

401867

# Lenze



**Global Drive**  
*Servo motors*  
*0.25 – 20.3 kW*

# Global Drive

## Servo motors

In the Global Drive system, asynchronous and synchronous motors are perfectly adjusted to the drive controller. Directly connectable Lenze gearboxes of the new generation - which do not require a clutch - and servo motors form compact, efficient, and low-backlash drive units. The modular motor design and the planned options ensure a safe application and short delivery times. Further features of Global Drive servo motors are: small size, long life, and high operational safety. Comfortable system cables with plug-in connectors enable easy connection. Modern production processes ensure the best quality at a favourable price.

- Features of permanent-magnet synchronous servo motors:
  - high quality permanent magnets
  - power range from 250 W to 5.9 kW
  - rated speed 3300 to 4000 min<sup>-1</sup>
  - low inertia
  - high response
- Features of squirrel-cage asynchronous servo motors:
  - slim and robust design as squirrel cage motors
  - power range from 800 W to 20.3 kW
  - rated speed min<sup>-1</sup> 3500 to 4300 min<sup>-1</sup>
  - field weakening range up to 8000 min<sup>-1</sup> with constant power
- Both motor types
  - are equipped with a reinforced insulation and coated wire to thermal class H
  - can be equipped with separate blowers
  - can be equipped with holding torques
  - are equipped with continuous temperature measurement



# Global Drive

## Rated data of servo motors

### Synchronous servo motors, MDSKS / MDFKS series

Motor type	Axis height	Speed	Torque	Power	Voltage	Current	Max. torque	Max. speed	Max. Current	Frequency	Moment of inertia J <sup>1)</sup>	Weight
	h [mm]	n <sub>N</sub> [min <sup>-1</sup> ]	M <sub>N</sub> [Nm]	P <sub>N</sub> [kW]	U <sub>N3-</sub> [V]	I <sub>N</sub> [A]	M <sub>max</sub> [Nm]	n <sub>max2)</sub> [min <sup>-1</sup> ]	I <sub>max</sub> [A]	f <sub>N</sub> [Hz]	[kgcm <sup>2</sup> ]	m <sup>1)</sup> [kg]
self-cooled												
MDSKS 036-13, 200	35	4000	0.6	0.25	245	0.9	3.1	7500	5.4	200	0.22	1.5
MDSKS 036-23, 200		4000	1.3	0.54	345	1.1	7.2	4900	7.5	200	0.36	2.1
MDSKS 056-23, 190	51	3800	2.8	1.1	330	2.3	11.6	4350	10	190	1.2	5.3
MDFKS 056-33, 200		4000	4.2	1.8	325	3.6	17.2	4550	16	200	1.8	6.3
MDSKS 071-03, 170	65	3400	5.7	2.0	330	4.2	23.6	3600	19	170	6.0	8.9
MDFKS 071-13, 185		3700	8.3	3.2	325	7.0	35.2	3950	32	185	8.0	10.9
MDSKS 071-33, 180		3600	12.3	4.6	325	10.0	52.0	3800	45	180	10.0	13.0
with separate fan												
MDFKS 071-03, 165	65	3300	7.5	2.6	330	5.6	23.6	3600	19	165	6.0	10.2
MDFKS 071-13, 180		3600	11.0	4.1	325	9.2	35.2	3950	32	180	8.0	12.2
MDFKS 071-33, 175		3500	16.2	5.9	325	13.1	52.0	3800	45	175	10.0	14.3

