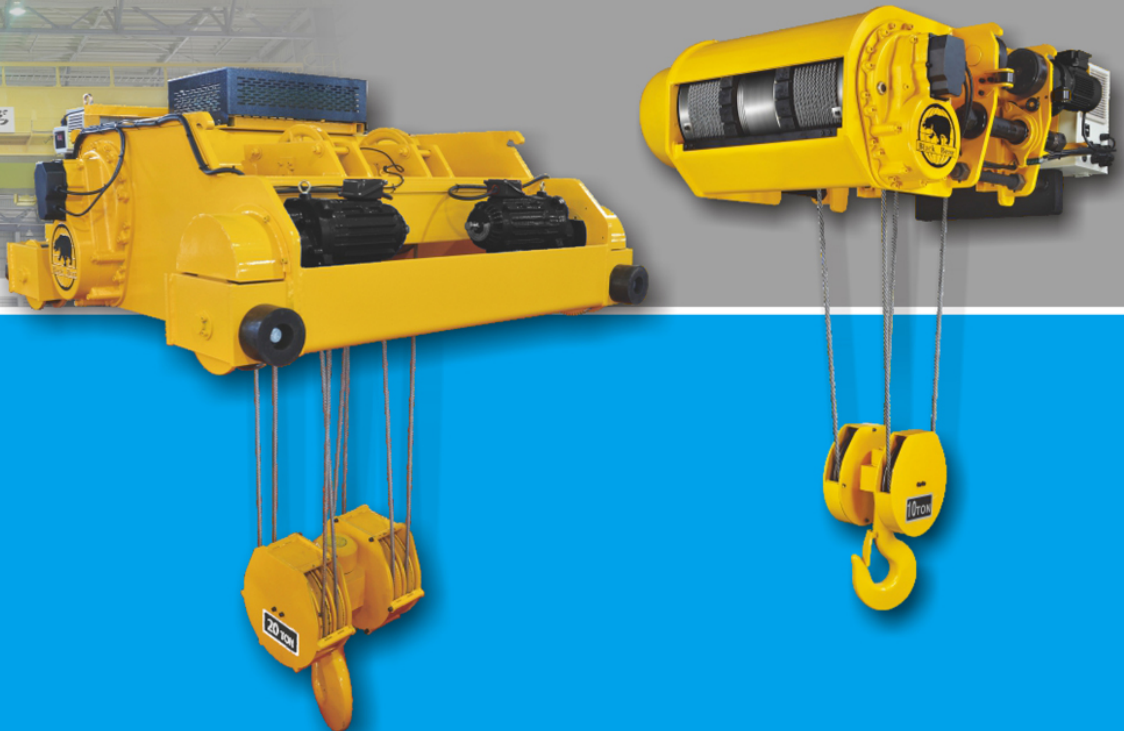


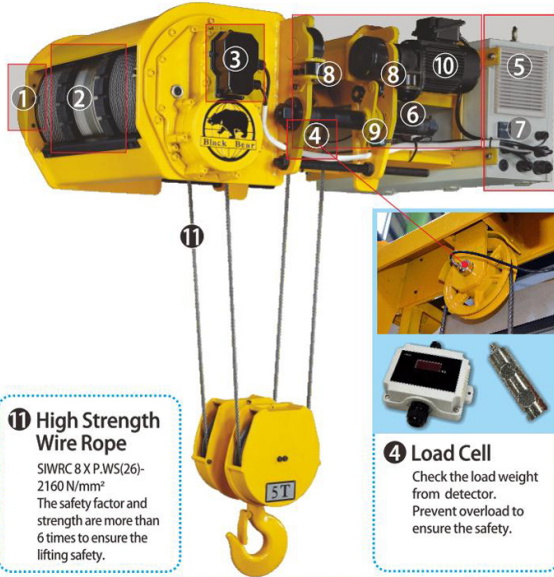


Professional cranes & hoists for lifting



Electric Wire Rope Hoist / PM series

TAIWAN : HOITECH MACHINERY INDUSTRIAL CO., LTD
VIETNAM : QUANG LIEN CRANE ELEVATOR CO., LTD.



① High Strength Wire Rope

SIWRC 8 X P.WS(26)-2160 N/mm²
The safety factor and strength are more than 6 times to ensure the lifting safety.

⑧ Guide wheel

Guide wheel equips on both side of traversing beam to ensure the stability of traversing trolley.

