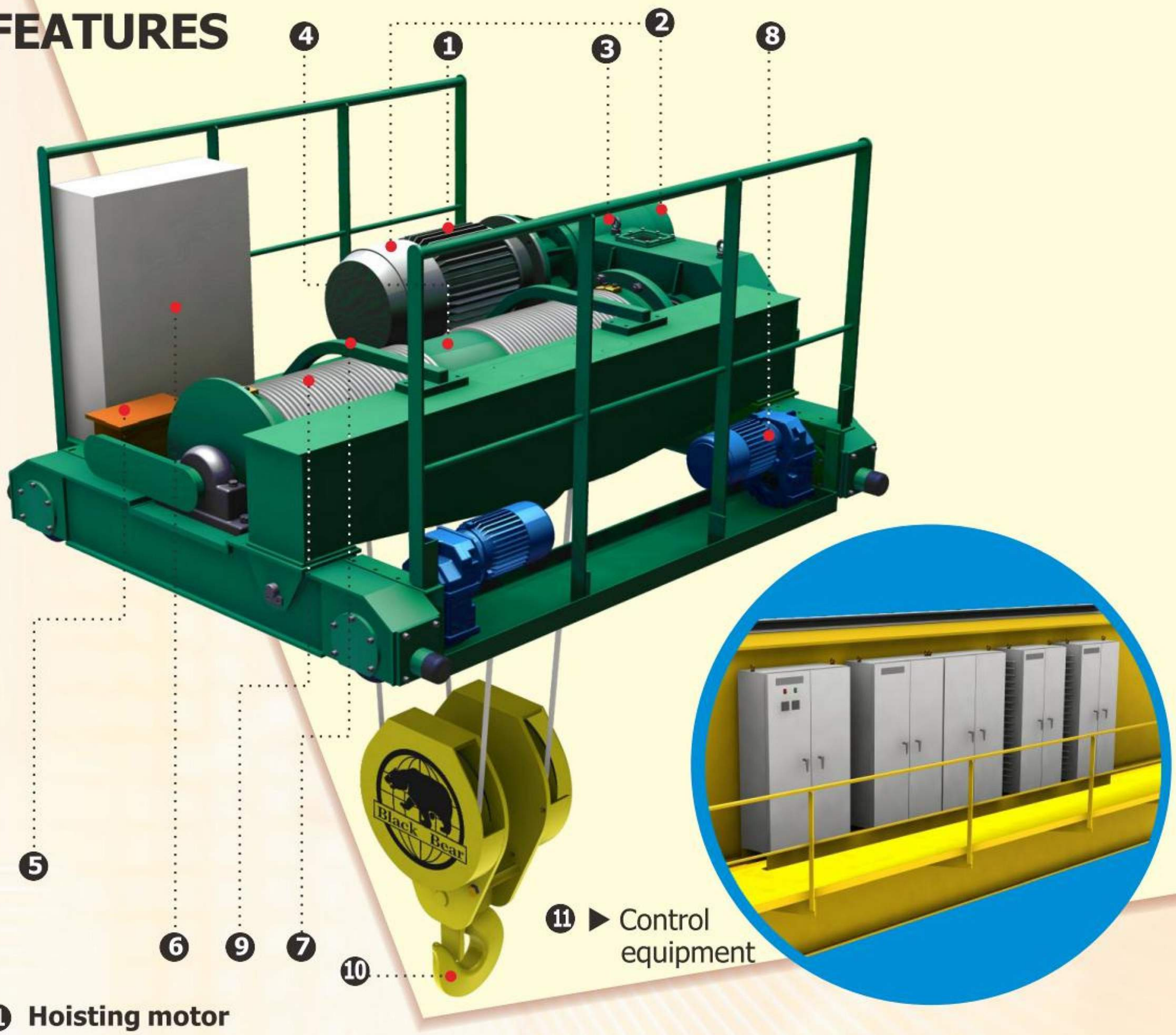
ECONOMY WIRE ROPE CRAB

TAIWAN : HOITECH MACHINERY INDUSTRIAL CO., LTD

VIETNAM : QUANG LIEN CRANE ELEVATOR CO., LTD.

