



Professional cranes & hoists for lifting



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- First edition of July, 2023 #950446
- No further notice while sizes and dimensions update;  
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## Electric Chain Hoist

### 3 Phase / NHD / PM series

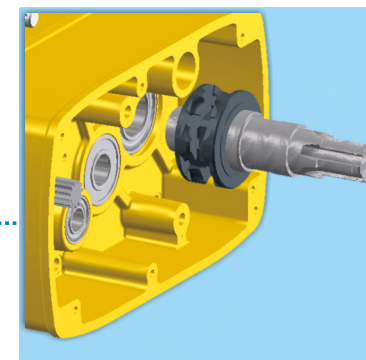
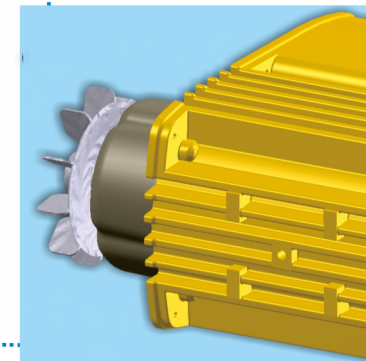


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## ① Motor and Brake

- 1).Permanent magnetic brushless motor has feature of compact size, high efficiency and low power consumption.
- 2).IP55 TEFC motor, class F insulation, good thermal performance.
- 3).DC motor brake : with two-side single disk brake, electro-magnetic brake actuates synchronously in the event of power failure to ensure the operation safety while loading.
- 4).Total enclosed construction, withstands harsh conditions like those found in chemical, and electroplating environments.
- 5).Asbestos-free brake to meet international request.
- 6).Unique innovation PM motor with dedicated drive controller. Low starting current, not exceed 150% rated, energy efficient.
- 7).With built-in heat detector, when motor's inside working temperature reaches  $140(\pm 5)^{\circ}\text{C}$ , the protection mechanism will trigger, and not allow lifting the load. Instead, it permits coming down to release the load.



## ② Load Sheave

- 5 pockets on the load sheave ensures positive chain link seating resulting in smoother lifting.

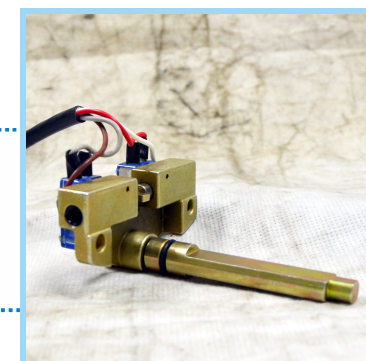
## ③ Mechanical Brake and Overload Limit Clutch System

- 1).2 in 1 design, have the dual function of mechanical brake and overload protection system is good and it prevents the burn-out problem with some high frequency operations of much inching to precise and gentle load positioning which involves many pendant control/contactors/electric brake coil activations.
- 2).Mechanical brake collocate motor brake which provides fast braking function.
- 3).Friction Clutch prevents damage from overloading.
- 4).Easily adjusted by the gear box outside overload setting.
- 5).Ensure operation safety and product life time.



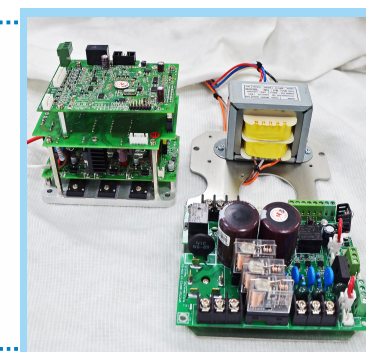
## ④ Limit Switch

- Upper and lower gear limit switches are fitted to switch off the power simultaneously in the case of over lifting or lowering position.



## ⑤ Control Panel

- 1).Intelligent phase error relay protection device. When the power is supplied, the controller can automatically work, the hoist can go up and down normally regardless the phase.
- 2).Over-heat and over-current protection functions.
- 3).Intelligent overload speed regulation, hoist can reduce speed working at 125% overload setting till trigger the over-current protection then the hoist stops.
- 4).Intelligent safety start system, after confirming the electronic control and motor are normally, then the hoist be on.



## ⑥ Load Chain

Grade 80 hardened and galvanized alloy steel chain, endures harsh conditions such as rain, saltwater and chemicals with minimal wear.

## ⑦ Hook

- 1).Hot forged from high tensile steel.
- 2).360° rotated.

