

# ELK<sup>®</sup>

Safe Reliable and Durable



## ELECTRIC WIRE ROPE HOIST

## 1 Highly Reliable Braking System Unique to ELK<sup>®</sup>

- The hoist detects the amount of lining abrasion. The brake is equipped with an automatic adjusting device to apply brake torque in proportion to the amount of lining abrasion.
- The double braking system consists of the main brake and the auxiliary brake unit

## 2 Efficient Maintenance is Possible

- The gear inspection window in the control box allows visual checks of the condition of the gear teeth surface and lubrication to some degree.
- The punch mark on the hook indicates the reference point for the hook inspection of deformation.
- The inspection of the rope end is easy.

### The ELK<sup>®</sup> hoist is composed of a rational system with unitized brake, motor, drum, reduction gear, and auxiliary brake.

- \*Disassembly and assembly are easy.
- \*Maintainability and serviceability are improved.

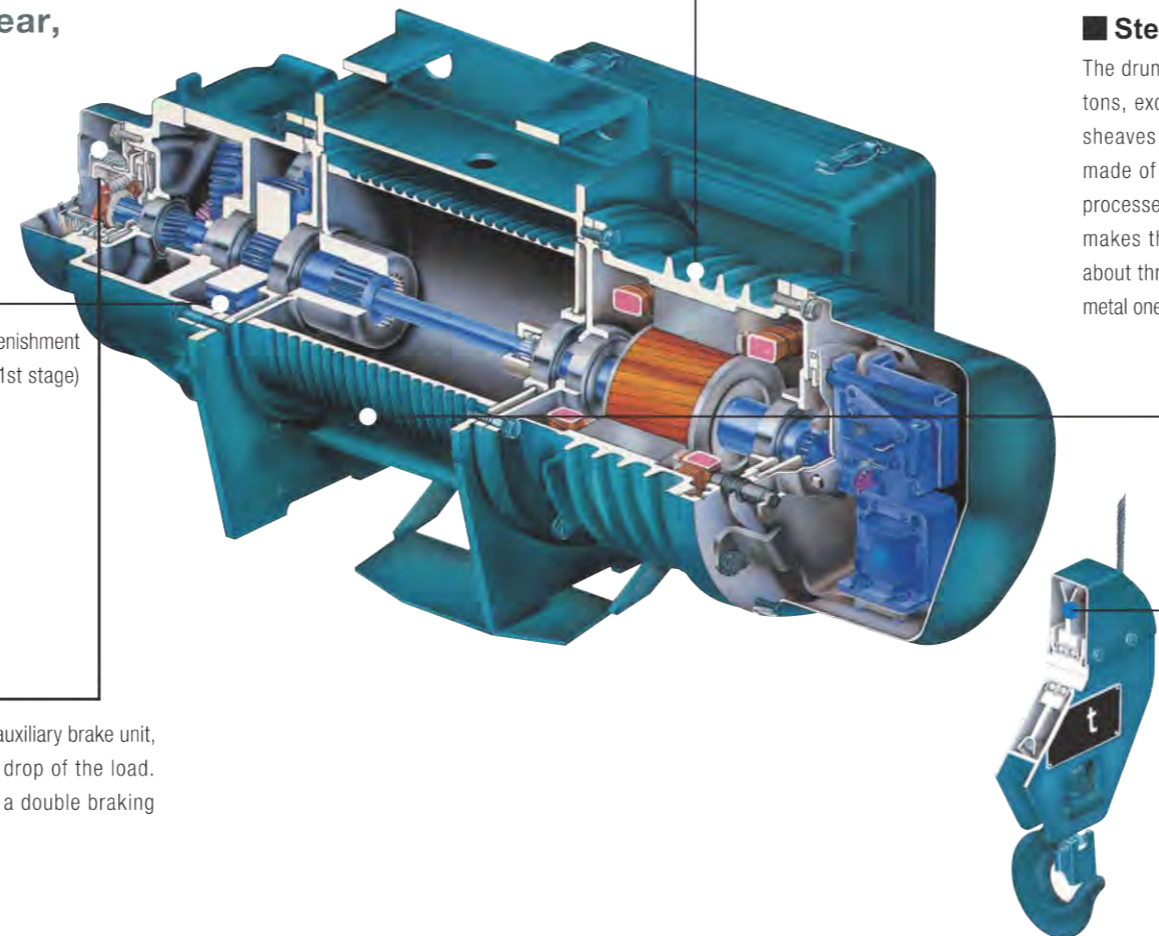
#### ● Reduction gear unit

With a grease lubricating system, grease is filled in the gear unit on shipment, eliminating the replenishment prior to use, and prolonging the operation time. The building blocks of the spur gears (helical 1st stage) facilitate the maintenance inspection.



#### ● Auxiliary brake unit

If the braking force of the main brake is reduced, the auxiliary brake unit, a new system with minimal impact, prevents the drop of the load. Together with the automatic brakes, it composes a double braking mechanism.



