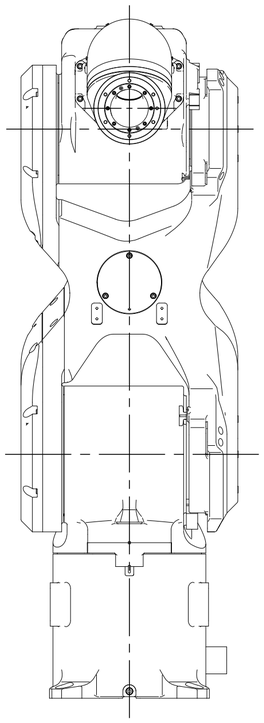
Base Installation Dimensions

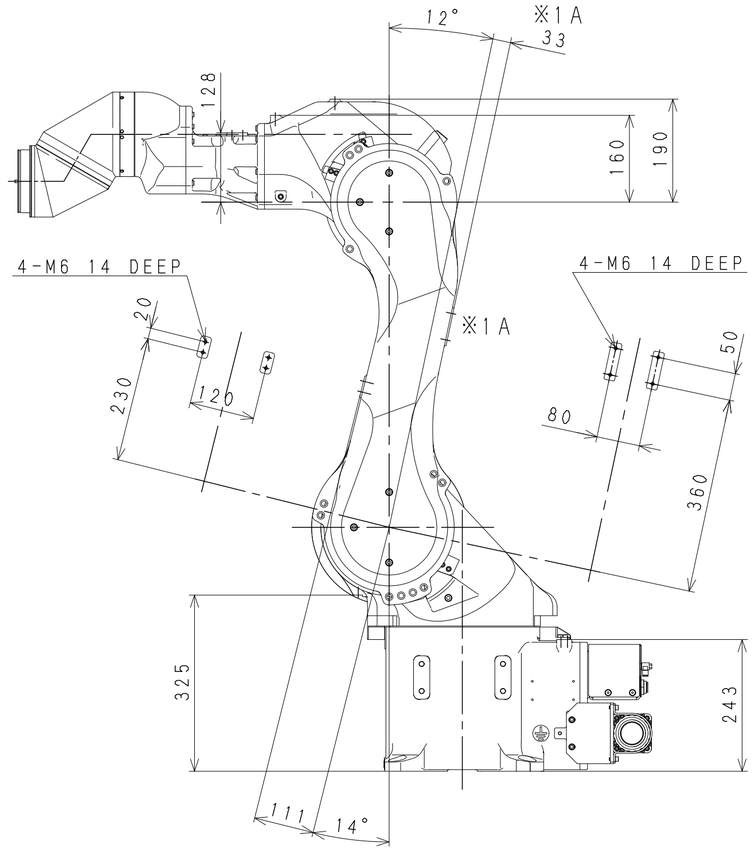


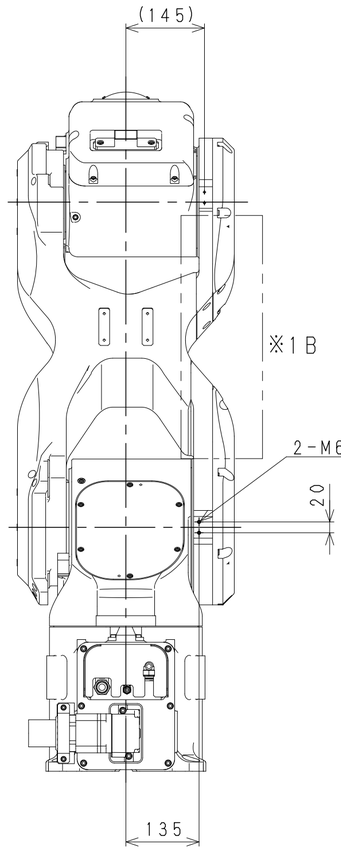
SECTION D-D

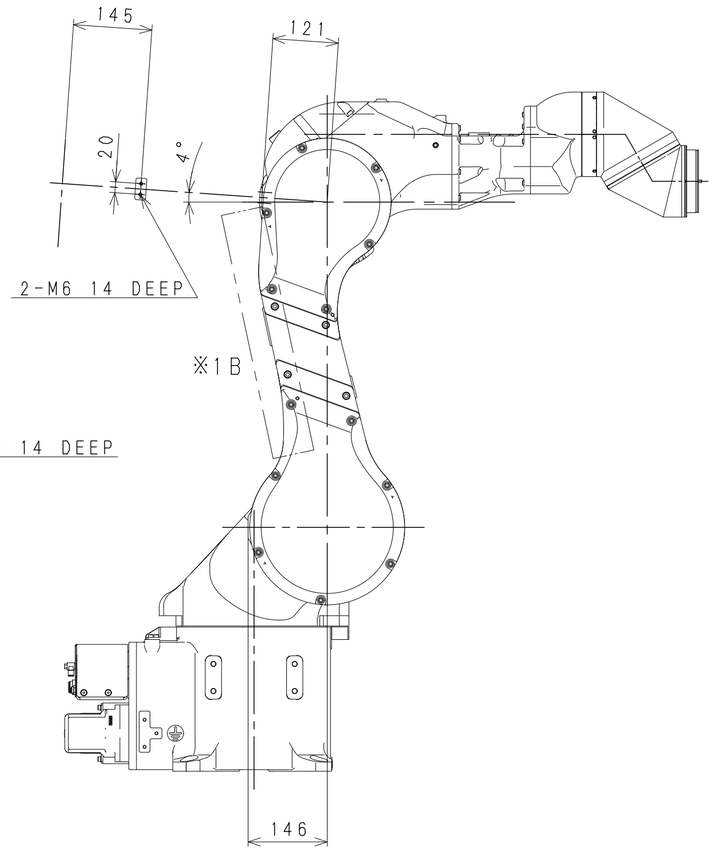
KJ125J-B
WORKING RANGE

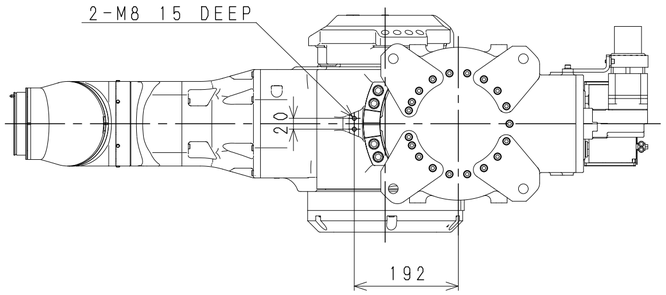












※1

