

Expansion of the HMD NG Modular System HMD05

With a square dimension of 50 x 50 mm and two different flange sizes, the new HMD05 servo motor complements the already successfully launched HMD NG series and our HeiMotion modular system with an additional motor size. The advantages familiar from this series, such as short overall lengths, numerous voltage variants, and extremely low cogging torques, are also featured in the HMD05.



This version of the HMD NG motor is available in two different lengths, allowing for even performance options with nominal speeds ranging from 3,000 to 6,000 rpm. In addition, the power range extends from 160 to 540 W.

General Information

Flange dimensions	50 mm / 55 mm
Rated speed	10,000 rpm
Insulation class	F
Protection class	IP65 as standard, shaft outlet IP21 (ball bearing with sealing disc on request) -Optional with shaft seal IP65 (no dry running)
Connector plug	Y-Tec / I-Tec
Brake model	Holding brake; static braking torque up to 1.1 Nm (at 20°C)
Encoder version	Please see HMD NG catalog (except EnDAT)
Encoder interface	Sinus / Cosinus / HIPERFACE® / BiSS-C / SSI / HIPERFACE DSL® / Hall encoder (see HMD NG catalog)

■ HMD05-005

48 / 320 / 560 V



Specifications¹⁾

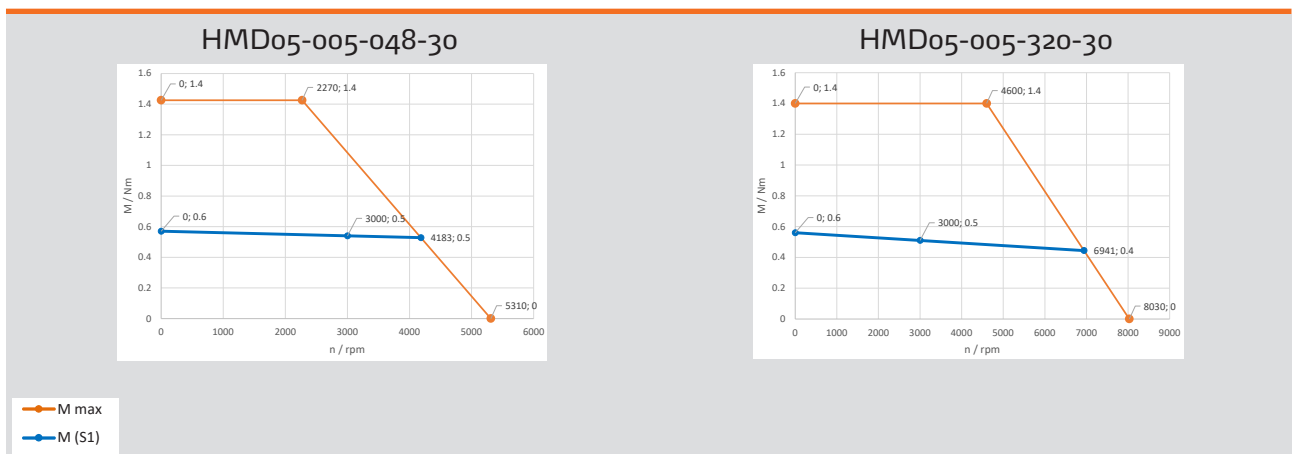
		HMD05-005 ²⁾		
Rated speed [rpm]	n_n	3,000	3,000	6,000
Number of pole pairs		5	5	5
Wiring of the motor winding		Y	Y	Y
DC bus voltage [V _{DC}]	U_{bus}	48	320	560
Rated voltage motor [V _{rms}]	U_{mot}	26.1	112	195
Rated power [W] ¹⁾	P_n	170	160	295
Rated torque [Nm]	M_n	0.5	0.5	0.5
Rated current per phase [A _{rms}]	I_n	6.5	1.2	1.1
Stall torque [Nm]	M_0	0.6	0.6	0.6
Stall current per phase [A _{rms}]	I_0	6.8	1.3	1.3
Peak torque [Nm]	M_{max}	1.4	1.4	1.4
Peak current [A _{rms}]	I_{max}	17.0	3.3	3.3
Maximum speed [rpm]	n_{max}	5,310	8,030	10,000 ³⁾
Voltage constant at 1.000 rpm [V _{rms}]	k_e	6.27	28.7	28.7
Torque constant [Nm / A _{rms}]	k_t	0.08	0.43	0.43
Winding resistance (2 phases) at 20 °C [Ω]	R_{p-p}	1.0	18.1	18.1
Winding inductance (2 phases) [mH]	L_{p-p}	1.0	18.4	18.4

