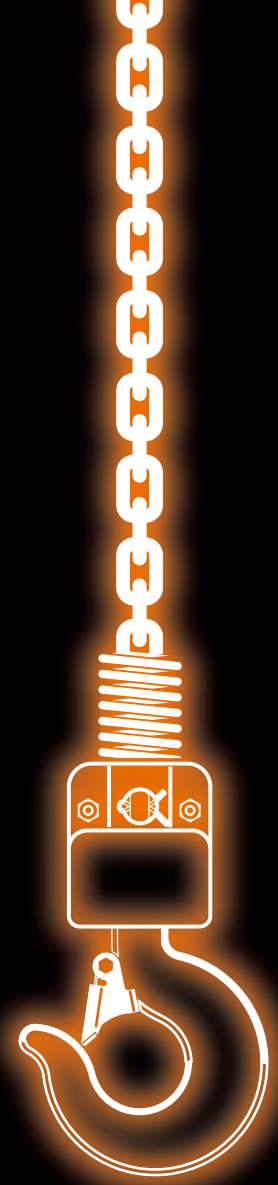
Chain Hoist

HITACHI
Inspire the Next



Hitachi ChainHoist Catalog

Hitachi Electric Chain HOIST

L series

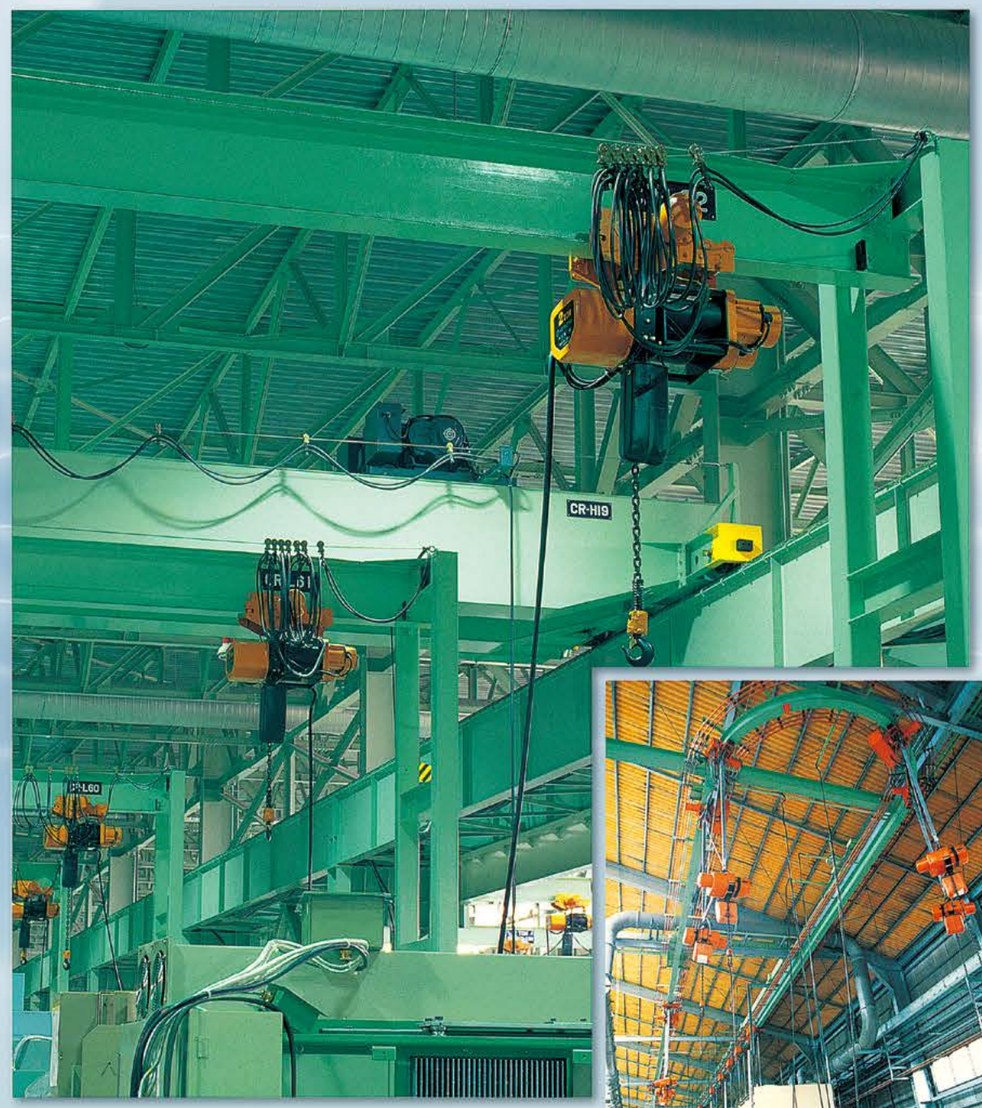
S series

F series

Hitachi Electric Chain Hoist

Widely used to improve the efficiency of material handling (and transportation).

Hitachi chain hoist can be used for a wide range of purposes from primary to tertiary industries such as general machine, vehicle and can manufacturing factories as well as warehouses and retail stores.



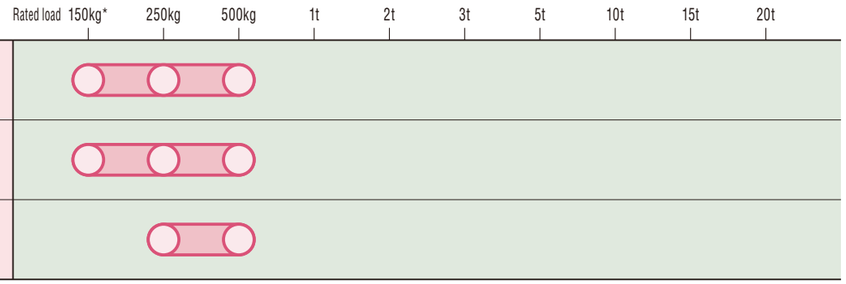
The electric chain hoist is only meant for transporting cargo.
It is not to be used for hoisting and transporting people.

Contents

You can make an exacting model selection based on such operating conditions as capacity and speed.

L series — Higher durability, speed and safety with compact body developed for light load daily use.