#### ● Motor unit

Each hoist is equipped with a motor, which provides optimal starting torque for the hoist. Employing cooling fans and large-capacity ball bearings, the class B insulating motor (class F for 7.5 and 10 tons) can withstand severe operating conditions. The hoisting motor is provided with a thermal protector, which senses the heat of the motor coil and functions to protect the motor from burning damage caused by over-frequent starting times.

#### ● Double-limit switch

When the load block has reached the upper limit, the control circuit of the electromagnetic switch is turned off and the operation is stopped. Should a short-circuit occur, or the main circuit continue to operate due to a reverse phase connection, causing the load block to move further upward, the motor main circuit is cut off.

#### ● Clamp type cover

The clamp type control box cover facilitates opening and closing.

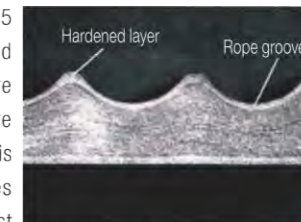
#### ● Brake unit

The brake is equipped with an automatic adjusting device, which automatically adjusts brake torque in proportion to the amount of lining abrasion. Conventional adjustments of the brake will not be required.

Brake Unit with Automatic Adjusting Device

### ■ Steel drum and sheave

The drums (2- and 4-fall models for 2 to 5 tons, except for ultra high lift hoists) and sheaves (except for 7.5 and 10 tons) are made of steel plate, and the grooves are processed by a special press method. This makes the life of the drums and sheaves about three times longer than existing cast metal ones (compared with our products).