FEATURES



❶ Hoisting motor

Highly efficiently squirrel cage motors which especially designed for hoist are applied and comply with IEC specification with insulation F degree and start torque over 200%.

❷ Electromagnetic disc type dual DC brake

Use electromagnetic disc type brake of Lenze, the biggest supplier in Germany, to perform the brake torque over 250% with durable wear-resisting, long life, rapid reaction, low noise and convenient for maintenance.

❸ Gear box

Apply alloy steel as base materials of gears with hardness higher than HRC 50 degree and oil bath lubrication of gears for long lifespan.

❹ Drum

Apply qualified high-strength steel.

❺ Screw type up/down limit switch

Apply principle of screw rotation to set up/ down limit and terminal limit to avoid crab damage for wrong direction.

❻ Junction box

Only junction box left on the crab.

❼ Anti- loose device

Prevent wire rope loose and out of grooves.

❽ Transmission of traversing

a)Soft Start / Stop Reduction Gear Motor:
Utilize of flywheel inertia, the motor works very smoothly when it starts and stops.

b)Hollow shaft gear reducer motor:
Integrated motor, brake and gear box for easy fabrication and maintenance.

❾ Wire rope

Safety factor complies with FEM requirements. Dual rope designs for bottom hook stable and easy hanging.

❿ Bottom hook set

Hooks are made by forged steel with proper diameter of reeving wheel to ensure life span of wire rope.

