

Fact Sheet

VLT® Integrated Servo Drive ISD® 510



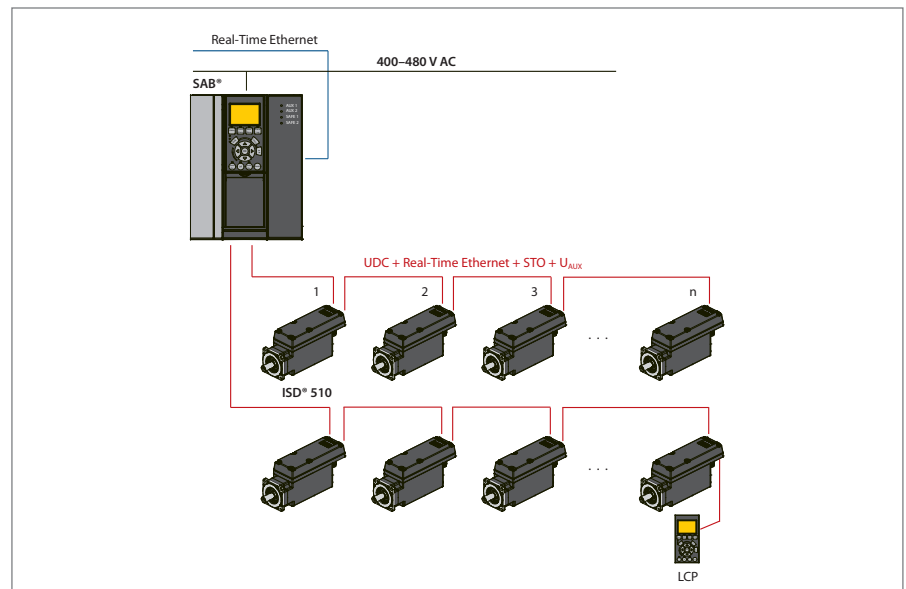
VLT® Servo Access Box SAB®

The SAB® generates a 600 V DC power supply and guarantees high power density. It has a removable Local Control Panel (LCP) and is based on the proven quality of a Danfoss frequency converter. The SAB® delivers an output of 7.5 kW and 15 A.

1.5-13 Nm torque

range gives you more design flexibility in your decentralized system plans

VLT® Integrated Servo Drive ISD® 510 is a high-performance decentral servo motion solution, developed specifically for the Food & Beverage and Packaging industries. The servo system comprises a central power supply SAB®, drive modules and cabling infrastructure. The decentralization of the drive unit offers benefits in mounting, installation, and operation. Depending on the application, the SAB® can power up to 64 drives in a servo drive system. The open system supports both EtherCAT® and Ethernet POWER-LINK®.



Servo Drive

The motion control is integrated into the drive so that the motion sequences can take place independently. This releases the central PLC and offers a highly flexible drive concept. The master can be programmed via IEC 61131-3 and hybrid cables are used to connect the servo drives, making installation fast and simple.

The perfect solution for:

- Packaging machines
- Food & Beverage machines
- Pharmaceutical machines

Feature	Benefit
Dynamic servo performance	Fast, accurate, and energy-efficient
Compact and decentral servo drive	Reduced costs and high flexibility
64 standard servo drive variants in sizes 1 and 2	Selection of most suitable drive for the application's torque and power requirements
Real-time systems EtherCAT® and Ethernet POWERLINK®	Fast process communication
Control via IEC 61131-3	Open system
System setup performance	Simple and fast configuration of several drives
Hybrid cables in daisy-chain concept	Easy and fast installation, reduced number of cables
Removable Local Control Panel (LCP)	Direct connection to the servo drives for fast commissioning, diagnosis, and service
LEDs on servo drive and SAB®	Fast and effective monitoring
Standard and advanced servo drive variants	Cost-effective solution