Steel plate rolling groove forming method



## HKDS-series 1T – 20T

### Electric Wire Rope Hoist with Single Rail Trolley



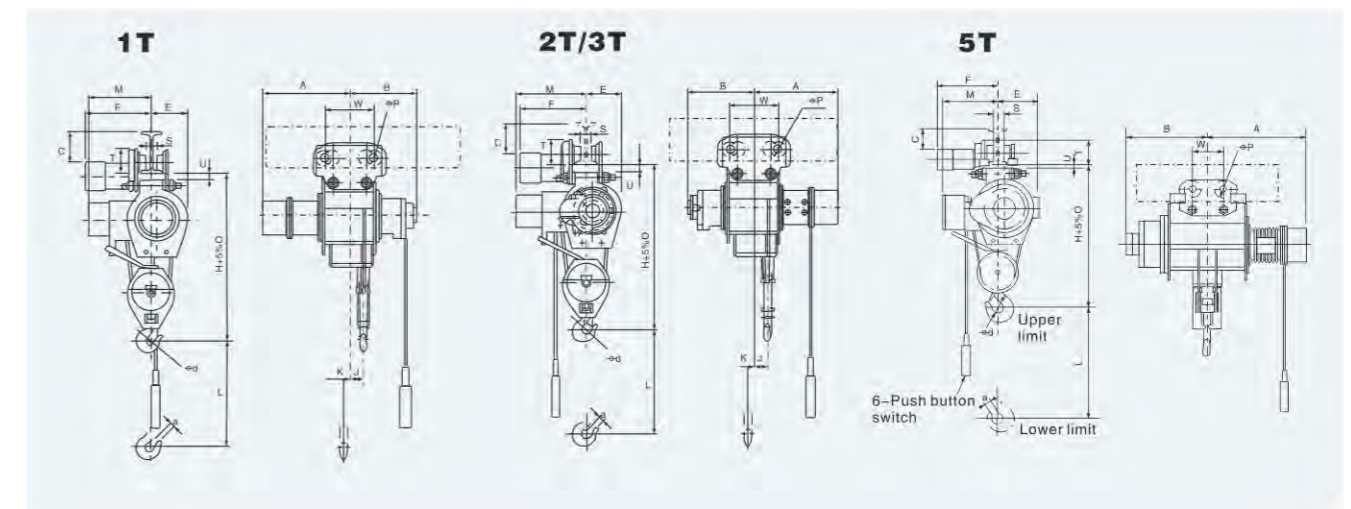
### » Technical Parameters

Model		HKDS0102	HKDS0202	HKDS0302	HKDS0204	HKDS0304	HKDS0504	HKDS07504	HKDS1004	HKDS1504	HKDS2004		
Capacity (t)		1	2	3	2	3	5	7.5	10	15	20		
Lifting height (m)		6   12				9   12							
Hoist	Speed(m/min)	50Hz	11	6 or 8.4	7.5	6 or 8.4	7.5	6.7	6.7	5	2.5	2.5	
		60Hz	13	7 or 10	9	7 or 10	9	8	8	6	3	3	
	Motor Power(Kw)	50Hz	3	3	5.5	3	5.5	7.5	9	11	13	15	
		60Hz	3	3	5.5	3	5.5	7.5	9	11	13	15	
	Rotation Speed	①50Hz:1380 r/min ; ②60Hz :1656 r/min ;											
	Motor	Current	6.44	6.44	12.8	6.44	12.8	15.6	19	22	27.5	30.5	
	Motor	Poles	4	4	4	4	4	4	4	4	4	4	
Single Rail Trolley	Speed(m/min)	50Hz	14/21	14/21	14/21	14/21	14/21	14/21	14/21	14/21	14/21	14/21	
		60Hz	16/25	16/25	16/25	16/25	16/25	16/25	16/25	16/25	16/25	16/25	
	Motor Power(Kw)	50Hz	0.4	0.4	0.4	0.4	0.4	0.75	0.75*2	0.75*2	0.75*2	0.75*2	
		60Hz	0.4	0.4	0.4	0.4	0.4	0.75	0.75*2	0.75*2	0.75*2	0.75*2	
		Rotation Speed	①50Hz:1380 r/min ; ②60Hz :1656 r/min ;										
		Motor	Current	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	
	Motor	Poles	4	4	4	4	4	4	4	4	4		
	Min. Curve Radius(m)	1.5	1.8	2	1.8	2	3	3	Straight Line	Straight Line	Straight Line		
Wire Rope	Rope Fall No.(Pcs.)	1/2	1/2	1/2	2/4	2/4	2/4	2/4	2/4	1/4	1/4		
	Composition	6x(19)+FC	6x(37)+FC	6x(37)+FC	6x(19)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC		
	Dia.(mm)	8	12	14	8	10	12	14	16	18	20		
Voltage/Phase/Frequency		200V--600V/3Phase/50Hz or 60Hz ;Control Voltage:36V/48V/110V;											
Work Class		M4											

Remark : 60Hz/S Speed = 50Hz/S Speed x 1.2

- ☑ Safety Quality is first important concept to be insisted on by our factory ;
- ☑ This hoists are widely applied in Factories, Mining , Railroads, Warehouses and Cargo Lift;
- ☑ All hoist spare parts are highly processed by automatic CNC equipment and inspected carefully by inspector engineers;
- ☑ Lowest repair rate;
- ☑ Quality Warranty for hoist main mechanical body : 2 Years;
- ☑ The hoist structure shape is designed Tightly --Stronger--Good Looking.