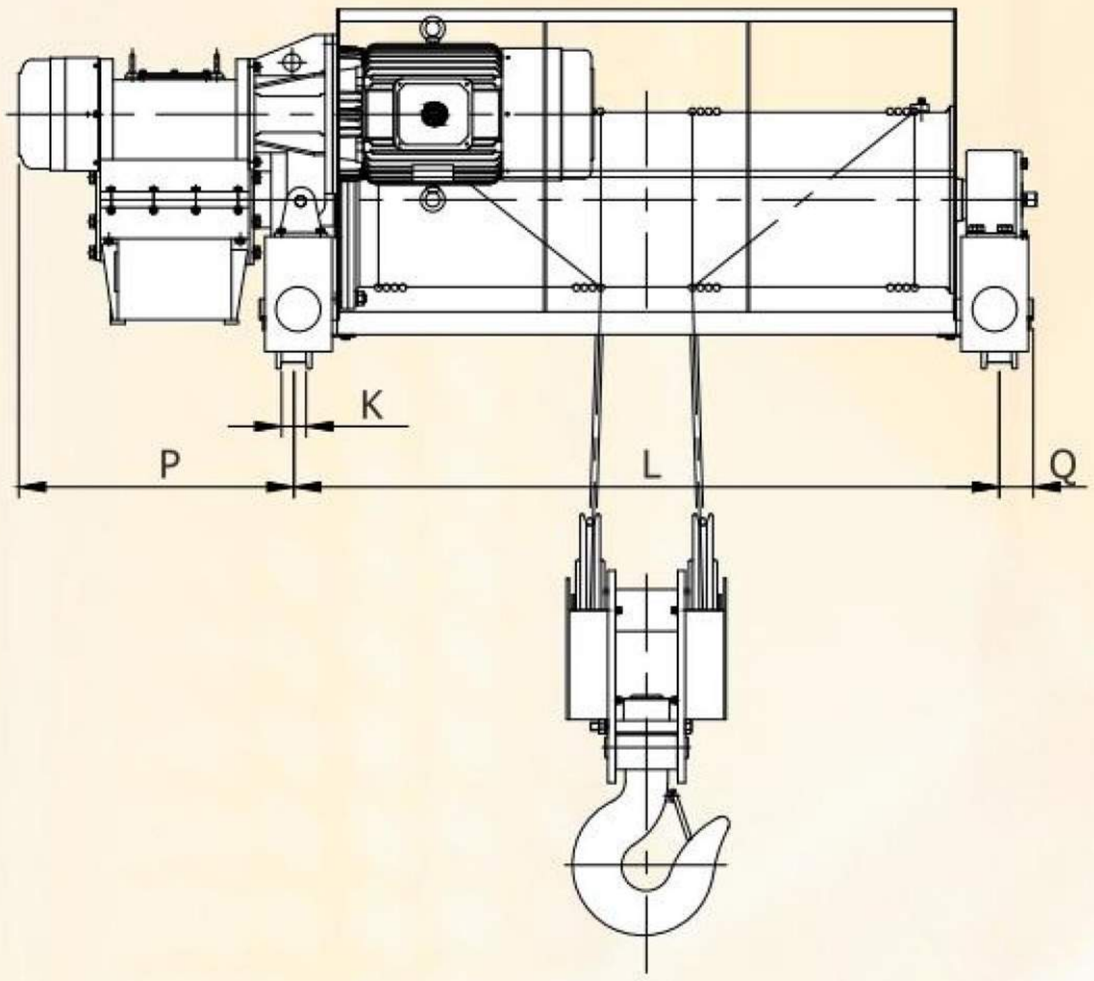
⓫ Control equipment

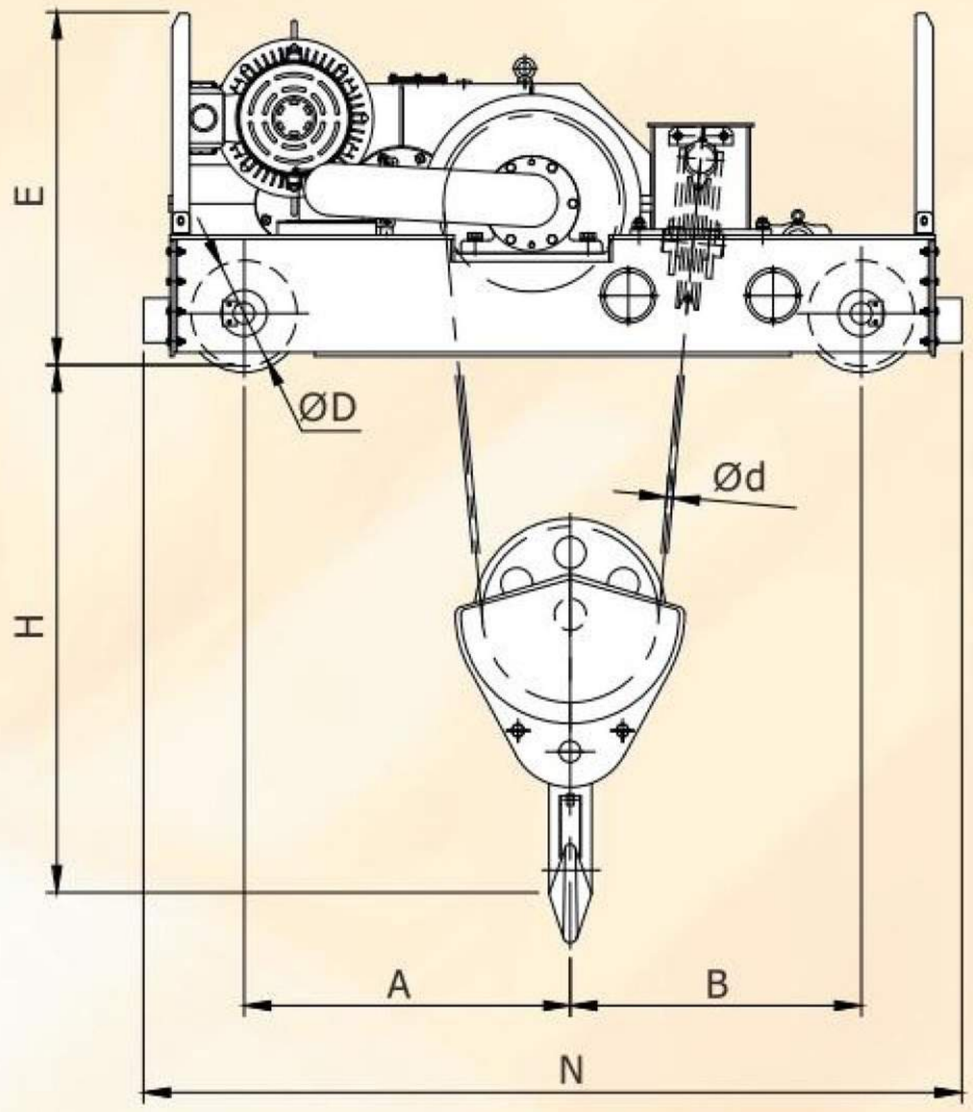
Control panel sets on the walkway.

