

Standard specifications

CP180LEE03C03



CAUTION

Please don't export this robot to Japan.

October 13, 2017

KAWASAKI HEAVY INDUSTRIES, LTD.

ROBOT DIVISION

Specification :	90101-2732DEA
(Arm) :	90151-0212DEA
(Controller) :	90152-0007DEA

1. Specification of Robot

[1] Robot Arm

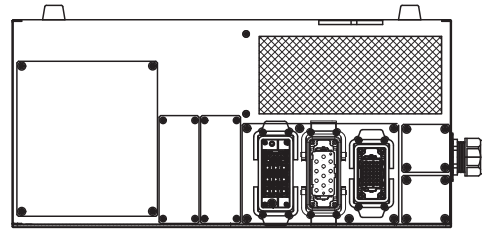
1. Model	CPI80L-AC03	
2. Type	Articulated robot	
3. Degree of freedom	4 axes	
4. Max. payload	High-Speed	Standard
	130 kg	180 kg
5. Palletizing Capacity	Approx. 2050 cycles/h	Approx. 1800 cycles/h
	On the condition that robot moves 400 mm stroke upward-downward and 2000 mm stroke in right-left direction.	
6. Axis specification		
Max. speed* ¹	High-Speed	Standard
Arm rotation (JT1)	140 °/s	130 °/s
Arm out-in (JT2)	125 °/s	120 °/s
Arm up-down (JT3)	130 °/s	125 °/s
Wrist twist (JT4)	400 °/s	330 °/s
	Note* ¹ The max speed changes by weight setting between 130kg to 180kg.	
Max. operating range	High-Speed	Standard
Arm rotation (JT1)	+160 ° ~ -160 °	
Arm out-in (JT2)	+ 95 ° ~ - 46 °	
Arm up-down (JT3)	+ 15 ° ~ -110 °	
Wrist twist (JT4)	+360 ° ~ -360 °	
7. Load capacity of		
Max. torque	High-Speed	Standard
Wrist twist (JT4)	—	—
Moment of inertia* ²	High-Speed	Standard
Wrist twist (JT4)	50 kg·m ²	85 kg·m ²
	Note* ² Value in this table shows allowable moment of inertia of JT4 when max. allowed torque is applied to the axis. If more detailed data is required for your application, please contact Kawasaki.	
8. Repeatability	±0.5 mm (at the tool mounting surface)	
9. Driving motor	Brushless AC Servomotor	
10. Position detector	Absolute encoder	
11. Working range	See attached drawing	
12. Mass	1600 kg (without options)	
13. Color	Munsell 10GY9/1 equivalent	
14. Installation	Floor mounting	
15. Environment cond.	(Temperature) 0 ~ 45 °C, (Humidity) 35 ~ 85 %, no dew, nor frost allowed	
16. Built-in utilities	Air tube to operate the hand (φ 12 × 2 line)	
17. Options	Mechanical Stopper for JT1	
	Valve harness (8 point)	
	Sensor harness (12 point)	
	Fork Pocket	
	Cooling fan unit for JT2	
	Air cleaning equipment	
18. Others	Consult Kawasaki about maintenance parts and spare parts.	

[2] Controller		
1. Model	E03	
2. Enclosure	Enclosed structure / Indirect cooling system	
3. Dimensions	See attached drawing	
4. Number of controlled axes	Max.6 axes (standard 5 axes including dual axes, option 1 axis)	
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	Joint, Linear, Circular (option) interpolation
7. Teaching method	Teaching or AS language programming	
8. Memory capacity	8 MB	
9. External operation signals	External Emergency stop, External Hold, etc.	
10. Number of IO slots	3 slots	
11. Operation panel	Teach/Repeat SW, Emergency Stop SW, Control power lamp	
12. Communication I/F	Ethernet(100BASE-TX) , USB, RS-232C each 2port (1port on panel, 1port inside controller)	
13. Mass	See attached drawing	
14. Power requirement	AC200 V - AC220 V \pm 10%, 50/60 Hz, 3 phases, Max. 12 kVA	
15. Ground	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. Teach Pendant	TFT color display (5.7 inch LCD) with touch panel Emergency Stop SW, Teach Lock SW and Enable SW	
20. Safety Circuit	Category: 4, Performance Level: e (EN ISO13849-1) ★	
21. Standard Options		
General purpose IO board	IN:32 OUT:32 NPN(sink) type or PNP(source) type	
TP sheet language	English or Japanese or Chinese	
I/O connector	D-SUB 37pin(male, female) with cover	
Power/Signal cable	5m, 10m, 15m	
Teach Pendant cable	5m, 10m, 15m	
Transformer unit	AC380V-415V / AC440V-480V by tap selection	
22. Other Options		
Additional IO board	IN:64/96 OUT:64/96 NPN(sink) type or PNP(source) type	
Motor brake release	Manual brake release switch BOX	
PC cable (RS-232C)	1.5 m, 3 m	
External axes control	Additional amplifier for external axis	
Extended safety functions	Cubic-S(Motion area monitoring, Joint monitoring, Speed monitoring etc.)	
Teach Pendant option	Connector for TP less	
Fast check mode	Fast check mode Switch	
Others	Field BUS, Software PLC, Analog input/output, Conveyor Synchronization	
23. Others	Consult Kawasaki about maintenance parts and spare parts.	

