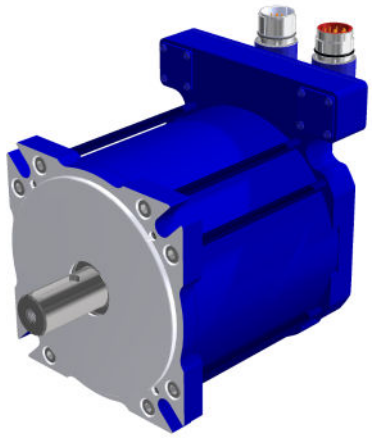
*Swedish Innovative Servo Motion Engineering Since 1994*



# 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.

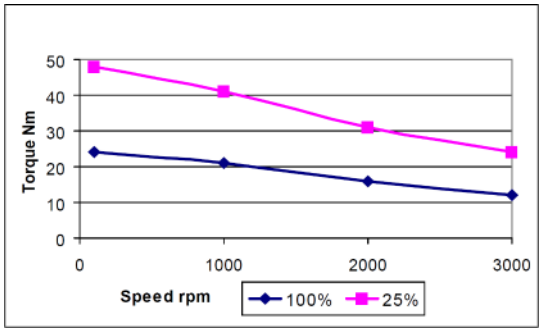
| | |
|---|---|
| Pa | 560V |

**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 |