SERVO POWER PACK

For Autonomous Transport Systems



Servo Motors

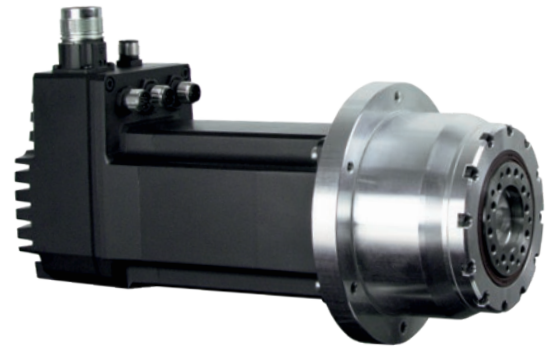
Gear Units

Electronics

Heidrive

An Allient Company

HeiMotion with Cycloidal Gearbox



Advantages and features:

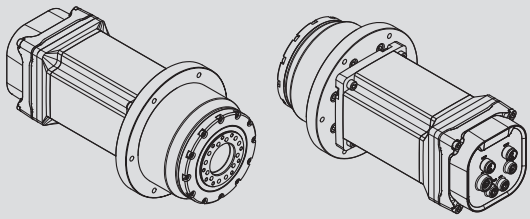
- Compact design
- Optional with integrated or top-mounted controller
- Fully integrated in the HeiMotion modular system
- Optimized radial and axial forces
- High gear ratios

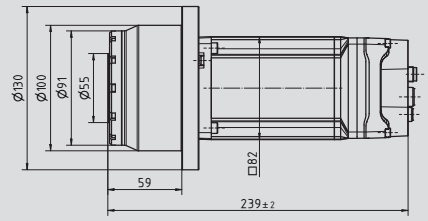
Cycloidal gearbox:

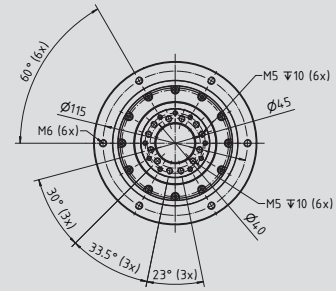
	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87
Rated torque* Nm	7.99	14.1	20	23.6	27.2	30.8	31.8	31	36	43.4	39	38.6	37.5	30.1	26.3
Maximum torque Nm	58	85.4	100.8	115.2	115	127.4	151.2	172.4	180	179.8	169.8	173	160.8	130	114.6
Radial force** N	864	865	1250	1250	1360	1540	1910	2270	2290	2290	2290	2290	2290	2280	2280

Dimensions (with servo motor HMDo8)

With flange





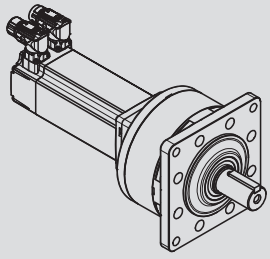


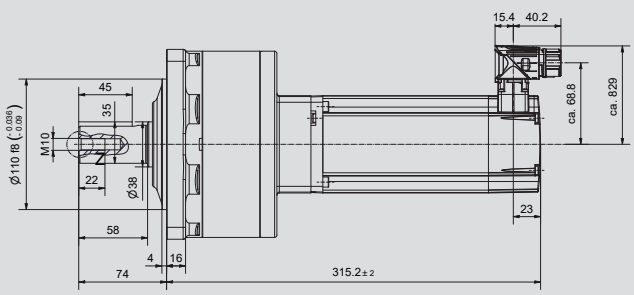
Cycloidal gearbox:

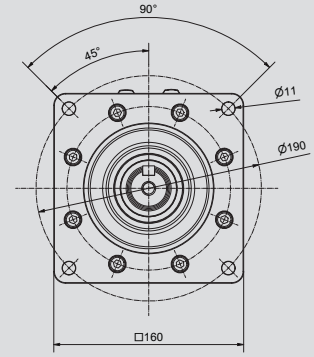
	8	11	13	15	17	21	25	29	35	43	51	59	71	87	103	119
Nennmoment* Nm	31,2	43	83,6	100	114	140	129	132	160	143	170	134	133	145	143	148
Maximalmoment Nm	520	616	640	660	684	732	792	800	800	800	706	726	680	748	624	624
Radialkraft** N	2550	2550	2980	3440	3890	3970	3960	3960	3980	3970	3980	3960	3960	3970	3970	3970

Dimensions (with servo motor HMDo8)

With drive shaft







* Permissible output torque at 3000 rpm input speed
** Permissible radial force on center of shaft end at 3000 rpm input speed.
Forces and torques must be checked depending on the application!



Tailor-made Servo Solutions for Automated Warehouse Logistics

In the age of AI-powered warehouse logistic systems, autonomous navigating vehicles are playing an increasingly important role and are now indispensable. Heidrive GmbH also offers high-performance and compact servo motors for the logistics and automation industry. With their directly attached planetary, angular, or cycloidal gears, with or without integrated electronics, these become the perfect drive unit for automated guided vehicles.

The HeiMotion HMP and HMD Next Generation series are available in flange sizes of 40, 50, 60, 80, 100, 130, 150 and 190 mm for either 320 / 560 V_{DC} or for 24 / 48 V_{DC} applications. A major customer benefit is that all motor types are available with a wide range of options, such as integrated or top-mounted electronics/control, an optional-brake and various encoder systems.

Due to their high efficiency, they achieve a remarkable continuous output power of up to 2000 W at a low voltage of 48 V_{DC} with flange dimensions of 100 x 100 mm. For correspondingly high continuous torque of the HMD Next Generation series, with peak values of up to 26 Nm, the customer receives drives with the connection technology tailored to suit – as well in the radial direction and as an angle screw connection or axial. The signal cable can be plugged in or is also available as a cable in the appropriate length.

Integrated, top-mounted or vehicle-mounted controllers enable a wide range of special solutions for any installation space. The STO (Safe Torque Off) integrated in the controller, which immediately interrupts the power supply to the drive in an emergency, saves additional safety relays and thus also space and costs. A safe encoder signal can be provided for the higher-level safety controller, making an additional safety encoder superfluous.
The HCL servo controllers, in addition to the integrated controllers, are the ideal partners for our 24 V and 48 V motors of the HMD Next Generation series.

Further advantages also result, above all, from a direct gearbox attachment without a clutch. Based on this design, the overall length can be reduced on the one hand and efficiency and service life increased on the other. Due to the high variance of gearboxes the designerhas many possibilities to integrate our traction drive solution in their vehicle.

Thanks to their reinforced bearings and geometry adaptation, the gearboxes are ideal for wheel mounting and achieve high radial loads and peak torques.

With the HeiMotion modular system, a variance of over 100 million configuration options is formed. As a result, all options of the existing modular system can be used, providing the complete drive design from a single source.

Standard Option
Planetary gearbox direct mounting



Our standard motors with gearbox

Motors with **E**-gearbox (Economy series)

Economical gear units for standard applications
Highest variance
E07, E09 with square mounting flange
E04, E06, E08 with round mounting flange



Motors with **P**-gearbox (Powerful economy)

Economical gear units
Higher radial and axial forces



Motors with **H**-gearbox (Heavy duty)

Highest radial and axial forces



Motors with **F**-gearbox (Flange output)

Economical flange gearbox
Output flange according to DIN ISO 9409
High tilting rigidity



Motors with **V**-gearbox (Vehicle optimized)

Economical gearbox with flange output
Compact design
Optimized for use in mobile robots (AMR's, AVG's, etc.)
High tilting rigidity



Further variations: Angular gearbox from the modular system that can be combined with a motor and standard planetary gearbox.

For more information see HMD / HMP planetary gearbox catalog.

Specifications subject to change! Last changes 10/2026

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