⑨ Balance supporter

Support balance weight of drum side as well as both side balance during the unload traversing.

⑩ Motor

Trolley motor : direct drive. Eliminate the noise while traversing.



④ Load Cell

Check the load weight from detector. Prevent overload to ensure the safety.

⑤ Control Box ⑥ Brake Resistor

- 1). VVVF Lift Drive : Saving 30% of power consumption compares to traditional control.
- 2). Speed adjustment : the ratio of max. speed 1/10. The range of low/high speed can be adjustable. Two-steps switch to select low/high speed.

⑦ Timer

Count the starting times of motor and electrical device for repair and maintenance record.

① Hoisting Motor & DC Brake Assembly

- 1). Permanent magnetic motor design : 1.5 times of starting current. 230% high starting torque. Compared with traditional insulation motor which has 6-8 times starting current, PM motor save energy at least 30~50%.
- 2). Permanent magnetic motor : during the loading operation, temperature rising balance 55°~60°.
- 3). Permanent magnetic motor: motor brake system triggers when motor rotation approach stop which makes brake lining with longer life span compared with traditional motor.
- 4). New (DC) magnetic brake system and motor operate synchronously which makes the brake with stronger brake force.
- 5). Brake force design at 150%, Max. 200%.



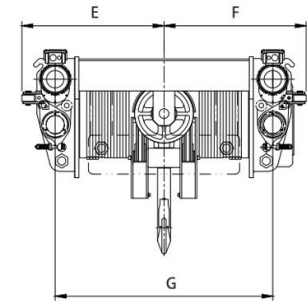
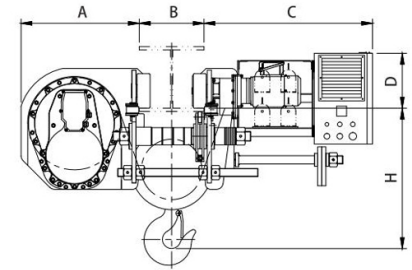
② Rope Guide

- 1). To ensure positive winding of wire rope; Prevent rope overlapping.
- 2). Patents :
Taiwan patent no. M482583
German patent no. Nr. 20 2014 002 972.5
Japan patent no. 3191390
China patent no. ZL 2014 2 0036251.0
United States patent no. US 91814069



③ Planetary Geared Limit Switch Assembly

- 1). Up & down are with auto stop limit switch device. Prevent rope over-roll.
- 2). Able to setup / stop location according to working environment.
- 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



■ Specification

Model	Capacity (ton)	Lift (m)	Hoisting		Traversing		Wire rope	
			Speed (m/min)	Motor kw x pole	Speed (m/min)		Motor kw x pole x set	Wire rope
					60Hz	50Hz		
TEBH-320PM	3.2	9 12	8/0.8	5kw x 8P	20/5	16.5/4	0.18/0.04 x 2/8 x 2	8 2/4
TEBH-500PM	5	9 12	8/0.8	9kw x 8P	20/5	16.5/4	0.37/0.09 x 2/8 x 2	10 2/4
TEBH-630PM	6.3	9 12	7.2/0.7	9kw x 8P	20/5	16.5/4	0.6/0.15 x 2/8 x 2	10 2/4
TECH-800PM	8	9 12	7.2/0.7	13kw x 8P	18/4.5	15/3.7	0.6/0.15 x 2/8 x 2	12.5 2/4
TECH-1000PM	10	9 12	6/0.6	13kw x 8P	18/4.5	15/3.7	0.6/0.15 x 2/8 x 2	12.5 2/4
TECH-1250PM	12.5	9 12	5/0.5	13kw x 8P	18/4.5	15/3.7	0.6/0.15 x 2/8 x 2	14 2/4

Model	Dimensions (mm)								N.W. (kg)
	H	A	B	C	D	E	F	G	
TEBH-320PM	400	471	150~300	701	210	539 589	539 589	780 888	650 670
TEBH-500PM	500	471	150~300	701	225	589 649	589 649	888 1008	705 730
TEBH-630PM	500	471	150~300	780	225	589 649	589 649	888 1008	715 740
TECH-800PM	580	547	200~400	780	265	637 697	637 697	965 1085	1100 1134
TECH-1000PM	580	547	200~400	780	265	637 697	637 697	965 1085	1106 1140
TECH-1250PM	650	547	200~400	780	265	697 767	697 767	1085 1225	1125 1160



