Digitized Automation for a Changing World

Delta Industrial Automation

2025 Full Range Catalogue

www.deltaww.com

DELTA

Compact Modular Mid-Range PLC
AS

Flexible, Smart, Friendly - An Ideal Option for Upgrading Multitasking Equipment for Automated Equipment Control

- Max. I/O: 1,024 points
- Max. program capacity: 128k steps
- Data register: 60k words
- Max. extension ability: 32 modules
- 32-bit SoC (System on Chip) CPU for high-performance and high-speed computing
- CPU with built-in RS-485 port × 2, mini USB port, Ethernet port, micro SD card slot and CANopen port (*1)
- Max. 8 axes control via CANopen motion network / max. 6 axes control via pulse control (200 kHz)
- Robust rackless design and patented DIN rail clips for easy plug-in / plug-out module installation and replacement
- Various modules for selection: digital I/O, analog I/O, load cell, temperature, serial communication and industrial bus
- PLC programming software (ISPSoft & **DIADesigner**) for program editing, hardware and network configuration, system diagnosis and axis positioning control

Note 1: AS300 CPUs don't support built-in CANopen port

Advanced CPU Performance

High-speed execution: up to 40k steps / ms
(Condition: 40% LD instruction / 60% MOV instruction)

LD instruction	0.025 μs
MOV instruction	0.15 μs
Floating point operation instruction	1.6 μs
Trigonometric operation instruction	3.5 μs

Positioning Control - High-Speed Pulse

- AS transistor CPU: Up to 6 axes (or 12 channels) 200 kHz
- AS324MT-A differential CPU: 2 axes 4 MHz + 4 axes 200 kHz
- Positioning planning table for fast positioning planning and path simulation
- Choose any given 2 axes for linear and arc interpolation

AC Servo Drive
ASDA Series

Positioning Control - Delta's CANopen Control

- The AS CPU supports up to 8 Delta servo drives and 8 AC motor drives (AS-FCOPM function card is needed for AS300)
- Fast positioning configuration in one initialization instruction, a CANopen data exchange table not required
- Axis control by instructions for easy maintenance and high PLC program readability

Applications

High-end equipment for electronics manufacturing, Machinery processing, Food packaging and other industries

The 3rd Generation Standard / EtherCAT / AIO Brick PLC
DVP-ES3 / ES3-TEC / EX3

Ideal for Upgrading Multitasking Equipment

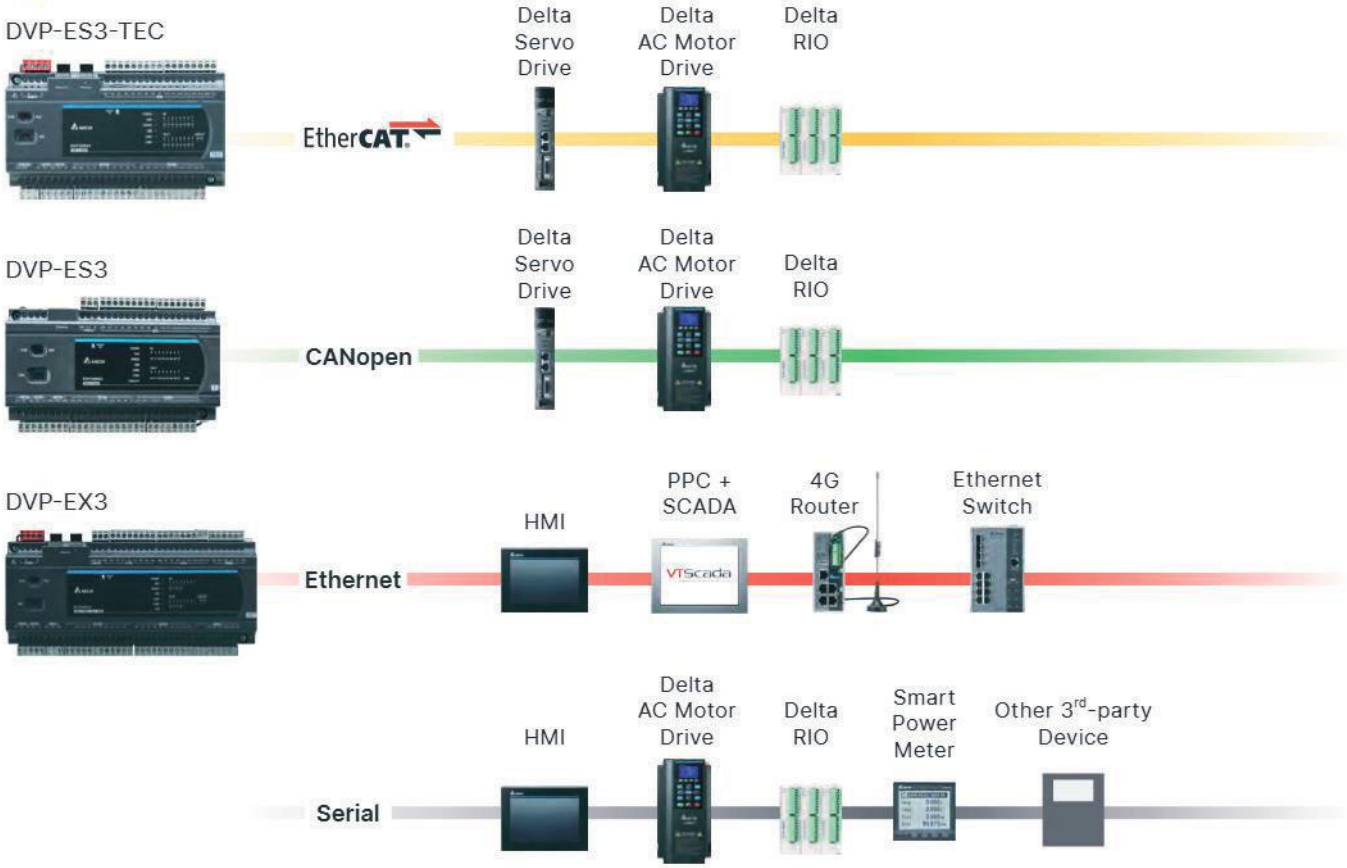
The 3rd generation brick PLCs fulfill the market demand for value-added machines with a user-friendly programming interface, built-in analog I/O, multiple communication ports, and expanded program capacity.

