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Lenze

G motion

The complete geared motor program

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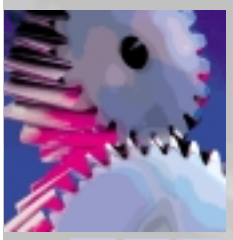
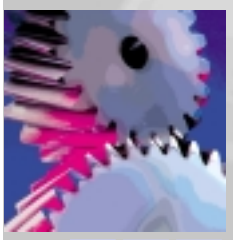
G motion

The innovative geared motor program with intelligent speed alteration

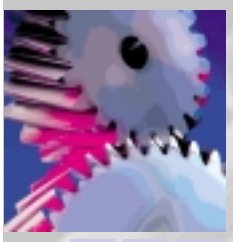


G motion const

G motion motec



G motion e-var



G motion m-var

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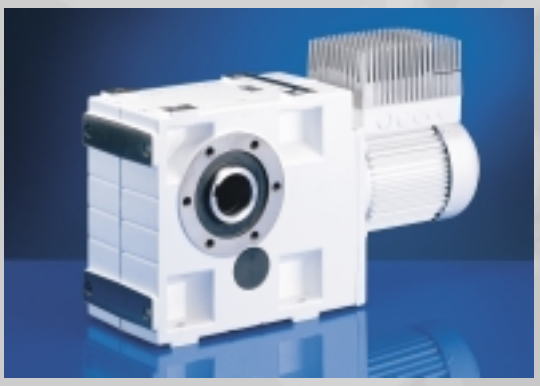
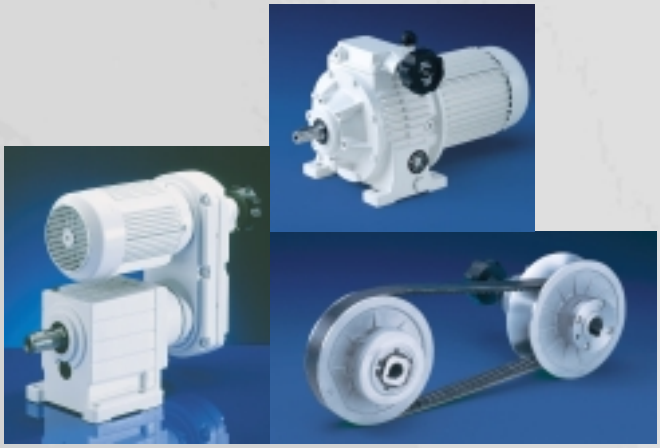
- *Geared motors*
- *Gearboxes*



Geared motors with integral frequency inverter

Geared motors with cabinet-mounted frequency inverter



- *Compact units*
- *Variable-speed pulleys*
- *Disco variable-speed drives*

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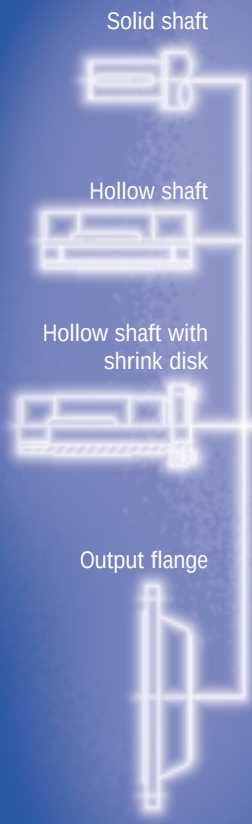
Geared motors for constant output speeds, with a high functionality from numerous gearbox variations and plenty of motor option



