



TORY



Perfect Shape

Reasonable Design

Efficient Function

**Worlds Top Class  
Electric Chain Hoist  
HHBD-II**

# HHBD-II Series



# TORY

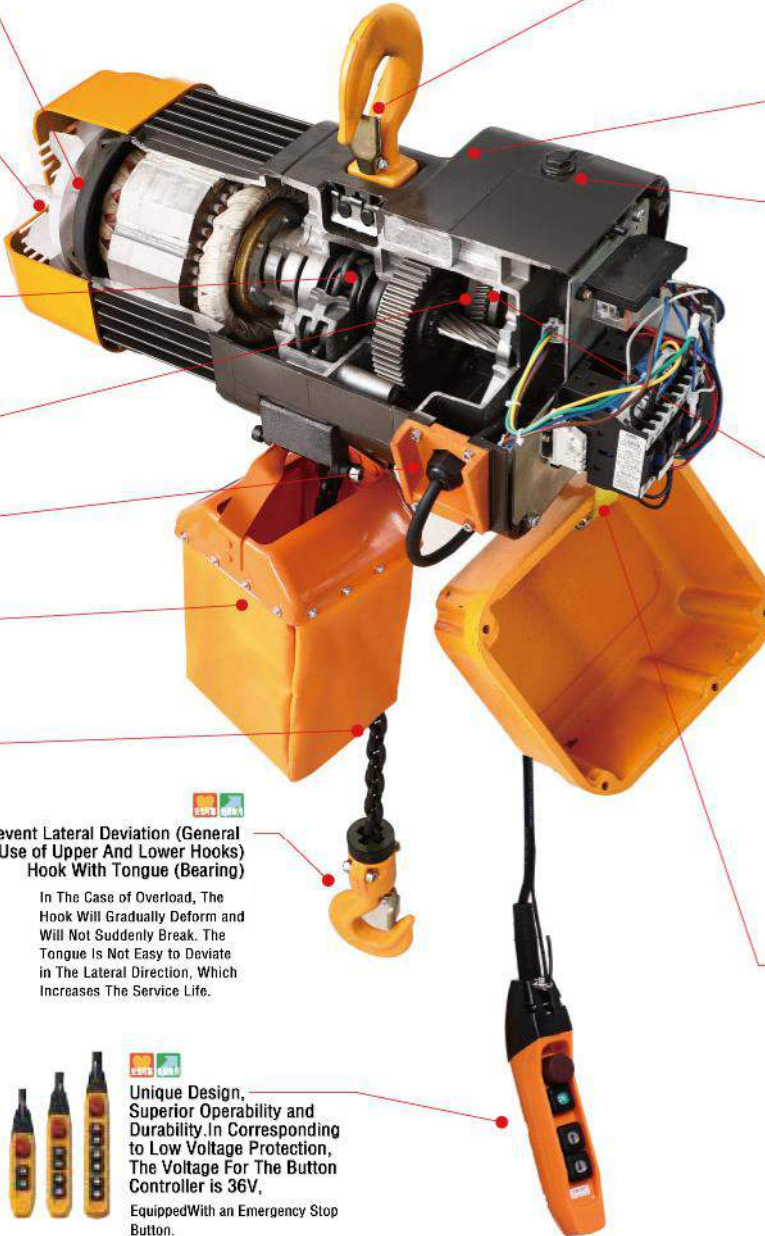
## HHBD-II Standard Specification

Power Supply	3 phase 380V/50HZ
Operating Voltage	36V
Rated	Single speed: 60%ED Double speed: 40/20%ED
Motor Insulation	Class F
Level	M5 and M4
Protection level	Hoist: IP55, Controller: IP65

Operation Method	Ground button control operation Monomer · Manual trolley type/3button Electric trolley type/5button · 7button
Power Supply	By cable
Color	YELLOW
Applicable Specifications	GB specifications
Working Temperature	-20 °C ~ +40 °C
Working Humidity	Below 80% RH

## Safe and Reliable, Durable, Easy to Maintain

### ■ Structure and Characteristics



**Safe and Reliable Braking gear**  
Reluctance Motor Brake, Scientific Structure, Less Components, Low Failure Rate, Strong Braking Force to Ensure The Safety of Braking Requirements.