⓬ Anti-sway (Optional function)

Anti-sway for traversing and travelling corrects swing motion during operation.

SPECIFICATION





※ Power frequency : 50Hz
※ Motor pole : 4P

Type	Gear box	fall no. (P)	Capacity (ton)	Operation grade			Trolley gauge L (mm)								Wire rope Ød	Speed (m/min) / Motor (kw)				
				FEM	ISO	ED%	2000	2200	2400	2600	2800	3100	3300	3500	(mm)					
EWC	E	4	15	2m	M5	40	Lift (m)								Ø18	8.0/30	9.6/37	12.5/45	15/55	20/75
		4	12	3m	M6	50	21	25	28	32	35	41	44	48		8.0/22	9.6/30	12.5/37	15/45	20/55
		4	9	4m	M7	60	Trolley weight (ton)									8.0/18.5	9.6/22	12.5/30	15/37	20/45
		4	7	5m	M8	60	3.1	3.2	3.4	3.5	3.7	3.9	4.0	4.2		8.0/15	9.6/18.5	12.5/22	15/30	20/37
		8	30	2m	M5	40	Lift (m)								Ø18	4.0/30	4.9/37	6.3/45	7.3/55	9.6/75
		8	24	3m	M6	50	11	12.5	14.5	16	18	20.5	22	24		4.0/22	4.9/30	6.3/37	7.3/45	9.6/55
		8	18	4m	M7	60	Trolley weight (ton)									4.0/18.5	4.9/22	6.3/30	7.3/37	9.6/45
		8	14	5m	M8	60	3.8	4.9	4.1	4.3	4.5	4.7	4.9	5.1		4.0/15	4.9/18.5	6.3/22	7.3/30	9.6/37
		12	45	2m	M5	40	Lift (m)								Ø18	2.5/30	2.9/37	3.7/45	4.7/55	6.0/75
		12	36	3m	M6	50	8.5	9.5	11	12.5	13.5	15.5	17	18		2.5/22	2.9/30	3.7/37	4.7/45	6.0/55
		12	27	4m	M7	60	Trolley weight (ton)									2.5/18.5	2.9/22	3.7/30	4.7/37	6.0/45
		12	21	5m	M8	60	4.6	4.8	5.0	5.2	5.4	5.7	6.1	6.3		2.5/15	2.9/18.5	3.7/22	4.7/30	6.0/37
	F	4	20	2m	M5	40	Lift (m)								Ø20	6.0/30	7.3/37	9.2/45	10.8/55	14.6/75
		4	16	3m	M6	50	19	23	27	30	34	39	43	46		6.0/22	7.3/30	9.2/37	10.8/45	14.6/55
		4	13	4m	M7	60	Trolley weight (ton)									6.0/18.5	7.3/22	9.2/30	10.8/37	14.6/45
		4	10	5m	M8	60	4.2	4.3	4.5	4.6	4.8	5.0	5.2	5.4		6.0/15	7.3/18.5	9.2/22	10.8/30	14.6/37
		8	40	2m	M5	40	Lift (m)								Ø20	3.0/30	3.7/37	4.6/45	5.3/55	7.3/75
		8	32	3m	M6	50	10	12	13.5	15.5	17	20	21.5	23.5		3.0/22	3.7/30	4.6/37	5.3/45	7.3/55
		8	26	4m	M7	60	Trolley weight (ton)									3.0/18.5	3.7/22	4.6/30	5.3/37	7.3/45
		8	20	5m	M8	60	5.1	5.3	5.4	5.6	5.8	6.2	6.4	6.7		3.0/15	3.7/18.5	4.6/22	5.3/30	7.3/37
		12	60	2m	M5	40	Lift (m)								Ø20	1.9/30	2.3/37	2.8/45	3.4/55	4.7/75
		12	48	3m	M6	50	8.0	9.5	10.5	12	13.5	15.5	16.5	18		1.9/22	2.3/30	2.8/37	3.4/45	4.7/55
		12	39	4m	M7	60	Trolley weight (ton)									1.9/18.5	2.3/22	2.8/30	3.4/37	4.7/45
		12	30	5m	M8	60	6.2	6.4	6.6	6.8	7.2	7.7	7.9	8.3		1.9/15	2.3/18.5	2.8/22	3.4/30	4.7/37
	G	8	50	2m	M5	40	Lift (m)								Ø22.4	3.6/45	4.5/55	6.0/75	7.3/90	9.0/110
		8	40	3m	M6	50	10	12	13.5	15.5	17.5	20	22	24		3.6/37	4.5/45	6.0/55	7.3/75	9.0/90
		8	30	4m	M7	60	Trolley weight (ton)									3.6/30	4.5/37	6.0/45	7.3/55	9.0/75
		8	25	5m	M8	60	7.2	7.4	7.6	8.0	8.3	8.7	9.1	9.4		3.6/22	4.5/30	6.0/37	7.3/45	9.0/55
		12	75	2m	M5	40	Lift (m)								Ø22.4	2.4/45	3.0/55	4.0/75	4.8/90	6.0/110
		12	60	3m	M6	50	7.0	8.5	10	11	12.5	14.5	15.5	17		2.4/37	3.0/45	4.0/55	4.8/75	6.0/90
		12	45	4m	M7	60	Trolley weight (ton)									2.4/30	3.0/37	4.0/45	4.8/55	6.0/75
		12	35	5m	M8	60	8.2	8.5	8.9	9.3	9.6	10.2	10.7	11.1		2.4/22	3.0/30	4.0/37	4.8/45	6.0/55
		16	100	2m	M5	40	Lift (m)								Ø22.4	1.8/45	2.3/55	2.8/75	3.7/90	4.5/110
		16	80	3m	M6	50	6.5	7.5	9.0	10	11	13	14	15		1.8/37	2.3/45	2.8/55	3.7/75	4.5/90
		16	60	4m	M7	60	Trolley weight (ton)									1.8/30	2.3/37	2.8/45	3.7/55	4.5/75
		16	50	5m	M8	60	9.7	10	10.4	10.7	11.2	12	12.7	13.1		1.8/22	2.3/30	2.8/37	3.7/45	4.5/55