※1Bは部品の接合部であり、実機と上図の外形にズレが生じることがあります。
※1Aに固定するブラケットが、※1Bの近くに位置する場合は、ブラケットと
※1Bの間に十分なクリアランスを設けてください。

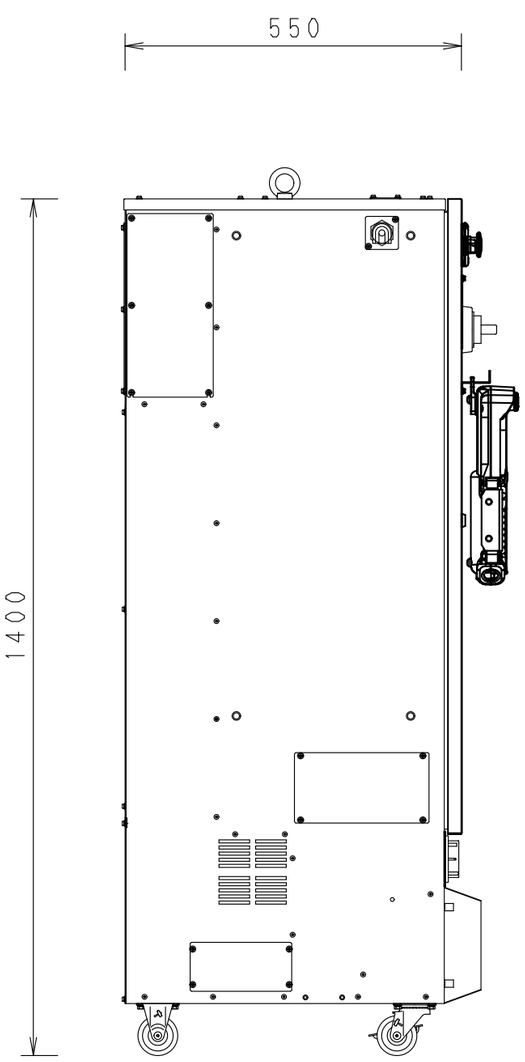
Near by ※1B, there may be a gap between the actual shape and drawing shape.
When you fix a bracket near ※1B, please provide enough clearance between the bracket and ※1B.