Compared with the previous generation, the 3rd generation aligns with market demands for versatile PLCs.

- Max. basic instruction execution speed: 25 ns (adopts 32-bit SoC processor)
- Program capacity: 64k steps
- Max. 256 points for the total of inputs and outputs (max. 8 AIO extension modules)
- Built-in 2 × RS-485, AIO (EX3 only), micro SD card
- Supports EtherCAT* (ES3-TEC only), EtherNet/IP Scanner / Adapter, Modbus TCP, CANopen DS301 (ES3 and EX3 only)

*Only supports Delta servo drives (ASDA-A2-E, ASDA-A3-E and ASDA-B3-E) and Delta AC motor drives (C2000 and CH2000 series)

System Architecture



Applications

Machinery, Packaging, Textiles, HVAC, and Data collection

Standard / Analog Brick PLC
DVP-ES2 / EX2

Provides Comprehensive Functions for General Applications

Features integrated communication and high efficiency for various control systems

- DVP-ES2 Series:
  - 16 / 20 / 24 / 32 / 40 / 60 / 80 I/O points for a variety of applications
  - No battery required; RTC function operates for at least one week after power off (hardware version 2.0 or above)
  - DVP32ES2-C model with built-in CANopen (Baud: 1Mbps)
- DVP-EX2 Series:
  - Built-in 12-bit 4 analog inputs / 2 analog outputs, can be matched with 14-bit analog I/O extension modules
  - Analog I/O and temperature model DVP30EX2 Series features built-in PID auto tuning and complete analog control functions

- Program capacity: 16k steps
- Data register: 10k words
- Max. basic instruction execution speed: 0.35 μs
- High efficiency: 1k steps of programs can be processed within 1 ms
- Max. 100 kHz pulse control; motion control instructions (mark / masking and instant frequency changing) available for multi-axis applications
- Up to 4-level password protection ensures program security and safeguards intellectual property

Golden Pin Design Mark

reddot design award winner 2010

Applications

HVAC, Molding injection machine, Large-scale warehouse management, Packaging machine, Precise textile machine, Logistics system

Network Type Advanced Slim PLC
DVP-SE

Provides versatile communication functions for advanced applications

- Program capacity: 16k steps
- Data register: 12k words
- Max. basic instruction execution speed: 0.64 μs
- Built-in Ethernet, supports Modbus TCP, EtherNet/IP (Adapter)
- IP Filter function protects systems against malware and network threats
- No battery required; RTC function operates for 15 days after power off
- Supports DVP-S Series left-side and right-side modules (DVP26SE only supports right-side modules)

Applications

Remote device monitoring, Production line monitoring, Building automation, Printing machine, Container filler (recipe application)