¹⁾ Calculated values

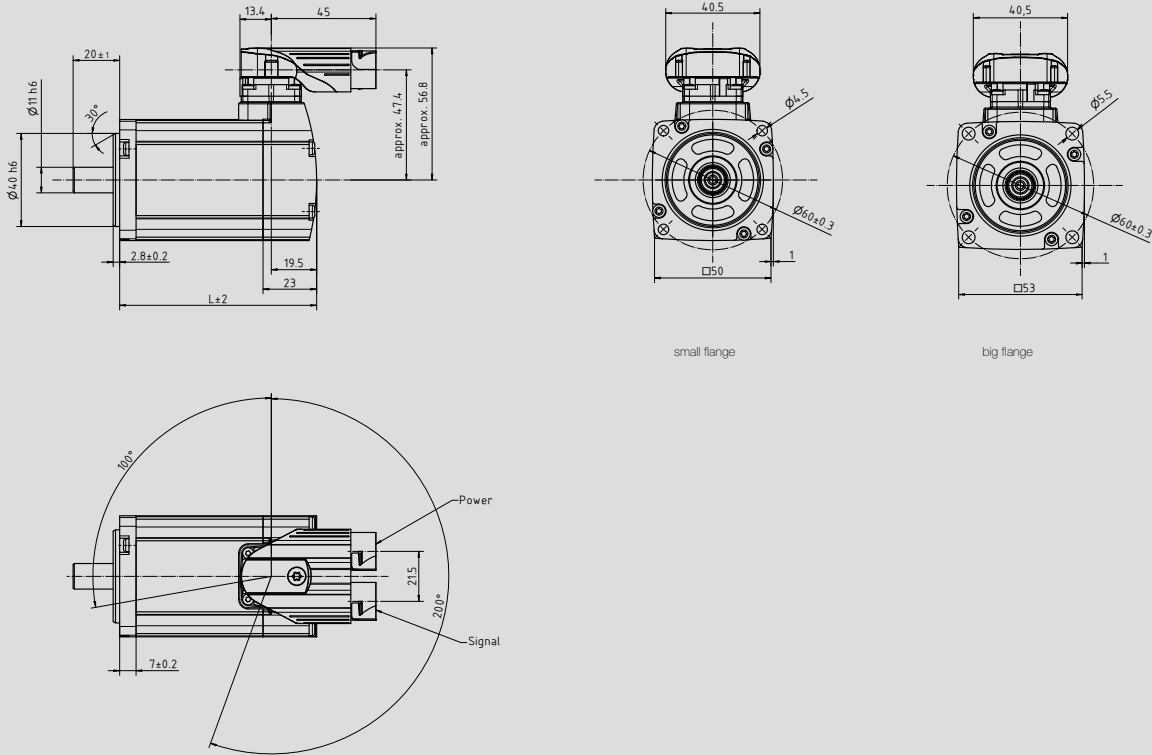
²⁾ 24 V on request

³⁾ Max. mechanical rpm limit = 10,000 rpm (higher upon request)

Performance

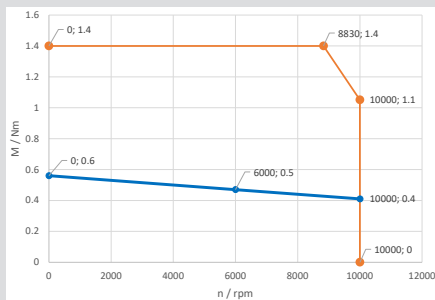


Dimensions



Engine Type	L (short cap)	L (long cap)	Optional
HMD05-005	85 mm	103 mm	with brake with key

