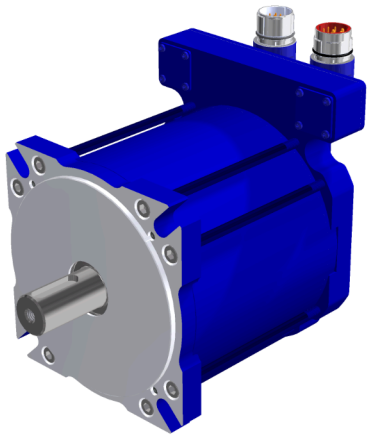
Swedish Innovative Servo Motion
Engineering Since 1994



HDD 14Q - Data sheet

Electric data

Value	Unit	Winding
		Pa (400VAC)
Number of poles		20
Number of pole pairs		10
Inductance/Phase	mH	1.33
Resistance/Phase	Ohm	0.19
Resistance/Phase-Phase	Ohm	0.38
Back EMF/Phase-Phase RMS	Vs/rad	0.76
Back EMF @ 1000 rpm	V	80
Torque constant (RMS)	Nm/A	1.32
Max rail voltage	V	750
Recommended peak current	A	54
Torque at recommended peak current	Nm	72

Mechanical data (resolver feedback)

Value	Unit	HDD14Q	
		no brake	brake
J	kgcm2	51.6	52.0
Mass	kg	12.6	13.1

Holding brake

Value	Unit	
Torque	Nm	9
J	kgcm2	0.4
Voltage	V DC	24
Power	W	12

Thermistors

Overheat protection consists of triple PTC thermistors. One on each phase.	
R @ 25 C	100 to 350 Ohm
R @ 145 C	< 1650 Ohm
R @ 155 C	> 4 kOhm

Protection class

HDD motors comply with the requirements for IP 65. IP-67 is available on request.

Insulation class

The insulation system complies with the requirements of EEC LV Directive 73/23/EEC and 93/68/EEC. Test report E9911111E01.

Motor name structure

Type	Flange size	Stator length	Winding	Feedback	Power connector	Brake	Shaft key	Options
HDD	14	Q	-Pa	-A	-A	-A	-A	-AAA

Type HDD = shaft motor, ICM = internal coupling motor.
Flange size Approximate in cm. 14 = 140 mm.
Stator length HDD: J(shortest), N, Q, R (longest), ICM: J (shortest), N (longest).
Winding Suitable rail voltage at 3000 rpm.

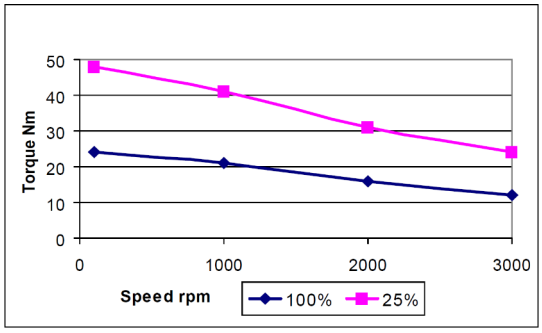
Pa	560V

Feedback See the feedback list on www.hddservo.com/product-options/
Power connector Many different pinouts available; see www.hddservo.com/product-options/
Brake A = no brake, D = holding brake. Data see above.
Shaft key A = shaft with key, B = shaft without key.
Options AAA = standard. For other options please contact HDD.

Torque

Torque in Nm at 90ºC temp rise (median temp rise, i.e. average between min and max temp for 25% cycle).

Duty cycle	100%	25%
100rpm	24	48
1000rpm	21	41
2000rpm	16	31
3000rpm	12	24



Current

Current at 90ºC temp rise, in Ampere rms.

Winding	Pa	
Duty cycle	100%	25%
100rpm	18	36
1000rpm	16	31
2000rpm	12	24
3000rpm	9	19