



Type number information

HDD manufactures brushless servo motors characterized by an exceptionally high torque / size ratio.

All HDD motors have 20 poles (10 pole pairs)

Name structure

The different components of an HDD motor name, e.g. HDD 09E-Pa-A-A-D-A-AAA, should be interpreted as follows.

HDD	09	E	-Pa	-A	-A	-D	-A	-AAA
Shaft/ICM	Flange size	Stator length	Winding type	Feedback	Connectors	Brake	Shaft size/key	Options

Shaft/Internal coupling motor

HDD	Shaft motor
ICM	Internal coupling motor

Flange size

approximate in cm

09	92 mm
14	140 mm

Stator length

A - Z, where A is the shortest and Z the longest. The total motor length depends on the choice of feedback, brake, shaft/ICM motor, etc.

Stator length in mm.

	E	J	N	Q	S
09	10.0	22.4	50.0	72.4	100.0
14	-	32.4	65.6	-	-

Winding type

Pa Suitable for 600V rail voltage (EMF at 3000rpm = 350V).

Ma Suitable for 300V rail voltage, or 600V if velocities > 3000 rpm are desired (EMF at 3000rpm = 180 V).

Other windings available on request.

Feedback

	Type	Data
A	Resolver	7 V input, 1 pole pair, 0.5 transf. ratio
B	Resolver	7 V input, 2 pole pairs, 0.5 transf. ratio
D	Resolver	9 V input, 1 pole pair, 0.3 transf. ratio
ES	Endat singleturn	512 lines per rev.
EM	Endat multiturn	512 lines per rev.
ET	Endat singleturn	2048 lines per rev.
EN	Endat multiturn	2048 lines per rev.
SS	Sincos singleturn	1024 lines per rev.
SM	Sincos multiturn	1024 lines per rev.

Power connector

	Pin arrangement	Mount	
A	Intercontec 4+3+PE	straight top mount	size 09
B	Intercontec 4+3+PE	angled top mount	size 09
C	Intercontec 4+3+PE	straight rear mount	sizes 14 and 20
D	Intercontec 4+3+PE	angled rear mount	sizes 14 and 20
E	Intercontec 5+PE	straight top mount	size 09
F	Intercontec 5+PE	angled top mount	size 09
G	Intercontec 5+PE	straight rear mount	sizes 14 and 20
H	Intercontec 5+PE	angled rear mount	sizes 14 and 20
K	Intercontec 4+3+PE	straight forward mount	sizes 14 and 20
L	Intercontec 4+3+PE	angled forward mount	sizes 14 and 20
M	Intercontec 5+PE	straight forward mount	sizes 14 and 20
N	Intercontec 5+PE	angled forward mount	sizes 14 and 20
X	Special connector	Contact HDD for details.	

Connector Suffix

Different drive manufacturers use different standards for the pin layout of power and feedback connectors.

Suitable for

- HDD standard, thermistor in power connector
- z** HDD standard, thermistor in feedback connector
- b** Infranor
- c** Control Techniques
- e** Elau
- f** Ferrocontrol
- k** Kollmorgen-Seidel
- p** Parker
- s** Siemens

Brake

A	No brake
D	24V - 9 Nm
E	24V - 18 Nm

Shaft size and key

The shaft diameter depends on the flange size.

	A	B
Shaft key	yes	no
Diameter (flange 09)	19 mm	19 mm
Length (flange 09)	31 mm	31 mm
Diameter (flange 14)	24 mm	24 mm
Length (flange 14)	46 mm	46 mm

Options

For available options please contact our sales department at sales@hdd.se.

