



Professional cranes & hoists for lifting



CHENG DAY MACHINERY WORKS CO., LTD.

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- Due to the printing factors, the color of the products is subject to minor deviation from the physical objects.



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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/contactor/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

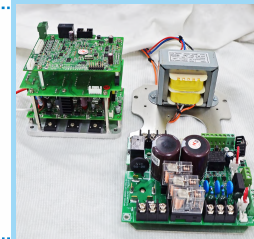
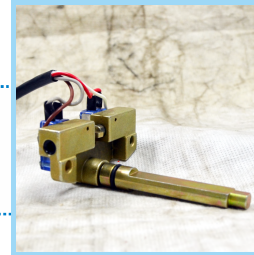
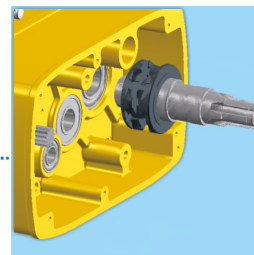
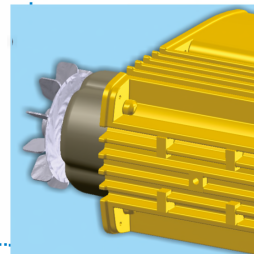
Grade 80 hardened and galvanized alloy steel chain, endures harsh conditions such as rain, saltwater and chemicals with minimal wear.

⑦ Hook

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

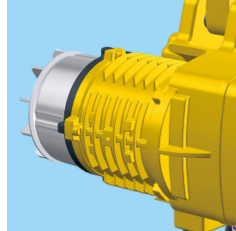
⑧ Pendant Control

- 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



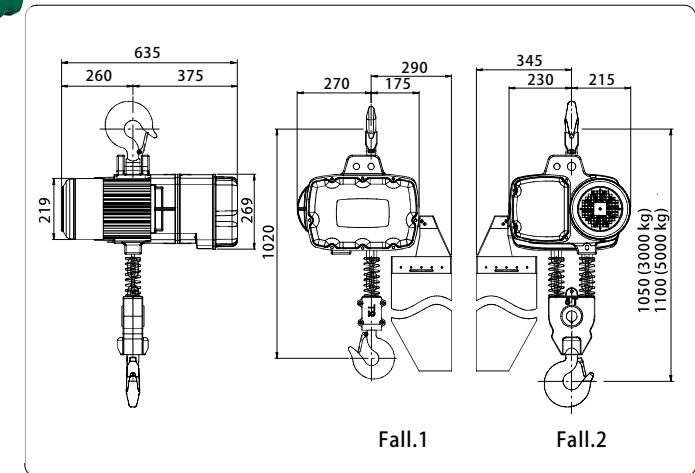
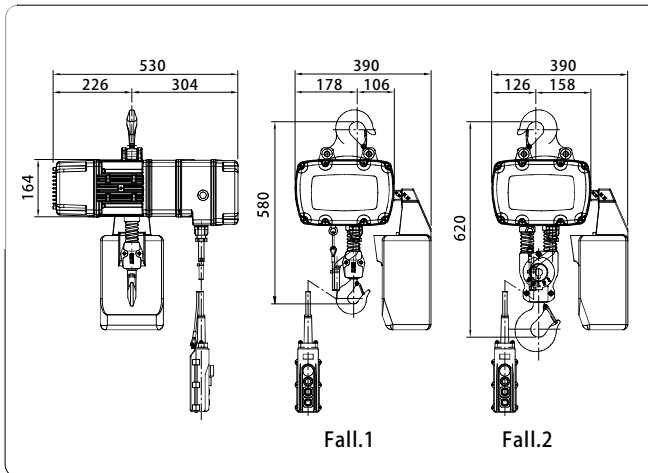
② Motor Assembly

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.





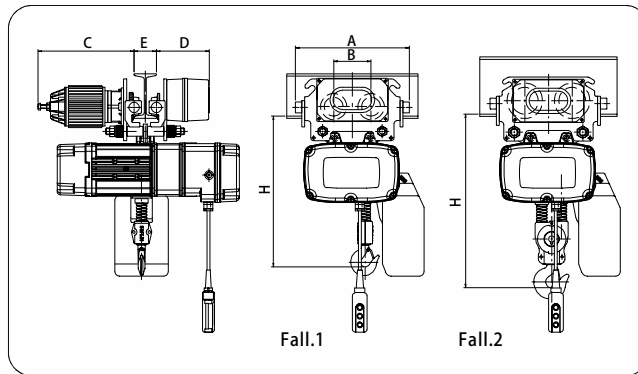
Rated Power Source		3 Phase , 200V~480V , 60Hz/50Hz									
Model	Capacity (kg)	Motor Output (W)	Intermittent Duty		Rated Current (A)	Lifting Speed (m/min)		Standard Lift (m)	Load Chain Diameter (mm)	Fall	N.W. (kg)
			% ED	Max.Starting Frequency (times/hr)		Low	High				3m
NHD-050PM-1	500	1100	40	240	200V(5.3A) 480V(2.3A)	2-5.2	10	3	Ø6.3 x 19.1	1	42.7
NHD-100PM-1	1000	1500			200V(7.3A) 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				3m
NHD-200PM-1	2000	3750	40	240	200V(16.3A) 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

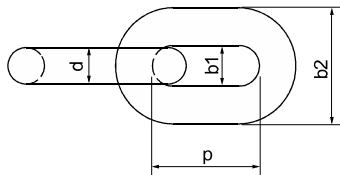


Hoist with Motorized NTD Trolley



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

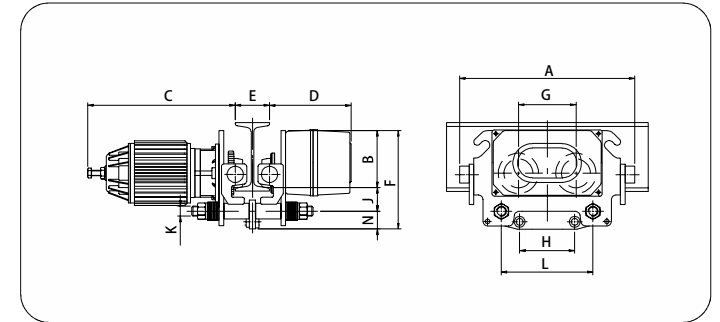
Load Chain



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 NHD-200PM-2	20.2	8.1	23.2	63.3
Ø10.0	NHD-200PM-1 NHD-300PM-2	30.2	12.5	33.2	128
Ø11.2	NHD-250PM-1 NHD-500PM-2	34	14	37.5	160



Motorized NT(D) Trolley



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

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