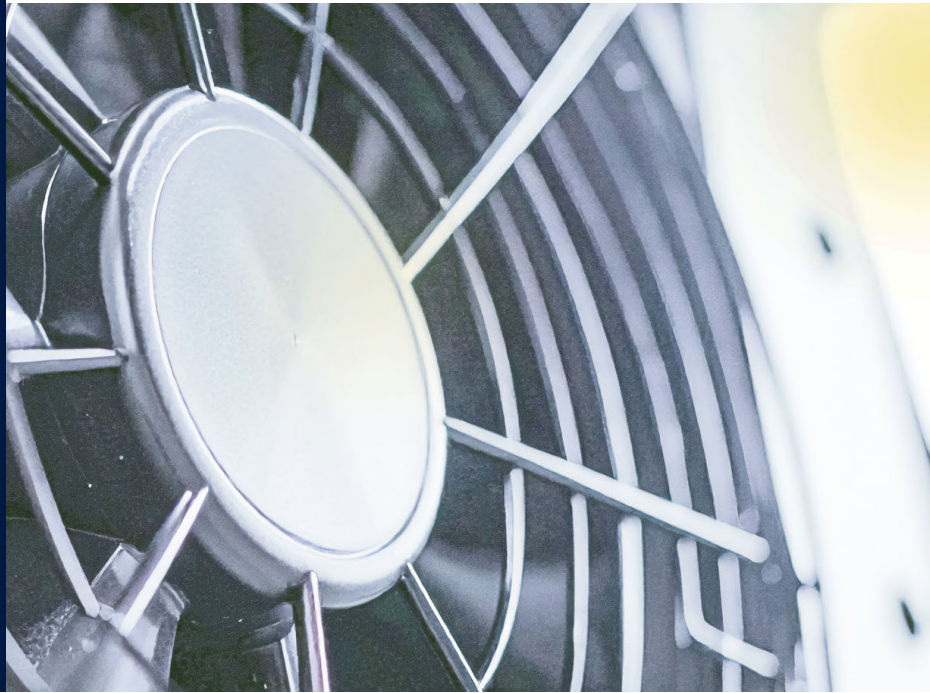


Ventilation Equipment with Lenze VFDs

Optimize equipment design
and reduce costs



Lenze is your **competent partner for variable frequency drives (VFDs)** for a wide range of **ventilation equipment** – from industrial installations to commercial buildings.

Different installation requirements?

The frequency drive series offers a wide range of solutions from **0.25 to 132 kW (0.33 to 180 HP)**. They are available in **IP20** or decentralized **wall or motor mounted in IP55/66**.

Facing high costs for automation & drives?

Robust decentral i550 protec with **adaptable extension box** cut costs for electrical cabinet designs. Maximum integration of functionality offers the i650 motec with **built-in PLC and IO-Link Master**.

Limited power range for motor mounted VFDs?

The i550 motec in **IP66** is very compact from **0.37 to 45 kW (0.5 to 60 HP)**, e.g. i550 motec with 45 kW weighs only 14 kg.

Lack of skilled personnel?

Reduce the installation time by at least **30 minutes per VFD**. Features like the **memory module** for parameters and cable connectors make the commissioning easy and efficient.

Highest quality standards worldwide

Lenze drives are developed in Switzerland and produced in large quantities in **Germany, USA** and **China** – for the respective region with **local support**.



i550 cabinet

i550 motec

i550 protec

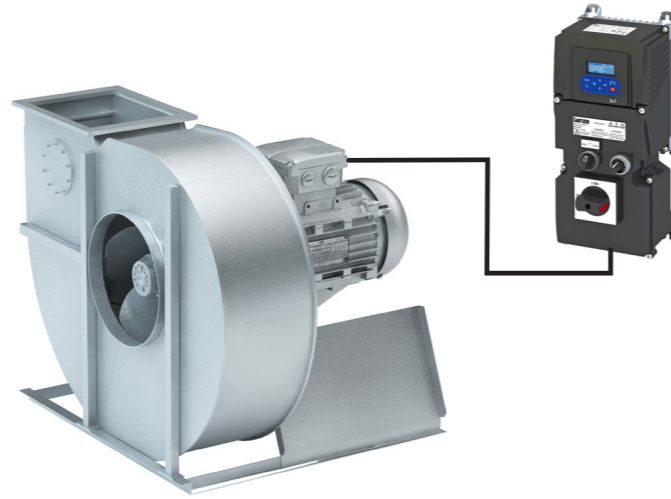


Industrial blowers, air compressors and vacuum pumps

Air handling equipment installed in industrial machines or processes for temperature control, pneumatic conveying, workpiece positioning, clean environment, etc.

Why Lenze VFDs?

- Support asynchronous and permanent magnet motors
- **Integrated fan functions** like PID control, power loss ride through and flying restart
- **Compact size:** Lenze VFDs are on average 40 % smaller
- i550 motec for **motor mounting** up to **45 kW (60 HP)** with power regeneration and optional Lenze IE5 motor-drive-package.



Industrial burners

Blowers with VFDs control on gas, oil, biomass or hydrogen burners to reduce electrical energy and fuel consumption

Why Lenze VFDs?

