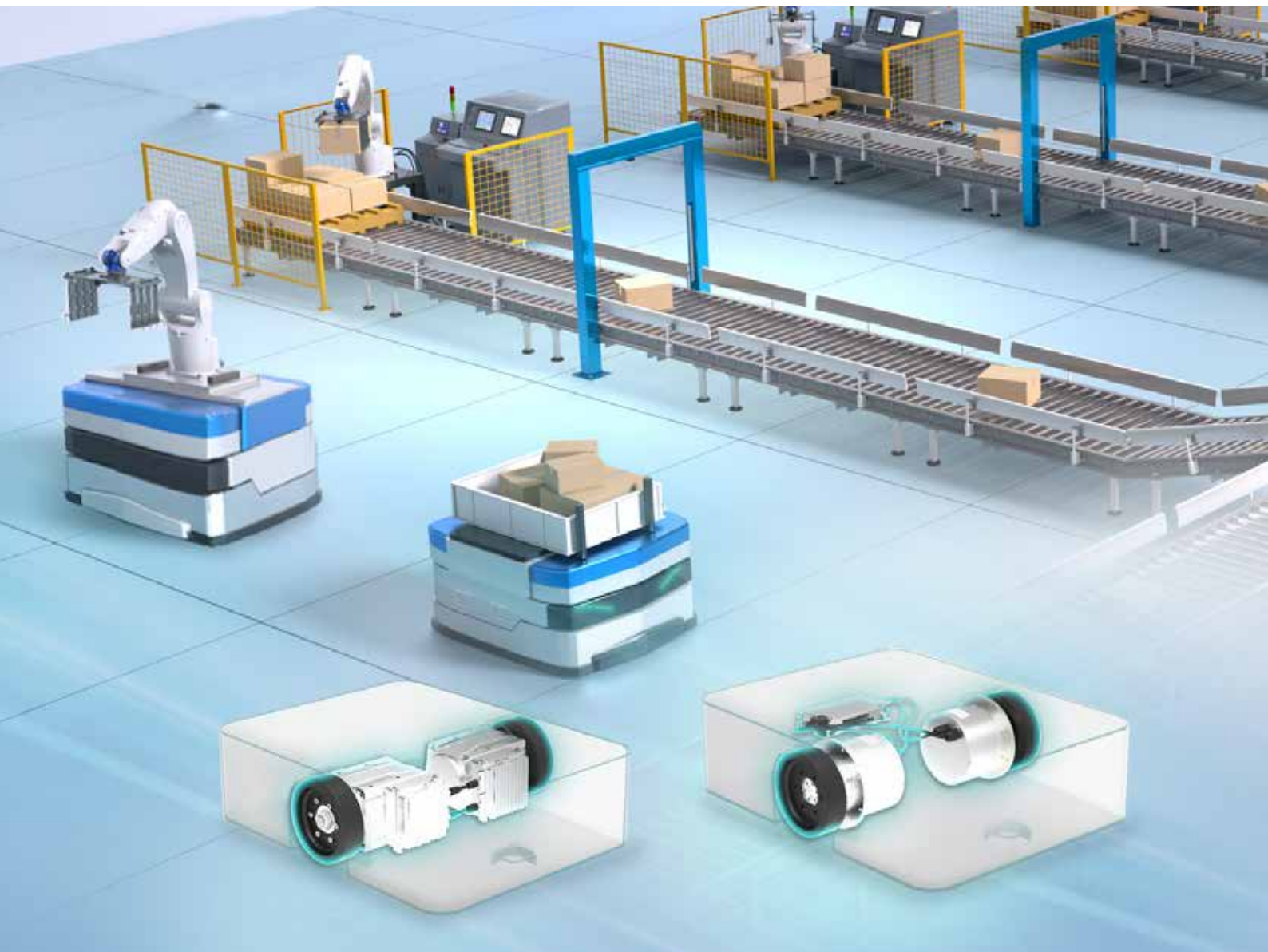




Digitized Automation for a Changing World

# Delta Low Voltage DC Servo Drive & Brushless Integrated Gearmotor

For Automated Guided Vehicles (AGV) & Autonomous Mobile Robots (AMR)