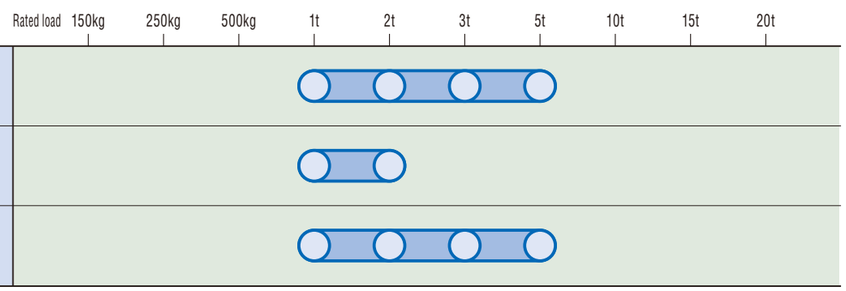
(P11—P12)



*Without overload limiter device

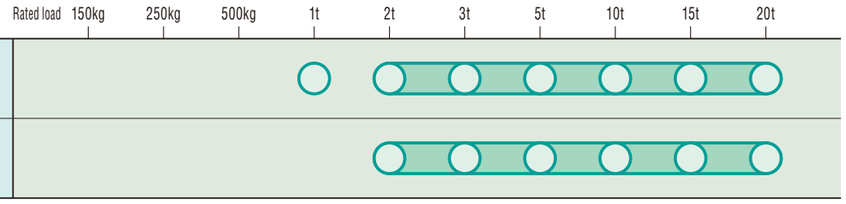
S series — Suitable for general work. Economical standard speed model.

(P13—P18)

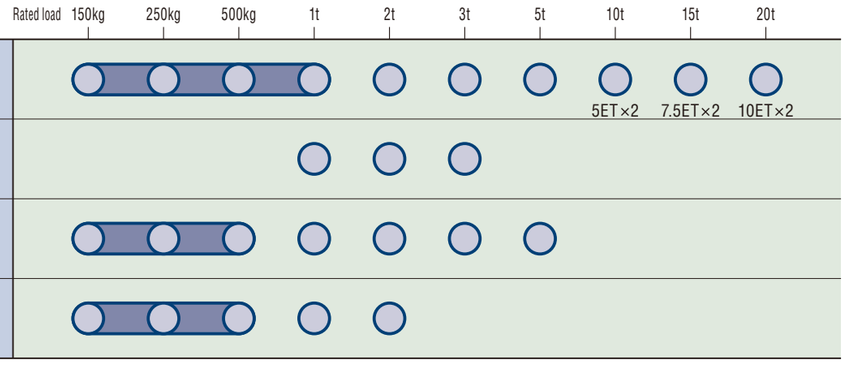


F series — High-speed model that is sturdy and suitable for high-speed work.

(P19—P24)



Trolley series



Dedicated electric chain hoist contents

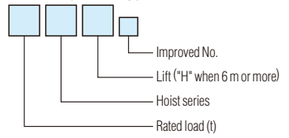
Standard Specifications

Specifications			Standard model	CE Making model
Power Source*		50Hz	3 phase : 220/380-415V 3 phase : 346-380V 1 phase : 200-220V	1 phase : 220-240V
		60Hz	3 phase : 220V, 220-230/440-460V 1 phase : 110V, 220V	—
Operation Method			Operating pushbutton	
Control Voltage			24V	
Power Method			Suspension type with manual driven trolley or chain driven trolley : with 5m cable With motorized trolley : cable and catch are not included with standard shipment	
Pushbutton Switch	2(3)	single speed	↑ ↓	STOP ↑ ↓
		dual speed	↑↑ ↓↓	STOP ↑↑ ↓↓
	4(5)	single speed	↑ ↓ ← →	STOP ↑ ↓ ← →
		dual speed	↑↑ ↓↓ ← →	STOP ↑↑ ↓↓ ← →
	6(7)	single speed	↑ ↓ ← → ↖ ↘	STOP ↑ ↓ ← → ↖ ↘
		dual speed	↑↑ ↓↓ ← → ↖ ↘	STOP ↑↑ ↓↓ ← → ↖ ↘
Color(Munsell)			Orange(2.5YR 6/12)	
Electrical Protection			IP54(Trolley : IP44) (Equivalent when stuffing drain hole)	
Insulation Class of Motor			E	
Rating**			30%ED, 180starts/h(F series)***	
Classification			ISO M4, FEM 1Am	
Standards			—	Machinery : 2006/42/EC EMC : 2004/108/EC

* For power sources other than those listed, see the dedicated electric chain hoists (page25).
** This shows the value at a load of 63% of the rated load.
** Make sure the average value per hour is not exceeded even during concentrated use in a short time.
** Dual speed models have an added low speed to allow fine movement operation and improve workability by reducing inching. The rating shows the value when the high speed and the low speed, the operation time of which is 1/10 of the high speed, are combined.
*** Please refer to each specification table for the model except the F series.

Model Explanation

● For suspension types

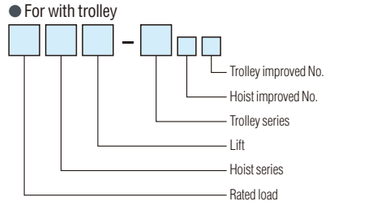


Ex. 2t, S series, Lift 6m

2 S H □

No improved No.—Blank field

● For with trolley



Ex. 1t, SN series, Lift 3m, With motorized trolley-ET

1 SN □ – ET □ □

"H" is not added when lift is under 6m —Blank field

* Separate product name plates are placed on the hoist unit and the trolley unit
Ex. 1SN-ET□□ : Hoist unit name plate "1SN" / Trolley unit name plate "1ET"

Series Selection

When selecting an electric chain hoist, the operating environment, operating time, and operating frequency must be taken into consideration.

Operating time and load ratio

Use within the range of ▭ section.

Hitachi chain hoists belong to M4 classification

Load Condition	Load Ratio	Mean operating hour per day (h)*						Total operating time(h)**					
		0.25	0.5	1	2	4	8	200	400	800	1,600	3,200	6,300
Light	K≦0.5							—	—	M1	M2	M3	M4
Medium	0.5＜K≦0.63							—	M1	M2	M3	M4	M5
Heavy	0.63＜K≦0.8				L,S, F series			M1	M2	M3	M4	M5	M6
Severe	0.8＜K							M2	M3	M4	M5	M6	—

Load condition
Light : This is normally used at a load of 1/2 the rated load, and on rare occasions at the rated load.
Medium : This is normally used at a load of 1/2 to 2/3 the rated load, and occasionally at the rated load.
Heavy : This is normally used at loads above 2/3 the rated load, and often at the rated load.
Severe : This is mostly used at the rated load or close to this load.
* If use is expected to exceed the above range, then an electric chain hoist with a higher capacity must be selected, so please consult with HITACHI.
** Abobe range is made for machine parts such as gears and bearings.

Operating environment

● Use in locations with an ambient temperature of −10°C to 40°C (with no freezing) and humidity of 90% or less (no condensation).

