Lenze
engineered to win

Refrigeration technology with Lenze VFDs

Optimize equipment design and reduce costs

Lenze is your **competent partner for variable frequency drives (VFDs)** in refrigeration applications. Improve the control of your refrigeration compressor with the i550 cabinet and i550 protec.

Limited space?
Lenze VFDs are on average **40% smaller** than comparable models.

Disruptive system failures?
VFDs from Lenze are the most robust option and can operate **from -30 to +60 °C / -22 to +140 °F**.

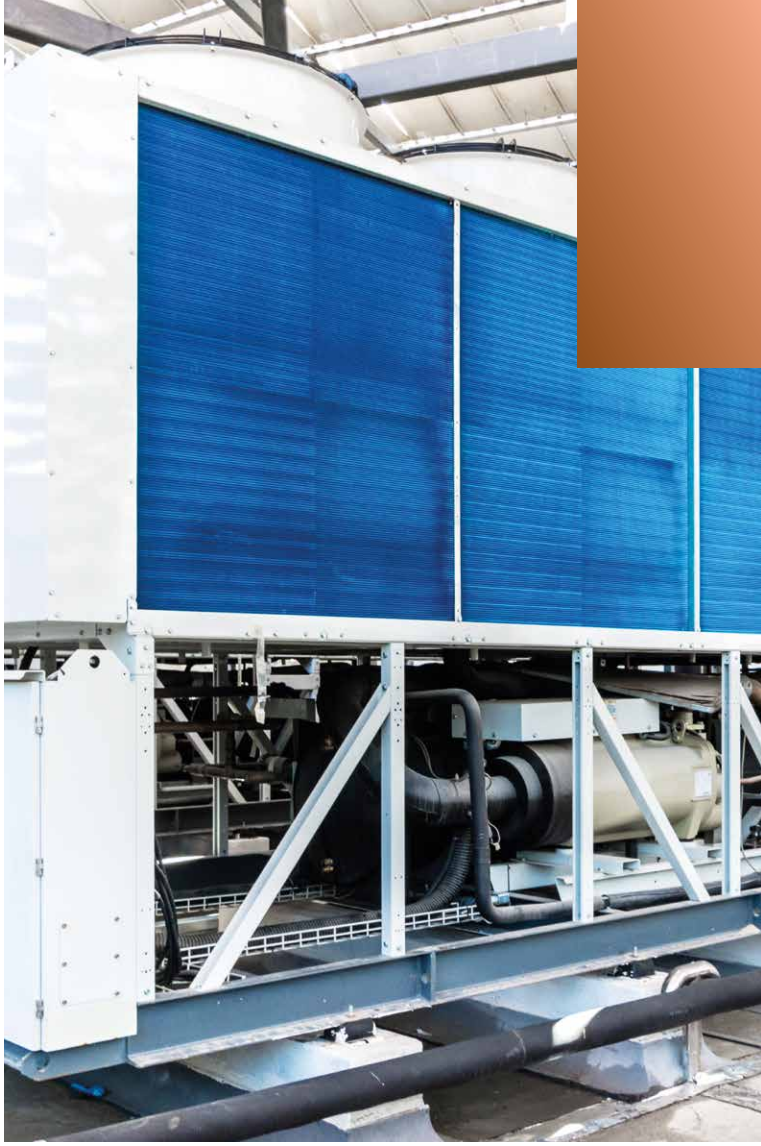
Different requirements?
The frequency drive series offers a wide range of solutions from 0.37 to 110 kW / 0.5 to 150 HP: Available in IP20 or decentralized in IP55/66.

Highest quality standards worldwide
Lenze VFDs are developed in Switzerland and produced in large quantities in Germany, the USA and China – for the respective region with local support.