Product code :

EWC	—	E	—	H	—	15	—	21
Type		Gear box		Reeving/Falling		S.W.L.		Lift
Economy Wire Rope Crab		E, F, G		H:2/4 J:2/8 R:2/12 T:2/16		15ton		21m

Type	Gear box	fall no. (P)	Capacity (ton)	Traversing Speed (m/min) 50Hz	60Hz	Motor kw X 2pcs	Dimensions (mm) H	A	B	ØD	E	K	N	P	Q
EWC	E	4	15	18.3	22	0.75kw 4P	1300	860	760	250	974	63	2170	700	102
		8	30	18.3	22	1.1kw 4P	1700	875	875	300	1152	70	2320	700	102
		12	45	18.3	22	1.5kw 4P	2000	825	825	400	1170	80	2320	720	125
	F	4	20	18.3	22	1.1kw 4P	1400	925	825	300	1101	63	2320	780	102
		8	40	18.3	22	1.5kw 4P	1800	825	825	400	1224	80	2320	793	125
		12	60	18.3	22	2.2kw 4P	2200	645	825	500	1344	80	2350	807	140
	G	8	50	18.3	22	2.2kw 4P	2200	810	660	500	1401	80	2350	936	145
		12	75	18.3	22	3.0kw 4P	2600	700	720	600	1507	80	2350	936	145
		16	100	16.7	20	3.75kw 6P	2800	660	880	500	1501	125	2350	981	205

