

i750 cabinet servo drive



The **i750 cabinet** servo drive offers everything for precise and dynamic multi-axis motion control for complex applications. Combined with advanced safety functions and One Cable Technology (OCT), it reduces wiring time and potential errors, ensuring quality connections and fewer man-hours for installation.

As part of the family of high-performance servo drives, the i750 cabinet offers unique functionality. Its flexibility, single or double-axis with matching supply, make it a versatile product that fits well with existing motion controllers that support CiA 402 motion over EtherCAT. This product's advantage is its ability to drive numerous applications. By using Lenze's **EASY Starter** and **FAST** pre-coded function blocks you can vastly speed up commissioning and maintenance of complex automation systems.

The i750 cabinet is available up to 20 hp (15 kW). To achieve a higher power range of up to 150 hp (110 kW), the **i950 cabinet** may seamlessly be added to the EtherCAT network.

Features and benefits

- **Regen management** — Common DC bus
- **Narrow profile** — 1.97 in (50 mm), ideal for double-axis
- **Single-axis** Rated Output current up to 32 A (up to 64 A Peak Output Current)
- **Double-axis** Rated Output current up to 16 A (up to 32 A Peak Output Current)
- **Shorter installation time** — Single point of fusing
- **Less cabling** — One Cable Technology (OCT)
- **Auto-tuning** — For quick controller adjustments

i750 cabinet



Design/mounting	Control cabinet
Degree of protection	IP20 NEMA 1

Mains connection/power range

3ph AC 480V — also accepts 230V (DC supply via bus bar connector)	1.1 ... 15 kW 1.5 ... 20 hp
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Market approvals/environment

CE	Yes
UKCA	Yes
UL	Yes
CSA	Yes
CCC	Yes
RoHs	Yes
Energy efficiency	Class IE2
Degree of pollution	2
Vibration resistance during operation	Up to 1g
Insulation resistance	Category III

Control connections

Digital inputs	2
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Protective measures

Earth-fault protected	Yes
Short-circuit-proof	Yes
Overvoltage-proof	Yes
Motor stalling protection	Yes
Motor overtemperature	With PT 1000, I ² xt

Communication

EtherCAT	Yes
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Feedback

HIPERFACE DSL® absolute value encoder (One Cable Technology OCT)	Yes
Resolver	Yes
HIPERFACE® SinCos absolute value encoder	Yes
Endat (V2.1&V2.2) SinCos absolute value encoder	Yes
SSI absolute value encoder	Yes
SSI SinCos absolute value encoder	Yes
TTL incremental encoder	Yes

Cooling

Operation (EN 60721-3-3)	3K3 (-10 ... +55°C)
Derating	2.5 % / °C above 40°C
Storage (EN 60721-3-1)	1K3 (-25 ... +60°C)
Transport (EN60721-3-2)	2K3 (-25 ... +70°C)

Operation on public supply systems

Devices above 1 kW up to 16 A (EN IEC 61000-3-2)	Yes
Devices above 16 A (EN IEC 61000-3-2)	With mains choke

Motor cable lengths

EMC category C1	
EMC category C2	Depending on the number of axes
Fusing	
Fuse characteristic	gG/gI or gRL
Circuit breaker characteristic	C

Functional safety

Stop functions

Safe torque off (STO)	Yes
Safe stop 1 (SS1)	Yes
Safe stop 2 (SS2)	Yes
Safe stop emergency (SSE)	Yes
Safe operational stop (SOS)	Yes
Safe brake control (SBC)	Yes
Cascading STO (CAS)	

Monitoring functions

Safe maximum speed (SMS)	Yes
Safely limited speed (SLS)	Yes
Safe speed monitoring (SSM)	Yes
Safely limited increment (SLI)	Yes
Safe direction (SDI)	Yes
Safely limited position (SLP)	Yes
Safe position-dependent speed (PDSS)	Yes
Safe cam (SCA)	Yes

Motor controls

V/f characteristic control	Yes
V/f characteristic control with feedback	Yes
Vector control for asynchronous motors	Yes
Servo control for asynchronous motors	Yes
Servo control for synchronous motors	Yes
Sensorless control for synchronous motors	Yes

Additional functions

Auto-tuning	Yes
Wiring check	Yes
Torque control	Yes
Skip frequencies	Yes
Motor monitoring	Yes
Oscilloscope	Yes
Access protection for parameters	Yes

Technology applications

Speed Control	With c430, c520 or c550 controller and FAST
Table Positioning	
Electronic Gearbox	
Sync and Correction	
Winder Dancer	
Winder Tension	
CiA 402 advanced	
AC Drive Profile	