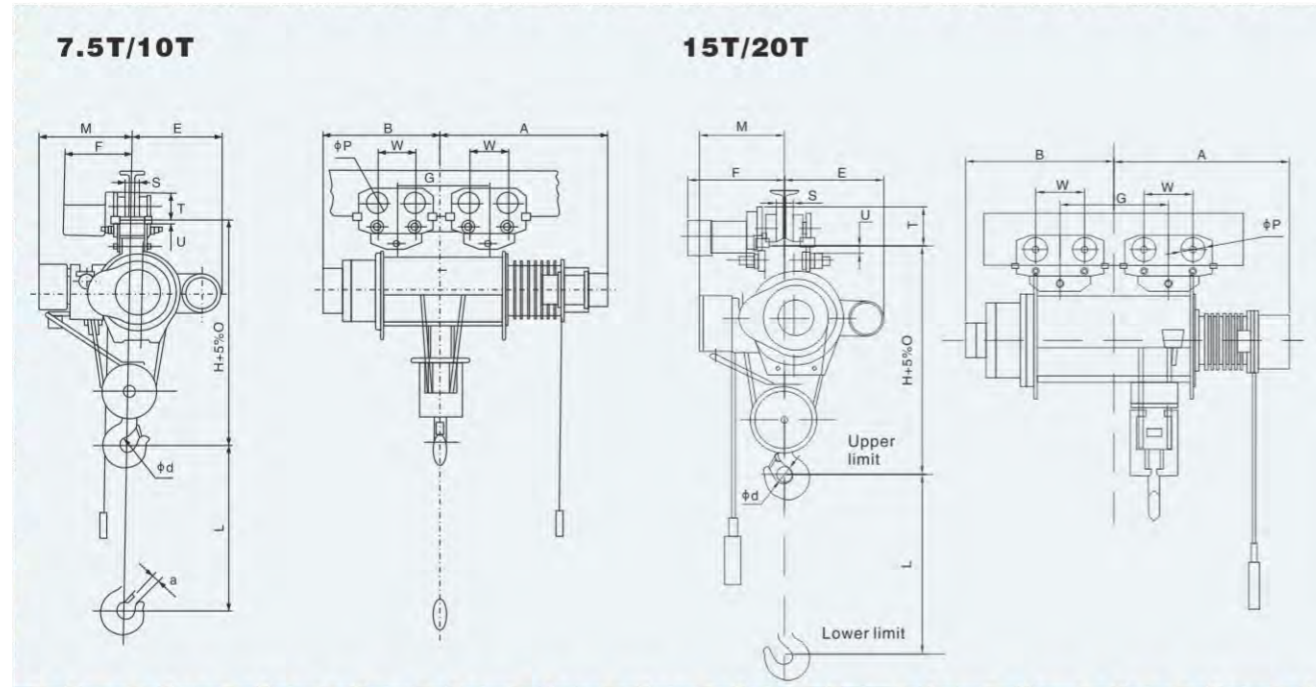
### » Dimensions



### » Size Specification

Model	HKDS0102				HKDS0202				HKDS0302				HKDS0504						
Capacity (t)	1				2				3				5						
Approx. dimensions (mm)	L	6000	12000	6000	12000	6000	12000	9000	12000										
	H	790	790	985	985	1115	1115	1190	1190										
	A	545	715	595	630	645	690	845	955										
	B	350	385	435	615	475	660	690	800										
	M	345	345	415	415	460	460	455	455										
	W	200/290	200/290	200/290	200/290	230/310	230/310	230/310	230/310										
	K	20	90	30	110	35	120	/	/										
	J	85	115	75	100	80	110	/	/										
	φ d	45	45	56	56	71	71	90	90										
	φ P	96	96	96	96	128	128	156/140(DRIVE SIDE/DRIVEN SIDE)											
a	23	23	36	36	42	42	58	58											
Min. curve radius (m)	1.5	1.5	1.8	1.8	2.0	2.0	3.0	3.0											
Dimensions with respect to I-beam	E	F	S	T	U	C	E	F	S	T	U	C	E	F	S	T	U	C	
	200x100x7	255	374	42	148	47/42	135	220	378	42	148	42	135						
	250x125x7.5	255	387	67	151	44/39	185	220	391	67	151	39	185	245	417	52	177	38	180
	300x150x11.5	255	400	92	160	35/30	225	220	404	92	160	30	225	245	430	77	187	28	220
	450x175x11	255	443	102	185	30	225	245	443	102	185	30	225	245	443	102	185	30	225
Approx. weight (Kg)	165				175				250				270					315	
																			340
																			685
																			745