In addition to the general specifications, (1) starting frequency, (2) duty factor, and (3) load ratio must be taken into consideration.

● Calculation method
(If the calculated value exceeds the standard specification, then it is a dedicated specification.)

(1) Max. starting frequency α (Starts/h)=2×n×N

● Example calculation

The starting frequency is the cumulative sum of the inching operation count, so this must be calculated by estimating the number of inchings per hoist round trip.

$$2\times3\times25=150\ \text{Starts/h}$$

Lifting+Lowering (Number of times) — No. of transfer per hour (times) — Inching count (times) per lifting or lowering operation.

(2) Duty factor $\beta(\%)=\dfrac{\text{The total motor ON time (minutes) per hour under the most frequent condition.}}{60\ \text{min}}\times100=2\times\dfrac{\ell}{V}\times N\times\dfrac{1}{60\text{min}}\times100$

● Example calculation

$$2\times\frac{3}{10}\times25\div60\times100=25\%$$

Lift(m) — No. of transfer per hour(Times) — Lifting+Lowering (Times) — 1 hour (60 min) — Hoisting speed (m/min)

(3) Load ratio $K=\sqrt[3]{P_1{}^3t_1+P_2{}^3t_2+P_3{}^3t_3+\cdots\cdots}$

● Example calculation

When a 0.4t load is suspended on a 1-ton rated load electric chain hoist for a one-way trip, with a no-load return trip. (The lifting sling is 0.3t).

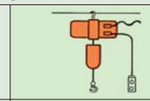
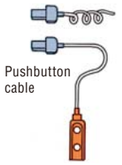
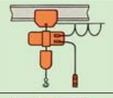
$$K=\sqrt[3]{(0.3+0.4)^3\times0.5+0.3^3\times0.5}\fallingdotseq0.57$$

In this case, the load condition is comparable to "medium" and the average operating time per day is 2 hoursor less. If used for a longer time than this, an electric chain hoist with a higher capacity must be selected.

n : Inching count (times) per lifting or lowering operation.
N : Transport count (times) within 1 hour
ℓ : Lift(m)
V : Hoisting speed(m/min)
$t_1, t_2, t_3\cdots$: Ratio of the operating time of each load to the total operating time
$P_1, P_2, P_3\cdots$: Each load ratio (ratio of the load to each rated load)

Operating Conditions and Model Selection Method

Select a model from the following that is suitable for the operating conditions.

Operating Conditions		Main Unit	Trolley	Pushbutton Cable	Crane Saddle	Option
Suspension Type		L series S series F series  P11 P17	—	Power cable  Pushbutton cable 2PB(H) For single speed 2PBN(H) For double speed		
Manual Driven Trolley Type			BP series P16 P22 			
Chain Driven Trolley Type			BC series P15 P21 			
Motorized Trolley Type			ST series P13 P20 	4PB(H) 4PBN(H)		
Motorized Trolley Motorized Travel Type			ET series P13 P20  *Cables between Main unit and Trolley are not attached	6PB(H) 6PBN(H)		
Manual Driven Trolley Motorized Travel Type			BP series P16 P22 	+ Wiring unit 4PB(H)-C 4PBN(H)-C	Crane saddle TLM series TH series SL series SLM series	Crane girder switch unit (24V operation) GMB-10
Chain Driven Trolley Motorized Travel Type			BC series P15 P21 			

Pushbutton cable

* The operation method is a pushbutton operation. Indirect 24V control voltage.
* A power cable is not included with the trolley. Refer to the Power cable in the list below and prepare a suitable one.

Standard Model

	Type	Lift (m)	Number of Pushbutton Switch	Material of Cable		Pushbutton Switch			
				For Pushbutton Cable	For Power Cable				
For Single Speed Type	2PB	3	2	T-VCT 3CX0.75mm²	VCT 4CX2mm²	Character	↑ ↓		
	2PBH	6				Contact	2a		
	4PB	3	4	T-VCT 5CX0.75mm²	—	Character	↑ ↓	← →	
	4PBH	6				Contact	2a	2a	
	6PB	3	6	T-VCT 8CX0.75mm²	—	Character	↑ ↓	← →	↖ ↘
	6PBH	6				Contact	2a	2a	2a
For Dual Speed Type	2PBN	3	2	T-VCT 5CX0.75mm²	VCT 4CX2mm²	Character	↑↑ ↓↓		
	2PBNH	6				Contact	4a+2b		
	4PBN	3	4	T-VCT 6CX0.75mm²	—	Character	↑↑ ↓↓	← →	
	4PBNH	6				Contact	4a+2b	2a	
	6PBN	3	6	T-VCT 8CX0.75mm²	—	Character	↑↑ ↓↓	← →	↖ ↘
	6PBNH	6				Contact	4a+2b	2a	2a

CE Version

	Type	Lift (m)	Number of Pushbutton Switch	Material of Cable		Pushbutton Switch				
				For Pushbutton Cable	For Power Cable					
For Single Speed Type	3PBE	3	3	T-VCT 4CX0.75mm²	VCT 4CX2mm²	Character	STOP	↑ ↓		
	3PBEH	6				Contact	1b	2a		
	5PBE	3	5	T-VCT 7CX0.75mm²	—	Character	STOP	↑ ↓	← →	
	5PBEH	6				Contact	1b	2a	2a	
	7PBE	3	7	T-VCT 8CX0.75mm²	—	Character	STOP	↑ ↓	← →	↖ ↘
	7PBEH	6				Contact	1b	2a	2a	2a
For Dual Speed Type	3PBNE	3	3	T-VCT 5CX0.75mm²	VCT 4CX2mm²	Character	STOP	↑↑ ↓↓		
	3PBNEH	6				Contact	1b	4a+2b		
	5PBNE	3	5	T-VCT 7CX0.75mm²	—	Character	STOP	↑↑ ↓↓	← →	
	5PBNEH	6				Contact	1b	4a+2b	2a	
	7PBNE	3	7	T-VCT 9CX0.75mm²	—	Character	STOP	↑↑ ↓↓	← →	↖ ↘
	7PBNEH	6				Contact	1b	4a+2b	2a	2a

