

Compact motors HDD series

Compact

- Compact size
- Integrated resolver or encoder
- Easy mounting

Powerful

- High torque
- Low inertia

Reliable

- Low maintenance
- Robust construction
- Protection IP-65/IP-68

Range

- Servodrives
- Controls
- Gearboxes
- Accessories

Technical specifications

Winding type*	HDD 09E		HDD 09J		HDD 09N		HDD 09Q	HDD 14J	HDD 14N	
	Ma	Pa	Ma	Pa	Ma	Pa	Pa	Pa	Pa	
Stall torque ¹	[Nm]	1.31	1.31	2.76	2.76	5.1	5.1	6.0	9.6	16.1
Stall current	[Arms]	2.57	1.19	4.31	2.44	6.99	4.05	5.04	6.95	11.5
Max. speed ²	[t/min]	5 000	-	3 900	-	3 900	-	-	-	-
Max speed ³	[t/min]	5 000	4 700	5 000	4 700	5 000	3 900	3 900	3 900	3 900
Peak torque	[Nm]	2.82	2.82	7.35	7.35	16.6	16.6	25.0	22.5	45.0
Peak current	[Arms]	6.0	3.0	12.0	7.0	23.0	13.0	21.0	16.3	32.14
Nominal speed	[rpm]	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000
Nominal torque	[Nm]	1.19	1.19	2.51	2.51	3.96	3.96	4.5	5.8	7.1
Nominal current	[Arms]	2.29	1.13	3.92	2.30	5.42	3.32	3.78	4.2	5.07
Nominal power	[W]	374	374	786	786	1 244	1 244	1 413	1 821	2 229
Torque constant	[Nm/A]	0.51	1.10	0.64	1.13	0.73	1.26	1.19	1.38	1.4
EMF constant	[Vs/rad]	0.30	0.69	0.38	0.68	0.74	0.83	0.69	0.8	0.8
EMF at 1000 rpm	[V]	32	72	40	72	50	87	72	83	83
Phase-phase resistance	[Ohm]	5.0	30.0	2.4	7.4	1.6	3.9	2.8	1.54	0.64
Phase-phase inductance	[mH]	6.76	38.0	4.44	15.2	2.46	9.8	5.4	8.8	4.5
Rotor inertia ⁴	[kgm ² x10 ⁻³]	0.13	0.13	0.28	0.28	0.61	0.61	0.88	1.37	3.36
Weight	[kg]	1.8	1.8	2.4	2.4	3.6	3.6	4.7	5.7	9.2
Radial load ⁵	[N]	320	320	370	370	430	430	-	-	-
Axial load	[N]	-	-	-	-	-	-	-	-	-

Option brake 24VDC

Torque	[Nm]	9	9	9	9	9	9
Rotor inertia	[kgm ² x10 ⁻³]	0.04	0.04	0.04	0.04	0.185	0.185
Weight	[kg]	0.5	0.5	0.5	0.5	0.5	0.5
Electrical power	[W]	12	12	12	12	12	12

All data are valid at 25°C ambient temperature, motor with resolver feedback and sinusoidal commutation, 10 pole pairs

*Winding type Ma optimized for 230VAC

Winding type Pa optimized for 400VAC

¹Mounted on aluminium sheet 260x200x12mm

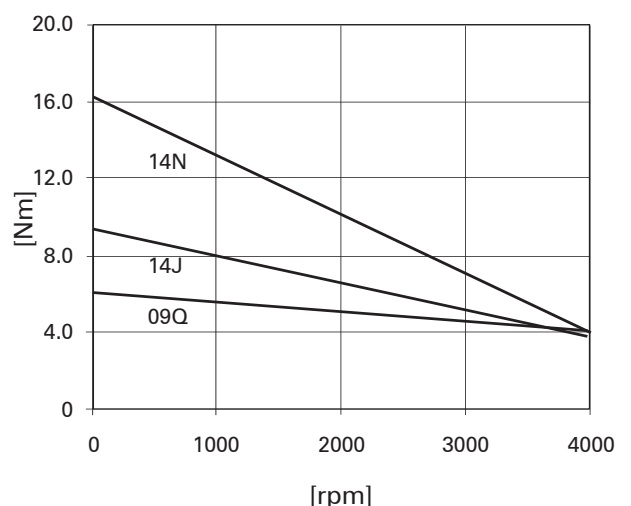
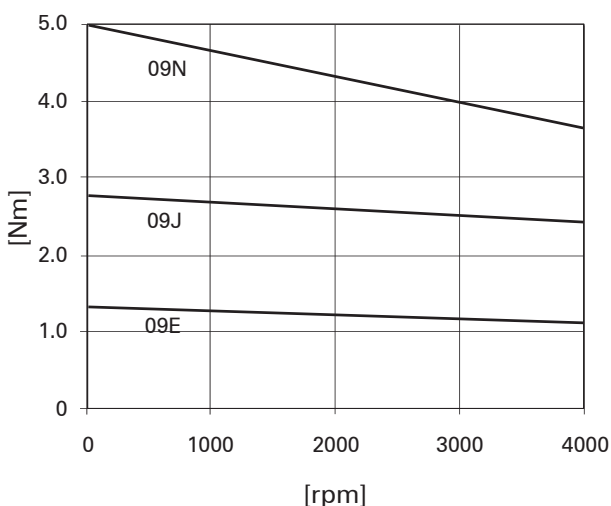
²Max. speed without load at 230VAC