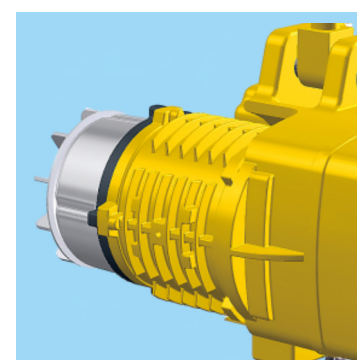
## ⑧ Pendant Control

- 1)High protection grade IP65, fully water-proof, insulated, and impact resistant.
- 2)Standard pendant control and optional remote control, with knob for variable speed operation.



## ① Gear Limit Switch

- 1). Use for NHD-200PM-1, 300PM-2, 500PM-2 three items.
- 2). Multiple 4 steps adjustment designed. It has practically limitless applications in regulating hoist operation to prevent potential incidents. It can precisely control stopping point at any positions in lifting range.
- 3). Patents :  
Taiwan patent no. M466909      German patent no. Nr. 20 2014 006 109.2  
Japan patent no. 3193570      China patent no. ZL 2014 2 0395985.8  
United States patent no.US 9263201



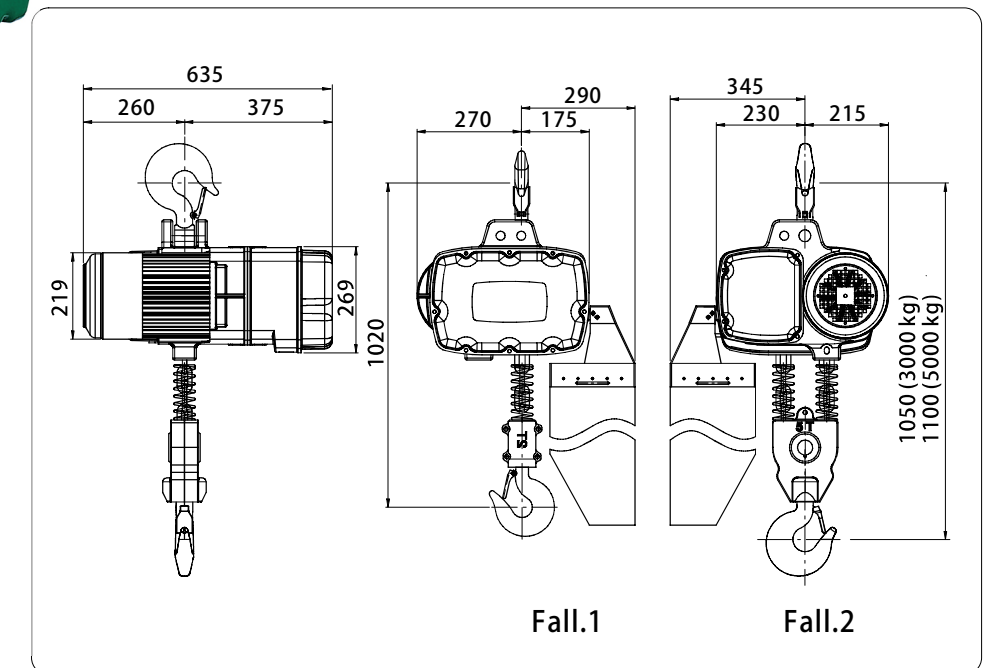
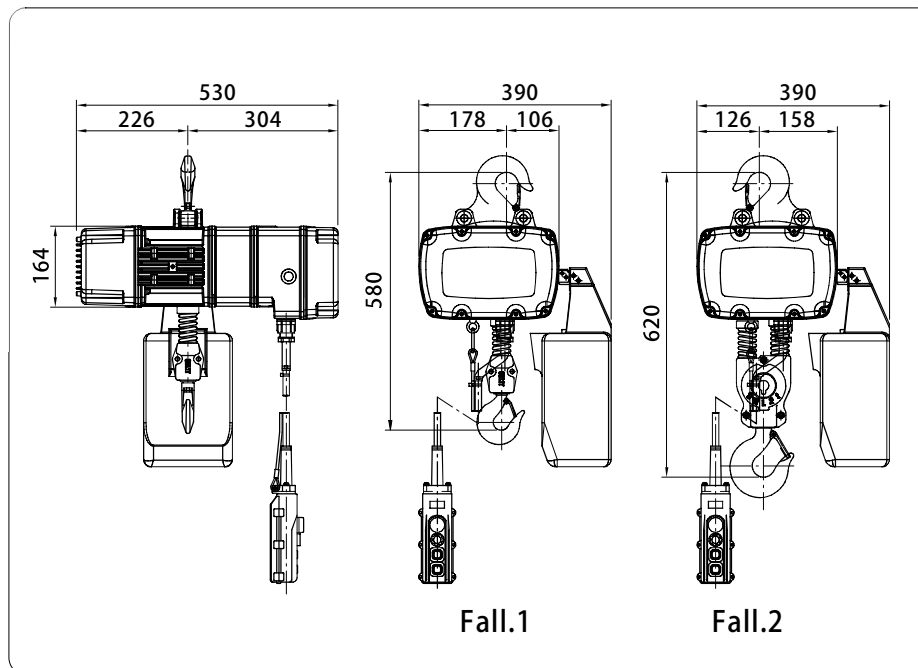
## ② Motor Assembly