Standard Specifications Quick Reference

Hoist main unit

Capacity (kg)	Hoisting Speed (m/min)(50/60Hz)			Motor (kW)(50/60Hz)		Power Source (phase)	Chain		Lift (m)	Type	See page	Function		
	Type	Main	Creep	Main	Creep		Dia. (mm)	No. of falls				Automatic Adjusting Brake	Reverse Phase Inspecting Relay	Auxiliary Brake System
150	Single	14.4/17	—	0.38/0.45	—	3	6.3	1	3	1/6L	12	—	—	—
150	Single	14.4/17	—	0.38/0.45	—	3	6.3	1	6	1/6LH	12	—	—	—
150	Dual	14.4/17	3.6/4.3	0.38/0.45	0.10/0.11	3	6.3	1	3	1/6LN	12	—	—	—
150	Dual	14.4/17	3.6/4.3	0.38/0.45	0.10/0.11	3	6.3	1	6	1/6LNH	12	—	—	—
250	Single	10/12	—	0.45/0.55	—	3	6.3	1	3	1/4L	12	—	—	—
250	Single	10/12	—	0.45/0.55	—	3	6.3	1	6	1/4LH	12	—	—	—
250	Dual	10/12	2.5/3.0	0.45/0.55	0.11/0.14	3	6.3	1	3	1/4LN	12	—	—	—
250	Dual	10/12	2.5/3.0	0.45/0.55	0.11/0.14	3	6.3	1	6	1/4LNH	12	—	—	—
250	Single	5.0/6.0	—	0.25/0.30	—	1	6.3	1	3	1/4LS	12	—	—	—
250	Single	5.0/6.0	—	0.25/0.30	—	1	6.3	1	6	1/4LSH	12	—	—	—
500	Single	7.2/8.5	—	0.63/0.75	—	3	6.3	1	3	1/2L	12	—	—	—
500	Single	7.2/8.5	—	0.63/0.75	—	3	6.3	1	6	1/2LH	12	—	—	—
500	Dual	7.2/8.5	1.8/2.1	0.63/0.75	0.16/0.19	3	6.3	1	3	1/2LN	12	—	—	—
500	Dual	7.2/8.5	1.8/2.1	0.63/0.75	0.16/0.19	3	6.3	1	6	1/2LNH	12	—	—	—
500	Single	3.6/4.3	—	0.30/0.35	—	1	6.3	1	3	1/2LS	12	—	—	—
500	Single	3.6/4.3	—	0.30/0.35	—	1	6.3	1	6	1/2LSH	12	—	—	—
1,000	Single	4.6/5.5	—	0.8/1.0	—	3	7.1	1	3	1S	13,14	—	○	—
1,000	Single	4.6/5.5	—	0.8/1.0	—	3	7.1	1	6	1SH	13,14	—	○	—
1,000	Single	7.1/8.5	—	1.3/1.6	—	3	7.1	1	3	1F	19,20	○	○	○
1,000	Single	7.1/8.5	—	1.3/1.6	—	3	7.1	1	6	1FH	19,20	○	○	○
1,000	Dual	4.6/5.5	1.2/1.4	0.8/1.0	0.2/0.25	3	7.1	1	3	1SN	13,14	—	○	—
1,000	Dual	4.6/5.5	1.2/1.4	0.8/1.0	0.2/0.25	3	7.1	1	6	1SNH	13,14	—	○	—
1,000	Single	2.3/2.8	—	0.4/0.5	—	1	7.1	1	3	1S1	13,14	—	—	—
1,000	Single	2.3/2.8	—	0.4/0.5	—	1	7.1	1	6	1SH1	13,14	—	—	—
2,000	Single	2.3/2.8	—	0.8/1.0	—	3	7.1	2	3	2S	13,14	—	○	—
2,000	Single	2.3/2.8	—	0.8/1.0	—	3	7.1	2	6	2SH	13,14	—	○	—
2,000	Single	6.8/8.2	—	2.4/2.9	—	3	10	1	3	2F	19,20	○	○	○
2,000	Single	6.8/8.2	—	2.4/2.9	—	3	10	1	6	2FH	19,20	○	○	○
2,000	Dual	2.3/2.8	0.6/0.7	0.8/1.0	0.2/0.25	3	7.1	2	3	2SN	13,14	—	○	—
2,000	Dual	2.3/2.8	0.6/0.7	0.8/1.0	0.2/0.25	3	7.1	2	6	2SNH	13,14	—	○	—
2,000	Dual	6.8/8.2	1.7/2.1	2.4/2.9	0.6/0.7	3	10	1	3	2FN	19,20	○	○	○
2,000	Dual	6.8/8.2	1.7/2.1	2.4/2.9	0.6/0.7	3	10	1	6	2FNH	19,20	○	○	○
2,000	Single	1.1/1.4	—	0.4/0.5	—	1	7.1	2	3	2S1	13,14	—	—	—
2,000	Single	1.1/1.4	—	0.4/0.5	—	1	7.1	2	6	2SH1	13,14	—	—	—
3,000	Single	1.5/1.8	—	0.8/1.0	—	3	7.1	3	3	3S	13,14	—	○	—
3,000	Single	1.5/1.8	—	0.8/1.0	—	3	7.1	3	6	3SH	13,14	—	○	—
3,000	Single	4.1/4.9	—	2.4/2.9	—	3	10	2	3	3F	19,20	○	○	○
3,000	Single	4.1/4.9	—	2.4/2.9	—	3	10	2	6	3FH	19,20	○	○	○
3,000	Dual	4.0/4.8	1.0/1.2	2.4/2.9	0.6/0.7	3	10	2	3	3FN	19,20	○	○	○
3,000	Dual	4.0/4.8	1.0/1.2	2.4/2.9	0.6/0.7	3	10	2	6	3FNH	19,20	○	○	○
5,000	Single	0.9/1.1	—	0.8/1.0	—	3	7.1	5	3	5S	13,14	—	○	—
5,000	Single	0.9/1.1	—	0.8/1.0	—	3	7.1	5	6	5SH	13,14	—	○	—
5,000	Single	2.8/3.3	—	2.4/2.9	—	3	10	3	3	5F	19,20	○	○	○
5,000	Single	2.8/3.3	—	2.4/2.9	—	3	10	3	6	5FH	19,20	○	○	○
5,000	Dual	2.8/3.3	0.7/0.8	2.4/2.9	0.6/0.7	3	10	3	3	5FN	19,20	○	○	○
5,000	Dual	2.8/3.3	0.7/0.8	2.4/2.9	0.6/0.7	3	10	3	6	5FNH	19,20	○	○	○
10,000	Single	2.8/3.3	—	2.4/2.9×2	—	3	10	4	6	10FH	19,20	○	○	○
10,000	Dual	2.8/3.3	0.7/0.8	2.4/2.9×2	0.6/0.7×2	3	10	4	6	10FNH	19,20	○	○	○
15,000	Single	1.8/2.2	—	2.4/2.9×2	—	3	10	6	6	15FH	19,20	○	○	○
15,000	Dual	1.8/2.2	0.45/0.55	2.4/2.9×2	0.6/0.7×2	3	10	6	6	15FNH	19,20	○	○	○
20,000	Single	1.4/1.6	—	2.4/2.9×2	—	3	10	8	6	20FH	19,20	○	○	○

