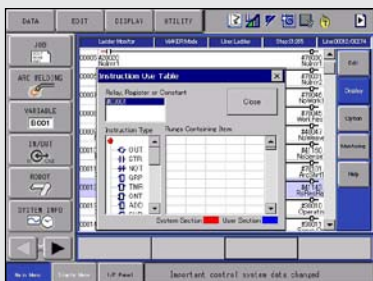




CASE PACKING



BAG PALLETIZING



PENDANT LADDER EDITOR

TOP REASONS TO BUY

- Fast, flexible 4-axis design provides best-in-class performance
- Wide, 360-degree work envelope; minimum interference radius
- Heaviest payload in its class with highest axis speeds, wrist ratings
- Fieldbus cable can be internally routed to facilitate DeviceNet gripper control
- Easy-to-use integrated vision (optional) allows handling a variety of randomly oriented product



MPK50

MATERIAL HANDLING • PACKAGING • PALLETIZING

Payload: 50 kg

Fast, Flexible and Powerful

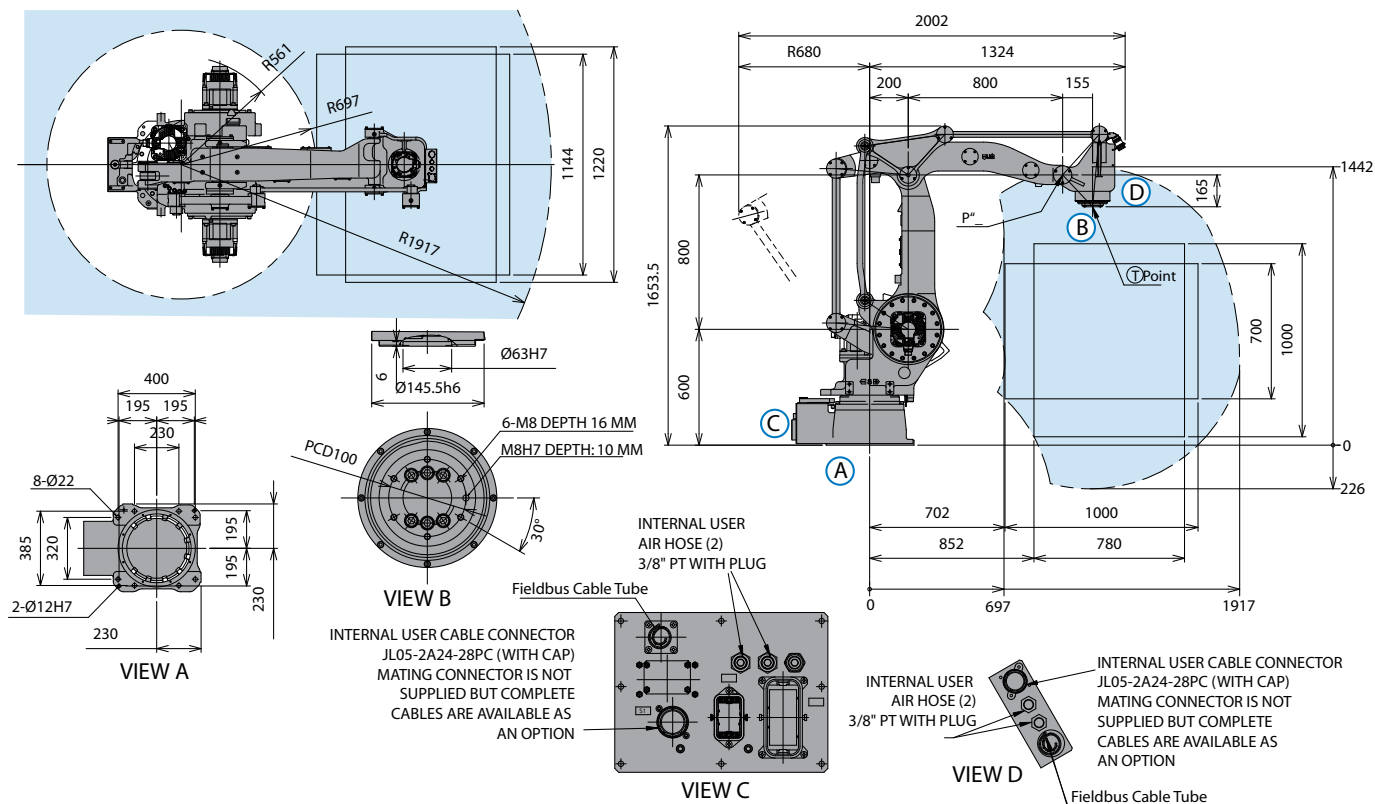
- High speed 4-axis robot provides superior performance and reliability for packaging, palletizing and other material handling applications.
- Large work envelope with full 360-degree rotation.
- Best-in-class motion, axis speed, acceleration and wrist ratings.
- 50 kg (110.3 lb) payload: 1,668 mm (65.7") vertical reach; 1,917 mm (75.5") horizontal reach; ± 0.5 mm (± 0.02 ") repeatability.
- Streamlined robot is only 1,014.5 mm (39.9") wide and has minimum interference radius
- Slim design allows robot to reach into confined spaces, improving system productivity.
- Hollow-arm provides internal path ready for fieldbus cable.
- IP54 arm with IP67 wrist. IP65-rated body optional.

DX100 Controller

- Patented multiple robot control supports up to 8 robots/72 axes.
- 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.

MPK50 ROBOT

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



MPK50 SPECIFICATIONS

Structure	Vertical articulated type
Controlled Axes	4
Payload	50 kg (110.3 lbs)
Vertical Reach	1,668 mm (65.7")
Horizontal Reach	1,917 mm (75.5")
Repeatability	±0.5 mm (0.02")
Maximum Motion Range	S-Axis (Turning/Sweep) ±180° L-Axis (Lower Arm) +80°/-35° U-Axis (Upper Arm) +15°/-105° T-Axis (Wrist Twist) ±350°
Maximum Speed	S-Axis 185°/s L-Axis 215°/s U-Axis 215°/s T-Axis* 374°/s
Approximate Mass	670 kg (1,477.4 lbs)
Brakes	All axes
Power Consumption	4 kVA
T-Axis Allowable Inertia	5.5 kg • m ²
Internal User Electrical Cable	23 conductors + ground
Internal User Air Hose	2 – 3/8" PT connectors

*T-axis maximum speed at 40 kg payload

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	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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