

FOUNDERS EDITION

DDS TorqueSync™

A no-compromise direct-drive wheelbase built around industrial servo technology, high-voltage power delivery and patented real-time signal processing.



TWO PERFORMANCE LEVELS

DDS26**€1,499**

26 NM · SKU SLA237

DDS39**€1,999**

39 NM · SKU SLA238

Retail prices shown on sim-lab.eu. Taxes, market pricing and reseller commercial terms may vary.

350 VDC

Internal high-voltage servo architecture

100+ kHz

Multithreaded DSP control loop

24-bit

Encoder with 16 million positions

4 years

Standard product warranty

PRODUCT POSITIONING

Built as a servo system. Not adapted from one.

Developed with SOLO Motorcontrollers, DDS TorqueSync™ is engineered from the ground up for sim racing instead of placing an off-the-shelf motor inside a consumer enclosure.

350V

Voltage headroom for fast torque response at speed

26/39

Nm peak torque choices on one common platform

2.5A

5V wheel-side power delivery through passthrough

200M

Rated cycles for the replaceable industrial slipring

THE PROPOSITION

Sharper, cleaner and more alive force feedback - with no external power brick and no proprietary ecosystem lock-in.

Both variants share the same industrial-grade motor concept, patented TorqueSync™ processing, open USB data passthrough and RaceDirector™ tuning environment.

1

Industrial motor control

Radial-flux inner-runner AC brushless servo motor with harmonised magnet pairs and distributed-wound stator cores.

2

TorqueSync™

Patented translation layer synchronizes simulator physics and motor output in real time.



PERFORMANCE ARCHITECTURE

More voltage. More faithful response.

The system is designed to preserve fine detail while maintaining torque response through rapid direction changes and higher rotational speeds.

INDUSTRIAL-GRADE MOTOR CONTROL MEETS 350V POWER DELIVERY

Voltage Makes the Difference

The internal 350 VDC bus provides substantial voltage headroom to overcome back-EMF, maintain torque at higher speeds and deliver faster slew rates. The servo motor construction minimizes cogging and torque ripple for smooth rotation and immediate response.

PATENTED REAL-TIME SIGNAL TRANSLATION

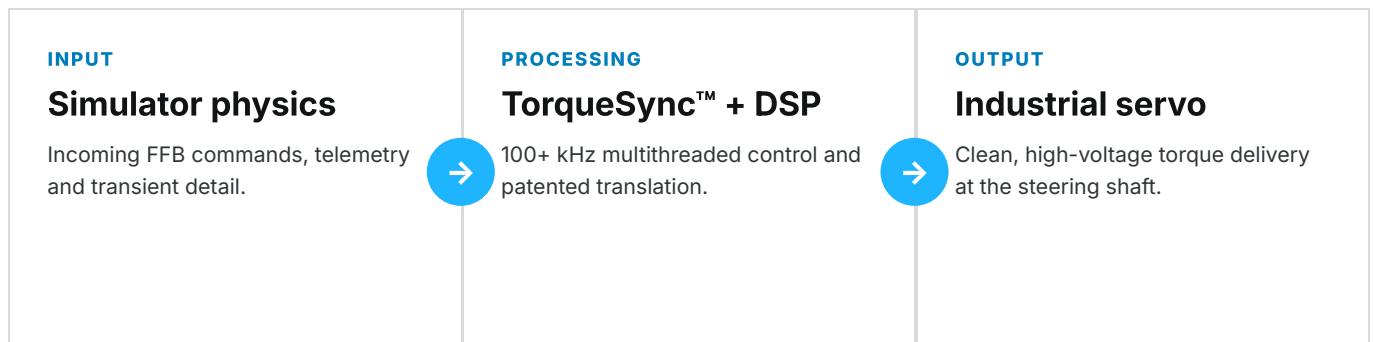
Feel What Others Miss

TorqueSync™ processes more than 100,000 updates per second, translating simulator force commands into motor torque with minimal latency. Tire slip, road texture and load transitions remain clear instead of being lost in processing noise.

OPEN WHEEL CONNECTIVITY

Future-Proof Data Passthrough

USB 2.0 data travels through the wheelbase without a proprietary wheel restriction. A dedicated 5 V / 2.5 A power line supports high-draw displays and button boxes, while the replaceable industrial slipring is rated for 200 million cycles.



ENCODER

24-bit resolution

Approximately 16 million discrete positions for detailed control.

SAFETY

STO included

Safe Torque Off functionality is included in both models.

COOLING

Active fan cooling

Designed for sustained high-output sim-racing sessions.

DESIGNED AROUND THE COMPLETE RIG

High performance without the friction.

Mechanical integration, power management, wheel connectivity and software tuning are treated as one coherent system.



No Brick, No Clutter

The power supply is integrated into the housing: 1,500 W peak on DDS26 and 2,500 W peak on DDS39. One mains cable reduces clutter and external failure points.