Motorized trolley

Rated Load	Model Name	Traveling Speed(m/min) 50Hz	Traveling Speed(m/min) 60Hz	Applicable Beam Width (mm)	Min. Curve Radius (m)	Page
250kg–1t	1ET	21·10.5	25·12.5	75–125	1.5	13, 14 19, 20
	1ST				1.8	
2t	2ET			100–150	1.8	
	2ST				2.5	
3t	3ET				2.0	
	3ST				3.0	
5t	5ET			125–175	3.0	
10t	5ET×2	10.5	12.5	150, 175	5.0	
15t	7.5ET×2				5.0	
20t	10ET×2	14	17	175, 190	Straight	

Crane saddle

Model Configuration	Max. Wheel Load (t)	Max. Span (m)	Traveling Speed (m/min)	Model Name	Main Unit Frame Structure
Toprun Type Crane Saddle	1	10	21/25	TL_S-10	Inverted hat cross-section structure
	2.8	12		TL_S-28	
	1	10		TH_S-10	Double channel structure (TH_S-10, TH_S-28 Use uniform thickness channel steel)
	2.8	12		TH_S-28	
	3	16		TH_S-30	
	5.6	18		TH_S-56	
	11.2	20	25/30	TH-112	
Suspension Crane Saddle	0.6	10	21/25	SL-6	L-shaped frame structure
	1	10		SL_S-10	Double channel structure (SL_S-10, SL_S-28 Use uniform thickness channel steel)
	2.8	12		SL_S-28	

Chain driven trolley

Rated Load	Model Name	Applicable Beam Width (mm)	Min. Curve Radius (m)
250–500kg	1/2BC(H)	75–125	1.0
1t	1BC(H)		1.2
2t	2BC(H)	100–150	1.5
3t	3BCH		1.5
5t	5BCH	125–175	2.4

Manual driven trolley

Rated Load	Model Name	Applicable Beam Width (mm)	Min. Curve Radius (m)
250–500kg	1/2BP	75–125	1.0
1t	1BP		1.2
2t	2BP	100–150	1.5

Hitachi Electric Chain Hoists are Packed with Advanced Features

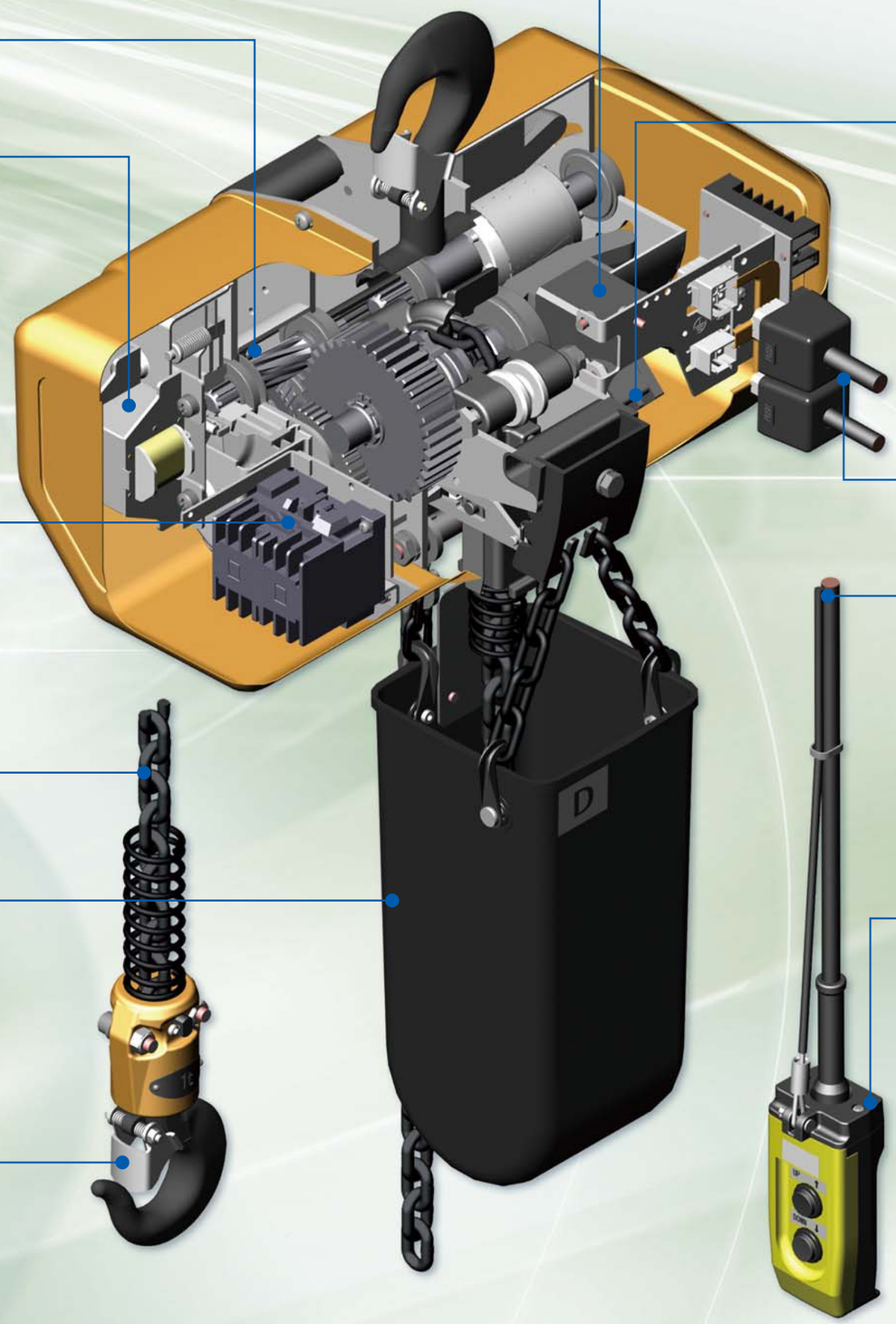
STANDARD MODEL L series L / S series S / F series F

HELICAL GEARING L S F
used where practical to provide quiet operation.

LONG LIFE BRAKE UNIT L S F
Disk type Electro-Magnetic brake system for steady operation and long life.