※ Power frequency : 60Hz
※ Motor pole : 4P

Type	Gear box	fall no. (P)	Capacity (ton)	Operation grade FEM	ISO	ED%	Trolley gauge L (mm) 2000	2200	2400	2600	2800	3100	3300	3500	Wire rope Ød (mm)	Speed (m/min) / Motor (kw)				
EWC	E	4	15	2m	M5	40	Lift (m)								Ø18	9.6/30	11.5/37	15/45	18/55	24/75
		4	12	3m	M6	50	21	25	28	32	35	41	44	48		9.6/22	11.5/30	15/37	18/45	24/55
		4	9	4m	M7	60	Trolley weight (ton)									9.6/18.5	11.5/22	15/30	18/37	24/45
		4	7	5m	M8	60	3.1	3.2	3.4	3.5	3.7	3.9	4.0	4.2		9.6/15	11.5/18.5	15/22	18/30	24/37
		8	30	2m	M5	40	Lift (m)								Ø18	4.8/30	5.9/37	7.5/45	8.8/55	11.5/75
		8	24	3m	M6	50	11	12.5	14.5	16	18	20.5	22	24		4.8/22	5.9/30	7.5/37	8.8/45	11.5/55
		8	18	4m	M7	60	Trolley weight (ton)									4.8/18.5	5.9/22	7.5/30	8.8/37	11.5/45
		8	14	5m	M8	60	3.8	4.9	4.1	4.3	4.5	4.7	4.9	5.1		4.8/15	5.9/18.5	7.5/22	8.8/30	11.5/37
		12	45	2m	M5	40	Lift (m)								Ø18	3.0/30	3.5/37	4.4/45	5.6/55	7.2/75
		12	36	3m	M6	50	8.5	9.5	11	12.5	13.5	15.5	17	18		3.0/22	3.5/30	4.4/37	5.6/45	7.2/55
		12	27	4m	M7	60	Trolley weight (ton)									3.0/8.5	3.5/22	4.4/30	5.6/37	7.2/45
		12	21	5m	M8	60	4.6	4.8	5.0	5.2	5.4	5.7	6.1	6.3		3.0/15	3.5/18.5	4.4/22	5.6/30	7.2/37
	F	4	20	2m	M5	40	Lift (m)								Ø20	7.2/30	8.7/37	11/45	12.9/55	17.5/75
		4	16	3m	M6	50	19	23	27	30	34	39	43	46		7.2/22	8.7/30	11/37	12.9/45	17.5/55
		4	13	4m	M7	60	Trolley weight (ton)									7.2/18.5	8.7/22	11/30	12.9/37	17.5/45
		4	10	5m	M8	60	4.2	4.3	4.5	4.6	4.8	5.0	5.2	5.4		7.2/15	8.7/18.5	11/22	12.9/30	17.5/37
		8	40	2m	M5	40	Lift (m)								Ø20	3.6/30	4.4/37	5.5/45	6.4/55	8.7/75
		8	32	3m	M6	50	10	12	13.5	15.5	17	20	21.5	23.5		3.6/22	4.4/30	5.5/37	6.4/45	8.7/55
		8	26	4m	M7	60	Trolley weight (ton)									3.6/18.5	4.4/22	5.5/30	6.4/37	8.7/45
		8	20	5m	M8	60	5.1	5.3	5.4	5.6	5.8	6.2	6.4	6.7		3.6/15	4.4/18.5	5.5/22	6.4/30	8.7/37
		12	60	2m	M5	40	Lift (m)								Ø20	2.3/30	2.7/37	3.3/45	4.1/55	5.6/75
		12	48	3m	M6	50	8.0	9.5	10.5	12	13.5	15.5	16.5	18		2.3/22	2.7/30	3.3/37	4.1/45	5.6/55
		12	39	4m	M7	60	Trolley weight (ton)									2.3/18.5	2.7/22	3.3/30	4.1/37	5.6/45
		12	30	5m	M8	60	6.2	6.4	6.6	6.8	7.2	7.7	7.9	8.3		2.315	2.7/18.5	3.3/22	4.1/30	5.6/37
	G	8	50	2m	M5	40	Lift (m)								Ø22.4	4.3/45	5.4/55	7.2/75	8.7/90	10.8/110
		8	40	3m	M6	50	10	12	13.5	15.5	17.5	20	22	24		4.3/37	5.4/45	7.2/55	8.7/75	10.8/90
		8	30	4m	M7	60	Trolley weight (ton)									4.3/30	5.4/37	7.2/45	8.7/55	10.8/75
		8	25	5m	M8	60	7.2	7.4	7.6	8.0	8.3	8.7	9.1	9.4		4.3/22	5.4/30	7.2/37	8.7/45	10.8/55
		12	75	2m	M5	40	Lift (m)								Ø22.4	2.9/45	3.6/55	4.8/75	5.8/90	7.2/110
		12	60	3m	M6	50	7.0	8.5	10	11	12.5	14.5	15.5	17		2.9/37	3.6/45	4.8/55	5.8/75	7.2/90
		12	45	4m	M7	60	Trolley weight (ton)									2.9/30	3.6/37	4.8/45	5.8/55	7.2/75
		12	35	5m	M8	60	8.2	8.5	8.9	9.3	9.6	10.2	10.7	11.1		2.9/22	3.0/30	4.8/37	5.8/45	7.2/55
		16	100	2m	M5	40	Lift (m)								Ø22.4	2.2/45	2.7/55	3.3/75	4.4/90	5.4/110
		16	80	3m	M6	50	6.5	7.5	9.0	10	11	13	14	15		2.2/37	2.7/45	3.3/55	4.4/75	5.4/90
		16	60	4m	M7	60	Trolley weight (ton)									2.2/30	2.7/37	3.3/45	4.4/55	5.4/75
		16	50	5m	M8	60	9.7	10	10.4	10.7	11.2	12	12.7	13.1		2.2/22	2.7/30	3.3/37	4.4/45	5.4/55

