



Standard Specifications

F01 Controller

F02 Controller

F03 Controller

F04 Controller

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Kawasaki Heavy Industries, Ltd.
Robot Business Division

Specification number : 90152-0091DEB

Controller specifications

1. Model (Robot type)	F01	F02	F03	F04
	RS013/RS020 BA/YF	BX/BT RS030/RS080	CP/RD	MX350/MX420 MX500/MX700
2. Dimensions	W420 × D530 × H278 mm			
3. Structure	Enclosed structure : Indirect cooling system			
4. Controlled axes	Std. 6 (Max 8) Std. 7 (Max 9)	Std.7 (Max 9)	Std.5 (Max 6)	Std.6 (Max 8)
5. Memory capacity	16MB			
6. I/O signals	External operation sig.:		Ext. Emergency Stop, Ext. HOLD signal etc.	
	General-purpose I/O sig.:		Input 32, Output 32	
7. Cable length	Robot cable:		5m (Opt.7/10/15/20/25/30/35/40m)	
	Teach pendant cable:		5m (Opt.10/15/20/25/30/35/40/45m)	
8. Mass	20k g	25k g	30k g	25k g
9. Power requirement	AC200V - AC220V ±10%, 50/60Hz, 3 phases AC200V - AC230V ±10%, 50/60Hz, 1 phase (Only some models of F01 ^{*1}) Max. 5.6kVA Max. 7.5kVA Max. 12kVA			
10. Ground	Less than 100 Ω (robot dedicated ground), Leakage current: max. 100 mA			
11. Installation environment	Ambient temperature:		0 - 45	
	Relative humidity:		35 - 85 % (non-condensation)	
12. Teach Pendant	Color LCD with touch panel Emergency Stop SW, Teach Lock SW and Enable SW English/Chinese/Japanese Selectable			
13. Operation panel	Emergency Stop SW, Teach/Repeat SW			
14. Exteranal interface	Ethernet : 2 port (1000Baset-T/100BASE-TX/10Base-T) USB2.0 : 3 port, RS-232C : 2port			
15. Type of control	Teach mode:		Joint, Base, Tool, Fixed Tool (option) operation mode	
	Repeat mode:		Joint, Linear, Circular (option) interpolation mode	
16. Teaching method	Easy operation teaching or AS language programming			
17. Color	Munsell: 5Y8.5/1 equivalent			
18. Safety Circuit	Category: 4, Performance Level: e (EN ISO13849-1) ^{*2}			
19. Arc welding I/F	Arc-welding I/F PC board ^{*5} (Standard for Arc-welding robot)			
20. Options				
External axes control	Additional amplifier and External axes harnesses			
General purpose I/O ^{*3} Analog I/O ^{*4}	In-cabinet:	General purpose I/O PC board (Input 32, Output 32)		
		Analog I/O PC board ^{*5} (Input 4, Output 4)		
	Remote I/O:	Remote general I/O unit (Input 32, Output 32)		
		Remote analog I/O PC unit (Input 4, Output 4)		
I/O signal connector	D-SUB 37 pin (male, female) with cover			
Transformer unit	AC380V-415V 3 phases / AC440V-480V 3 phases by tap selection			
Teach Pendant option	Connector for TP less			
Operation panel option	Fast check mode Switch			
PC cable (RS-232C)	1.5m, 3m			
Motor brake release	Manual brake release switch			
Extended safety functions	Cubic-S(Motion area monitoring, Joint monitoring, Speed monitoring etc.)			
Safety standards ^{*6}	CE ^{*7} / UL ^{*8} / KCs			
Others	Field BUS (Master ^{*5} , Slave), Software PLC			
	Conveyor Synchronization ^{*5} , Bluetooth			

Consult Kawasaki about maintenance parts and spare parts.

*1 The robot models that support 200V 1 phase are as follows.

RS006L/RS007N/RS007L/RS010N/RS010L/RS013N/YF002N

However, the transformer unit (400V 3-phase) described in the options column is needed to comply with the CE standards.

*2 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.

*3 General purpose I/O have the following maximum limits.

Max. number of General purpose I/(Input(64)/Output(64) In-cabinet

Max. number of General purpose I/(Input(128)/Output(128) In-cabinet + Remote I/O

*4 The analog I/O have the following maximum limits.