High precision and rugged motor housing is made of aluminum gravity casting alloy. Motor coil can be disassembled easily when need to repair.

## ③ Load Sheave & Chain Regulator

Easy to disassemble and re-assemble, convenient for maintenance.





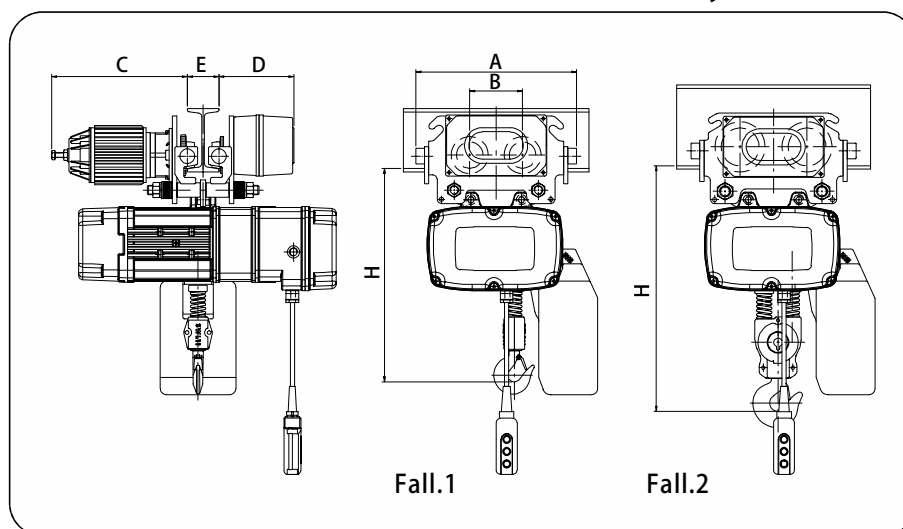
| Rated Power Source | 3 Phase , 200V~480V , 60Hz/50Hz |                  |                   |                                   |                               |                       |      |                   |                          |      |           |
|--------------------|---------------------------------|------------------|-------------------|-----------------------------------|-------------------------------|-----------------------|------|-------------------|--------------------------|------|-----------|
| Model              | Capacity (kg)                   | Motor Output (W) | Intermittent Duty |                                   | Rated Current (A)             | Lifting Speed (m/min) |      | Standard Lift (m) | Load Chain Diameter (mm) | Fall | N.W. (kg) |
|                    |                                 |                  | % ED              | Max.Starting Frequency (times/hr) |                               | Low                   | High |                   |                          |      | 3m        |
| NHD-050PM-1        | 500                             | 1100             | 40                | 240                               | 200V(5.3A)<br>∩<br>480V(2.3A) | 2-5.2                 | 10   | 3                 | Ø6.3 x 19.1              | 1    | 42.7      |
| NHD-100PM-1        | 1000                            | 1500             |                   |                                   | 200V(7.3A)<br>∩<br>480V(3.2A) | 1.6 -4.2              | 8    | 3                 | Ø7.1 x 20.2              | 1    | 46.5      |
| NHD-200PM-2        | 2000                            |                  |                   |                                   | 0.8 -2.1                      | 4                     | 3    | Ø7.1 x 20.2       | 2                        | 50   |           |

※ The ED values are the sum of the values from the low and high speed:  
There are divided into 1/3 low speed operation and 2/3 high speed operation.

