Professional cranes & hoists for lifting

Electric Chain Hoist
/ NHD series

CHENG DAY MACHINERY WORKS CO., LTD.

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■ No further notice while sizes and dimensions update; Quotations are based on practical dimensions.
■ Due to the printing factors, the color of the products is subject to minor deviation from the physical objects.

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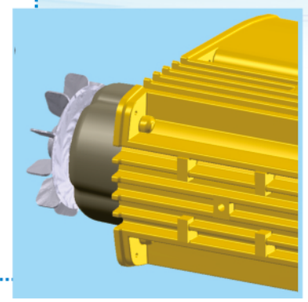
Model : NHD-050-1/NHD-100-2/NHD-100-1/NHD-200-2

❶ Motor and Brake

1).IP55 TEFC motor, class F insulation, good thermal performance.
2).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.
3).Total enclosed construction, withstands harsh conditions like those found in chemical, and electroplating environments.
4).Asbestos-free brake to meet international request.

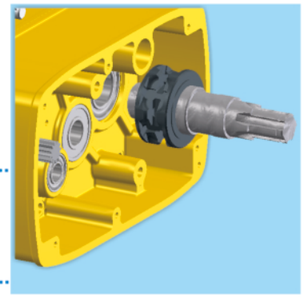
Over-Heat Protection

With built-in heat detector, when motor's inside working temperature reaches 140(±5)°C, the protection mechanism will trigger, and not allow lifting the load. Instead, it permits coming down to release the load.



❷ Chain Sprocket

5-pocket chain sprocket for load chain smooth operation.

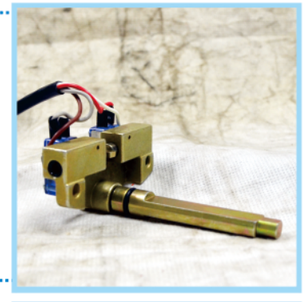


❸ Mechanical Brake and Overload Protection

1).2 in 1 design, have the dual function of mechanical brake and overload protections.
2).Mechanical brake collocate motor brake which provides fast braking function.
3).Friction Clutch prevent damage from overloading.
4).Easily adjusted by the gear box outside Overload setting.
5).Ensure operation safety and product life time.

❹ Limit Switch

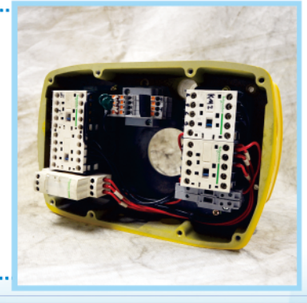
Upper and lower gear limit switches are fitted to switch off the power simultaneously in the case of over lifting or lowering position.



❺ Control Panel

Phase Error Relay

Phase protection, in case of any phase missing or incorrect, the hoist will not be in active, ensuring the safety and durability to all Components.



❻ Load Chain

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

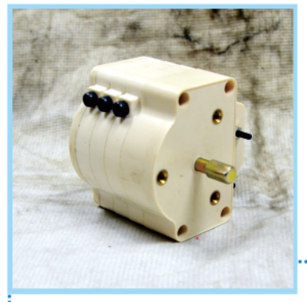
❼ Hook

1).Hot forged from high tensile steel.
2).360 degree rotation.

❽ Pendant Control

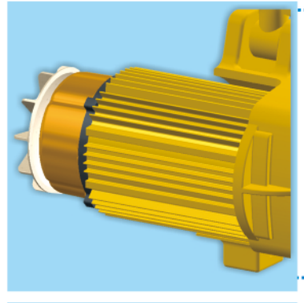
High protection grade IP65, fully water-proof, insulated, and impact resistant.