HMD05-005-560-60³⁾



■ HMD05-010

48 / 320 / 560 V



Specifications¹⁾

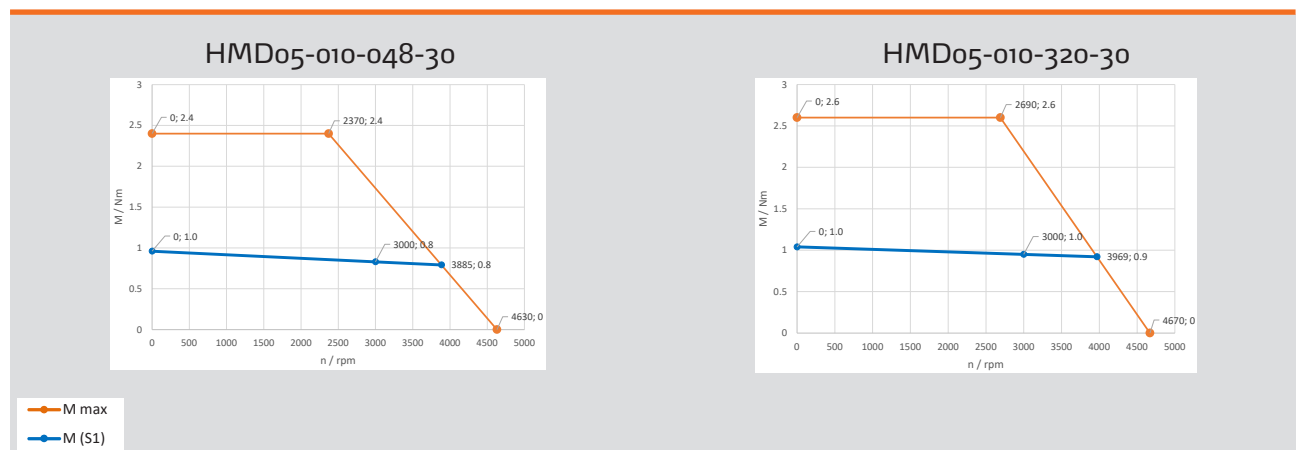
HMD05-010²⁾

Rated speed [rpm]	n_n	3,000	3,000	6,000
Number of pole pairs		5	5	5
Wiring of the motor winding		Y	Y	Y
DC bus voltage [V _{DC}]	U_{bus}	48	320	560
Rated voltage motor [V _{rms}]	U_{mot}	26.5	171	306
Rated power [W] ¹⁾	P_n	261	298	540
Rated torque [Nm]	M_n	0.8	1.0	0.9
Rated current per phase [A _{rms}]	I_n	8.2	1.4	1.3
Stall torque [Nm]	M_0	0.96	1.0	1.0
Stall current per phase [A _{rms}]	I_0	9.3	1.5	1.5
Peak torque [Nm]	M_{max}	2.4	2.6	2.6
Peak current [A _{rms}]	I_{max}	23.3	3.8	3.8
Maximum speed [rpm]	n_{max}	4,630	4,670	8,180
Voltage constant at 1.000 rpm [V _{rms}]	k_e	7.2	47.5	47.5
Torque constant [Nm / A _{rms}]	k_t	0.10	0.67	0.66
Winding resistance (2 phases) at 20 °C [Ω]	R_{p-p}	0.6	19.2	19.2
Winding inductance (2 phases) [mH]	L_{p-p}	0.7	24.2	24.2

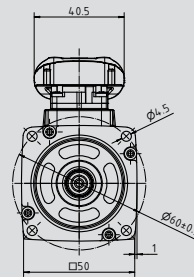
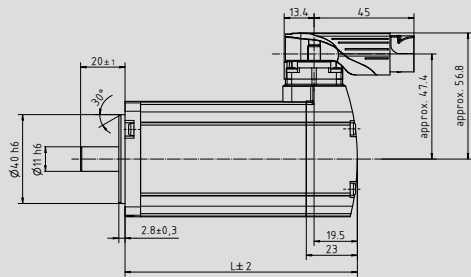
¹⁾ Calculated values