FEDERATION EUROPEENNE DE LA MANUTENTION

Load spectrum	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:

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 into groups:

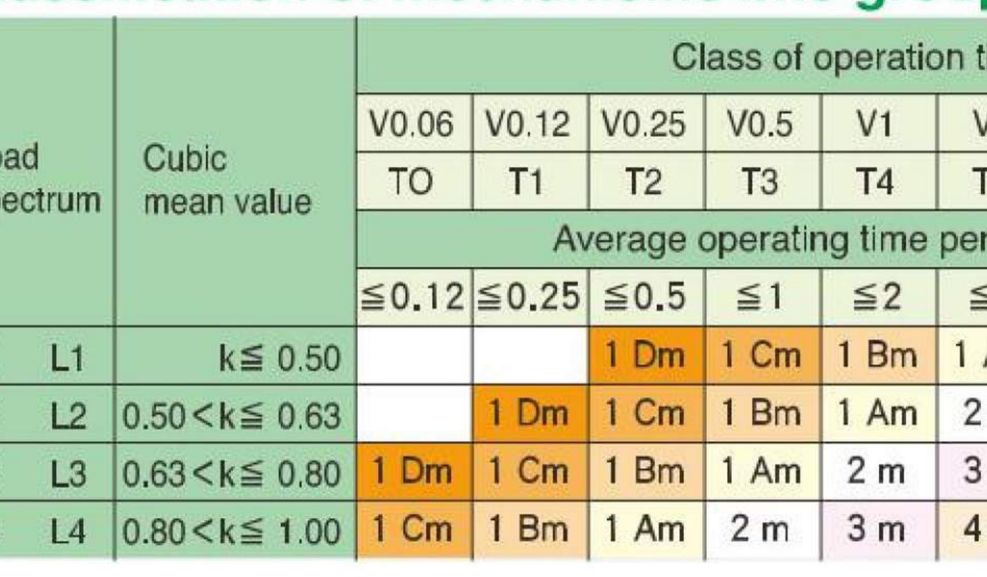
Load spectrum		Cubic mean value	Class of operation time								
			V0.06	V0.12	V0.25	V0.5	V1	V2	V3	V4	V5
			TO	T1	T2	T3	T4	T5	T6	T7	T8
			Average operating time per day in hours								
			≦0.12	≦0.25	≦0.5	≦1	≦2	≦4	≦8	≦16	>16
1	L1	k≦ 0.50			1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m
2	L2	0.50<k≦ 0.63		1 Dm	1 Cm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