**Air-Cooled motors can be adapted to the harsh environment use**  
Pressure Casting Aluminum Shell. The Unique Heat Sink of The Air-Cooled Motor Can Reduce Temperature Rise and Adapt to High Frequency Operation.

**Unique Guide Chain Structure**  
Unique Leading Chain Design Structure to Ensure The Smooth Lifting of The Load Chain.

**Low Noise Gear Construction**  
Use Helical Gears To Reduce Operating Noise.

**Direct Connection Wire Design**  
Easy installation and maintenance.

**Strong and durable high quality chain bag**  
Use Specially Processed Canvas Chain Straps.

**Use G80 Alloy Steel Load Chain**  
Based on Years of Manufacturing Experience, Alloy Steel Load Chain Manufactured With Patented Technology Has Excellent Fatigue Resistance, Wear Resistance and Corrosion Resistance.

**Prevent Lateral Deviation (General Use of Upper And Lower Hooks) Hook With Tongue (Bearing)**  
In The Case of Overload, The Hook Will Gradually Deform and Will Not Suddenly Break. The Tongue Is Not Easy to Deviate in The Lateral Direction, Which Increases The Service Life.

**Unique Design, Superior Operability and Durability. In Corresponding to Low Voltage Protection, The Voltage For The Button Controller is 36V, Equipped With an Emergency Stop Button.**

**External Connecting Shaft**  
External Connecting Shaft Makes it Convenient to Disassembly The Upper Hook and The Connecting Shaft

**Aluminum Casting Body**  
Light and Strong

**Dust-Proof Body (IP55)**

**Configure Inlet Contactor**  
Optional Advanced Durable Contactor (Optional)

**Friction Clutch**  
The Friction Clutch With Built-in Over-Winding Prevention Device

**Upper and Lower Limit Switch**

**Connecting Straps are Installed On The Side**  
Connecting Straps are Installed On The Side End Cover of The Control Board For Easy Maintainance

# HHBD-II Series



Adapt to harsh environments and operating conditions

## M5 grade

The service life of the mechanical parts (gears, bearings, etc.) is twice that of the M5 class (except for some products).

Most suitable for heavy loads used in harsh environment and conditions

## High-level time rating 60% ED

The air-cooled motor include a heat sink and a fan cover. Gearbox adopts oil groove lubrication method. Adapt to high-frequency use requirements.

The high performance and high function of the product is ensured by the solid one-time forming body!

## Cast aluminum once forming body

The rigid body housing can be adapted to severe operating conditions and conditions. The primary forming body has simple structure and few parts. Dustproof jetting type body (protection grade IP55).

It can prevent accidents in the event of abnormal loads such as overloads. Equipped with friction clutches to ensure safety.



## Standard upper and lower limit switch



Improve the efficiency of inspection

## Easier maintenance

The fixed shaft of the upper hook is changed to the outside of the fuselage for easy loading and unloading. The electrical components are centrally arranged on the control panel for easy spot inspection and maintenance. The end cover of the control panel is connected with the body by connecting belt, which is convenient to use.

Cut off the motor circuit immediately in an emergency

## Emergency stop button with voltage loss protection function

Press the emergency stop button to immediately cut off the motor circuit. The button controller adopts ergonomic design, which is convenient and comfortable to operate. The operating voltage is only 36V for safety reason.

## Optimized design of heat sink and fan cover. Motor with cooling fan.

Optimized design makes the cooling fan run quieter and at the same time increases the cooling capacity of the fan.

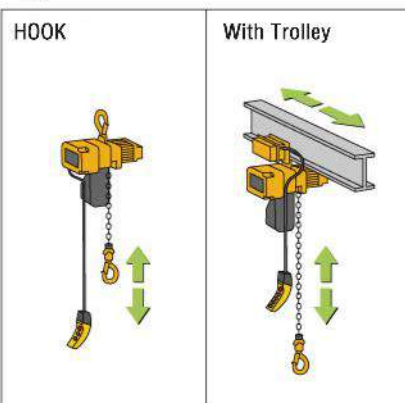


## Models

The models of electric chain hoist, electric trolley and manual trolley are listed as follows.