³Max. speed without load at 400VAC

⁴Without brake

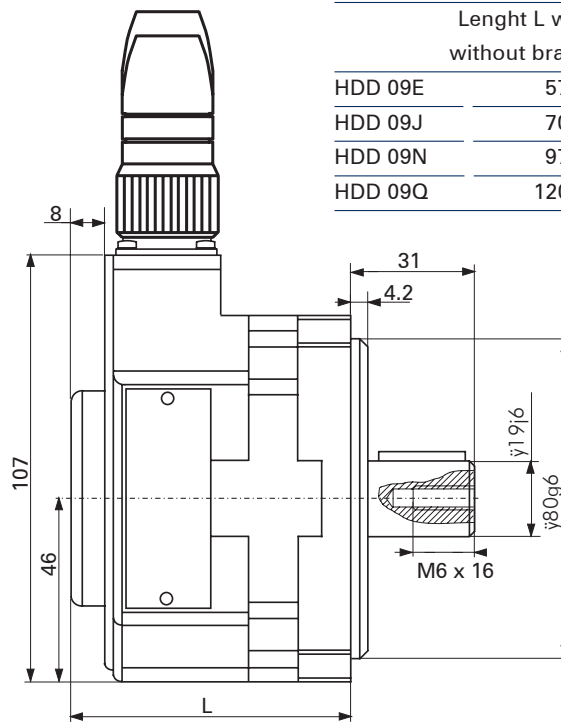
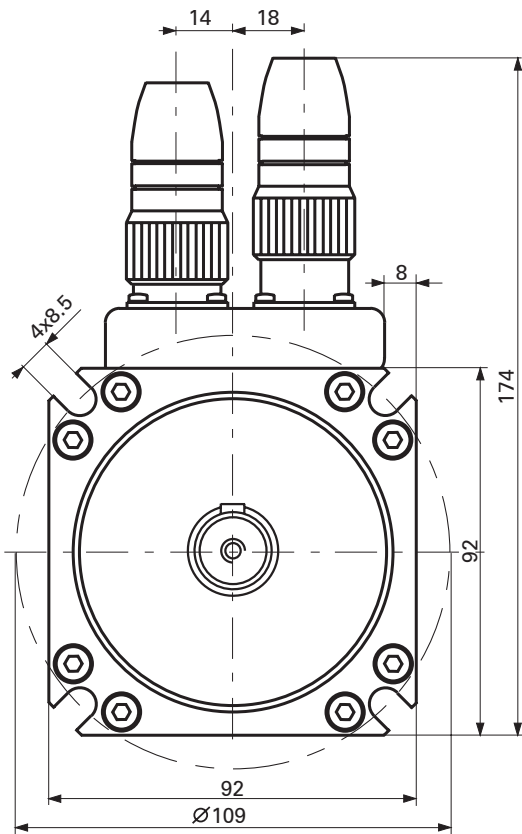
⁵Applied at half length of shaft

Torque curves



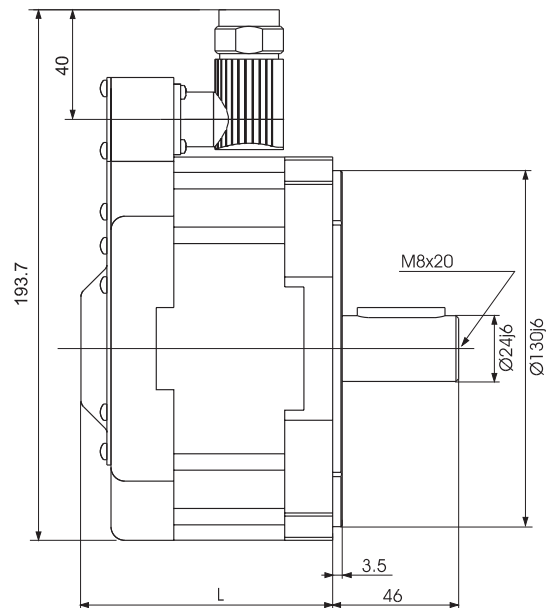
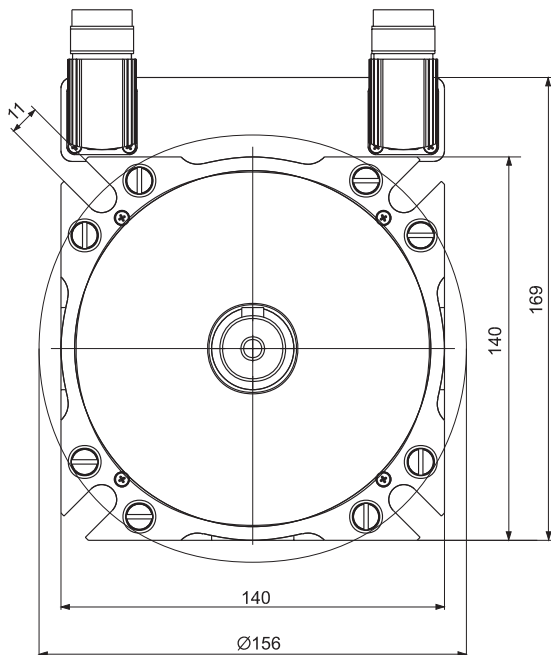
Dimensions [mm]

HDD 09



	Lenght L with resolver [mm]	
	without brake	with brake
HDD 09E	57.8	83.2
HDD 09J	70.1	95.6
HDD 09N	97.8	123.2
HDD 09Q	120.2	

HDD 14



	Lenght L with resolver [mm]	
	without brake	with brake
HDD 14J	91.9	91.9
HDD 14N	125.1	125.1