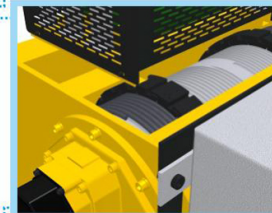
1 Hoisting Motor & DC Brake Assembly

1. Permanent magnetic motor design: 1.5 times of starting current, 230% high starting torque. Compared with traditional insulation motor which has 6-8 times starting current, PM motor save energy at least 30~50%.
2. Permanent magnetic motor: during the loading operation, temperature rising balance 55°~60°.
3. Permanent magnetic motor: motor brake system triggers when motor rotation approach stop which makes brake lining with longer life span compared with traditional motor.
4. New (DC) magnetic brake system and motor operate synchronously which makes the brake with stronger brake force.
5. Brake force design at 150%, Max. 200%.



2 Rope Guide

1. To ensure positive winding of wire rope; Prevent rope overlapping.
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United States patent no. US 91814069



7 High Strength Wire Rope

SIWRC 8 X P.WS(26)-2160 N/mm²
The safety factor and strength are more than 6 times to ensure the lifting safety.

6 Load Cell

Check the load weight from detector.
Prevent overload to ensure the safety.



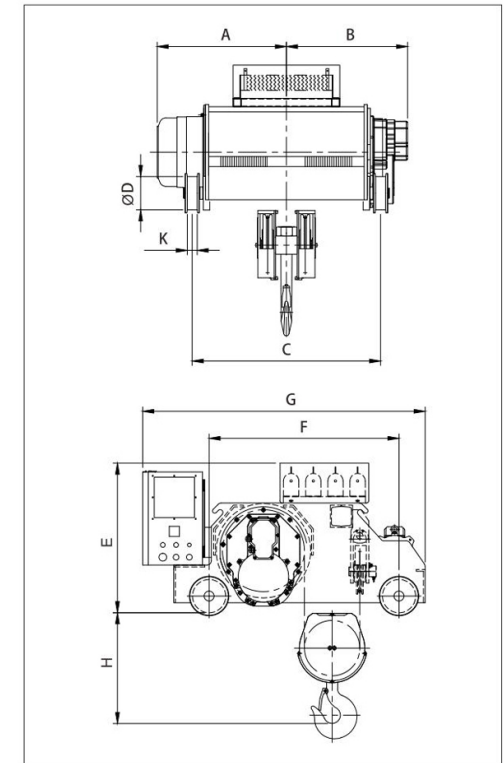
4 Control Box

1. VVVF Lift Drive : Saving 30% of power consumption compares to traditional control.
2. Speed adjustment : the ratio of max. speed 1/10. The range of low/high speed can be adjustable. Two-steps switch to select low/high speed.

5 Brake Resistor

3 Planetary Geared Limit Switch Assembly

1. Up & down are with auto stop limit switch device. Prevent rope over-roll.
2. Able to setup / stop location according to working environment.
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



Specification

Model	Capacity (ton)	Lift (m)	Hoisting		Traversing		Wire rope	
			Speed (m/min)	Motor kw x pole	Speed (m/min) 60Hz 50Hz	Motor kw x pole x set	Ømm	R/F
SEBH-320PM	3.2	9 12	8/0.8	5kw x 8P	21/7 18/6	0.4/0.13x4/12x1	8	2/4
SEBH-500PM	5	9 12	8/0.8	9kw x 8P	21/7 18/6	0.75/0.25x4/12x1	10	2/4
SEBH-630PM	6.3	9 12	7.2/0.7	9kw x 8P	21/7 18/6	0.75/0.25x4/12x1	10	2/4
SECH-800PM	8	9 12	7.2/0.7	13kw x 8P	17/6 14/5	1.1/0.37x4/12x1	12.5	2/4
SECH-1000PM	10	9 12	6/0.6	13kw x 8P	17/6 14/5	1.1/0.37x4/12x1	12.5	2/4
SECH-1250PM	12.5	9 12	5/0.5	13kw x 8P	17/6 14/5	1.1/0.37x4/12x1	14	2/4
SECJ-1600PM	16	8 10 12	3.6/0.4	13kw x 8P	18/6 15/5	0.75/0.25x4/12x2	12.5	2/8
SECJ-2000PM	20	8 10 12	3/0.3	13kw x 8P	18/6 15/5	0.75/0.25x4/12x2	12.5	2/8