AUTOMATIC ADJUSTING BRAKE F
are equipped with patented Automatic Adjusting Brake for easier maintenance and added safety.
U.S. PAT. 3908802
Germany
PAT. 2354044

ELECTRO-MAGNETIC CONTACTOR L S F
with mechanical-interlocking against line short by mechanical shock.



POWER CHAIN L S F
special (patented) alloy steel chain surface hardened for optimum strength and wear resistance.
(U.S. PAT. 3830054)

CHAIN CONTAINER L S F
as standard part for safer operation.

LOWER HOOK L S F
is heat-treated and equipped with safety latch and 360° swivelling.

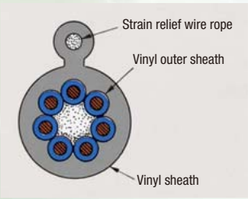
REVERSE PHASE INSPECTION RELAY S F
cut control circuit when reverse phasing.
Except the 3 phase models of 250 kg and 500 kg, and single phase models.

LIMIT SWITCH (Upper and Lower) L S F
interrupt motor power to prevent hook overtravel and hazardous condition such as chain kink.

AUXILIARY BRAKE SYSTEM F
F series hoists equipped with auxiliary brake.

PLUG-IN CABLES L S F
reduce maintenance time and installation.

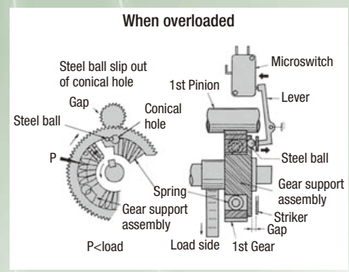
PUSHBUTTON CABLE L S F
is molded with strain relief wire rope into one body.
This assures easier and safer operation.



PUSHBUTTON SWITCH L S F
is rain-proof plastic for severe impact and corrosive atmosphere resistance and mechanically interlocked.
The 24 volt control circuit reduce shock hazard to the operation.

HITACHI OVERLOAD LIMITER L option S option F option
Unique, patented over load protection device is available on all models upon request.
U.S. PAT. 4103873
CANADA PAT. 1062232
Others

Not available for 1/6L, 1/6LH,1/6LN,1/6LNH



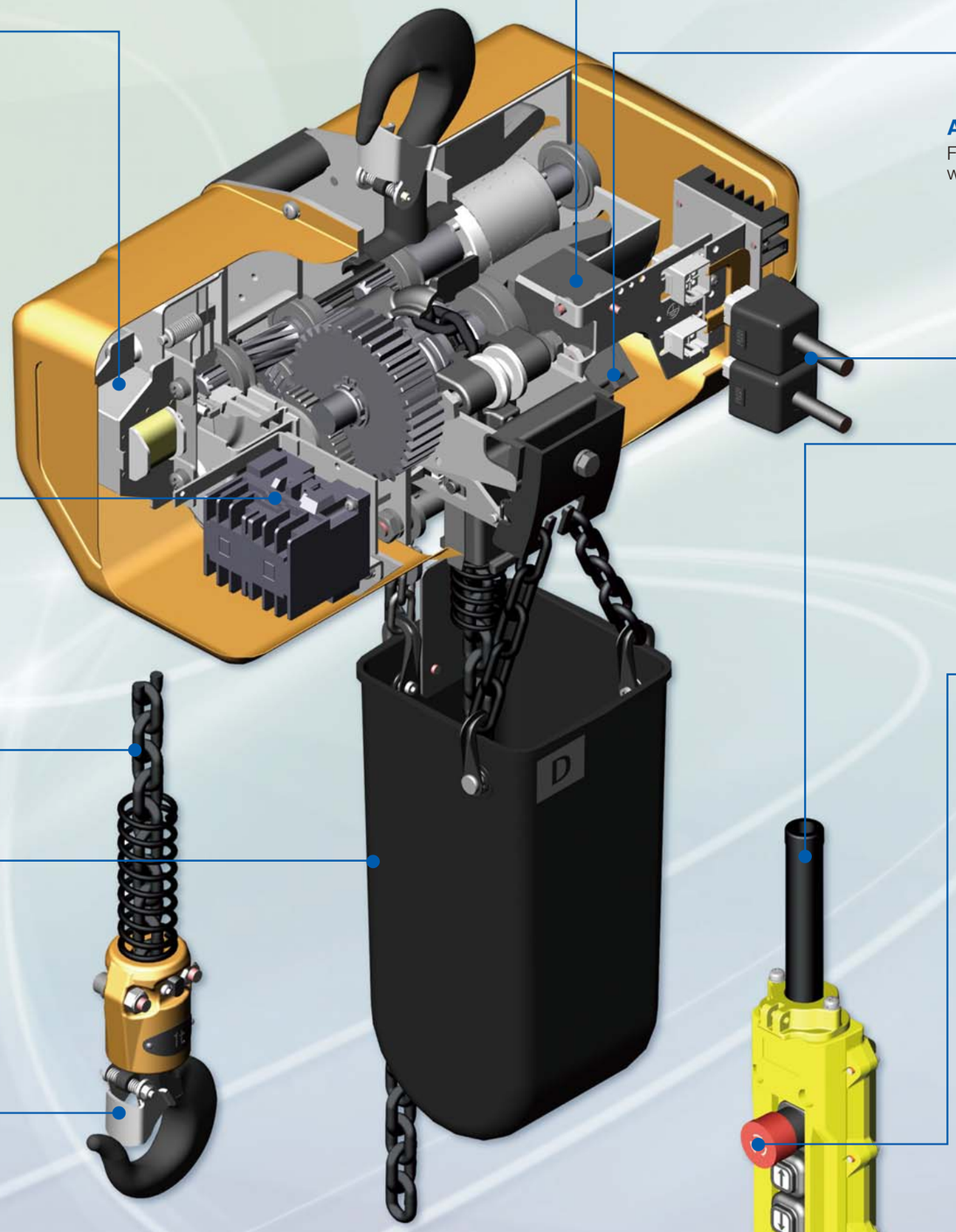
Conform with Essential Requirements Set Out in European Directives CE

CE MARKING MODEL L series L / S series S / F series F

LONG LIFE BRAKE UNIT L S F
Disk type Electro-Magnetic brake system for steady operation and long life.

AUTOMATIC ADJUSTING BRAKE F
are equipped with patented Automatic Adjusting Brake for easier maintenance and added safety.
U.S. PAT. 3908802
Germany
PAT. 2354044

ELECTRO-MAGNETIC CONTACTOR L S F
with mechanical-interlocking against line short by mechanical shock.