**HHBD-II 01-01IS**

### Type



### Load Capacity

Code	Load Capacity (t)
005	0.5
01	1
02	2
03	3
05	5
10	10
15	15
20	20
25	25
30	30

### Chain Falls

Code	Chain Falls
01	1
02	2
03	3
04	4
06	6
08	8
10	10
12	12

### Model

Code	Model
I	Single Speed With Hook
IS	Double Speed With Hook
Y	Single Speed With Trolley
YS	Double Speed With Trolley
L	Low Head Room Type Single Speed
LS	Low Head Room Type Double Speed
XX	Double Hook
D	Upside Down Type

# HHBD-II Series



**125Kg-500Kg**

#### **M5 Working Class:**

Adapt to harsh environment and working conditions.

#### **Shell:**

Light but strong shell with good heat dissipation rate, fully sealed design is suitable for use in severe environments.

#### **Reverse phase protection device:**

A special electrical device to protect the control circuit when the power supply connection faulty.

#### **Limit switch:**

The limit switch device is installed when the heavy object is hoisted up and down, which makes the motor stop automatically to prevent the chain from exceeding designed position to ensure safety.

#### **24V/36V device:**

To prevent accidents in case of electric exposure.

#### **Braking device:**

To initiate instant braking in case of power outage.

#### **Chain bag:**

Lightweight, Aesthetics and Durable.

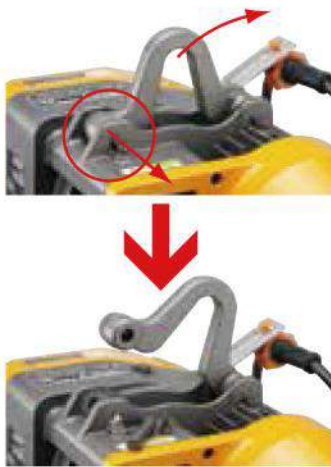
#### **Chain:**

FEC80 super heat-treated alloy steel chain.

## Easy Maintenance

suitable for a variety of connection methods

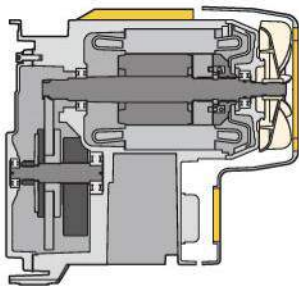
Standard equipment, which can be widely used in various applications, mainly light-duty rails. The hanging eyes are easy to disassemble and improve the efficiency of maintenance and inspection.



**Durable**  
Durable

## High grade motor rating

The product is most suitable for long distance lifting, long-time and high-frequency operations. The gearbox is lubricated by means of an oil sump. This can reduce the wear of the gear and also has a cooling effect.



## CH counter (counter/timer)

The LCD screen can display the number of starts and operating time, and maintenance can be carried out according to the frequency of use of the equipment.



## Unique motor frame heat sink and fan cover

A heat sink is installed on the motor frame, and the whole body is cooled by a built-in cooling fan. This design not only maintains the cooling performance, but also to reduce the motor noise level.



## Safe and reliable

Electronic overload protection、friction clutch、upper and lower limit switches、 (triple safety measure)

For lifting equipment, safety and reliability are the most important measurement

To ensure safety, the HHBD-II electric chain hoist is equipped with three safety functions: electronic overload protection, friction clutch, and upper and lower limit switches.

The electronic overload protection immediately stops supplying power to the motor when the inverter detects an overload, and stops the cargo lifting operation.

Friction clutch overload prevention device

When the loading weight exceeds the rated load, the motor is idling to prevent overload and overload damage to the hoist body and load chain. This performance is not affected by environmental humidity.

When over-lifting or over-lowering, the limit switch will stop the motor. The limit switch can prevent damage to the hoist body and load chain. (Do not rely on this function)



### The brake that attracts the rotor-type motor

The brake that attracts the rotor-type motor is a high-temperature-resistant drum brake. Once the power is disconnected, the brake will act immediately, with excellent safety.