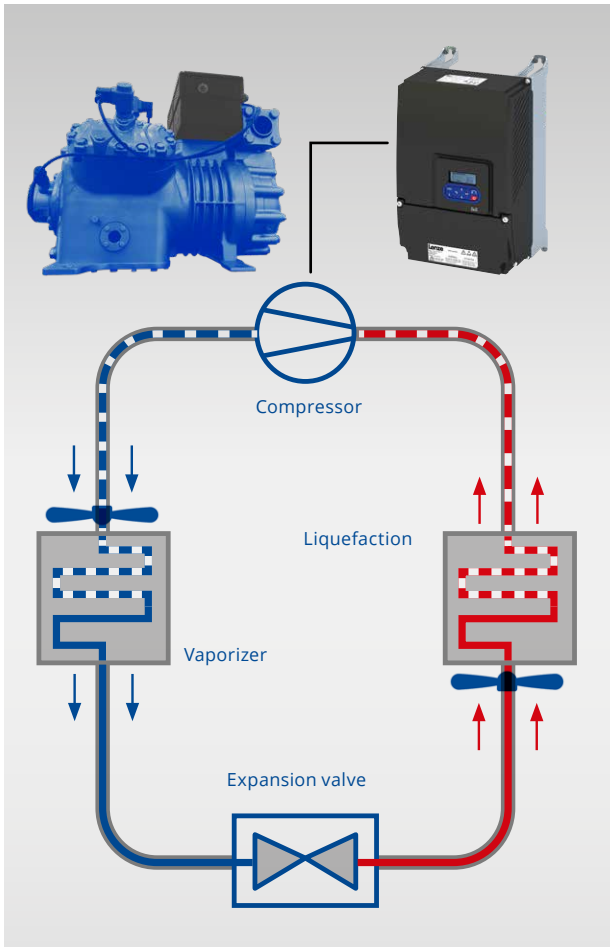
i550 cabinet IP20 | NEMA 250 Open Type

i550 protec IP66 | NEMA 4X

Reciprocating compressors benefit **from i500**



- **Safe torque off (STO):** Can be ordered as an option, saves main/safety contactor and protects the compressor against high pressure and thermal overload.
- **Easy handling:** Selection, installation, commissioning and maintenance-free operation.
- **Versatility:** Particularly suitable for refrigeration compressors, fans and circulating pumps that are operated with ASM or PM motors.
- **Reliability:** Lenze VFDs demonstrate especially low failure rates and longevity.
- **Optimum lubrication:** The compressor can be controlled with two separately adjustable acceleration ramps.



- **High overload capacity:** With 150% for 60 seconds, even CO_2 booster systems can be operated with a smaller inverter, as short overload torques, e.g. during the start-up phase, are no problem.
- **Efficient energy saving:** The integrated PID controller adjusts the speed to the actual demand and saves considerable energy. This can be achieved through **V/f control** or **vector control**.
- Motor-mounted drives such as the i550 motec up to 45 kW / 89 HP are also available for **simple and space-saving installation** on circulation pumps.

i550 motec 5,5 kW IP66 | NEMA 4X

Technical data i550 cabinet and i550 protec

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

P_N(HD)		I_N (HD)		i550 cabinet IP20 | NEMA 250 Open Type		i550 protec IP66 | NEMA 4X IP 55/NEMA 12	
[KW]	[HP]	400 V	480 V	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	1.8	190 x 140 x 117
0.75	1	2.4	2.1	1.0	180 x 60 x 130		
1.1	1.5	3.2	3	1.35	250 x 60 x 130	2.7	205 x 140 x 140
1.5	2	3.9	3.5				
2.2	3	5.6	4.8				
3	4	7.3	6.3			4.9	250 x 180 x 168
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	5.1	290 x 180 x 173
11	15	23.5	21				
15	20	32	27	8.0	342 x 180 x 165	10.2	405 x 230 x 187
18.5	25	40	34				
22	30	47	44.4				
30	40	61	52			46	778 x 298 x 286
37	50	76	65	17.2	450 x 250 x 230		
45	60	89	77				
55	75	110	96	24.0	536 x 250 x 265	53	778 x 298 x 378
75	100	150	124				
90	125	180	156	35.6	685 x 258 x 304	–	–
110	150	212	162				

i550 cabinet

i550 protec

Other connection voltages 1 x 110 V; 1 x 230 V; 3 x 230 V; 3 x 600 V

Additional functions

Connection	Standard I/O: 5 x digital input, 1 x digital output, 1 x relay (NO/NC) 2 x analog input, 1 x analog output
Functions for refrigeration technology	User units, PID controller, favorites menu, simple sequence control: sequencer, optimized start frequency (2 separate ramps)
Commissioning/ diagnosis	Keypad: Parameterization and diagnostics of the VFD Voltage-free USB interface or WLAN connection with Drive Starter software, optional Lenze Keypad App
Functional safety	Option SafetyTorque OFF: STO (SIL 3 / PL “e” Cat. 4)

Modbus

EtherCAT

EtherNet/IP

PROFINET

Variable Frequency Drives

Scaled portfolio

Lenze Keypad App

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