## » Dimensions



## » Size Specification

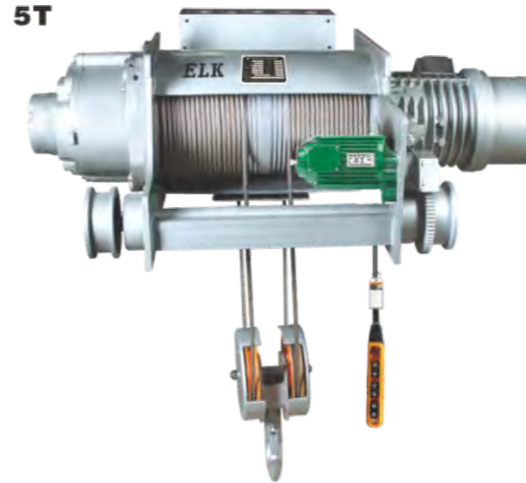
Model	HKDS07504				HKDS1004				HKDS1504				HKDS2004							
Capacity (t)	7.5								10				15				20			
Approx. dimensions (mm)	L	9000		12000		9000		12000		9000		12000		9000		12000				
	H	1110		1110		1515		1515		1515		1515		1515		1515				
	A	895		955		1075		1150		1075		1170		1210		1210				
	B	740		800		885		960		885		980		1035		1035				
	E	315		315		355		355		355		355		355		355				
	G	650		765		590		590		650		836		936		936				
	M	570		570		650		786		590		590		590		590				
	W	230/330(Drive side/Driven side)				230/330(Drive side/Driven side)				250/330(Drive side/Driven side)				250/330(Drive side/Driven side)						
	φd	90		90		100		100		100		100		100		100				
	φP	128		128		156/140(Drive side/Driven side)				190		190		190		190				
a	58		58		69		69		69		69		69		69					
Min. curve radius (m)	Straight								Straight				Straight							
Dimensions with respect to I-beam	S	T	U	F	S	T	U	F	S	T	U	F	S	T	U	F				
300x150x11.5																				
450x175x11	102	184	30	453	102	225	30	460	62	280	30	524								
600x190x13	117	189	25	461	117	230	25	468	77	285	25	532								
Approx. weight (Kg)	900		950		1100		1200		1400		1460		1700							

## HKDD-series 2T – 20T

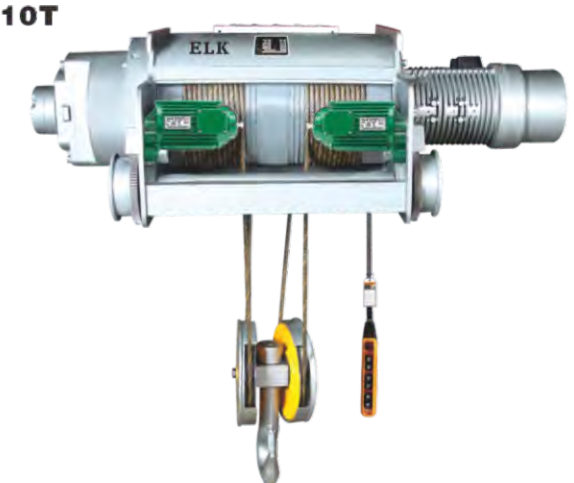
### Electric Wire Rope Hoist with Double Rail Trolley

- ☑ Safety Quality is first important concept to be insisted on by our factory ;
- ☑ This hoists are widely applied in Factories, Mining ,Railroads, Warehouses and Cargo Lift;
- ☑ All hoist spare parts are highly processed by automatic CNC equipment and inspected carefully by inspector engineers;
- ☑ Lowest repair rate;
- ☑ Quality Warranty for hoist main mechanical body : 2 Years;
- ☑ The hoist structure shape is designed Tightly --Stronger--Good Looking.