### Motor overheating protector

If the inverter detects overheating will automatically cut off the current.



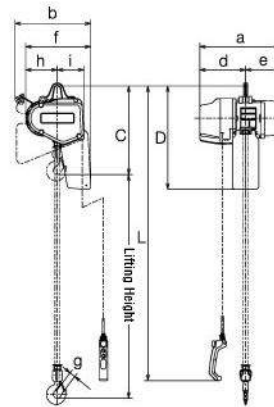
# HHBD-IIK

Suitable for KBK light crane system

# HHBD-II Series



## Hook type (125kg-500kg)



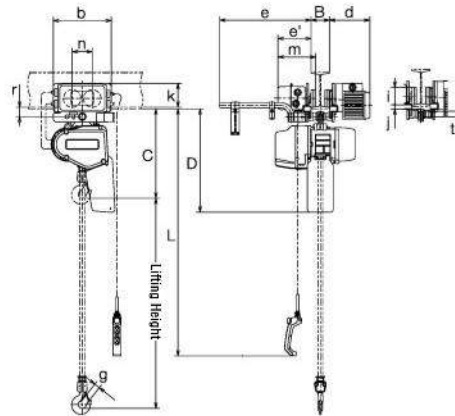
### Technical Parameters

Rated Capacity	Model	Body Base	Standard lifting height (m)	Operating cable: L (m)	Lifting motor 3-phase		Lifting Speed (m/min) * (Double Speed)		Load Chain Diameter* Falls (mm)	Level ISO/FEM	Test load	Net Weight (kg)	Weight added for extra 1m of chain (kg)
					Power Output (kw)	Repeatedly rated (%ED)	50HZ						
							High Speed	Low Speed					
125kg	HHBD-II00125-01 IS	C	4	3.5	0.75	40/20	30	10	5.6x1	M5/4m	156kg	33	0.71
250kg	HHBD-II0025-01 IS	C	4	3.5	0.75	40/21	15	5	5.6x1	M5/4m	313kg	33	0.71
500kg	HHBD-II005-01 IS	C	4	3.5	0.75	40/22	7.8	2.6	5.6x1	M5/4m	625kg	33	0.71

### Size Specification

Rated Capacity	Model	Minimum hook room distance: C	D	a	b	d	e	f	g	h	i
125kg	HHBD-II00125-01 IS	410	485	417	367	230	187	298	27	137	128
250kg	HHBD-II0025-01 IS	410	485	417	367	230	187	298	27	137	128
500kg	HHBD-II005-01 IS	410	485	417	367	230	187	298	27	137	128

## Trolley type (125kg-500kg)



### Technical Parameters

Rated Capacity	Model	HHBD-II										With electric trolley					Test load	Net Weight (kg)	Weight added for extra 1m of chain (kg)	
		Body Base	Standard lifting height (m)	Operating cable: L (m)	Lifting motor 3-phase		Lifting Speed (m/min)*		Load Chain Diameter* Falls (mm)	Level ISO/FEM	Horizontal motor 3-phase		Drive Speed (m/min)		Applicable I-beam width: B (mm)					Minimum rotation radius (mm)
					Power Output (kw)	Repeatedly rated (%ED)	50/60HZ				Power Output (kw)	Repeatedly rated (%ED)	50/60HZ		standard					
							High Speed	Low Speed	High Speed	Low Speed			standard	Optional W30 (305mm)						
125kg	HHBD-II00125-01YS	C	4	3.5	0.75	40/20	30	10	5.6x1	M6/3m	0.4	27/13	24	4	58-153	154-305	800	156kg	64	0.71
250kg	HHBD-II0025-01YS	C	4	3.5	0.75	40/20	15	5	5.6x1	M6/3m	0.4	27/13	24	4	58-153	154-305	800	313kg	64	0.71
500kg	HHBD-II005-01YS	C	4	3.5	0.75	40/20	7.8	2.6	5.6*1	M6/3m	0.4	27/13	24	4	58-153	154-305	800	625kg	67	0.71

### Size Specification

Rated Capacity	Model	Minimum hook room distance: C	D	b	d	e	e'	g	i	j	k	m	n	r	t
125kg	HHBD-II00125-01YS	420	515	315	220	515	179	27	95	27	130	205	109	51	31
250kg	HHBD-II0025-01YS	420	515	315	220	515	179	27	95	27	130	205	109	51	31
500kg	HHBD-II005-01YS	440	515	315	220	515	179	27	95	27	130	205	109	51	31



## 1t-5t

### **M5 Working Class:**

Adapt to harsh environment and working conditions.