KJ125J-B

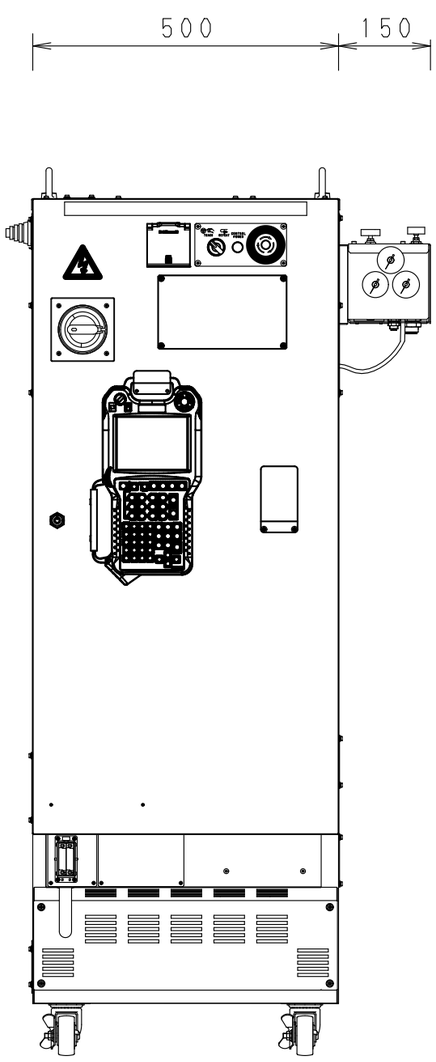
SERVICE TAP LOCATION

E25 CONTROLLER

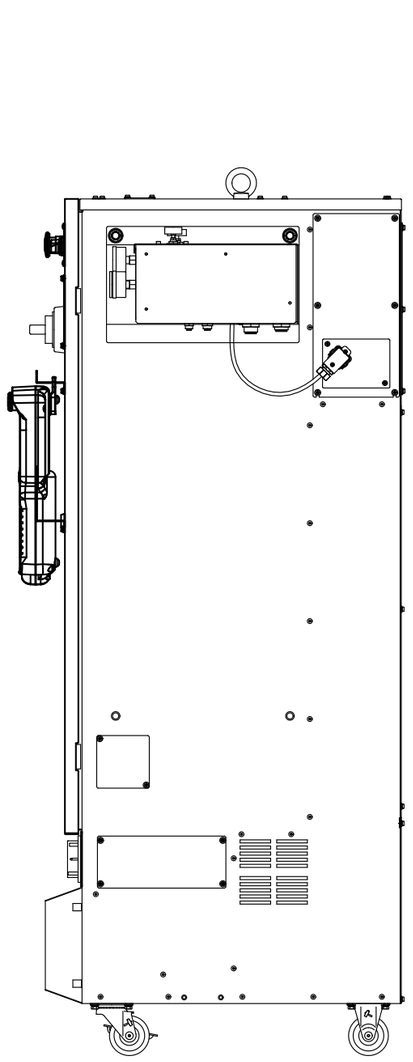
MASS: 120Kg



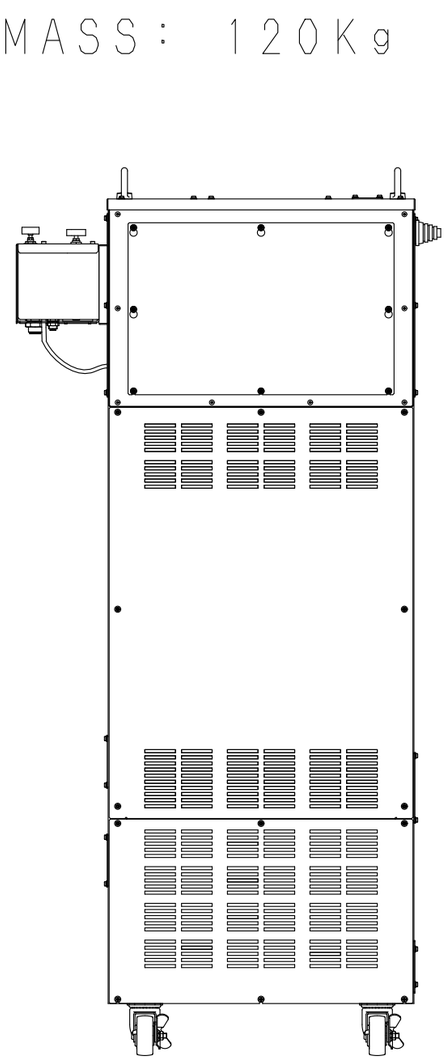
SIDE VIEW



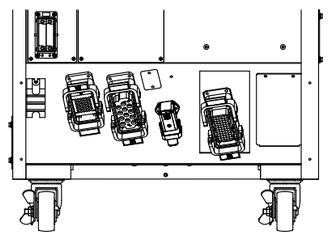
FRONT VIEW



SIDE VIEW



REAR VIEW



WITHOUT CONNECTOR COVER

Y:SKEI,017621,E_SPEC ｺｶﾞﾀE25