²⁾ 24 V on request

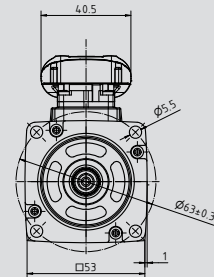
Performance



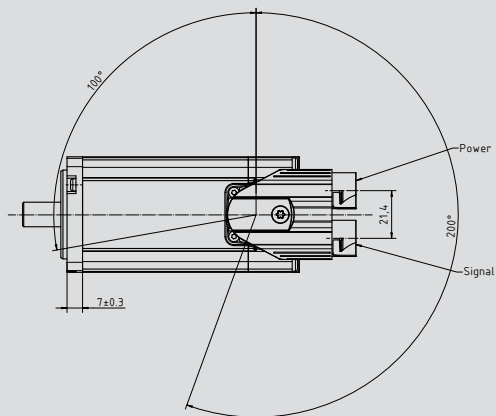
Dimensions



small flange



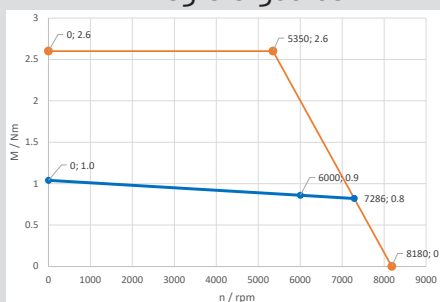
big flange



Engine Type	L (short cap)	L (long cap)
HMD05-010	105 mm	123 mm

Optional
with brake
with key

HMD05-010-560-60



Options Encoder*

Standard

Resolver



Specification:

- Accuracy: $\pm 10'$
- Operating temperature: $+155^{\circ}\text{C} / - 55^{\circ}\text{C}$

HIPERFACE®

SEK / SEL37

(Singleturn / Multiturn)



Specification:

- 16 sin/cos periods per revolution
- Absolute position with a resolution of 512 steps per revolution
- Operating temperature: $+115^{\circ}\text{C} / - 40^{\circ}\text{C}$



SKS / SKM36

(Singleturn / Multiturn)



Specification:

- 128 sin/cos periods per revolution
- Absolute position with a resolution of 4,096 steps per revolution
- Operating temperature: $+115^{\circ}\text{C} / - 40^{\circ}\text{C}$



BISS-C / SSI®

HES / HEM

(Singleturn / Multiturn)



Specification:

- Singleturn encoder with a resolution of 12 bit
- Multiturn encoder with a total resolution of 32 bit
- SSI/BISS-C -interface differential and single-ended

AM34

(Singleturn / Multiturn)



Specification:

- Singleturn accuracy: 16 Bit
- Multiturn accuracy: 12 Bit (mechanical)
- Operating temperature: $+115^{\circ}\text{C} / - 40^{\circ}\text{C}$



*For detailed information on encoders and connectors, see the HMD NG catalog.

HIPERFACE DSL®

EKS / EKM36

(Singleturn / Multiturn)



SIL/PL
Capability
www.hiv.com
ID 0800000000

Specification:

- Absolute position with a resolution of 18 bit
- Measuring of 4,096 revolutions (multiturn)
- Operating temperature: +115°C / - 20°C

HIPERFACE®
DSL

EES / EEM37

(Singleturn / Multiturn)



SIL/PL
Capability
www.hiv.com
ID 0800000000

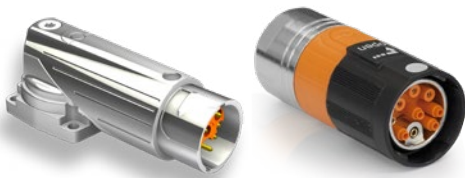
Specification:

- Absolute position with a resolution of 17 bit
- Measuring of 4,096 revolutions (multiturn)
- Operating temperature: +115°C / - 40°C

HIPERFACE®
DSL

Options Connectors*

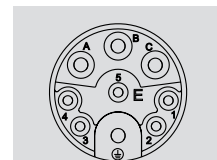
I-Tec Connectors



Specification:

- One cable solution for DSL encoder
- Rated current: 14 A_{rms}

Possible plug inlays:



9-polig
9 x Ø 1 mm (3+PE+5)

Y-Tec Connectors

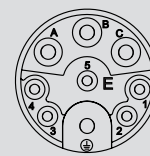


Specification:

- Rated current: 14 A_{rms}

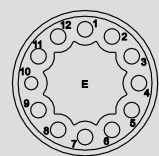
Possible plug inlays:

Motor side



9-pole
9 x Ø 1 mm (3+PE+5)

Signal side



12-pole
12 x Ø 1 mm

Technical data subject to change! Last changes: 11/2025

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