YAC100 controller specifications

- **Configuration**
  Standard: IP20 (open structure)

- **Dimensions**
  470 mm (W) × 420 mm (D) × 200 mm (H)
  (Protrusions are not included.)

- **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**
  Single-phase 200/230 VAC (+10% to -15%), 50/60 Hz
  Three-phase 200/220 VAC (+10% to -15%), 50/60 Hz

- **Grounding**
  Grounding resistance: 100 Ω or less

- **Digital I/Os**
  Specialized signals: 8 inputs and 11 output
  General signals: 16 inputs and 16 outputs

- **Positioning System**
  By serial encoder

- **Programming Capacity**
  JOB: 10,000 steps, 1,000 instructions
  CIO ladder: 1,500 steps

- **Expansion Slots**
  MP2000 bus × 5 slots

- **LAN (Connection to Host)**
  RS-232C: 1ch

- **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)

YAP programming pendant specifications

- **Dimensions**
  169 mm (W) × 314.5 mm (H) × 50 mm (D)

- **Mass**
  0.990 kg

- **Material**
  Reinforced plastics

- **Operation Device**
  Select keys, axis keys (8 axes), 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**
  840 × 480 pixels color LCD, touch panel

- **IC Protection Class**
  IP65

- **Cable Length**
  Standard: 8 m, 4 m / 8 m / 12 m extension cable (maximum 20 m)

Optimum controller for handling and assembly

The YAC100 is a compact controller with improved performance and functions optimized for handling and assembly.

- Fits in a 19-inch rack and can be installed under conveyors.
- Commands specifically designed for workpiece handling with synchronized conveyors.

<table>
<thead>
<tr>
<th>Hardware Options</th>
<th>Optional Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• External axis (max.: 2 axes)</td>
<td>• Conveyor synchronization</td>
</tr>
<tr>
<td>• I/O module (28 points, NPN or PNP)</td>
<td>• Vision function</td>
</tr>
<tr>
<td>• Major fieldbus interface boards</td>
<td>• External reference point control</td>
</tr>
<tr>
<td>DeviceNet™ (master/slave), CC-Link (slave), PROFIBUS (slave), EtherNet/IP™ (slave, I/O communications), EtherCAT (slave), PROFINET (master/slave)</td>
<td>• Software pendant</td>
</tr>
</tbody>
</table>

Regarding the concurrent I/O ladder program

The YAC100 controller is equipped with an NPN (or PNP) for standard I/O. Dedicated input/output is assigned to this standard I/O board. For this reason, if dedicated input/output is to be assigned to various types of field bus, concurrent I/O ladder program settings must be made.

Sample programs can be downloaded from our website. Note

A robot simulator that implements the same functionality as the actual controller

MotoSim EG-VRC-CadPack for YAMAHA

Virtual programming before the actual line is completed allows major reduction in line startup time.

- **Modeling layout**
  Models of workers and workpieces can be easily laid out.

- **Intuitive control of models**
  Models can be moved intuitively, simply by using the mouse.

- **Programming and debugging**
  Automatic generation of robot operating programs, job editing, and job analysis can be performed easily.

- **Intuitive robot operation**
  The robot's posture can be operated intuitively, allowing more efficient teaching.

- **Robot simulation**
  The robot can be watched as it operates, allowing visual verification.