| Rated Power Source | 3 Phase , 200V~480V , 60Hz/50Hz |                  |                   |                                   |                           |                       |      |                   |                          |      |          |
|--------------------|---------------------------------|------------------|-------------------|-----------------------------------|---------------------------|-----------------------|------|-------------------|--------------------------|------|----------|
| Model              | Capacity (kg)                   | Motor Output (W) | Intermittent Duty |                                   | Rated Current (A)         | Lifting Speed (m/min) |      | Standard Lift (m) | Load Chain Diameter (mm) | Fall | N.W.(kg) |
|                    |                                 |                  | % ED              | Max.Starting Frequency (times/hr) |                           | Low                   | High |                   |                          |      |          |
| NHD-200PM-1        | 2000                            | 3750             | 40                | 240                               | 200V(16.3A)<br>480V(7.1A) | 1.9-3.8               | 9.6  | 3                 | Ø10 x 30                 | 1    | 95       |
| NHD-250PM-1        | 2500                            |                  |                   |                                   |                           | 1.6-3.2               | 8    | 3                 | Ø11.2 x 34               | 1    | 102      |
| NHD-300PM-2        | 3000                            |                  |                   |                                   |                           | 1.3-2.6               | 6.4  | 3                 | Ø10 x 30                 | 2    | 112      |
| NHD-500PM-2        | 5000                            |                  |                   |                                   |                           | 0.8-1.6               | 4    | 3                 | Ø11.2 x 34               | 2    | 135      |

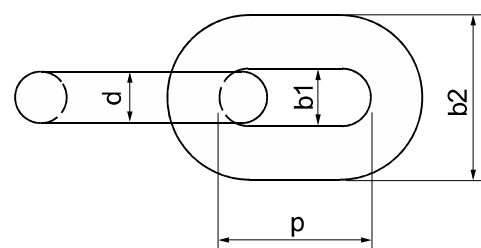


## Hoist with Motorized NTD Trolley



| Model                 | Dimension (mm) |     |     |     |     |         | Fall No. |
|-----------------------|----------------|-----|-----|-----|-----|---------|----------|
|                       | H              | A   | B   | C   | D   | E       |          |
| NHD-050PM-1+NTD-050-1 | 560            | 385 | 126 | 325 | 180 | 75~125  | 1        |
| NHD-100PM-1+NTD-100-1 | 560            | 385 | 126 | 325 | 180 | 75~125  | 1        |
| NHD-200PM-2+NTD-200-2 | 625            | 395 | 159 | 360 | 185 | 100~150 | 2        |
| NHD-200PM-1+NTD-200-1 | 990            | 395 | 159 | 360 | 185 | 100~150 | 1        |
| NHD-250PM-1+NTD-250-1 | 953            | 445 | 183 | 400 | 195 | 125~175 | 1        |
| NHD-300PM-2+NTD-300-2 | 1000           | 445 | 183 | 400 | 195 | 125~175 | 2        |
| NHD-500PM-2+NTD-500-2 | 1050           | 445 | 183 | 400 | 195 | 125~175 | 2        |