Designed to Adapt

Precision rails on all four sides plus dedicated front-mount points support wheeldeck, side-mount and front-mount installations.



Open Ecosystem

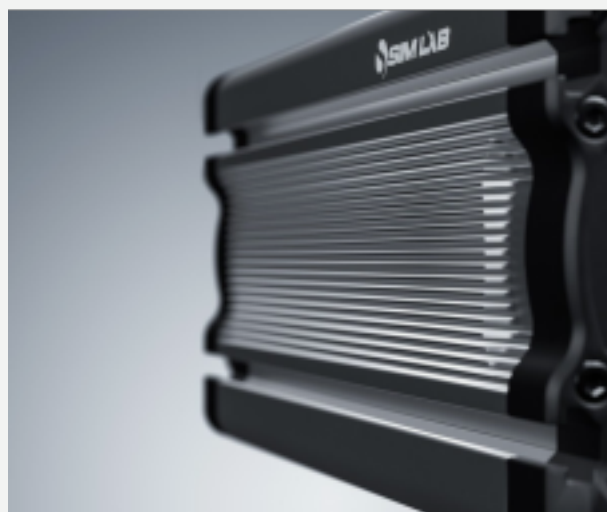
Compatible with Sim-Lab, GRID Engineering and third-party wheels using the standard 70 mm M5 bolt pattern.

RACEDIRECTOR™ SOFTWARE

Software That Thinks Like You Do

Adjust torque curves, damping and slew rate with detailed controls. Telemetry FFB shows the incoming simulator signal alongside actual motor output, enabling tuning by data rather than guesswork.

- ✓ Deep force-feedback parameter control
- ✓ Telemetry-based input/output comparison
- ✓ Upload and share community setups
- ✓ Download proven profiles from other drivers



MOUNTING

Wheeldeck · side · front

Shared mounting points on both models simplify reseller recommendations and installation planning.

WHEEL INTERFACE

Ø70 mm · M5

A familiar, open bolt pattern for broad steering-wheel compatibility.

I/O

USB 3.0 + 12 V

Wheel-side passthrough provides USB 2.0 data and enhanced 5 V power.

TECHNICAL SPECIFICATIONS

One platform. Two torque classes.

Both models share the same control technology, connectivity, software and mounting system.

SPECIFICATION	DDS26 €1,499 · SLA237	DDS39 €1,999 · SLA238
Peak torque	26 Nm	39 Nm
Internal power supply	1,500 W peak-rated	2,500 W peak-rated
Servo power storage	350 VDC @ 25 A	350 VDC @ 40 A
Mass	11.1 kg	13.5 kg
Encoder	24-bit · approximately 16 million positions	
Control loop	DSP chip · 100+ kHz multithreaded	
Servo motor	SPMSM · industrial-type AC brushless	
Power input	110 / 240 VAC	
I/O	USB 3.0 + 12 V · STO included	
Wheel-side passthrough	USB 2.0 data · 5 V / 2.5 A power delivery	
Slipring	Industrial type · replaceable from front · rated for 200 million cycles	
Dimensions without QR	380 × 130 × 130 mm (L × W × H)	420 × 130 × 130 mm (L × W × H)
Cooling	Active fan cooling	
Software	RaceDirector™	
Mounting	Wheeldeck · front-mount · side-mount	
Wheel mounting interface	Ø70 mm · M5 bolt pattern	

Commercial note: Retail prices above are the current prices displayed on sim-lab.eu. Reseller purchase prices, launch allocation, delivery windows, demo-unit conditions and regional tax treatment should be communicated separately.

LAUNCH EDITION

A distinctive first run for early customers.

Every Founders Edition unit carries product-specific detailing and includes the new quick-release system and collector presentation material.

FOUNDERS EDITION EXCLUSIVES

- ✓ Founders Edition engraving
- ✓ Unique serial number on every unit
- ✓ Xero-Play Quick Release v2 included
- ✓ Premium collector's booklet

In the box

- DDS TorqueSync™ wheelbase
- Xero-Play Quick Release v2
- Hardware kit for mounting
- Premium booklet



COMPATIBILITY

- Sim-Lab and GRID Engineering wheels
- Third-party wheels with Ø70 mm M5 bolt pattern
- USB-C, USB-A and internal-connector passthrough options
- Wheeldeck, side-mount and front-mount installations

RESELLER-READY ASSURANCES

- 4-year warranty
- Common mounting system across both models
- Open ecosystem positioning
- RaceDirector™ tuning and profile sharing

REFERENCE PAGE

sim-lab.eu/products/dds-torquesync

Pre-sale product overview for authorized resellers. Availability, allocation, lead times and commercial terms are confirmed separately. Content is subject to final technical and marketing approval.

Contact: info@sim-lab.eu