Product group and family	Rated transmission range of transmission ratios Ouput torque [Nm] for gearbox size						
	04	05	06	07	09	11	14
Helical gearbox GST	i = 1.6...56		i = 1.6...400			i = 4...400	
	≤ 73	≤ 165	≤ 375	≤ 710	≤ 1625	≤ 3000	≤ 6000
Low-profile gearbox GFL	i = 3.5...90	i = 3.35...90	i = 4...800	i = 3.55...800	i = 7.1...800		
	≤ 190	≤ 275	≤ 550	≤ 1100	≤ 2400	≤ 4500	≤ 8700
Helical-bevel gearbox GKS	i = 5...315	i = 7.1...315	i = 6.3...1400		i = 12.5...1400		
	≤ 190	≤ 325	≤ 550	≤ 1100	≤ 2400	≤ 4750	≤ 9000
Helical-worm gearbox GSS	i = 5.6...200		i = 5.6...1800		–		
	≤ 180	≤ 360	≤ 720	≤ 1250	–	–	–

Helical-geared motors
GST
0.12 to 45 kW

Parallel-axial solid-shaft geared motors in foot- and flange-mounted versions.
As for all other types, the optimised tooth geometry makes these gearboxes exceptionally quiet-running.

Low-profile geared motors
GFL
0.12 to 45 kW

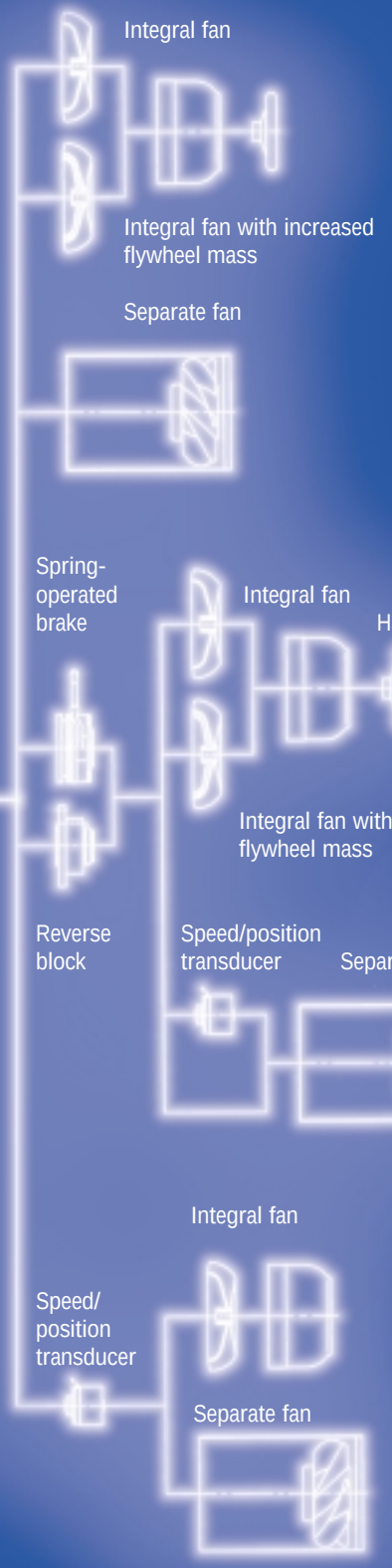
Preferred version with hollow-shaft for use as shaft-mounted geared motor.
Low-play connections and high-quality meshing ensure that Lenze gearboxes have low backlash.

Helical-bevel geared motors GKS
0.12 to 45 kW

Right-angle geared motor in solid- or hollow-shaft version, with a relatively high efficiency.
Precise output speeds are possible with the sensibly graded transmission ratios from 5 to 315.

Helical-worm geared motors
GSS
0.12 to 9.2 kW

Comparatively economical right-angle geared motors with a high power density. All Lenze right-angle geared motors are easy to integrate into the design of the machine design, with fixing surfaces on three faces of the gearbox and a ring of tapped holes on the drive output faces.



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Geared motor with integral frequency inverter

A robust and versatile drive

In global competition, flexibility under the pressure of schedules is a must. To ensure a quick reaction to changed customer requirements, complex systems are divided into system sections – these subsystems are comprehensible, and can be integrated as decentralised components in various complete systems according to requirements.

This was the basis for designing an integrated variable-speed drive. The result of this development is worth studying. The innovative product combination of mechanics and electronics offers many advantages for the user.