5T



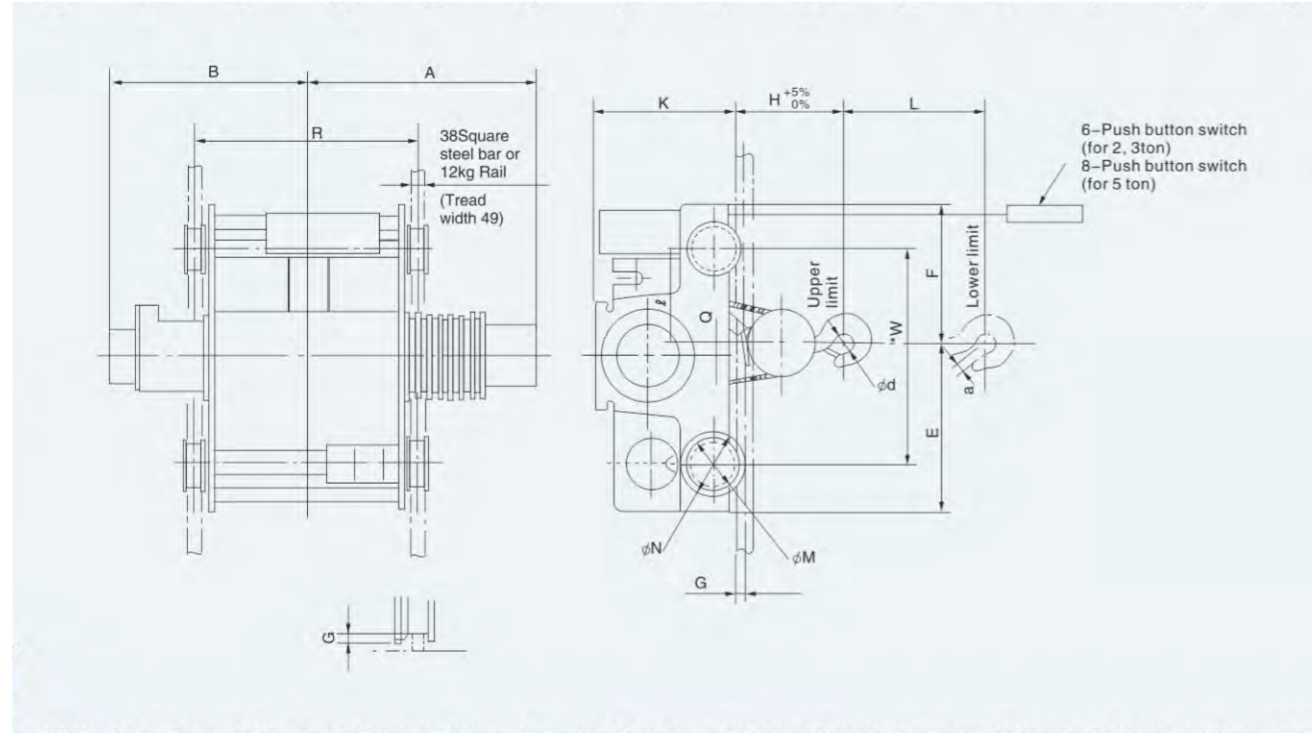
10T



## » Technical Parameters

Model	HKDD0202	HKDD0302	HKDD0204	HKDD0304	HKDD0504	HKDD07504	HKDD1004	HKDD1504	HKDD2004		
Capacity (t)	2	3	2	3	5	7.5	10	15	20		
Lifting height (m)	6   12				9   12						
Hoist	Speed (m/min)	50Hz	6 or 8.4	7.5	6 or 8.4	7.5	6.7	6.7	5	2.5	2.5
		60Hz	7 or 10	9	7 or 10	9	8	8	6	3	3
	Motor Power(Kw)	50Hz	3	5.5	3	5.5	7.5	9	11	13	15
		60Hz	3	5.5	3	5.5	7.5	9	11	13	15
	Rotation Speed	①50Hz:1380 r/min ; ②60Hz :1656 r/min ;									
	Motor	Current	6.44	12.8	6.44	12.8	15.6	19	22	27.5	30.5
Motor	Poles	4	4	4	4	4	4	4	4	4	
Double Rail Trolley	Speed (m/min)	50Hz	14/21	14/21	14/21	14/21	14/21	14/21	14/21	14/21	14/21
		60Hz	16/25	16/25	16/25	16/25	16/25	16/25	16/25	16/25	16/25
	Motor Power(Kw)	50Hz	0.4	0.4	0.4	0.4	0.75	0.75*2	0.75*2	1.1*2	1.1*2
		60Hz	0.4	0.4	0.4	0.4	0.75	0.75*2	0.75*2	1.1*2	1.1*2
	Rotation Speed	①50Hz:1380 r/min ; ②60Hz :1656 r/min ;									
	Motor	Current	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2
Motor	Poles	4	4	4	4	4	4	4	4	4	
Wire Rope	Rope Fall No.(Pcs.)	1/2	1/2	2/4	2/4	2/4	2/4	2/4	1/4	1/4	
	Composition	6x(37)+FC	6x(37)+FC	6x(19)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	6x(37)+FC	
	Dia.(mm)	12	14	8	10	12	14	16	18	20	
Voltage/Phase/Frequency		200V—600V/3Phase/50Hz or 60Hz ;Control Voltage:36V/48V/110V;									
Work Class		M4									