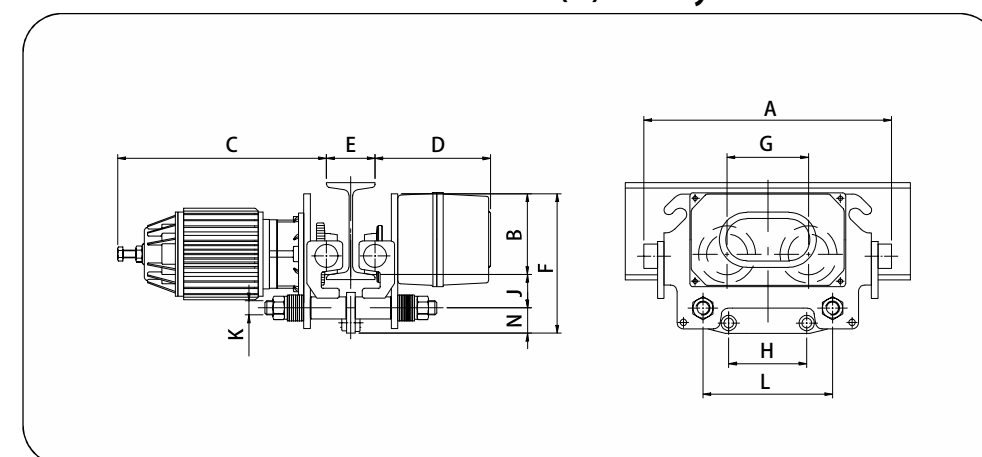
## Load Chain



| Diameter d(mm) | Model Reference Being Used | Inner Length p (mm) | Inner Width b1 (mm) | Outer Width b2 (mm) | Breaking Load (kN) |
|----------------|----------------------------|---------------------|---------------------|---------------------|--------------------|
| Ø6.3           | NHD-050PM-1                | 19.1                | 7.9                 | 21.4                | 50                 |
| Ø7.1           | NHD-100PM-1<br>NHD-200PM-2 | 20.2                | 8.1                 | 23.2                | 63.3               |
| Ø10.0          | NHD-200PM-1<br>NHD-300PM-2 | 30.2                | 12.5                | 33.2                | 128                |
| Ø11.2          | NHD-250PM-1<br>NHD-500PM-2 | 34                  | 14                  | 37.5                | 160                |



## Motorized NT(D) Trolley



| Model     | Speed (m/min) |      | Motor<br>kw x pole  | Dimension (mm) |     |     |     |             |     |     |      |     |    |    |                        | N.W.<br>(kg) | Min radius<br>of curve<br>(m) |
|-----------|---------------|------|---------------------|----------------|-----|-----|-----|-------------|-----|-----|------|-----|----|----|------------------------|--------------|-------------------------------|
|           | 60Hz          | 50Hz |                     | A              | B   | C   | D   | E           | F   | G   | H    | L   | J  | N  | K                      |              |                               |
| NT-050-1  | 24            | 20   | 0.12<br>x 2P        | 385            | 127 | 285 | 180 | 75~<br>125  | 218 | 126 | 120  | 200 | 52 | 39 | 7/8"~9UNC<br>(Ø22.2)   | 45           | 1.3                           |
| NTD-050-1 | 24/6          | 20/5 | 0.12/0.03<br>x 2/8P |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-100-1  | 24            | 20   | 0.18<br>x 2P        | 385            | 114 | 285 | 180 | 75~<br>125  | 220 | 126 | 120  | 210 | 67 | 39 | 1"~8UNC<br>(Ø25.4)     | 45           | 1.3                           |
| NTD-100-1 | 24/6          | 20/5 | 0.18/0.04<br>x 2/8P |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-200-2  | 24            | 20   | 0.37<br>x 2P        | 395            | 120 | 290 | 185 | 100~<br>150 | 231 | 159 | 120  | 230 | 75 | 36 | 1 1/4"~7UNC<br>(Ø31.8) | 50           | 1.7                           |
| NTD-200-2 | 24/6          | 20/5 | 0.37/0.09<br>x 2/8P |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-200-1  | 24            | 20   | 0.37<br>x 2P        | 395            | 125 | 360 | 185 | 100~<br>150 | 251 | 159 | 52.5 | 230 | 75 | 51 | 1 1/4"~7UNC<br>(Ø31.8) | 50           | 1.7                           |
| NTD-200-1 | 24/6          | 20/5 | 0.37/0.09<br>x 2/8P |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-250-1  | 24            | 20   | 0.6<br>x 2P         | 445            | 154 | 400 | 195 | 125~<br>175 | 283 | 183 | 52.5 | 250 | 71 | 58 | 1 1/2"~6UNC<br>(Ø38.1) | 89           | 2.0                           |
| NTD-250-1 | 24/6          | 20/5 | 0.6/0.15<br>x 2/8P  |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-300-2  | 24            | 20   | 0.6<br>x 2P         | 445            | 154 | 400 | 195 | 125~<br>175 | 283 | 183 | 52.5 | 250 | 71 | 58 | 1 1/2"~6UNC<br>(Ø38.1) | 89           | 2.0                           |
| NTD-300-2 | 24/6          | 20/5 | 0.6/0.15<br>x 2/8P  |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |
| NT-500-2  | 24            | 20   | 0.6<br>x 2P         | 445            | 154 | 400 | 195 | 125~<br>175 | 283 | 183 | 52.5 | 250 | 71 | 58 | 1 3/4"~5UNC<br>(Ø44.5) | 89           | 2.0                           |
| NTD-500-2 | 24/6          | 20/5 | 0.6/0.15<br>x 2/8P  |                |     |     |     |             |     |     |      |     |    |    |                        |              |                               |

\*Different flange width options available on request. Maximum:310mm.