Model : NHD-200-1/NHD-300-2/NHD-500-2



❶ Gear Limit Switch

1).Can precisely control stopping point at any position.
2). 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



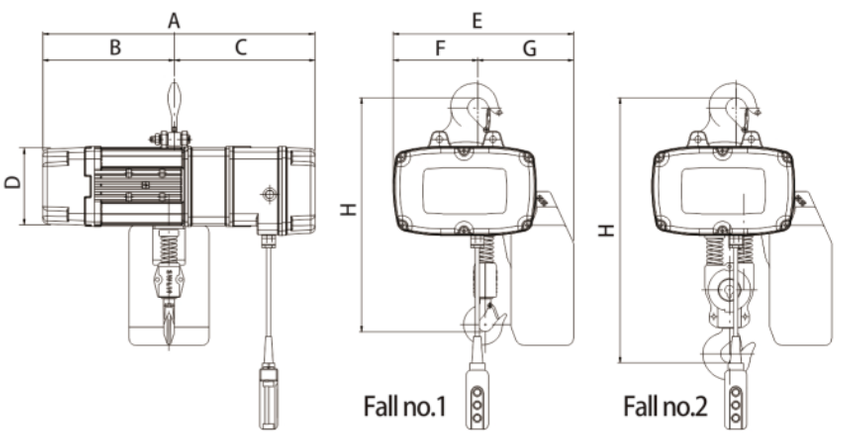
❷ Motor Ass'y

Light and artistic motor housing is made of aluminum extruded alloy and motor coil can simply disassemble and repair.

❸ Chain sprocket and Regulator

Can rapidly remove and replace unlike previous model have to remove motor or other components first.

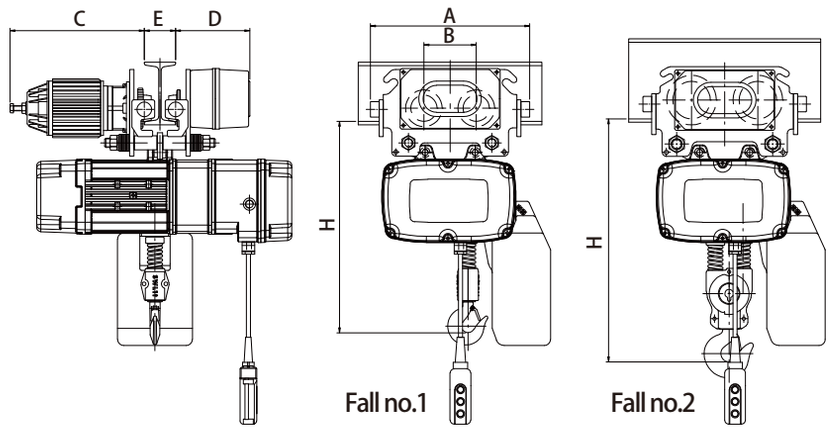
NHD series



Model	Capacity (kg)	Lift (m)	%ED	Hoisting			Traversing		
				Speed(m/min)		Motor kw x pole	Speed(m/min)		Motor kw x pole
				60Hz	50Hz		60Hz	50Hz	
NHD-050-1	500	3	40/20	10/2.5	10/2.5	1.1/0.28 x 2/8P	24/6	20/5	0.12/0.03 x 2/8P
NHD-100-2	1000			5/1.25	5/1.25		24/6	20/5	0.18/0.04x 2/8P
NHD-100-1	1000	3	40/20	8/2	8/2	1.5/0.37 x 2/8P	24/6	20/5	0.18/0.04 x 2/8P
NHD-200-2	2000			4/1	4/1		24/6	20/5	0.37/0.09x 2/8P
NHD-200-1	2000	3	40/20	9.6/2.4	9.6/2.4	3.7/0.9 x 2/8P	24/6	20/5	0.37/0.09x 2/8P
NHD-250-1	2500	3	40/20	8/2	8/2		24/6	20/5	0.6/0.15x 2/8P
NHD-300-2	3000	3	40/20	6.4/1.6	6.4/1.6		24/6	20/5	0.6/0.15x 2/8P
NHD-500-2	5000	3	40/20	4/1	4/1		24/6	20/5	0.6/0.15x 2/8P