- ***Decentralised intelligence***
  Installation takes place on site, where the processing happens. Cabinet space and wiring requirements are reduced to a minimum.
- ***Optional wall-mounting, close to the motor***
  The compact geared motor disappears inside the structure of the machine – where the drive is needed.
  The 8200 motec frequency inverter stays on the frame of the machine – where it's easily accessible.
- ***Independent system***
  The cooling of the frequency inverter is provided independently of the motor cooling. So the inverter is an independent and robust unit.
- ***Centralised setting and monitoring capabilities***
  Interfacing the system with a higher-level supervisory system enables integration into automation concepts.
- ***Open modular system*** *to select the application-specific components. You only have to pay for what you need.*

Supply voltage	**3 x 320…550 V ± 0 % (48…62 Hz)**					
Power [kW]	0.55	0.75		1.5	2.2	
Dimensions 8200 motec (L x W x H) [mm]	202 x 156 x 135	202 x 156 x 135		230 x 176 x 162	230 x 176 x 162	
Chopper frequencies	2, 4, **8**, 16 kHz					
Enclosure	IP55					
EMC (RFI level)	B (integrated as standard feature)					
Ambient temperature	–20 to + 60 °C					
Standard features	PTC, PID controller, brake transistor, motor parameter identification and adaptation, terminal acquisition time 1 ms, programmable relay output, S-curves, skip frequencies, fixed speeds, four parameter sets, selectable online, bipolar setpoint processing, . . .					
Drive characteristics	1.8 x M_{rated} (1 s), 1.5 x M_{rated} (60 s) torque setting range 1:10 (3...50 Hz), speed adjustment range 1:100, Rotational constancy ± 0.1 Hz (3...50 Hz)					
Function modules		Analog IN	Analog OUT	Digital IN	Digital OUT	freq. OUT
I/O modules	Standard I/O	1	1	4*	1	–
	Application I/O	2	2	6*	2	1
	* includes 1 frequency output					
Bus modules	INTERBUS, PROFIBUS, LECOM-B (RS485), Systembus (CAN)					
Options	Switch / pot. unit, GDC parameterisation software GDC, manual terminal with Keypad / RS232 interface, brake rectifier					
Standards	UL, cUL, CE, VDE, DIN, EN, GL					

G motion e-var

G motion m-var

Variable output speeds up to 45 kW

Variable output speeds are achieved by the interesting drive packets of G-motion geared motors plus Global Drive frequency inverters.

They are available up to a rated motor power of 45 kW and produce simple, robust units. They can be widely applied, for instance in conveyor belts, packing machinery or textile machines.

The technology of the motors is adapted to the frequency inverters.

- *The design of the insulation has been strengthened for operation with frequency inverters.*
- *Data on the motors are stored in the inverter – for simple commissioning.*

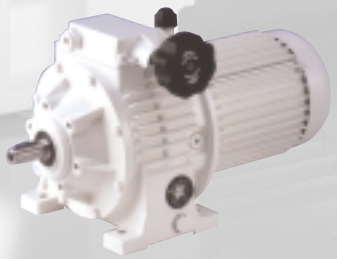
The intelligent combination of the components – gearbox, motor, frequency inverter – and especially the utilization of the adjustable base frequency permit solutions which are adjusted to an economic solution of your drive problems.

Speed variation through a mechanically variable speed drive

Even today, many drive tasks are implemented by mechanically variable drives.
Simplabelt and Disco are the two well-known Lenze principles which have been applied successfully for years.

Lenze compact units are robust, widely-applicable variable speed belts with a following reduction gearing from the G-motion program. They cover a power range from 0.25 to 45 kW with closely graduated output speeds.
The core elements are the speed pulleys, produced as maintenance-free polygons.

Just like the compact units, the Disco planetary variable gears can be adjusted continuously over a range of 6:1. The planetary principle results in an optimum power distribution, so that high powers can be transferred while using small dimensions.
The palette includes 8 sizes, which cover a power range from 0.25 to 7.5 kW.



GFL GKS GSS