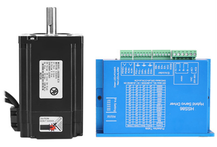

Servo Stepper 8.5 Nm

CNC DSP Closed-Loop Stepper Servo Drive 8A 30~100VDC Matching 86mm NEMA34 motor HBS86H Leadshine Based on latest DSP technology and adopting Leadshine's advanced control algorithm, HBS servo drive applies servo control on 86HSExx servo motors.

When adopted with an 86HSExx servo motor, it combines features of both open loop steppers & brushless servo systems, and offers many unique advances features for excellent motion control system performance.

Sales price without tax **115,00 €**

Product SKU: 1038000

1 Add to Cart

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Related Products

EN600 Flux Vector

MPG6A1

MPG6AA

Mach3 5-Axis Boar

Technical Details | Description | Package Includes | Downloads

ELECTRICAL SPECIFICATIONS for HBS86H driver:

Electrical Specifications (Tj = 25°C / 77°F)

Parameters	Min	Typical	Max	Unit
Input voltage DC	24	40	100	VDC
Input voltage AC	18	40	70	VAC
Logic signal current	7	10	16	mA
Output current	0		8.2 (Peak)	A
Pulse input frequency	0		200	kHz
Insulation resistance	500			MΩ

Pictures, dimensions,table data and technical drawings of this product are made with reasonable care and liability is excluded for the accuracy and correctness of this data.

DB9 ENCODER MOTOR Connector

DB9_Connector_Male*	Signal	DB9_Connector_Female**	Wire Color
PIN_1	A +	PIN_1	
PIN_2	VCC	PIN_2	
PIN_3	GND	PIN_3	
PIN_6	B +	PIN_6	
PIN_7	B -	PIN_7	
PIN_8	A -	PIN_8	

DB9 Male

DB9 Female

Pictures, dimensions,table data and technical drawings of this product are made with reasonable care and liability is excluded for the accuracy and correctness of this data.

* DB9_Connector_Male is from Motor side
** DB9_Connector_Female is on extension Cable

POWER and Motor Connector – Screw Terminal

POWER and Motor Connector – Screw Terminal on the drive				
Pin	**Name**	**I/O**	**Description**	**Motor Wire Colors**
1	A+	O	Motor Phase A+	
2	A-	O	Motor Phase A-	
3	B+	O	Motor Phase B+	
4	B-	O	Motor Phase B-	
5	AC	I	Power supply input 20-70VAC / 30-100VDC	
6	AC	I		

Control Signal Connector – Screw Terminal

Pin	Name	I/O	Description
1	PUL+	I	**Pulse signal:** In single pulse (pulse/direction) mode, this input represents pulse signal, each rising or falling edge active (software configurable, see hybrid servo software operational manual for more detail); In double pulse mode (software configurable), this input represents clockwise (CW) pulse, active both at high level and low level. 3.3-5V when PUL-HIGH, 0-0.5V when PUL-LOW. For reliable response, pulse width should be longer than 1.2μs. Series connect resistors for current-limiting when +12V or +24V used. The same as DIR and ENA signal.
2	PUL-	I	
3	DIR+	I	**Direction Signal:** In single-pulse mode, this signal has low/high voltage levels, representing two directions of motor rotation. In double-pulse mode (software configurable), this signal is counter-clock (CCW) pulse, active both at high level and low level. For reliable motion response, DIR signal should be ahead of PUL signal by 5μs at least. 3.3-5V when DIR-HIGH, 0-0.5V when DIR-LOW. Please note that rotation direction is also related to motor-driver wiring match: Exchanging the connection of two wires for a coil to the driver will reverse motion direction. The direction signal's polarity is software configurable.
4	DIR-	I	
5	ENA+	I	**Enable signal:** This signal is used for enabling/disabling the driver. In default, high level (NPN control signal) for enabling the driver and low level for disabling the driver. Usually left UNCONNECTED (ENABLED). Please note that PNP and Differential control signals are on the contrary, namely Low level for enabling. The active level of ENA signal is software configurable
6	ENA-	I	

Stator Signal Connector – Screw Terminal

Pin	Name	I/O	Description
1	Pend+	O	**In-position Signal:** OC output signal, active when the difference between the actual position and the command position is zero. This port can sink or source 20mA current at 24V. The resistance between Pend+ and Pend- is active at high impedance.
2	Pend-	O	
3	ALM+	O	**Alarm Signal:** OC output signal, active when one of the following protection is activated: over-voltage, over current and position following error. This port can sink or source 20mA current at 24V. In default, the resistance between ALM+ and ALM- is low impedance in normal operation and become high when HBS86 goes into error. The active level of alarm signal is software configurable. See Hybrid servo software operational manual for more detail.
4	ALM-	O	

DIP SWITCH Setting for Microstep Resolution

Please read instructions carefully before use this drive!

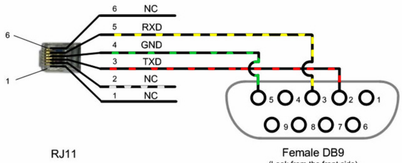
- This driver uses an 6-bit DIP switch to set microstep resolution
- SW5 is used for DIR signal input to change direction CW or CCW
- SW6 is not used on this drive

NOTE: Do not change DIP switch poles under power, turn drive off before changing microstepping configuration!

Steps / Revolution	SW1	SW2	SW3	SW4
Software Configured (Default 400)	on	on	on	on
800	off	on	on	on
1600	on	off	on	on
3200	off	off	on	on
6400	on	on	off	on
12800	off	on	off	on
25600	on	off	off	on
51200	off	off	off	on
1000	on	on	on	off
2000	off	on	on	off
4000	on	off	on	off
5000	off	off	on	off
8000	on	on	off	off
10000	off	on	off	off
20000	on	off	off	off
40000	off	off	off	off

RS232 Communication Port

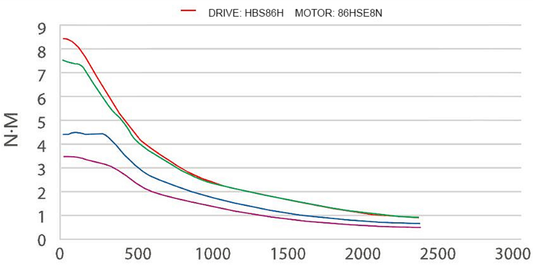
Pin	Name	I/O	Description
1	NC	-	Not connected.
2	+5V	O	+5V power only for STU (Simple Tuning Unit). Left it unconnected when connect to PC serial port!
3	TxD	O	RS232 transmit.
4	GND	GND	Ground.
5	RxD	I	RS232 receive.
6	NC	-	Not connected.

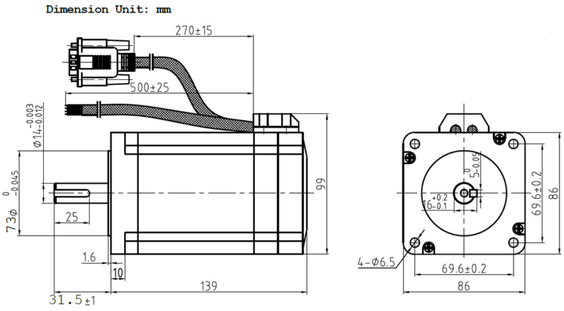


RJ11 — Female DB9 (Look from the front side)

It is used to configure the close-loop current, open-loop current, position following error limit and etc. See hybrid servo drive software operational manual for more information.

Torque Curve



Above Shown Torque Curve is calculated on 75Vac

MOTOR DIMENSIONS