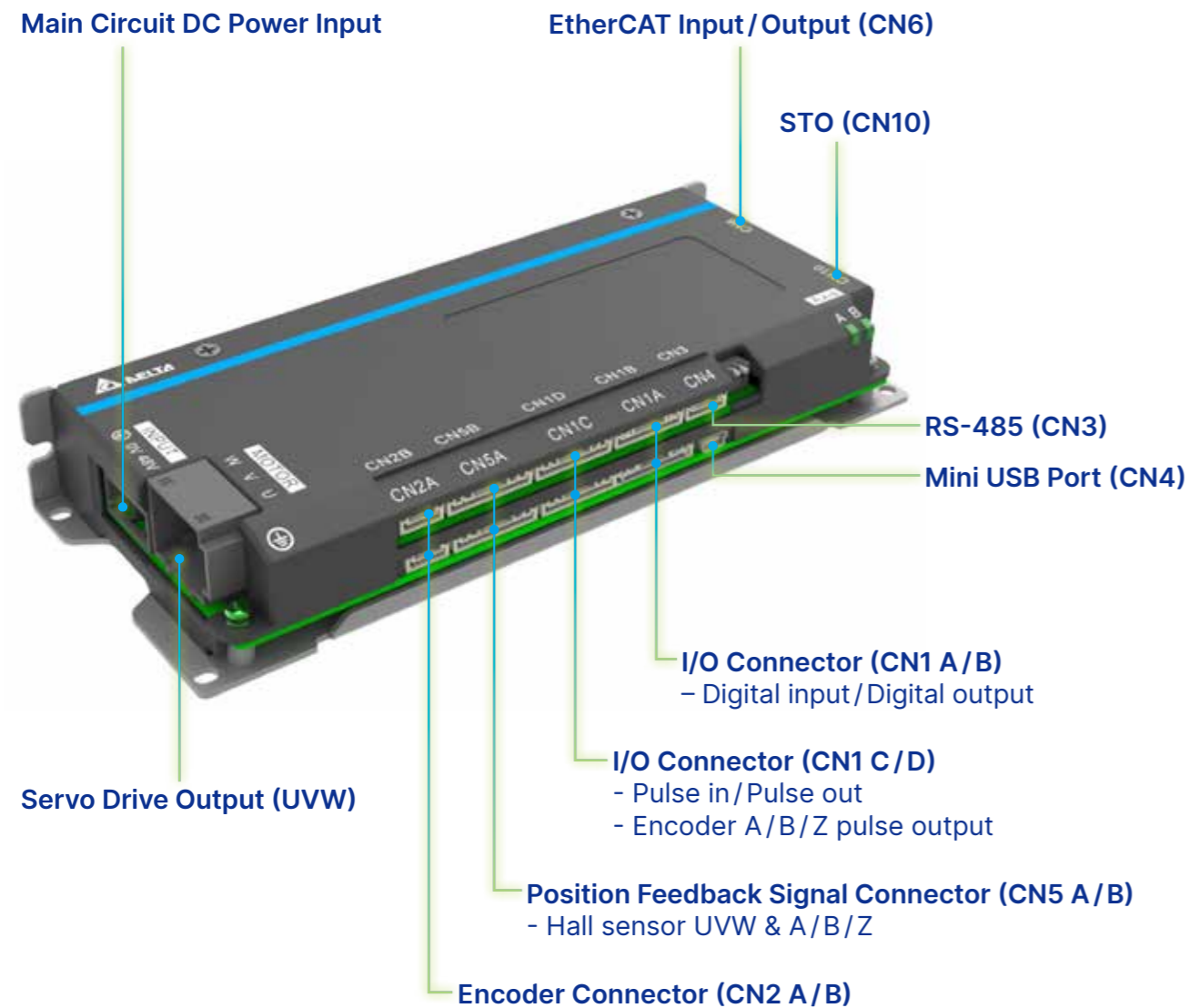


**Compact. Efficient. Pre-Assembled.**

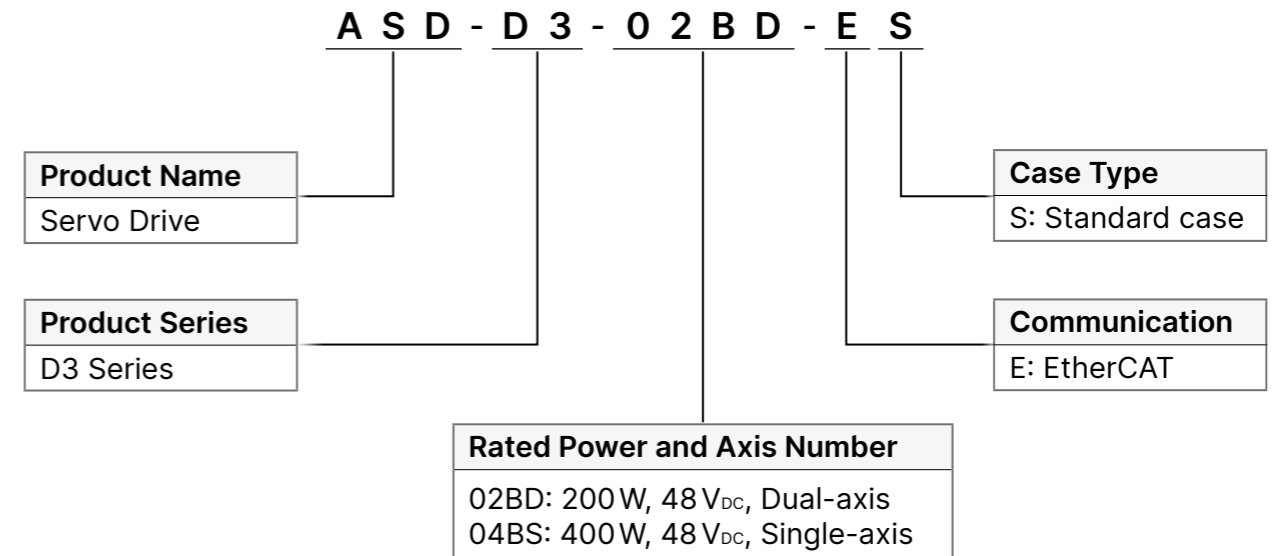
# Low Voltage DC Servo Drive ASDA-D3 Series

The Low Voltage DC Servo Drive ASDA-D3 Series is a versatile solution ideal for AGV/AMR applications. Compact and easy to install, it's perfect for space-limited environments. This reliable and cost-effective drive supports various communication protocols such as Modbus and EtherCAT, ensuring integration into existing systems. The ASDA-D3 Series offers functionality, reliability, and cost-effectiveness, making it an outstanding choice for various applications.

## Product Information



## Model Name Explanation



## Specifications

Item	ASD-D3-02BD-ES	ASD-D3-04BS-ES
Input Voltage Range (V <sub>DC</sub> )	20 - 58 V <sub>DC</sub>	
Rated Output Power (W)	200W × 2	400W
Rated Output Current (Arms)	8.8A × 2	13.7A
Max. Output Current (Arms)	37A × 2	37A
Digital Input	6 × 2 = 12	6
Digital Output	4 × 2 = 8	4
Pulse Signal	Pulse In: 2 × 2 = 4 Pulse Out: 3 × 2 = 6	Pulse In: 2 / Pulse Out: 3
Communication	USB / RS-485 / EtherCAT	
Safety Terminal	STO SIL3*	
Front Panel	N/A; LED Indicator	
Dimensions (W × H × D)	81 × 200 × 30	
Weight (g)	450	415
Operation Temperature	0°C - 50°C	
Input Fuse & Soft-Start	Built-in	

\*Coming soon

# Brushless Integrated Gearmotor

The Integrated Brushless DC Gearmotor combines servo motor, servo drive, encoder, and reducer in one package. This coupling-free gearmotor design is a compact solution for the ease-of-assembly, high efficiency, and space-saving demands of the AGV/AMR chassis.