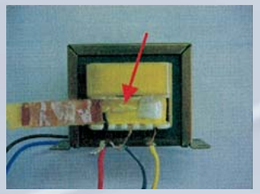


POWER CHAIN L S F
special (patented) alloy steel chain surface hardened for optimum strength and wear resistance.
(DIN-5684-8)

CHAIN CONTAINER L S F
as standard part for safer operation.

LOWER HOOK L S F
is heat-treated and equipped with safety latch and 360° swivelling.

TRANSFORMER
Fuse is built in a primary side to prevent overheat.



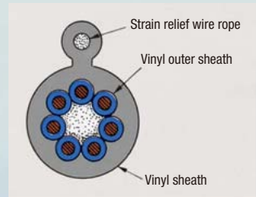
REVERSE PHASE INSPECTING RELAY S F
cut control circuit when reverse phasing.
Except the 3 phase models of 250 kg and 500 kg, and single phase models.

LIMIT SWITCH (Upper and Lower) L S F
interrupt motor power to prevent hook overtravel and hazardous condition such as chain kink.

AUXILIARY BRAKE SYSTEM F
F series hoists equipped with auxiliary brake.

PLUG-IN CABLES L S F
reduce maintenance time and installation.

PUSHBUTTON CABLE L S F
is molded with strain relief wire rope into one body.
This assures easier and safer operation.

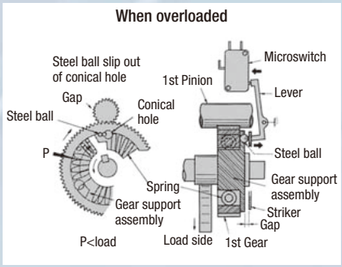


PUSHBUTTON SWITCH L S F
is rain-proof plastic for severe impact and corrosive atmosphere resistance and mechanically interlocked.
The 24 volt control circuit reduce shock hazard to the operation.

● EMERGENCY STOP BUTTON
The chain hoist can be stopped in emergency cases that are caused by overdrive or erroneous operation.

HITACHI OVERLOAD LIMITER L S F
Unique, patented over load protection device is available on all models upon request.
U.S. PAT. 4103873
CANADA PAT. 1062232
Others

Not available for 1/6L, 1/6LH,1/6LN,1/6LNH



L series

Electric chain hoist

Suspension type

- Single speed model
- Dual speed model
- Single phase model

HIGHER DURABILITY

- The load rating is 40% ED* which is a significant improvement over other previous models.
  *L model

HIGHER SAFETY

- The new chain container next to the main body of the hoist prevents unnecessary movement of the chain container and Lower hook doesn't touch the chain container.
- The new Hook Latch has a claw. The claw grips on to the hook securely.

EASY SLINGING WORK

- The new hook allows for easy slinging work with the wide hook dimension.

Specifications table

SINGLE SPEED (3 PHASE)

L(H)

Model Name		1/6L (H)*	1/4L (H)	1/2L (H)
Rated Load (kg)		150	250	500
Rating (%ED)		40		
Max.Starting Frequency (Starts/h)		240		
Hoisting Speed (m/min)	50Hz	14.4	10	7.2
	60Hz	17	12	8.5
Hook Dimensions (mm)		27		

*without overload limiter device

SINGLE PHASE

LS(H)

Model Name		1/4LS (H)	1/2LS (H)
Rated Load (kg)		250	500
Rating (%ED)		25	
Max.Starting Frequency (Starts/h)		150	
Hoisting Speed (m/min)	50Hz	5.0	3.6
	60Hz	6.0	4.3
Hook Dimensions (mm)		27	

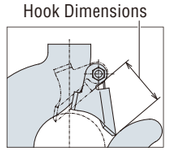
DUAL SPEED (3 PHASE)

LN(H)

Model Name		1/6LN (H)*	1/4LN (H)	1/2LN (H)
Rated Load (kg)		150	250	500
Rating (%ED)		30		
Max.Starting Frequency (Starts/h)		180		
Hoisting Speed (m/min)	50Hz	14.4/3.6	10/2.5	7.2/1.8
	60Hz	17/4.3	12/3.0	8.5/2.1
Hook Dimensions (mm)		27		

*without overload limiter device

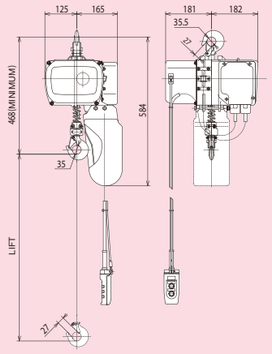
Hook Dimensions



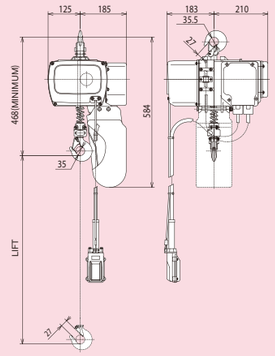
2-point Pushbutton Switch type

Dimensions

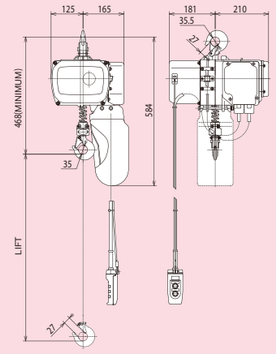
SINGLE SPEED



DUAL SPEED



SINGLE PHASE



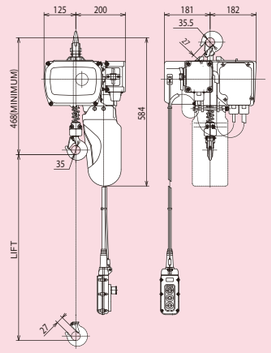
Specifications table

Model Name		1/6L,1/4L,1/2L	1/6LH,1/4LH,1/2LH	1/6LN,1/4LN,1/2LN	1/6LNH,1/4LNH,1/2LNH	1/4LS,1/2LS	1/4LSH,1/2LSH
Lift	(m)	3	6	3	6	3	6
Link Chain	Falls	1		1		1	
	Dia.	6.3		6.3		6.3	
	Pitch	19.1		19.1		19.1	
Approx. Weight	(kg)	32	35	35	38	34	37