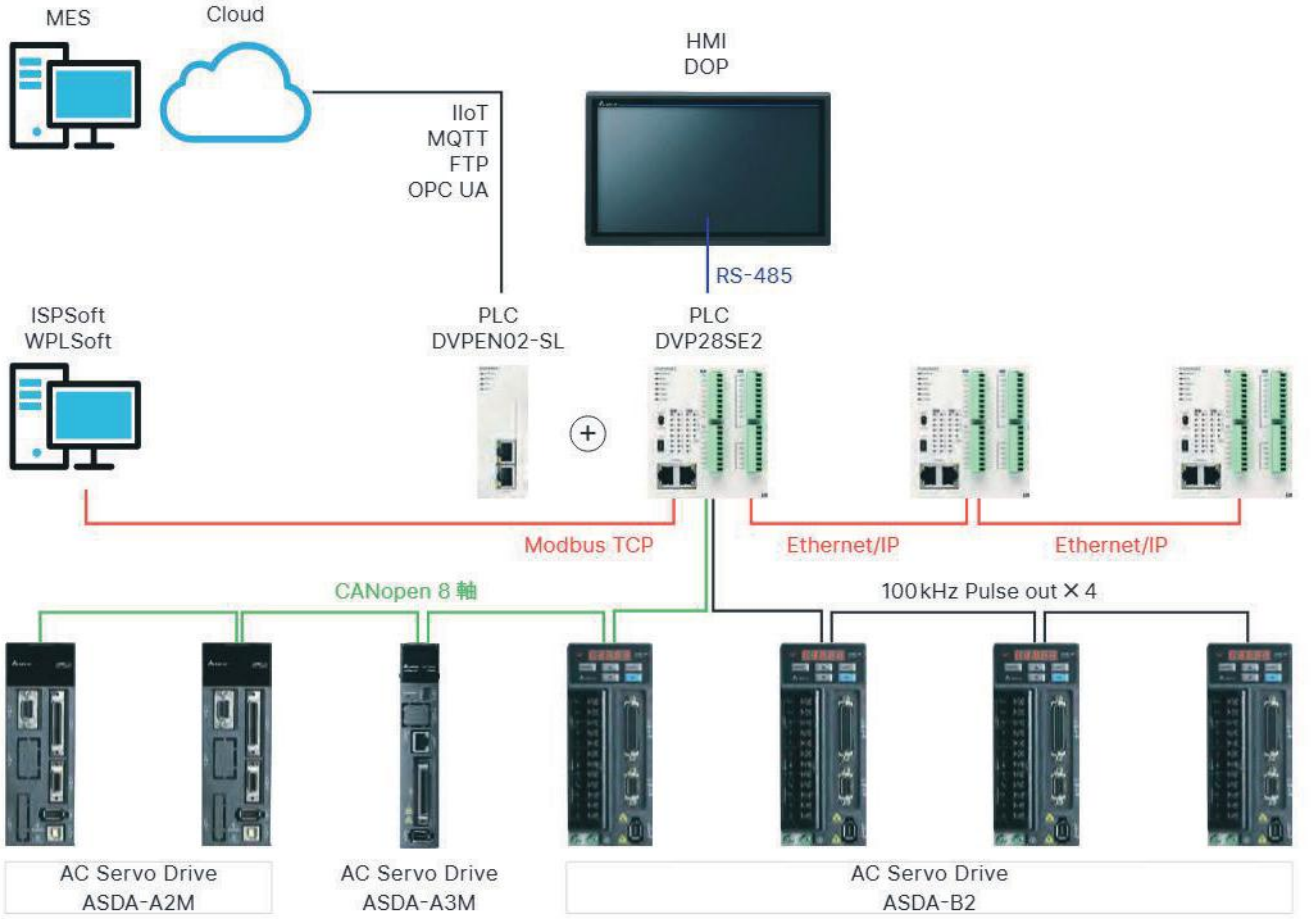
The 2nd Generation Network Type Advanced Slim PLC New

DVP-SE2

Combination of Data Logging and Simple Motion Controller

- A 32-bit high-speed processor supports an overall PLC program execution speed approximately twice as fast as the DVP-SE host
- Built-in 3 high speed counters offer a Max. frequency of 100 kHz each; 4-axis (8 points) provide a high speed position output at 100 kHz
- Larger program capacity: 64k steps and memory (general registers: 12k; memory for storing parameters: 8k)
- Supports Delta 8-axis servo and 8 motor drives. CANopen DS301 communication mode (up to 64 slaves)
- Built-in 10/100 M Ethernet communication interface: Includes built-in switch function or dual IP mode for dual ports
- Built-in Ethernet interface support, Webpage, Modbus TCP Client/Server, Ethernet/IP Adapter, TCP/UDP Socket

