**New Architecture**

New high-speed platform with two "brains"

- 16 times faster than PC10G ①
- 1.3 times more capacity than PC10G ②

Achieves high-level analysis by combined use of data accumulation and an analysis module

① Speed comparison refers to basic command processing speed
② Capacity comparison refers to user usage area capacity

**Next Operation**

Smart programming which reduces design time

- Programming tool PCwin2
- ST language program
- Calculation formulas can be written as formulas
- Ladder design using tags
- No need for address management

**PLC with IoE (Internet of Everything)**

- Fast processing speed
- Connects large amounts of data
- Connects to all kinds of equipment/control units

**IoE Technology**

- Data transmission
- Connection
- Big data processing

**Evolution**

- High-speed and high-capacity PLC
  - TOYOPUC-Nano
  - Data accumulation/analysis module
  - TOYOPUC-AAA

- Conventional PLC
  - TOYOPUC-PC10G

- Board type PLC
  - TOYOPUC-Plus

- Manual equipment
- Automatic equipment
- Line control
- Equipment scale: Large

**Transition of PLC into IoE era**

- Equipment advancement through big data

**Important Points**

- TOYOPUC-AAA can be used in stand-alone mode

**Toyoda**

- Programmable Controller

**TOYODA**

**TOYOFA**

**JTEKT**

- JTEKT CORPORATION

- Koyo

- TOYODA
TOYOPUC-Nano

Easily supports big data processing with high-speed processing speed and program capacity of industry-leading class

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**General specifications**

- **Item**: TOYOPUC-Nano
- **Power supply**: DC24V ±15% to 20% (20.4V ~ 28.8V)
- **Power consumption**: 30VA or less
- **Ambient temperature**: 0 to 55°C (32 to 131°F)
- **Relative humidity**: 0% ~ 90% (non-condensing)
- **Atmospheric pressure**: 80 kPa ~ 110 kPa
- **Vibration resistance**: 40.64 Hz simple amplitude 0.35 mm, 8.4 to 150 Hz 9.8 m/s²
- **Shock resistance**: 49.6 m/s² (6 times in all directions)
- **Noise resistance**: Complies with EMC standard EN55011-2
- **Delectrical voltage**: AC100 V (one minute between DC external terminal and earth)
- **Insulation resistance**: 1000V 10MΩ (more than two times between DC external terminal and earth)
- **Power failure**: Stable power failure output limit (less than 500 mV output voltage) for more than 10 seconds
- **Overloads standard**: Please confirm the latest status on the Response to Overloads Standard page on JTEKT's website.

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**CPU I/F specifications**

- **Built-in Ethernet 1**: 10/100 Base-T Ethernet, RJ-45 connector
- **Built-in Serial 1**:
  - RS485/RS422 (full-duplex communication)
  - 9600 bps (full-speed, 128 ms, 68,000 points)
- **Built-in Serial 2**:
  - RS232C (full-duplex communication)
  - 9600 bps (full-speed, 128 ms, 68,000 points)
- **Expansion bus I/O BUS**
  - Special-purpose bus
  - Expander special port (BUS-EXP): High Speed 480 Mbps

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**Outside dimensions**

When BSS is used (not including protruding portions)

<table>
<thead>
<tr>
<th>Unit</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>112</td>
</tr>
<tr>
<td>L</td>
<td>212</td>
</tr>
</tbody>
</table>

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**Performance specifications**

- **Program method**: Stored program method
- **Event monitor function by parameter setting**
- **Program control method**: Cyclic calculation method
- **Constant period interruption function**
- **Programming language**: SFC, LD, FBD, ST
- **Input/output control**: Image register method
- **Attention**: 35 ms per command
- **Basic commands**: 20
- **Timer/counter commands**: 100
- **Application commands**: Over 700 (allows signed operations and floating-point operations)
- **Program capacity**: Total of 540k words
- **Library capacity**: (Program + FFB library + standard library + user library)
- **Memory types**: Flash memory: 512MB, FRAM, PRAM
- **Battery**: None (backup is not necessary)

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**Programming tool**

- **PC with 1**: TJA-2032
  - For TOYOPUC-P1C100-13 series
- **PC with 2**: For TOYOPUC-Nano
  - English version

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**DUKE TECH CORPORATION**

http://www.jtekt.co.jp

— GLOBAL NETWORK —

MACHINE TOOLS & MECHATRONICS BUSINESS OPERATIONS

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