- Supports **asynchronous** and **permanent** magnet motors
- Flexible installation with same look & feel available as **cabinet, wall-mounted or motor-mounted**
- **Dynamic braking:** with integrated **brake chopper** or eco-friendly and easy to use **power regeneration** into the grid with i550 motec



Filtration equipment

Extraction of uncomfortable or harmful fibers, dust, fumes, oil mist or particles from the air typical in wood, metal processing, welding, spraying, processes, etc.

Why Lenze VFDs?

- **Compact size:** Lenze VFDs are on average 40 % smaller
- **Integrated fan functions** like PID control and sequencer control to allow PLC-free operation
- i550 motec for **motor-mounting** up to **45 kW (60 HP)** with power regeneration



Farming ventilation

Reliable fan control with comfortable climate at lowest energy costs in applications like cow, pig, poultry and hatchery farming and also for the storage or ripening of fruits and vegetables

Why Lenze VFDs?

- Supports **asynchronous** and **permanent** magnet motors
- Integrated fan functions like **PID control, flying restart, power loss ride through, belt loss detection and skip frequencies**
- Robust design: **IP66 VFDs** with **NEMA 4X outdoor** rating to withstand harsh environmental stress

Fan packs for cooling towers, chillers and condensers

High power fan packs or process critical fan- packs in harsh ambient conditions use VFDs instead of basic EC-fans

Why Lenze VFDs?

- Robust operation thanks to **dynamic braking** with integrated brake-chopper or **eco-friendly** and easy to use **power regeneration** into the grid with i550 motec in case of windmilling effects or fast speed reduction
- Built-in fan functionality like **de-icing, flying restart, power loss ride through, skip frequencies**
- **Connectorized solution** for quicker installations



Building/HVLS ventilation

For industrial and commercial buildings with demanding large ventilation equipment like kitchen ventilation or HVLS (High-Volume Low-Speed) ceiling fans

Why Lenze VFDs?

- Supports **asynchronous** and **permanent** magnet motors
- **Lowest motor noise:** Skipping up to 3 frequency ranges or 16 kHz switching frequency
- **PID temperature control** with sleep mode for **lowest energy consumption**



Further information:
Lenze fan application guide



Technical data Lenze VFDs

3-phase mains connection 400/480 V – HD with 200 % (3 s), 150 % (60 s), STO SIL3, with integrated EMC filter

P _N (HD)		I _N (HD)		i550 cabinet IP20 NEMA 250 Open Type		i510 protec IP21 NEMA 1 (North America only)		i550 protec IP66 NEMA 4X IP55 NEMA 12		i550 motec/ i650 motec IP66 NEMA 4X			
[KW]	[HP]	400 V	480 V	m (kg)	H x W x D (mm)	m (kg)	H x W x D (mm)	m (kg)	H x W x D (mm)	m (kg)	H x W x D (mm)		
0.37	0.5	1.3	1.1	0.8	155 x 60 x 130	1.29	170 x 100 x 111	1.8	190 x 140 x 117	3.2	263 x 156 x 120		
0.75	1	2.4	2.1	1.0	180 x 60 x 130			2.7	205 x 140 x 140				
1.1	1.5	3.2	3	1.35	250 x 60 x 130								
1.5	2	3.9	3.5										
2.2	3	5.6	4.8										
3	4	7.3	6.3				1.33	200 x 100 x 111	4.9	250 x 180 x 168	3.8	263 x 156 x 120	
4	5	9.5	8.2										
5.5	7.5	13	11	2.3	250 x 90 x 130								
7.5	10	16.5	14	3.7			276 x 120 x 130	2.0	290 x 180 x 173	5.1	290 x 180 x 173	6.0	340 x 202 x 155
11	15	23.5	21										
15	20	32	27		8.0	342 x 180 x 165							
18.5	25	40	34										
22	30	47	44.4										
30	40	61	52										
37	50	76	65	17.2	450 x 250 x 230		46	778 x 298 x 286					
45	60	89	77										
55	75	110	96				24.0	536 x 250 x 265		53	778 x 298 x 378		Not available
75	100	150	124										
90	125	180	156										
110	150	212	162	35.6	685 x 258 x 304	Not available		Not available					

IO connections & mains voltages	Standard I/O: 5 x digital input, 1 x digital output, 1 x relay (NO/NC), 2 x analog input, 1 x analog output, Other mains voltages: 1 x 110 V; 1x 230 V; 3 x 230 V; 3 x 600 V, Light duty variants available up to 132 kW (180 HP) to safe costs.
Commissioning/ diagnostics	Keypad → Parameterization and diagnostics of the frequency drive EASY Starter PC Tool → Free of charge engineering & parameterization tool with power-free USB interface Lenze Keypad App → User-friendly diagnostics and parameterization with optional wifi module
Functional safety	Option Safety Torque OFF: STO (SIL 3 / PL “e” Cat. 4)

CANopen

EtherCAT

EtherNet/IP

IO-Link

Modbus

PROFINET

PROFIBUS

ETHERNET
POWERLINK

Lenze
engineered to win

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