AGV | AMR

## Servo System - Integrated Gearmotor

Single-Axis & Dual-Axis

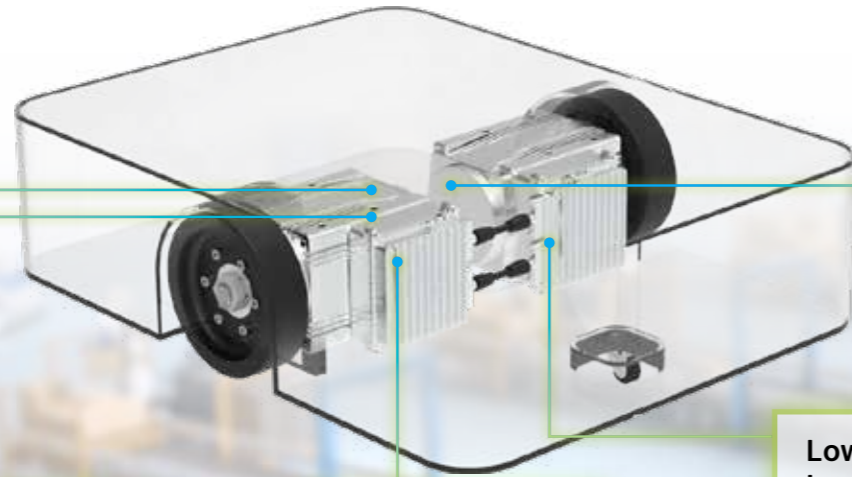
### AC Servo Motor System (Brushless)

Rare earth PM, high efficiency and compact size

### Magnetic Encoder

Resolution 1,024 PPR, vibration tolerant and oil /grease immunity

Compact. Efficient. Pre-Assembled



**Planetary Reducer**  
Compact size

**Brake**  
Built-in design

**Low Voltage DC Input Servo Drive**  
48V<sub>DC</sub>, integrated servo drive

## Features

### • Space-Saving

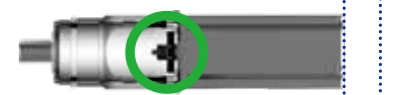
#### Without coupling

Compared with the conventional type motors used in AGV/AMR, Delta's Brushless Integrated Gearmotor with built-in gear reducer eliminates the coupling, saving 10-20% in length.

#### Compact design with built-in reducer

Built-in planetary gear reducer increases torque and reduces total footprint, regardless of motor size.

Without Coupling



With Coupling

### • Dynamic Brake

Features Dynamic Brake to slow down and assist with stopping under power failure conditions; even on slopes.

### • Real-Time Monitoring & Alarms

Monitors the motor conditions, stops operation and sends the alarm once detected. Alarms include overload, overheat, overvoltage, undervoltage, low battery, and others.

### • Flexible Implementation

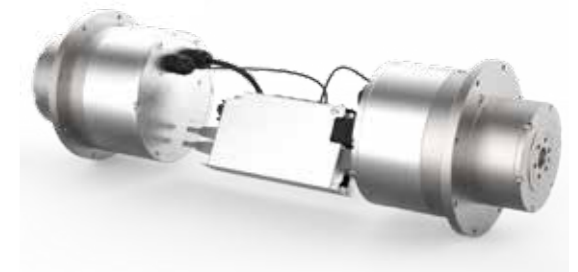
#### Single-Axis

Integrated servo drive with gearmotor saves space and is easy to assemble with less wiring.



#### Dual-Axis

One servo drive with two gearmotors offers a superior space saving solution, greatly reducing the AGV/AMR width compared to the system with two single-axis servos.



### • Mechanical Brake (optional)

Mechanical brake keeps the AGV/AMR from moving by locking the shaft.

## Specifications

Item	Gearmotor Specifications
Input Voltage	48 V <sub>DC</sub>
Power Range	200 W, 400 W, 750 W* <sup>1</sup>
Maximum Speed	187.5 - 300 rpm/min
Peak Torque	44.8 - 267.5 N-m
Communication	Single-axis: CANopen Dual-axis: EtherCAT, CANopen, Pulse
Encoder	Magnetic or optical* <sup>2</sup>
Safety Function	SIL3 STO
Environmental Protection	IP53/IP65* <sup>3</sup>
Operation Temperature	0°C - 40°C
Certifications	CE/UL

1. 750W model is coming soon

2. Optical encoder is optional

3. IP65 is by request

## Applications

Locomotion of AGV/AMR in logistics, e-commerce, semiconductors, and other industries.



Smarter. Greener. Together.

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