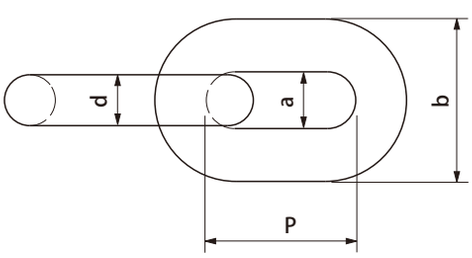
Model	Dimension (mm)								Load Chain		N.W. (kg)
	H	A	B	C	D	E	F	G	Ømm	Fall No.	
NHD-050-1	500	570	270	310	165	375	190	185	Ø 6.3x19.1	1	47
NHD-100-2	550	570	270	310	165	375	190	185		2	50
NHD-100-1	550	620	300	320	180	415	195	220	Ø 7.1x20.2	1	62
NHD-200-2	620	620	300	320	180	415	195	220		2	67
NHD-200-1	1020	715	340	375	220	530	270	260	Ø 10x30	1	102
NHD-250-1	1020	715	340	375	220	530	323	207	Ø 11.2x34	1	135
NHD-300-2	1050	715	340	375	220	530	270	260	Ø 10x30	2	120
NHD-500-2	1100	715	340	375	220	530	270	260	Ø 11.2x34	2	145

Hoist with Motorized NTD Trolley



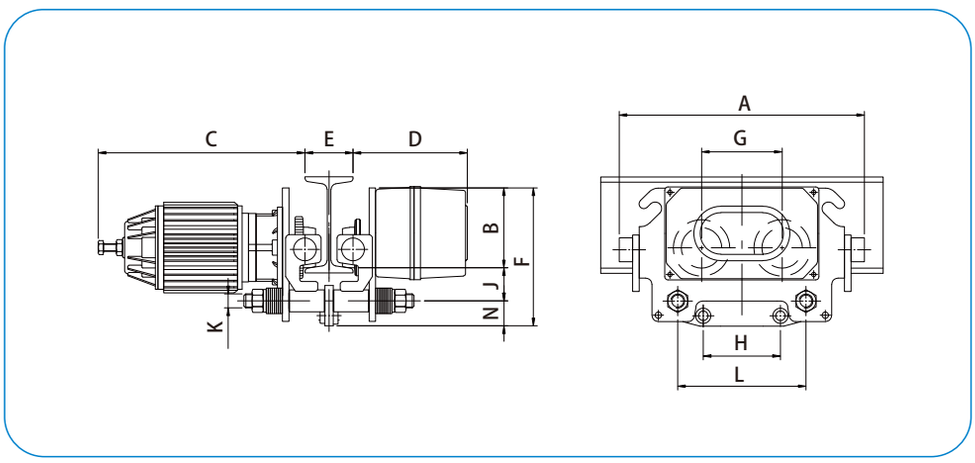
Model	Dimension (mm)						Fall No.
	H	A	B	C	D	E	
NHD-050-1+NTD-050-1	500	385	126	325	180	75~125	1
NHD-100-2+NTD-100-2	550	385	126	325	180	75~125	2
NHD-100-1+NTD-100-1	535	385	126	325	180	75~125	1
NHD-200-2+NTD-200-2	610	395	159	360	185	100~150	2
NHD-200-1+NTD-200-1	975	395	159	360	185	100~150	1
NHD-250-1+NTD-250-1	953	445	185	400	195	125~175	1
NHD-300-2+NTD-300-2	1000	445	185	400	195	125~175	2
NHD-500-2+NTD-500-2	1050	445	185	400	195	125~175	2

■ Load Chain



Diameter d(mm)	Model Reference Being Used	Inner Length p (mm)	Inner Width a (mm)	Outer Width b (mm)	Breaking Load (kn)
Ø6.3	NHD-050-1 NHD-100-2	19.1	7.6	21.4	50
Ø7.1	NHD-100-1 NHD-200-2	20.2	8.4	23.6	63
Ø10.0	NHD-200-1 NHD-300-2	30	12	34	125
Ø11.2	NHD-250-1 NHD-500-2	34	14	38	158

