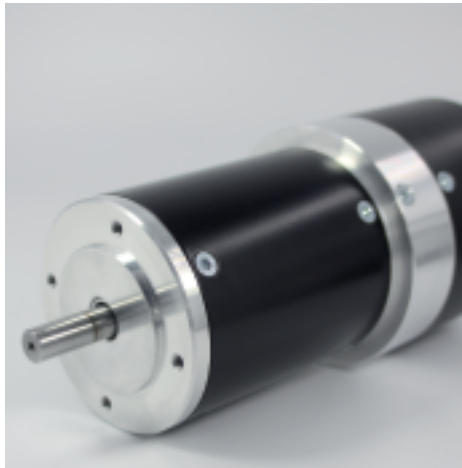


HSM Series

Brushless DC motors BLDC

High Quality • Customizable • Flexible



Your trusted partner for durable drive solutions since 1923

HSM high-performance synchronous motors

- Brushless DC motors, high power density, compact, efficient
- Sizes HSM38.., HSM46.. and HSM71..
- Rated power range (S1) 10 - 800W
- Rated voltages 24V_{DC} and 48V_{DC}
- Available on request with planetary gear, worm gear or planetary angle gear

We have summarised the initial product information with the most relevant data appertaining to the standard versions to give an overview of the advantages that this series offers.

The HSM series are brushless permanently excited DC motors, often referred to as BLDC motors.

The motor system consists of a three-phase stator winding, which is integrated into the motor housing, and a rotor which is fitted with high-quality neodymium iron-bore magnets. Commutation is via a suitable drive from EDC series (ENGEL Drive Control).

Different functionalities can be selected for the drive controllers to match the requirements of any specific application.

The motors are equipped as standard with our specially developed Hall sensors as feedback system for the rotor position, which have proven to be both cost-efficient and reliable.

The modular design of the HSM motors enables the combination with various gearboxes, holding brakes, encoder systems or other attachments – all according to requirements and customer demands.



HSM46..



HSM71..

Type	Size	Rated voltage (V _{DC})	Rated power (W)	Speed (rpm)	Nominal torque (Nm)	Housing Ø (mm)	Length (mm)	Shaft Ø (mm)	Length (mm)
HSM38..	HSM3815	24	10	3000	0,029	45	127	8	30
	HSM3830	24	23/30	3000/4000	0,07/0,068	45	142	8	30
	HSM3845	24	44/55	3000/4000	0,14/0,128	45	157	8	30
HSM46..	HSM4615	24	52/65	3000/4000	0,165/0,155	55	138	8	30
	HSM4630	24/48	125/140	3000/4000	0,39/0,340	55	153	8	30
	HSM4645	24/48	175/220	3000/4000	0,56/0,52	55	168	8	30
HSM71..	HSM7115	24/48	140/180	3000/4000	0,44/0,43	80	133	11	32
	HSM7130	24/48	270/360	3000/4000	0,87/0,85	80	148	11	32
	HSM7145	24/48	460/595	3000/4000	1,45/1,42	80	163	11	32
	HSM7160	48	630/800	3000/4000	2/1,9	80	178	11	32

Adapted to your requirements

- Standard in 24V_{DC} or 48V_{DC}
- Special voltages are available ... optional
- Other speeds ... optional
- Protection class (standard) IP54 ... higher protection class as an option
- Can be combined with planetary gear units, angular gearboxes or other gearboxes
- Modular system – easy options for various attachments
- Standard with 2m shielded connection cable (1x power cable and 1x signal cable), available assembled (optional) for our drive controllers of EDC series
- Version with plug-in connector ... as an option

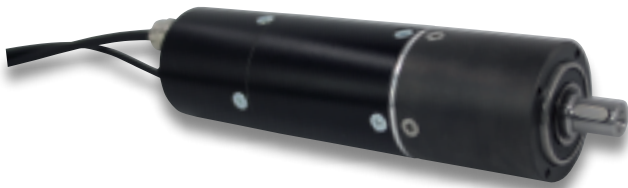
The next generation

- Maintenance-free – long lifetime
- High power density – compact design – small footprint
- High efficiency – low power loss
- Low rotor inertia – very good controllability
- PT1000 temperature sensor – overload protection
- Long and maintenance-free lifetime is ensured by permanent grease lubrication

We would be glad to provide design drawings or 3D models.

High-performance synchronous gear motors

The HSM series high-performance motors can be combined with planetary gear units. The gearboxes are designed with 1 or 2 stages as standard. 3-stage planetary gear units can also be provided for specific customer projects.



HSM46..-GP55



HSM71..-GP800

Customized modifications are also among our core strengths in this series!

Type	Rated voltage (V _{DC})	Output speed from - to (min ⁻¹)	Gear reduction from - to (i)	Max. gearbox limiting load Continuous torque (Nm)	Starting torque (Nm)
HSM38..-GP45	24	61 - 750	4:1 - 49:1	7 - 14	15 - 20
HSM46..-GP55	24/48	61 - 750	4:1 - 49:1	10 - 28	15 - 50
HSM71..-GP800	24/48	61 - 750	4:1 - 49:1	30 - 75	45 - 110

Other motor speeds and gear ratios are available on request.

We are glad to answer your questions promptly and are always available for a personal consultation. Contact us via email at kontakt@engel-elektromotoren.de or by telephone under +49 (6123) 994-400.



This flyer only presents an excerpt from our product range. Further information and the data sheets for the complete product range can be found at www.engel-elektromotoren.de

Alternatively please use our personal consultation service.



We will find the most optimum drive for your requirements.

We offer a wide range of standard versions of brushed and brushless electric motors, gearboxes and drive controllers, as well as technical advice on special designs. Our technically experienced employees will develop the best possible drive solution. While always with a focussing on achieving the best possible savings potential in your application.



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