### Asynchronous servo motors, MDSKA / MDFKA series

Motor type	Axis height	Speed	Torque	Power	Voltage	Current	Max. torque	Max. speed	Frequency	cos φ	Moment of inertia J <sup>1)</sup>	Weight
	h [mm]	n <sub>N</sub> [min <sup>-1</sup> ]	M <sub>N</sub> [Nm]	P <sub>N</sub> [kW]	U <sub>N3-</sub> [V]	I <sub>N</sub> [A]	M <sub>max</sub> [Nm]	n <sub>max2)</sub> [min <sup>-1</sup> ]	f <sub>N</sub> [Hz]		[kgcm <sup>2</sup> ]	m <sup>1)</sup> [kg]
self-cooled												
MDSKA 056-22, 140	51	3950	2.0	0.8	390	2.4	10	8000	140	0.70	2.4	6.4
MDSKA 071-22, 140	65	4050	4.0	1.7	390	4.6	32	8000	140	0.76	8.3	10.4
MDSKA 080-22, 70 <sup>3)</sup>	71	2000	6.7	1.4	390	3.85	60	8000	70	0.75	19.2	15.1
MDSKA 080-22, 140		4100	5.4	2.3	390	7.7	60	8000	140	0.75		
MDSKA 090-22, 80 <sup>3)</sup>	83	2300	10.8	2.6	390	6.0	100	8000	80	0.81	36	22.9
MDSKA 090-22, 140 <sup>3)</sup>		4110	9.5	4.1	350	12.0	100	8000	140	0.80		
MDSKA 100-22, 80 <sup>3)</sup>	96	2340	16.3	4.0	390	9.85	180	8000	80	0.80	72	44.7
MDSKA 100-22, 140 <sup>3)</sup>		4150	12.0	5.2	330	19.7	180	8000	140	0.78		
MDSKA 112-22, 85 <sup>3)</sup>	107	2490	24.6	6.4	390	15.9	300	8000	85	0.83	180	60
MDSKA 112-22, 140 <sup>3)</sup>		4160	17.0	7.4	320	31.8	300	8000	140	0.80		
with separate fan												
MDFKA 071-22, 120	65	3410	6.3	2.2	390	6.0	32	8000	120	0.75	8.3	12.0
MDFKA 080-22, 60 <sup>3)</sup>	71	1635	12.0	2.1	390	4.8	60	8000	60	0.81	19.2	16.9
MDFKA 080-22, 120		3455	10.8	3.9	390	9.1	60	8000	120	0.80		
MDFKA 090-22, 60 <sup>3)</sup>	83	1680	21.5	3.8	390	8.5	100	8000	60	0.80	36	25.5
MDFKA 090-22, 120		3480	19.0	6.9	390	15.8	100	8000	120	0.80		
MDFKA 100-22, 60 <sup>3)</sup>	96	1700	36.3	6.4	390	13.9	180	8000	60	0.83	72	48.2
MDFKA 100-22, 120		3510	36.0	13.2	390	28.7	180	8000	120	0.80		
MDFKA 112-22, 60 <sup>3)</sup>	107	1710	61.4	11.0	390	22.5	300	8000	60	0.85	180	63.5
MDFKA 112-22, 120		3520	55.0	20.3	390	42.5	300	8000	120	0.80		

1) without brake, with resolver

2) at 390 V, idle running M = 0

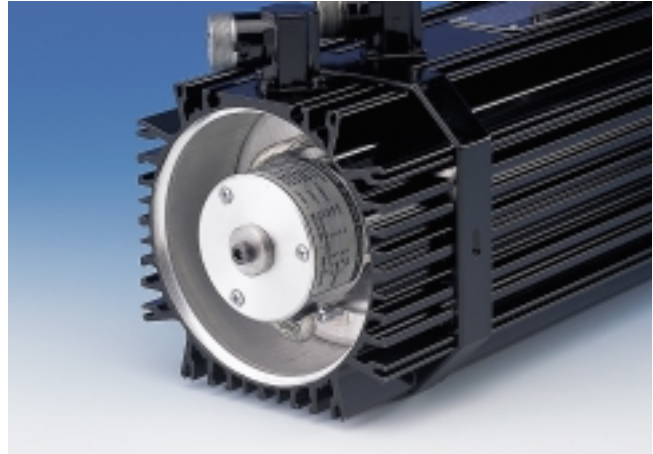
3) industrial types, longer delivery time

# Global Drive

## Servo motors – the system



Servo motor with resolver



Servo motor with incremental encoder



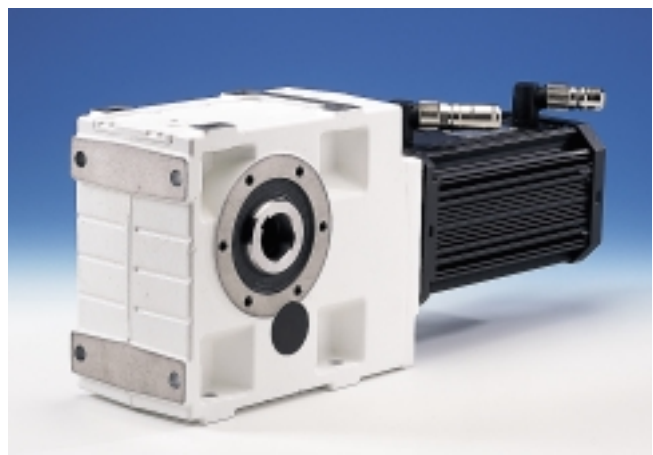
Servo motor with SinCos feedback



Servo motor with separate blower and resolver



Servo motor and 9300 servo inverter



Servo motor and helical-bevel gearbox

**Other gearboxes of the new generation are:**

- Low-profile gearboxes
- Helical gearboxes
- Helical worm gearboxes

# Global Drive

## The drive system of the future

With the Lenze Global Drive you choose a mature AC drive system which grows with your requirements. This is because the system components are designed and matched to ensure a maximum of flexibility and convenience for all different applications.

All the components of the Global Drive are universal in power, operation and networking. 8200 frequency inverters and 9300 servo inverters with vector control enable mid-performance and high-performance applications in the power range from 0.37 kW to 90 kW.

Global Drive controllers are equipped with an integrated system bus; they can be used worldwide and support all common field-bus systems. Matched motors and accessories round off the system.

Global Drive components are produced on a large scale in Germany and are certified to DIN ISO 9001. Consistent quality management from the R&D department through production to sales and service ensures that the Global Drive is a unique system which offers the best solution for all kinds of demands of modern AC technology.