Max. number of analog I/O Input(8)/Output(8)

*5 Up to 3 option slots, be careful when choosing options.

Option slots are used as options below.

· Analog I/O

· Field bus (Master)

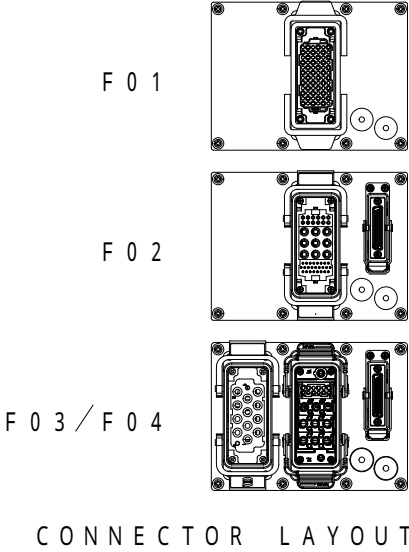
· Conveyor Synchronization

· Arc welding I/F

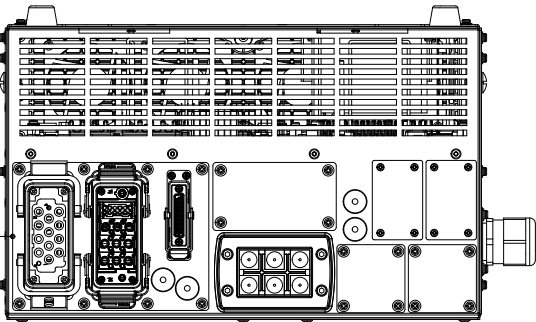
*6 The controller complies with safety standards, but some robot arms do not, so please contact us for details.

*7 Transformer unit is needed.

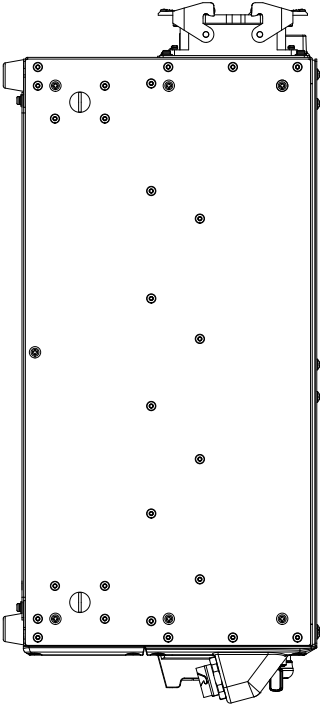
*8 Manual brake release switch etc. is needed.



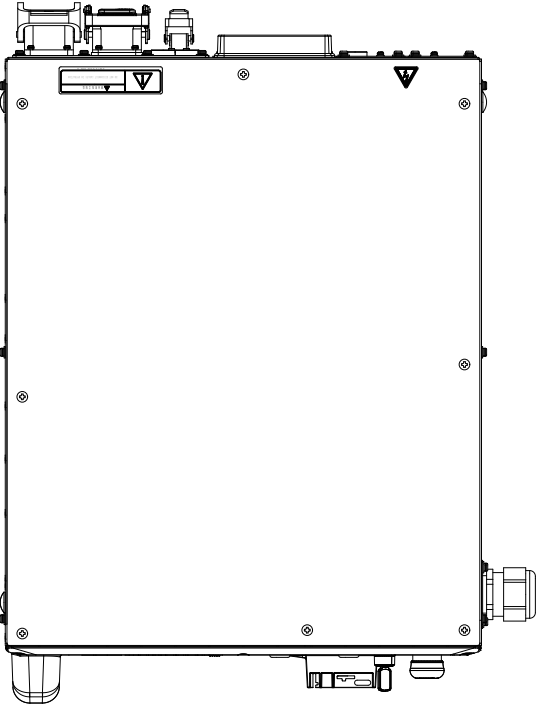
F 0 1 / F 0 2 / F 0 3 / F 0 4 C O N T R O L L E R