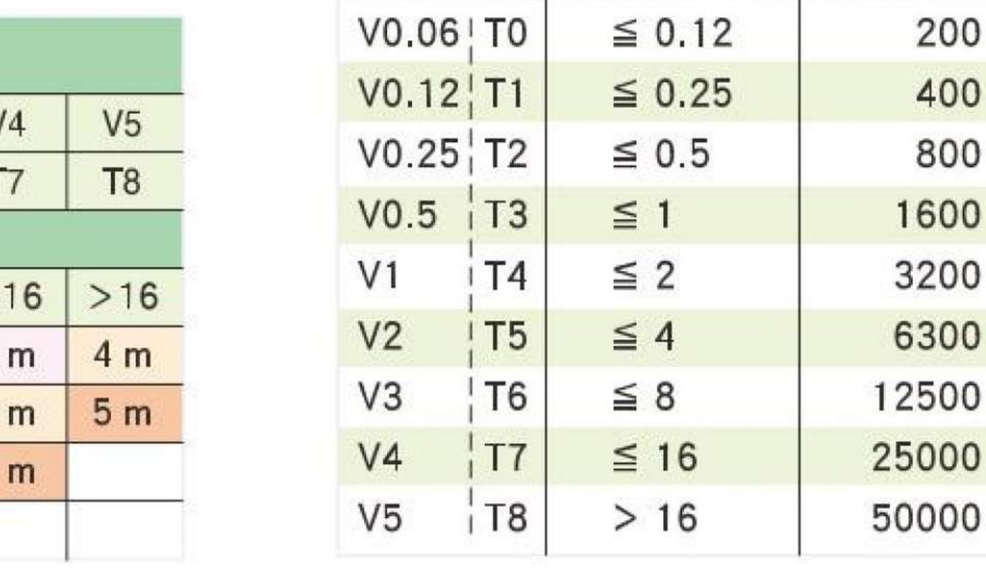
Class of operation time		Average operating time per day (in hours)	Calculated total operating time in hours
V0.06	T0	≦ 0.12	200
V0.12	T1	≦ 0.25	400
V0.25	T2	≦ 0.5	800
V0.5	T3	≦ 1	1600
V1	T4	≦ 2	3200
V2	T5	≦ 4	6300
V3	T6	≦ 8	12500
V4	T7	≦ 16	25000
V5	T8	> 16	50000

OPERATION CYCLE

Hoist with one speed



Hoist with two speed



Professional cranes & hoists for lifting

Taiwan Black Bear Factory

QUANG LIEN Factory

TAIWAN : HOITECH MACHINERY INDUSTRIAL CO., LTD
ADD : No.126, Lane 332, Sec.8, HuanJhong Rd., Wu-Zih, Taichung, Taiwan, R.O.C
TEL : +886-4-2335 3333 FAX : +886-4-2335 3031
E-mail : hoitech2222@gmail.com

VIETNAM : QUANG LIEN CRANE ELEVATOR CO., LTD.
ADD : 299/15A Ly Thuong Kiet, P.15 - Q.11 - TP.HCM
TEL : +84-8-3863 6666 FAX : +84-8-3864 7212
E-mail : quangliencrane@hcm.vnn.vn
WEB : www.quanglien.com

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