Available Options

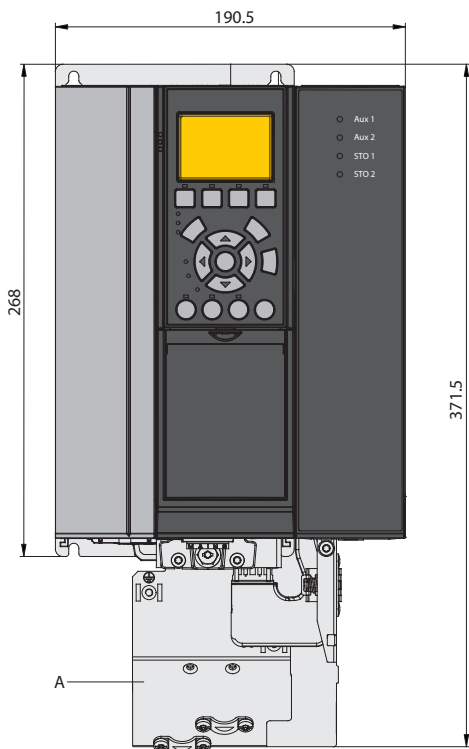
- Mechanical holding brake
- Feedback:
 - Resolver
 - Single-turn
 - Multi-turn
- Customized flange on request
- Shaft seal
- Flexible hybrid cable

Specifications

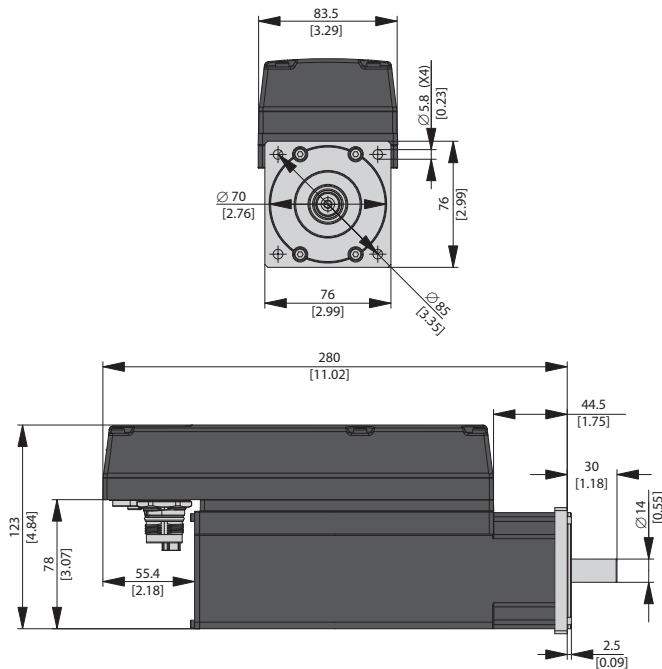
ISD® 510		
Rated voltage	$U_{DC\ link}$	DC 565 V
Rated torque	M_N	1.5-3.8 Nm
Maximum torque	M_{0max}	6.1-13 Nm
Rated current	I_N	1.4-1.8 A
Maximum current	I_{0max_rms}	5.7-6.4 A
Rated speed	n_N	2400-4600 rpm
Rated power	P_N	0.72-0.94 kW
Inertia (without mechanical brake)	J	0.85 / 1.45 / 2.09 / 2.73 kgcm ²
Shaft diameter		14/19 mm
Protection rating		IP54/IP67 (shaft IP65)
Safety rating		STO (Safe Torque Off)

Servo Access Box		
Input voltage	U_{IN}	400-480 V AC ±10%, 3-phase
Input current	I_{IN}	11.14 A @ 400 V / 9.3 A @ 480 V
Output voltage	U_{OUT}	565-680 V DC ±10%
Rated power	P_N	7.5 kW
Rated current	I_N	15 A
Enclosure		IP20

Dimensions



A = decoupling plates



Servo Drive ISD® 510	Dimensions [mm]									
	A	B	C	D	E	F	G	H	I	J
Size 1 (1.5 Nm)	85	70	76	280	39.5	30	14	2.5	70	115
Size 2 (2.1 Nm)	100	80	84	252.5	15	40	19	3.0	84	129
Size 2 (2.9 Nm)	100	80	84	281.5	44.5	40	19	3.0	84	129
Size 2 (3.8 Nm)	100	80	84	310.5	73.5	40	19	3.0	84	129