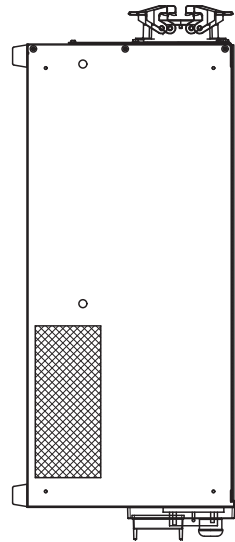
★ Category and Performance level (PL) are determined by the whole system and conditions.
The safety circuit of this controller is available in the system of category: up to 4, PL: up to e.

E 0 3 C O N T R O L L E R

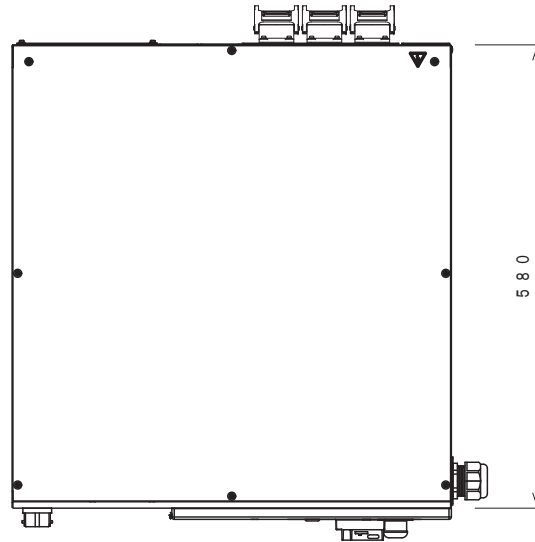
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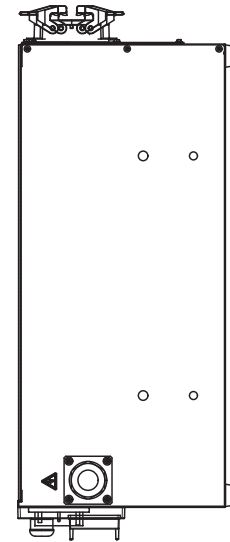
R E A R V I E W



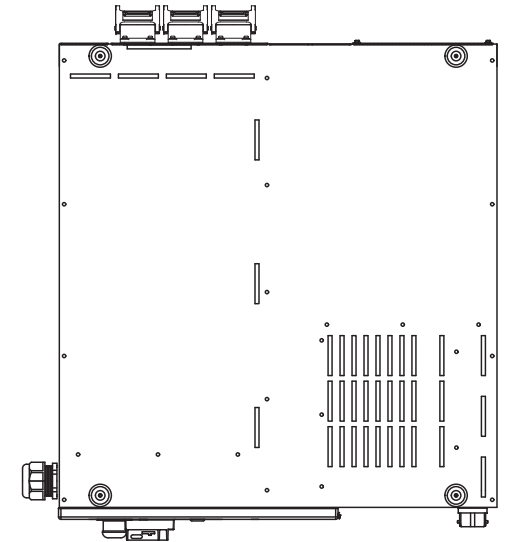
S I D E V I E W



T O P V I E W

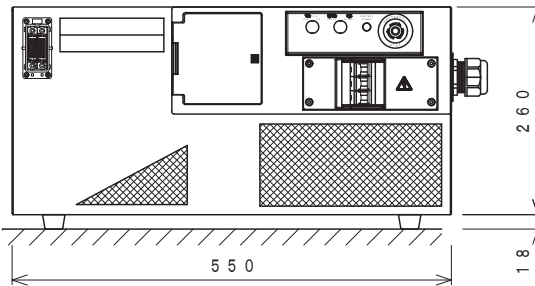
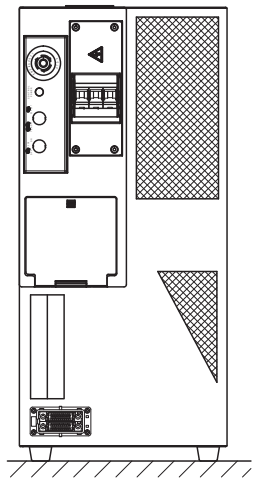


S I D E V I E W



B O T T O M V I E W

Vertical Mount



F R O N T V I E W