### **Shell:**

Light but strong shell with good heat dissipation rate, fully sealed design is suitable for use in severe environments.

### **Reverse phase protection device:**

A special electrical device to protect the control circuit when the power supply connection faulty.

### **Limit switch:**

The limit switch device is installed when the heavy object is hoisted up and down, which makes the motor stop automatically to prevent the chain from exceeding designed position to ensure safety.

### **24V/36V device:**

To prevent accidents in case of electric exposure.

### **Braking device:**

To initiate instant braking in case of power outage.

### **Chain bag:**

Lightweight, Aesthetics and Durable.

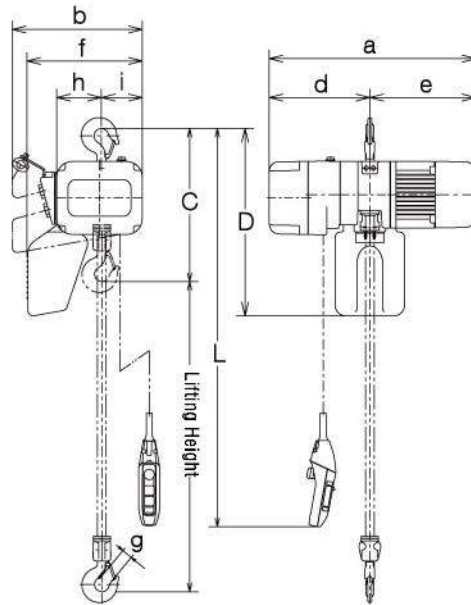
### **Chain:**

FEC80 super heat-treated alloy steel chain.

# HHBD-II Series



## Single Speed Type Hook type (1T-5T)



### Technical Parameters

Type	Capacity (Ton)	Lifting Height (m)	Lifting Speed (m/min)	Lifting motor					Operating motor					Net Weight (kg)	Weight added for extra 1m of chain (kg)	
				Power (Kw)	Rotation Speed (r/min)	Phases	Voltage (V)	Frequency (HZ/S)	Power (Kw)	Rotation Speed (r/min)	Operating speed (m/min)	Phases	Voltage (V)			Frequency (HZ/S)
HHBD-II01-01 I	1	4	7.1	1.5	1440	3	380	50	/	/	/	/	/	/	47	1.3
HHBD-II02-01 I	2	4	7.0	3.0	1440	3	380	50	/	/	/	/	/	/	72	2.3
HHBD-II02-02 I	2	4	3.5	1.5	1440	3	380	50	/	/	/	/	/	/	54	2.6
HHBD-II03-01 I	3	4	7.0	3.6	1440	3	380	50	/	/	/	/	/	/	104	2.8
HHBD-II03-02 I	3	4	3.5	3.0	1440	3	380	50	/	/	/	/	/	/	107	4.7
HHBD-II05-02 I	5	4	3.5	3.6	1440	3	380	50	/	/	/	/	/	/	132	5.6

### Size Specification

Type	Capacity (Ton)	Unit (mm)										
		C	D	a	b	d	e	f	g	h	i	Chain
HHBD-II01-01 I	1	430	550	600	376	291	300	335	Φ31	129	118	Φ7.1
HHBD-II02-01 I	2	540	630	710	430	308	365	400	Φ34	160	129	Φ10.0
HHBD-II02-02 I	2	570	630	600	376	308	300	335	Φ34	129	90	Φ7.1
HHBD-II03-01 I	3	615	630	710	430	265	365	400	Φ59	160	137	Φ11.2
HHBD-II03-02 I	3	690	630	710	430	320	365	400	Φ59	160	142	Φ10.0
HHBD-II05-02 I	5	850	800	710	430	205	365	400	Φ59	160	82	Φ11.2