R E A R V I E W

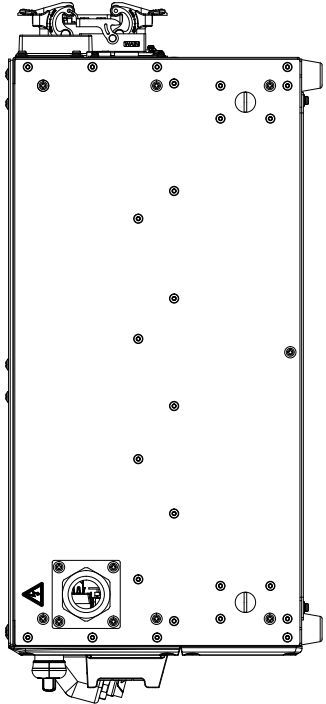


S I D E V I E W

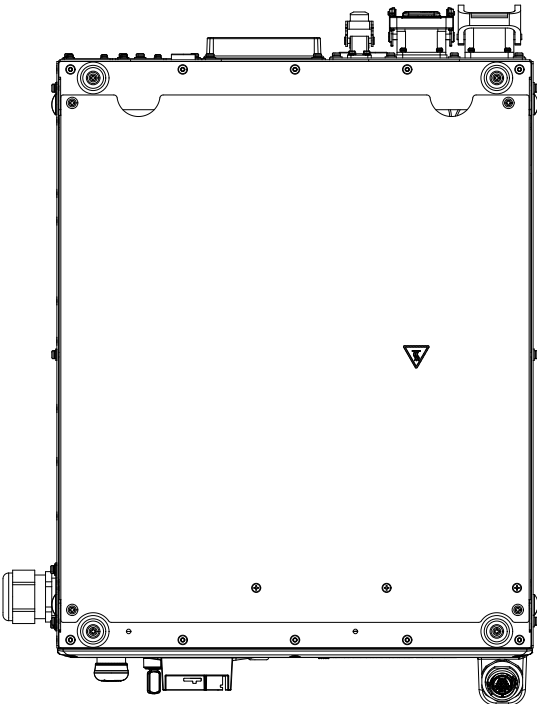


T O P V I E W

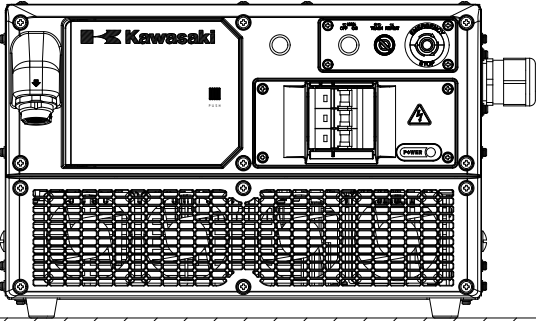
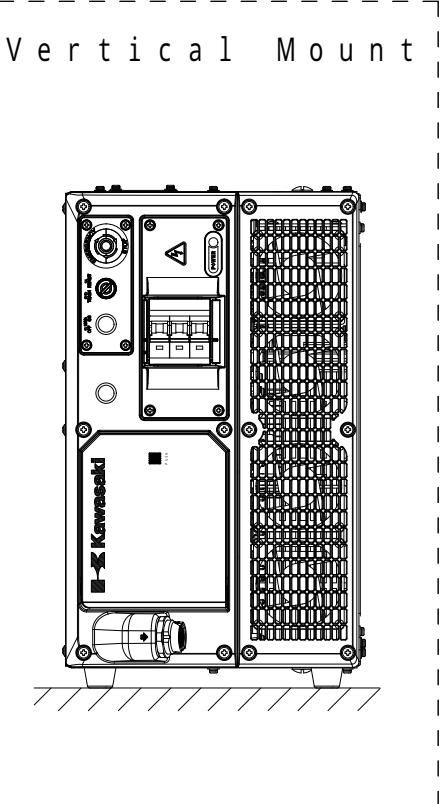
5 3 0



S I D E V I E W



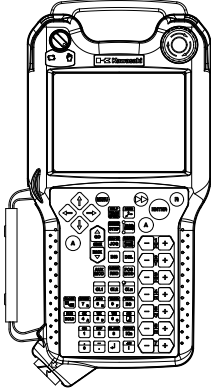
B O T T O M V I E W



F R O N T V I E W

4 2 0

2 6 0



T e a c h P e n d a n t