Motorized NT(D) Trolley



Model	Speed (m/mm)		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	125	325	180	75~125	217	126	95.5	200	52	41	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	125	325	180	75~125	217	126	120	200	52	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-100-1	24/6	20/5	0.18/0.04 x 2/8P														
NT-100-2	24	20	0.18 x 2P	385	125	325	180	75~125	217	126	95.5	200	52	41	7/8"~9UNC (Ø22.2)	45	1.3
NTD-100-2	24/6	20/5	0.18/0.04 x 2/8P														
NT-200-2	24	20	0.37 x 2P	395	125	360	185	100~150	221	159	120	230	60	36	1"~8UNC (Ø25.4)	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	221	159	52.5	230	60	36	1"~8UNC (Ø25.4)	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	135	400	195	125~175	285	185	52.5	250	70	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	135	400	195	125~175	285	185	52.5	250	70	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	135	400	195	125~175	285	185	52.5	250	70	58	1 1/2"~6UNC (Ø38.1)	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:300mm.

■ Federation Europeenne De La Manutention

	Cubic mean value Definitions	Average operating time per day in hours							
1 (light)	(k≦0.50) Mechanisms or parts thereof, usually subject to very small loads and in exceptional cases only to maximum loads.	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	>16	
2 (medium)	(0.50<k≦0.63) Mechanisms or parts thereof, usually subject to small loads but rather often to maximum loads.	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	>16
3 (heavy)	(0.63<k≦0.80) Mechanisms or parts thereof, usually subject to medium loads but frequently to maximum loads.	≦0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8	8-16
4 (very heavy)	(0.80<k≦1) Mechanisms or parts thereof, usually subject to maximum or almost to maximum loads.		≦0.12	0.12-0.25	0.25-0.5	0.5-1	1-2	2-4	4-8
Classification of Mechanisms FEM 9.511		1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m

■ ISO/FEM (9.511)

Classification of mechanisms into groups

1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m
M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8

Classification of mechanisms

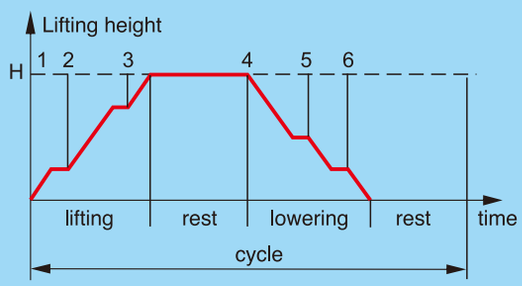
Load spectrum	Cubic mean value	Class of operation time								
		V0.06	V0.12	V0.25	V0.5	V1	V2	V3	V4	V5
		TO	T1	T2	T3	T4	T5	T6	T7	T8
		Average operating time per day in hours								
		≦0.12	≦0.25	≦0.5	≦1	≦2	≦4	≦8	≦16	>16
1 L1	k≦0.50			1 Dm	1 Cm	1 Bm	1 AM	2 m	3 m	4 m
2 L2	0.50<k≦0.63		1 Dm	1 Cm	1 BM	1 Am	2 m	3 m	4 m	5 m
3 L3	0.63<k≦0.80	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	
4 L4	0.80<k≦1.00	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m		

Class of operation time

Class of operation time		Average operating time per day (in hours)	Calculated total operating time in hours
V0.06	T0	≤0.12	200
V0.12	T1	≤0.25	400
V0.25	T2	≤0.5	800
V0.5	T3	≤1	1600
V1	T4	≤2	3200
V2	T5	≤4	6300
V3	T6	≤8	12500
V4	T7	≤16	25000
V5	T8	≤16	50000

■ Operation Cycle

Hoist with one speed



Hoist with two speed