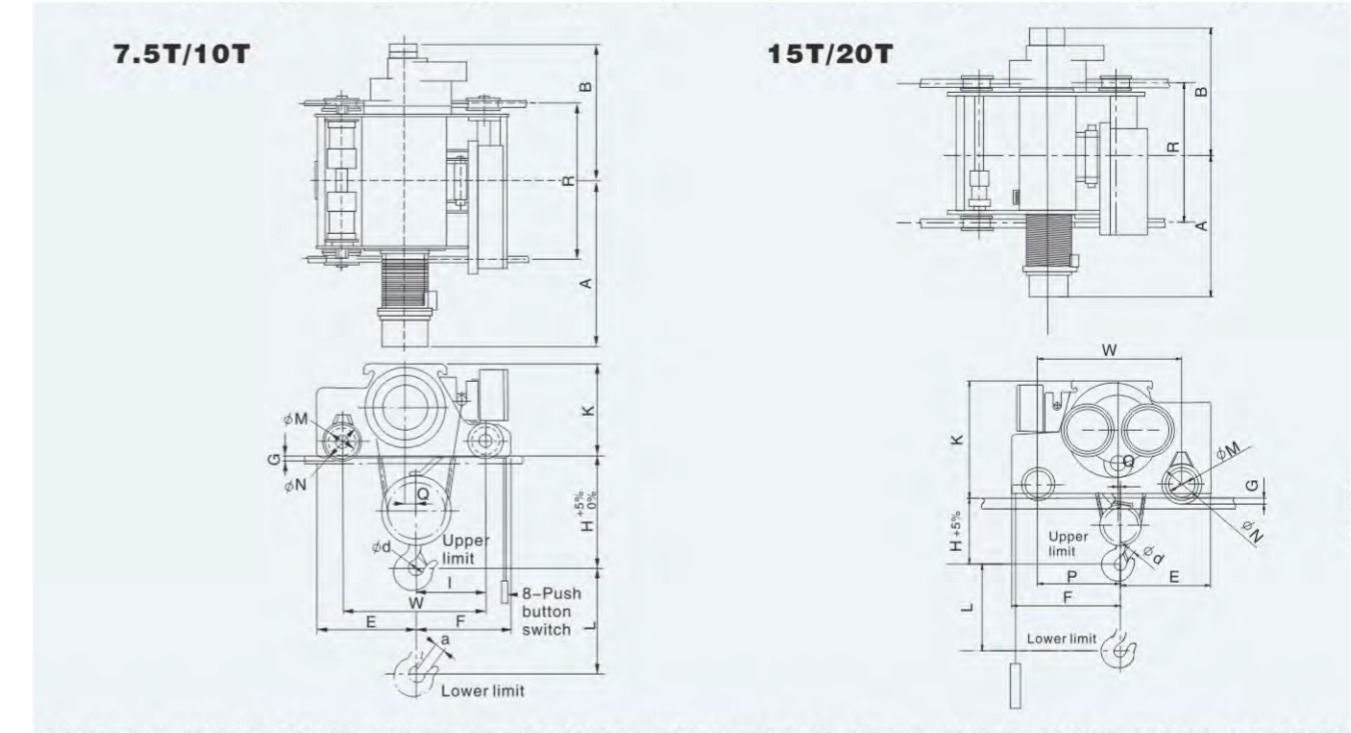
### » Dimensions



### » Size Specification

Model	HKDD0204	HKDD0304		HKDD0504		
Capacity (t)	2	3		5		
Approx. dimensions (mm)	L	12000	6000	12000	9000	12000
	H	310	360	360	560	560
	K	430	480	480	500	500
	R	900	650	950	900	1150
	F	455	430	430	530	530
	E	425	450	450	550	550
	W	650	650	650	850	850
	A	835	755	915	845	955
	B	675	570	730	690	800
	φ d	56	71	71	90	90
	Q	40	51	51	55	55
	φ M	160	160	160	160	160
	φ N	190	190	190	190	190
	G	26	26	26	26	26
	l	350	325	325	425	425
a	36	42	42	58	58	
Approx. weight (Kg)	450	480	550	800	870	

### » Dimensions



### » Size Specification

Model	HKDD07504	HKDD1004		HKDD1504		HKDD2004		
Capacity (t)	7.5	10		15		20		
Approx. dimensions (mm)	L	9000	12000	9000	12000	9000	12000	12000
	H	560	560	680	680	680	680	680
	K	500	500	600	600	600	600	600
	R	1000	1150	1000	1150	1000	1200	1300
	F	530	530	615	615	615	615	620
	E	550	550	650	650	650	650	650
	W	850	850	915	915	915	915	915
	A	895	955	1075	1150	1075	1170	1210
	B	740	800	885	960	885	980	1035
	φ d	90	90	100	100	100	100	100
	Q	55	55	70	70	70	70	70
	φ M	160	160	195	195	195	195	195
	φ N	190	190	225	225	225	225	225
	G	26	26	29	29	29	29	29
	a	58	58	69	69	69	69	69
P	425	425	445	445	445	445	445	
Approx. weight (Kg)	1070	1130	1260	1350	1500	1550	1800	