System Structure



Applications

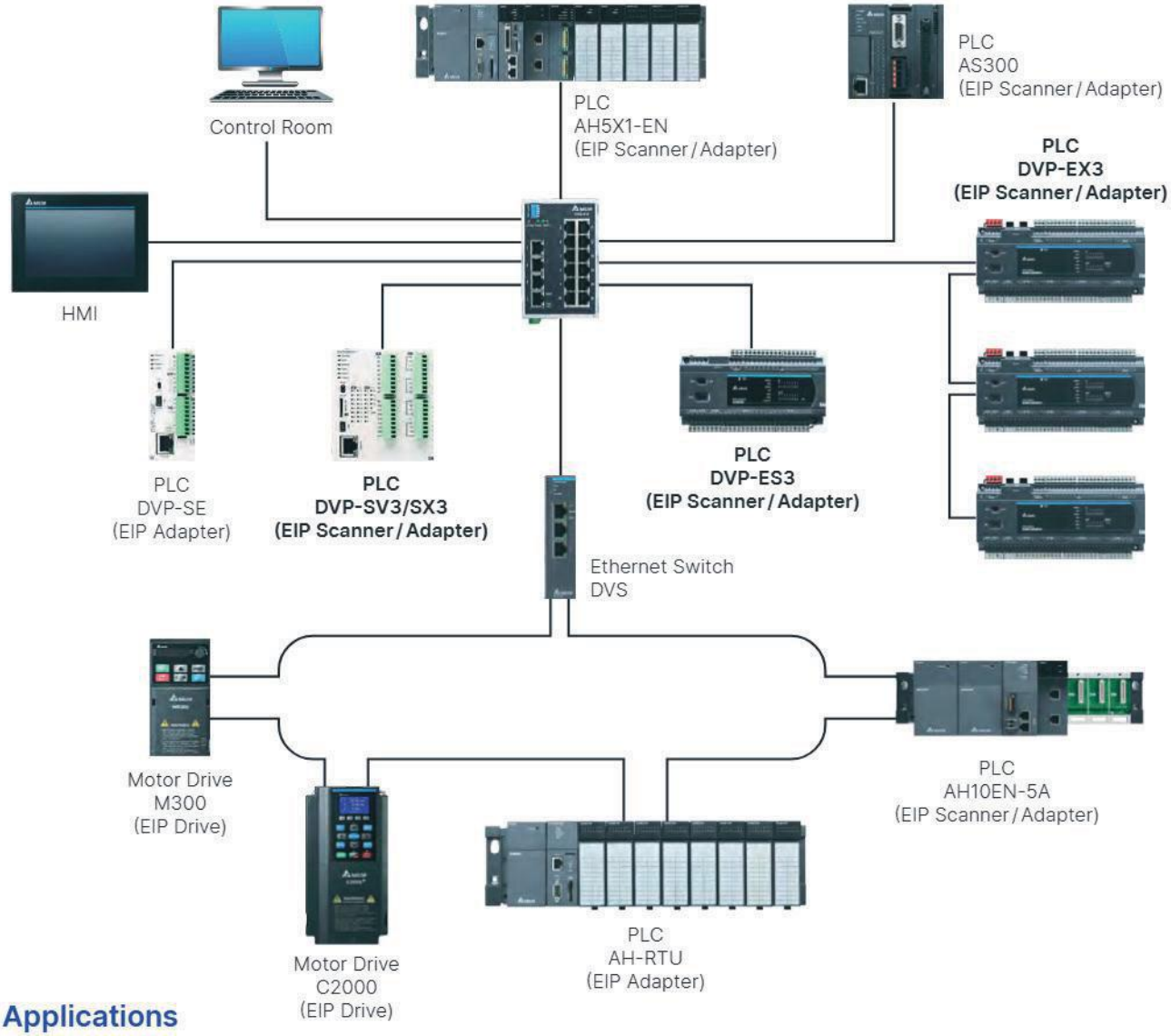
Remote device monitoring, Production line monitoring, Building automation, Printing machine, Container filler (recipe application)

