

MOTOMAN-MH3BM

■ Manipulator Specifications

Items		Specifications
Model		MOTOMAN-MH3BM
Type		YR-MH003BM-A00
Controlled Axis		6 (Vertically articulated)
Payload		3 kg
Repeatability*1		±0.03 mm
Range of Motion	S-axis (turning)	-180° - +180°
	L-axis (lower Arm)	-85° - +90°
	U-axis (upper arm)	-105° - +260°
	R-axis (wrist roll)	-170° - +170°
	B-axis (wrist pitch/yaw)	-120° - +120°
	T-axis (wrist twist)	-360° - +360°
Maximum Speed	S-axis (turning)	5.41 rad/s, 310°/s
	L-axis (lower Arm)	2.62 rad/s, 160°/s
	U-axis (upper arm)	3.32 rad/s, 190°/s
	R-axis (wrist roll)	5.24 rad/s, 300°/s
	B-axis (wrist pitch/yaw)	5.24 rad/s, 300°/s
	T-axis (wrist twist)	7.33 rad/s, 420°/s
Allowable Moment	R-axis (wrist roll)	5.39 N·m
	B-axis (wrist pitch/yaw)	5.39 N·m
	T-axis (wrist twist)	2.94 N·m
Allowable Inertia (GD ² /4)	R-axis (wrist roll)	0.10 kg·m ²
	B-axis (wrist pitch/yaw)	0.10 kg·m ²
Mass		27 kg
	Ambient Temperature	During operation: 0 to +40°C, During storage : -10 to +60°C
Ambient Conditions	Relative Humidity	20 to 80% max. (non-condensing)
	Vibration Acceleration	4.9 m/s ² or less
	Mounting	Floor or ceiling
	Others	<ul style="list-style-type: none"> Free from corrosive gasses or liquids, or explosive gasses Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma)
Power Requirements*2		0.5 kVA

*1 : Conforms to ISO 9283.

*2 : Varies in accordance with applications and motion patterns.

Note: SI units are used for specifications.

■ FS100 Controller Specifications

Items		Specifications
Configuration	Standard:	IP20 (open structure)
	Option :	IP54 (dustproof housing)
Dimensions		470 (W)×420 (D)×200 (H) mm (Does not include protruding parts.)
Mass		20 kg
Cooling System		Direct cooling
Ambient Temperature		During operation: 0°C to +40°C During storage : -10°C to +60°C
Relative Humidity		90% max. (non-condensing)
Power Supply		Three-phase 200/220 VAC (+10% to -15%), 50/60 Hz
Grounding		Grounding resistance: 100 Ω or less
Digital I/Os	Specialized signals:	10 inputs and 1 output
	General signals :	28 inputs and 28 outputs
		Max. I/O (optional) : 1,024 inputs and 1,024 outputs
Positioning System		By serial encoder
Programming Capacity		JOB: 10,000 steps, 1,000 instructions C/O ladder: 1,500 steps
Expansion Slots		MP2000 bus × 5 slots
LAN (Connection to Host)		1 (10BASE-T/100BASE-TX)
Interface		RS-232C: 1ch
Control Method		Software servo control
Drive Units		Six axes for robots two more axes can be added as external axes. (Can be installed in the controller.)
Painting Color		Munsell notation 5Y7/1 (reference value)

■ Programming Pendant Specifications

Items		Specifications
Type		JZRCR-YPP03-1
Dimensions		169 (W)×314.5 (H)×50 (D) mm (Does not include protruding parts.)
Mass		990 g
Material		Reinforced plastics
Operation Device		Select keys, axis keys, numerical/application keys, Mode switch with key (mode: teach, play, and remote), emergency stop button, enable switch, compact flash card interface device (compact flash is optional.), USB port (1 port)
Display		640×480 pixels color LCD, touch panel (Alphanumeric characters, Chinese characters, Japanese letters, Others)
IEC Protection Class		IP65
Cable Length		Standard: 8 m, Max. : 20 m (optional)
Key Sheet		General-purpose key sheet only

Note: 1. A dummy connector is required if no programming pendant is connected. Sold separately.

2. The pendant (YPP01-1) for a DX100 controller cannot be connected to an FS100 because of specification differences.

Sales Department

HEAD OFFICE

2-1 Kurosaki-Shiroishi, Yahatanishi-ku, Kitakyushu, Fukuoka 806-0004, Japan
Phone: +81-93-645-7745 Fax: +81-93-645-7746

YASKAWA America, Inc. (Motoman Robotics Division)

100 Automation Way, Miamisburg, OH 45342, U.S.A.
Phone: +1-937-847-6200 Fax: +1-937-847-6277

YASKAWA Europe GmbH (Robotics Division)

Yaskawastrasse 1, 85391, Allershausen, Germany
Phone: +49-8166-90-100 Fax: +49-8166-90-103

YASKAWA Nordic AB

Bredbandet 1vån, 3 varvsholmen 392 30 Kalmar, Sweden
Phone: +46-480-417-800 Fax: +46-480-417-999

YASKAWA Electric (China) Co., Ltd.

12F, Carlton Bldg., No.21 HuangHe Road, HuangPu District, Shanghai 200003, China
Phone: +86-21-5385-2200 Fax: +86-21-5385-3299

YASKAWA SHOUGANG ROBOT CO., LTD.

No.7 Yongchang North Road, Beijing E&T Development Area China 100176
Phone: +86-10-6788-2858 Fax: +86-10-6788-2878

YASKAWA India Private Ltd. (Robotics Division)

#426, Udyog Vihar Phase-IV, Gurgaon, Haryana, India
Phone: +91-124-475-8500 Fax: +91-124-475-8542

YASKAWA Electric Korea Co., Ltd

9F, Kyobo Securities Bldg., 26-4, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-737, Korea
Phone: +82-2-784-7844 Fax: +82-2-784-8495

YASKAWA Electric Taiwan Corporation

9F, 16, Nanking E. Rd., Sec. 3, Taipei, 104 Taiwan
Phone: +886-2-2502-5003 Fax: +886-2-2505-1280

YASKAWA Electric (Singapore) PTE Ltd

151 Lorong Chuan, #04-02A New Tech Park, Singapore 556741
Phone: +65-6282-3003 Fax: +65-6289-3003

YASKAWA Electric (Thailand) Co., Ltd.

252/125-126 27th Floor, Tower B Muang Thai-Phatra Complex Building,
Rachadaphisek Road, Huaykwang, Bangkok 10320, Thailand
Phone: +66-2693-2200 Fax: +66-2693-4200

PT. YASKAWA Electric Indonesia

Menara Anugrah Lantai 1, Kantor Taman E.3.3, Jl. Mega Kuningan Lot 8.6-8.7, Kawasan
Mega Kuningan, Jakarta, Indonesia
Phone: +62-21-57941845 Fax: +62-21-57941843



YASKAWA ELECTRIC CORPORATION

In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply.

Specifications are subject to change without notice for ongoing product modifications and improvements.

© 2013 YASKAWA ELECTRIC CORPORATION. All rights reserved.

LITERATURE NO. CHEP C940351 01A

Published in Japan January 2013 13-1
13-1-33