### Parts Details :

#### 1.Hook :

- Through hot forging;
- Safety-Durable;
- Wire Rope never to be intertwined;



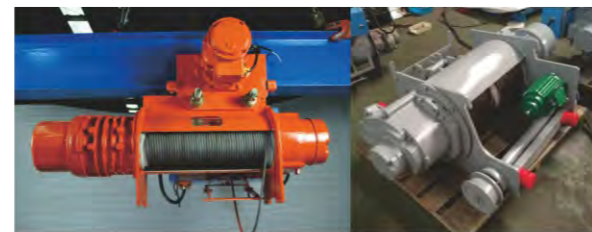
#### 2.Wheel :

- Through hot treating wheel ;
- Longer service life ;



#### 3.Body Structure :

- Tighter & Stronger ;



#### 4.Lifting Motor & Trolley Motor:

- Super quiet voice;
- All motors are self-produced in our own factory;
- Easy heat dissipation ;



#### 5.Electric System:

- High quality electric box ;
- Adopt Schneider Overcurrent Protector;
- Adopt Schneider Contactors;
- Standard aligned wire connection ;
- With up limit switch ;



#### 6.Frequency Converter as option by customer demands :

- Add this frequency converter can produce 2 speeds or variable speeds ;
- Soft starting and soft stopping smoothly ;



#### 7.Hand Push Button Switch :

- IP65 Water Proof, Dust Proof ;
- Comfortable operating ;



#### 8.Overload Limiter as option by customer demands:

- With alarm voice to remind overload work ;
- Show the lifting cargo weight exactly ;
- Stop work immediately when sensing overwork to protect hoist working safely;



#### 9.Main brake system show:



#### 10.Remote Control as option by customer demands:

- Work Distance is within 100m ;



#### 11.Hoist Packing :