Model	Dimensions (mm)									N.W. (kg)
	H	A	B	C	D	E	F	G	K	
SEBH-320PM	400	530 583	494 547	850 850	150	675	857	1275	45	700 720
SEBH-500PM	500	583 643	547 607	850 1000	150	675	857	1275	45	730 760
SEBH-630PM	500	583 643	547 607	850 1000	150	675	857	1275	45	730 760
SECH-800PM	600	644 704	598 658	1000 1150	180	760	1020	1460	60	1190 1230
SECH-1000PM	600	644 704	598 658	1000 1150	180	760	1020	1460	60	1190 1230
SECH-1250PM	650	704 774	658 728	1150 1300	180	760	1020	1460	60	1250 1300
SECJ-1600PM	700	884 984 1084	838 938 1083	1400 1600 1800	215	785	1235	1697	60	1750 1835 1920
SECJ-2000PM	700	884 984 1084	838 938 1038	1400 1600 1800	215	785	1235	1697	60	1750 1835 1920

Multipurpose and Multifunction

Function of VVVF Lift Drive Use in Hoisting Control

1. Permanent Magnetic Motor:

1.5 times of starting current. 230% high starting torque.
Compared with traditional squirrel cage motor which has 6-8 times starting current, PM motor VVVF Lift Drive, save energy at least 30~50%. Very limited temperature rising, stable.
Motor brake system triggers when motor rotation approach stop which makes brake lining with longer life span. Speed adjustment, the ratio of max. speed 1/10. The range of low/high speed can be adjustable. Two-steps switch to select low/high speed. Soft start / stop function can reduce swaying of the lifting objects.

2. Rope Guide:

adjustable type, fit different drums' size. Patents applied.

3. Planetary Geared Limit Switch Assembly:

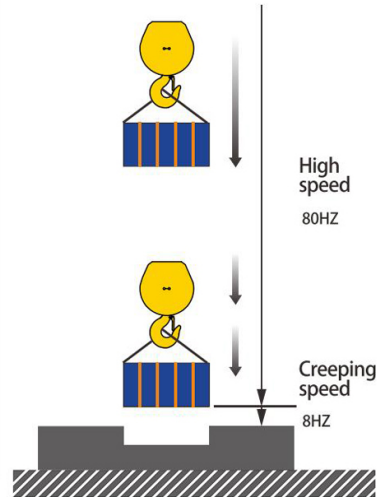
3 steps or 4 steps setting. Patents applied.

4. High Strength:

more than 6 times factor of safety

5. With Inverter

6. Low headroom shape designed, compact.



Product Code

Model	Gear Box	Reeving/Falling	Capacity	Permanent Magnetic Motor
T: Monorail Trolley S: Saddle Trolley	EB: 5kw ~9kw EC: 11kw~13kw	H: 2/4 J:2/8	320:3.2ton 500: 5ton 630: 6.3ton 800: 8ton 1000: 10ton 1250: 12.5ton 1600: 16ton 2000: 20ton	

Federation Europeenne De La Manutention

Cubic mean value Definitions		Average operating time per day in hours							
1 (light)	($k \leq 0.50$) 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)	($0.50 < k \leq 0.63$) 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)	($0.63 < k \leq 0.80$) 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)	($0.80 < k \leq 1$) 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

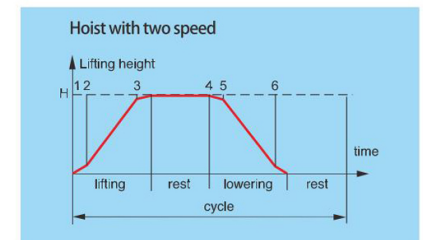
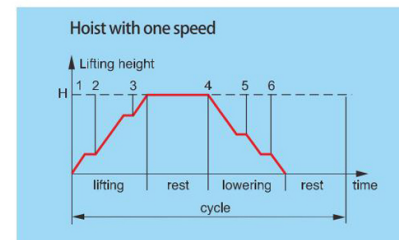
Class of operation time

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

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	
		T0	T1	T2	T3	T4	T5	T6	T7	T8	
		Average operating time per day in hours									
1 L1	$k \leq 0.50$										
2 L2	$0.50 < k \leq 0.63$		1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	
3 L3	$0.63 < k \leq 0.80$	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m		
4 L4	$0.80 < k \leq 1.00$	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m			

Operation Cycle



Professional cranes & hoists for lifting



Taiwan Black Bear Factory



QUANG LIEN Factory



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