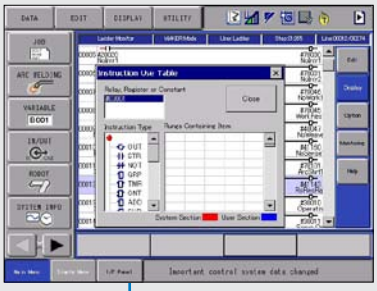
YASKAWA
MOTOMAN ROBOTICS

SOLUTIONS IN MOTION®

MULTIPLE ROBOT CONTROL



PENDANT LADDER EDITOR

MOTOSIM EG-VRC (OPTION)

UP400RD

MATERIAL HANDLING • PART TRANSFER

Payload: 400 kg

TOP REASONS TO BUY

- Slim, space-saving shelf-mounted design
- Full six-axis capability provides high flexibility
- Extended reach to service equipment in a large work envelope
- Internally routed air and I/O signal lines to simplify integration
- MotoMax® III warranty (standard)
- LIFE program (optional)

Fast, Streamlined and Powerful

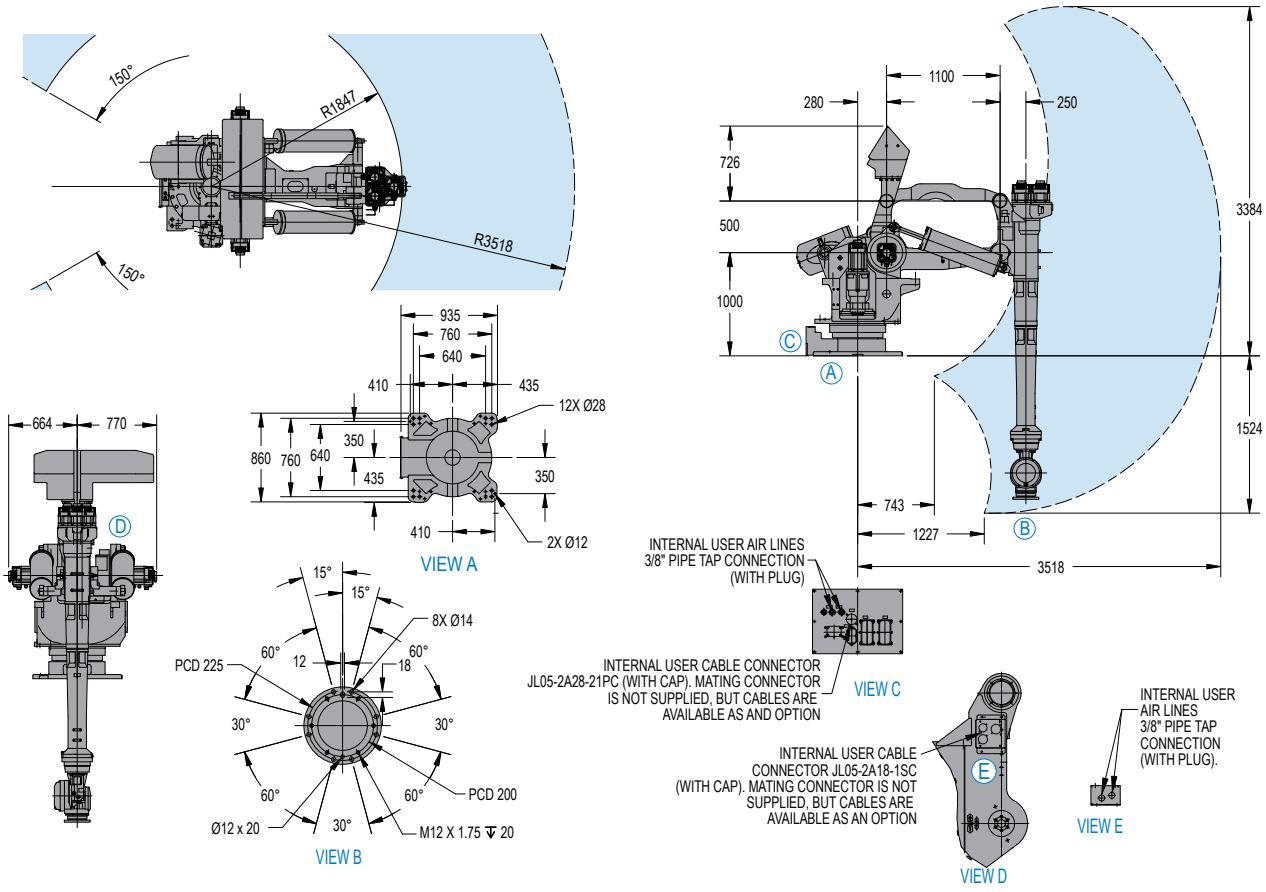
- High-speed, shelf-mounted robot provides flexibility and superior performance in high-payload material handling applications.
- Slender design enables six-axis UP400RD to work in tight spaces and service multiple processes.
- 400 kg (882 lb) payload provides versatility with heavy loads.
- 3,518 mm (138.5") horizontal reach, 4,908 mm (193.2") vertical reach and ±0.5 mm (±0.02") repeatability.
- Fast axis speeds reduce cycle times and increase production throughput.
- Optional MotoSim® EG-VRC, off-line programming software with virtual robot control simplifies programming and simulation.