The 3rd Generation Standard / AIO Slim PLC
DVP-SV3 / SX3

Recommended for Compact Machine Upgrading

- Max. basic instruction execution speed: 25 ns (adopts 32-bit SoC Processor)
- Program capacity: 64k steps
- Supports Max. I/O: 512 points (256 inputs + 256 outputs, including its built-in 16 inputs and 16 outputs), both left and right side expansion up to 8 modules per side
- Built-in 2 × RS-485, AIO (SX3 only), micro SD card
- Supports EtherNet/IP Scanner / Adapter, Modbus TCP, CANopen DS301

System Structure



Applications

Positioning control, Material cutting machines (high-speed servo control), Crane main hoists, Material clips (controlled by servos), Optoelectronics equipment, Semiconductors, Textiles, and HVAC

High Performance Slim PLC
DVP-SV2

Top Choice for Slim Type PLC

High-end model of DVP-S Series with larger program capacities and data registers for more demanding and complex applications

Excellent Motion Control

- High-speed pulse output: 4 axes of 200 kHz pulse output
- Supports max. 4 high-speed counters (200 kHz)
- Various motion control instructions to achieve high-speed and high-precision positioning control for labeling machines, packaging machines, printing machines, and more
- Linear / arc interpolation motion control
- Provides up to 16 external interrupt pointers

Full Program Protection

- Auto backup to prevent program and data loss even when the battery runs out
- Secondary backup function saves an extra copy of programs and data to enhance program safety
- Up to 4-level password protection ensures program security and intellectual property

Scalability

- Supports DVP-S Series left-side and right-side modules
- Ethernet communication instructions (ETHRW) available

High-Speed Modules (Left-Side)

Network Modules

- **DeviceNet Master**
  DVPDNET-SL

- **CANopen Master**
  DVPCOPM-SL

- **RS-485 Serial Communication Module**
  DVPSCM12-SL

- **BACnet MS / TP Slave Serial Communication Module**
  DVPSCM52-SL

- **Ethernet**
  DVPEN01-SL
  DVPEN02-SL New

- **PROFINET**
  DVPPN02-SL New

Analog Input / Output Modules

- **Analog Input**
  DVP04AD-SL
- **Analog Output**
  DVP04DA-SL

Load Cell Modules

DVP201LC-SL
DVP211LC-SL
DVP202LC-SL

Left-Side Positioning Module

- **2-Axis Positioning**
  DVPDNET-SL

Applications

2-Axis servo positioning control, Material cutting machine (high-speed servo control), Crane main hoist, Material clips (controlled by servo), Optoelectronics equipment, Semiconductor, Textiles, Energy saving and Building automation

Standard Slim PLC
DVP-SS2

Economic and Compact Type

- Max. I/O: 480 points
- Program capacity: 8k steps
- Data register: 5k words
- Max. basic instruction execution speed: 0.35 μs
- Built-in RS-232 and RS-485 ports (Master/Slave)
- Supports standard Modbus ASCII/RTU protocol and PLC Link function
- Motion control functions:
  - 4 points of 10 kHz pulse output
  - 8 points of high-speed counters: 20 kHz / 4 points, 10 kHz / 4 points

Advanced Slim PLC
DVP-SA2

Advanced Type for High-Speed Modules (Left-Side)

- Program capacity: 16k steps
- Data register: 10k words
- Max. basic instruction execution speed: 0.35 μs
- Built-in 1 RS-232 and 2 RS-485 ports (Master / Slave)
- Supports standard Modbus ASCII / RTU protocol and PLC Link
- No battery required; RTC operates for 15 days after power off
- Supports DVP-S Series left-side and right-side modules
- Motion control functions:
  - 4 points of high-speed pulse output: 100 kHz / 2 points, 10 kHz / 2 points
  - 8 points of high-speed pulse input: 100 kHz / 2 points, 10 kHz / 6 points, 1 set of A / B phase 50 kHz
  - Supports 2-axis linear and arc interpolation

Analog I/O Slim PLC
DVP-SX2

Analog Type with Highly Efficient PID Control

- Program capacity: 16k steps
- Data register: 10k words
- Max. basic instruction execution speed: 0.35 μs
- Built-in 4 analog inputs / 2 analog outputs
- Supports standard Modbus ASCII / RTU protocol and PLC Link function
- No battery required; RTC operates for at least one week after power off (hardware version 2.0 or above)
- Supports DVP-S Series modules (left-side and right-side modules)
- Motion control functions:
  - 4 points of high-speed pulse output: 100 kHz / 2 points, 10 kHz / 2 points
  - 8 points of high-speed pulse input: 100 kHz / 2 points, 10 kHz / 6 points
  - Supports 2-axis linear and arc interpolation