DX100 Controller

- Patented multiple robot control supports up to 8 robots/72 axes. Collision avoidance software prevents robot interference.
- Windows® CE programming pendant with color touch screen and USB interface.
- Faster processing speeds for smoother interpolation. Quicker I/O response. Accelerated Ethernet communication.
- Extensive I/O suite includes integral PLC and touch screen HMI, 2,048 I/O and graphical ladder editor.
- Supports all major fieldbus networks, including EtherNet/IP, DeviceNet, Profibus-DP and many others.
- Compliant to ANSI/RIA R15.06-1999 and other relevant ISO and CSA safety standards. Optional Category 3 functional safety unit.

UP400RD ROBOT

All dimensions are metric (mm) and for reference only. Please request detail drawings for all design/engineering requirements.



UP400RD SPECIFICATIONS

Structure		Vertical articulated type
Controlled Axes		6
Payload		400 kg (882 lbs)
Vertical Reach		4,908 mm (193.2")
Horizontal Reach		3,518 mm (138.5")
Repeatability		±0.5 mm (0.02")
Maximum Motion Range	S-Axis (Turning/Sweep) L-Axis (Lower Arm) U-Axis (Upper Arm) R-Axis (Wrist Roll) B-Axis (Bend/Pitch/Yaw) T-Axis (Wrist Twist)	±150° +20°/-122° +120°/-9° ±360° ±120° ±360°
Maximum Speed	S-Axis L-Axis U-Axis R-Axis B-Axis T-Axis	80°/s 80°/s 80°/s 80°/s 80°/s 160°/s
Approximate Mass		3,600 kg (7,938 lbs)
Brakes		All axes
Power Consumption		12 kVA
Allowable Moment	R-Axis B-Axis T-Axis	1,960 N • m 1,960 N • m 833 N • m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	150 kg • m^2 150 kg • m^2 50 kg • m^2

DX100 CONTROLLER SPECIFICATIONS**

Dimensions (mm)	800 (w) x 1,000 (h) x 650 (d) (31.5" x 39.4" x 25.6")
Approximate Mass	250 kg max. (551.3 lbs)
Cooling System	Indirect cooling
Ambient Temperature	During operation: 0° to 45° C (32° to 113° F) During transit and storage: -10° to 60° C (14° to 140° F)
Relative Humidity	90% max. non-condensing
Primary Power Requirements	3-phase, 240/480/575 VAC at 50/60 Hz
Digital I/O NPN-Standard PNP-Optional	Standard I/O: 40 inputs/40 outputs consisting of 16 system inputs/ 16 system outputs, 24 user inputs/24 user outputs 32 Transistor Outputs; 8 Relay Outputs Max. I/O (optional): 2,048 inputs and 2,048 outputs
Position Feedback	By absolute encoder
Program Memory	JOB: 200,000 steps, 10,000 instructions CIO Ladder Standard: 15,000 steps Expanded: 20,000 steps
Pendant Dim. (mm)	169 (w) x 314.5 (h) x 50 (d) (6.7" x 12.4" x 2")
Pendant Weight	.998 kg (2.2 lbs)
Interface	One Compact Flash slot; One USB port (1.1)
Pendant Playback Buttons	Teach/Play/Remote Keyswitch selector Servo On, Start, Hold, and Emergency Stop Buttons
Programming Language	INFORM III, menu-driven programming
Maintenance Functions	Displays troubleshooting for alarms, predicts reducer wear
Number of Robots/Axes	Up to 8 robots, 72 axes
Multi Tasking	Up to 16 concurrent jobs, 4 system jobs
Fieldbus	DeviceNet Master/Slave, AB RIO, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave
Ethernet	10 Base T/100 Base TX
Safety	Dual-channel Emergency Stop Pushbuttons, 3-position Enable Switch, Manual Brake Release Meets ANSI/RIA R15.06-1999, ANSI/RIA/ISO 10218-1-2007 and CSA Z434-03

**See DX100 Controller data sheet (DS-399) for complete specifications

www.motoman.com

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