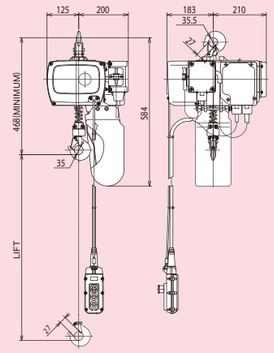
3-point Pushbutton Switch type

Dimensions

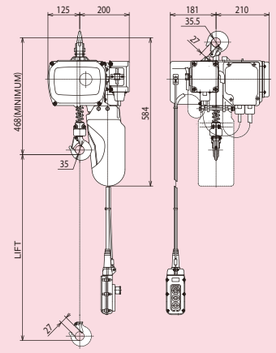
SINGLE SPEED



DUAL SPEED



SINGLE PHASE



Specifications table

Model Name		1/6L,1/4L,1/2L	1/6LH,1/4LH,1/2LH	1/6LN,1/4LN,1/2LN	1/6LNH,1/4LNH,1/2LNH	1/4LS,1/2LS	1/4LSH,1/2LSH
Lift	(m)	3	6	3	6	3	6
Link Chain	Falls	1		1		1	
	Dia.	6.3		6.3		6.3	
	Pitch	19.1		19.1		19.1	
Approx. Weight	(kg)	33	36	36	39	35	38

S series

Electric chain hoist

Suspension type

- Single speed model
- Dual speed model
- Single phase model

■ Specifications table

SINGLE SPEED (3 PHASE)

S(H)

Model Name		1S(H)	2S(H)	3S(H)	5S(H)
Rated Load (kg)		1,000	2,000	3,000	5,000
Standard Lift (m)		3(6)			
Hoisting Speed (m/min)	50Hz	4.6	2.3	1.5	0.9
	60Hz	5.5	2.8	1.8	1.1
Motor Output (kW)	50Hz	0.8	0.8	0.8	0.8
	60Hz	1.0	1.0	1.0	1.0
Link Chain	Dia. (mm)	ϕ7.1	ϕ7.1	ϕ7.1	ϕ7.1
	No. of	1	2	3	5
Rating		25% ED			
Power Cord Length		5m			

DUAL SPEED (3 PHASE)

SN(H)

Model Name		1SN(H)	2SN(H)
Rated Load (kg)		1,000	2,000
Standard Lift (m)		3(6)	
Hoisting Speed (m/min)	50Hz	4.6/1.2	2.3/0.6
	60Hz	5.5/1.4	2.8/0.7
Motor Output (kW)	50Hz	0.8/0.2	0.8/0.2
	60Hz	1.0/0.25	1.0/0.25
Link Chain	Dia. (mm)	ϕ7.1	ϕ7.1
	No. of Falls	1	2
Rating		20/10% ED	
Power Cord Length		5m	

SINGLE PHASE

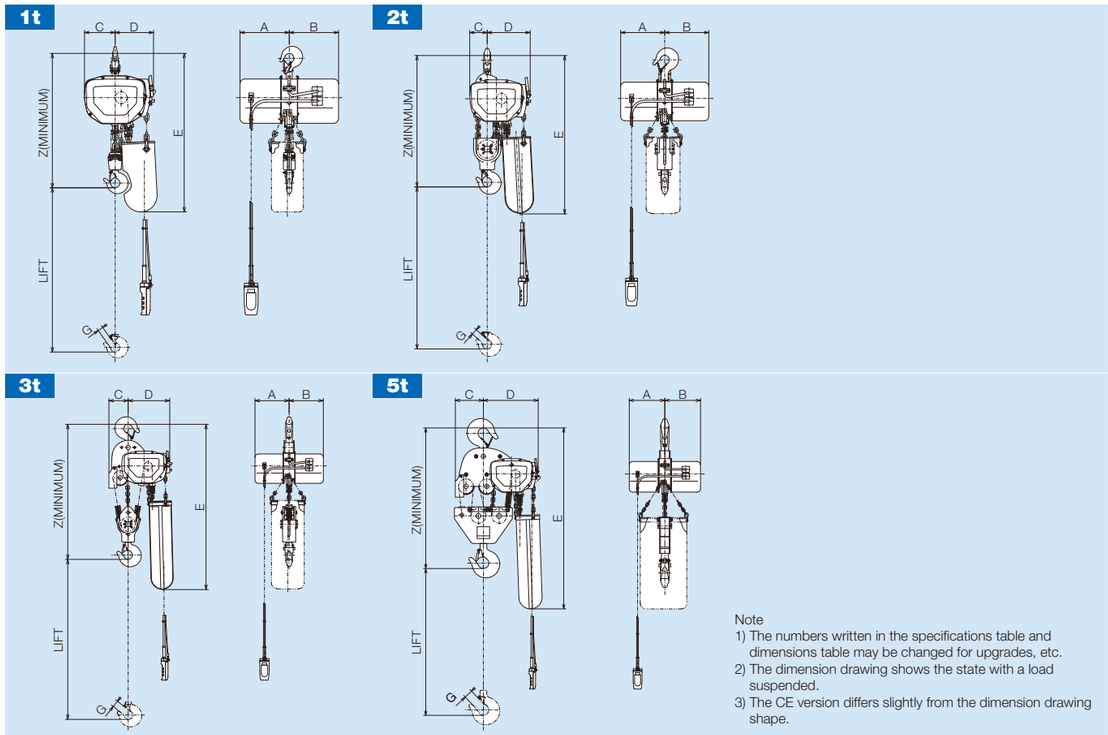
$SS(H)_2$, S(H)1

Model Name		1S(H)1	2S(H)1
Rated Load (kg)		1,000	2,000
Standard Lift (m)		3(6)	
Hoisting Speed (m/min)	50Hz	2.3	1.1
	60Hz	2.8	1.4
Motor Output (kW)	50Hz	0.4	0.4
	60Hz	0.5	0.5
Link Chain	Dia. (mm)	ϕ7.1	ϕ7.1
	No. of Falls	1	2
Rating		20% ED	
Power Cord Length		5m	

All dimensions and specifications are subject to change without notice.

Suspension type

■ Dimensions



Note
1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.
2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

■ Specifications table

SINGLE SPEED (3 PHASE)

Model Name			1S	1SH	2S	2SH	3S	3SH	5S	5SH
Rated Load		(kg)	1,000		2,000		3,000		5,000	
Dimensions	(mm)	Z	540		665		800		895	
		A	216		216		216		216	
		B	216		216		216		216	
		C	135		90		125		175	
		D	170		215		270		340	
		D'(CE)	170		215		270		340	
		E	680		705	775	835	1,050	1,065	1,095
		G	23		26		42		48	
Approx. Weight		(kg)	37	42	49	59	61	72	88	105

All dimensions and specifications are subject to change without notice.

DUAL SPEED (3 PHASE)

Model Name		1SN	1SNH	2SN	2SNH
Rated Load (kg)		1,000		2,000	
Dimensions (mm)	Z	550		665	
	A	216		216	
	B	246		246	
	C	135		90	
	D	170		215	
	D'(CE)	170		215	
	E	680		705	775
	G	23		26	
Approx. Weight (kg)		42	47	54	64

SINGLE PHASE

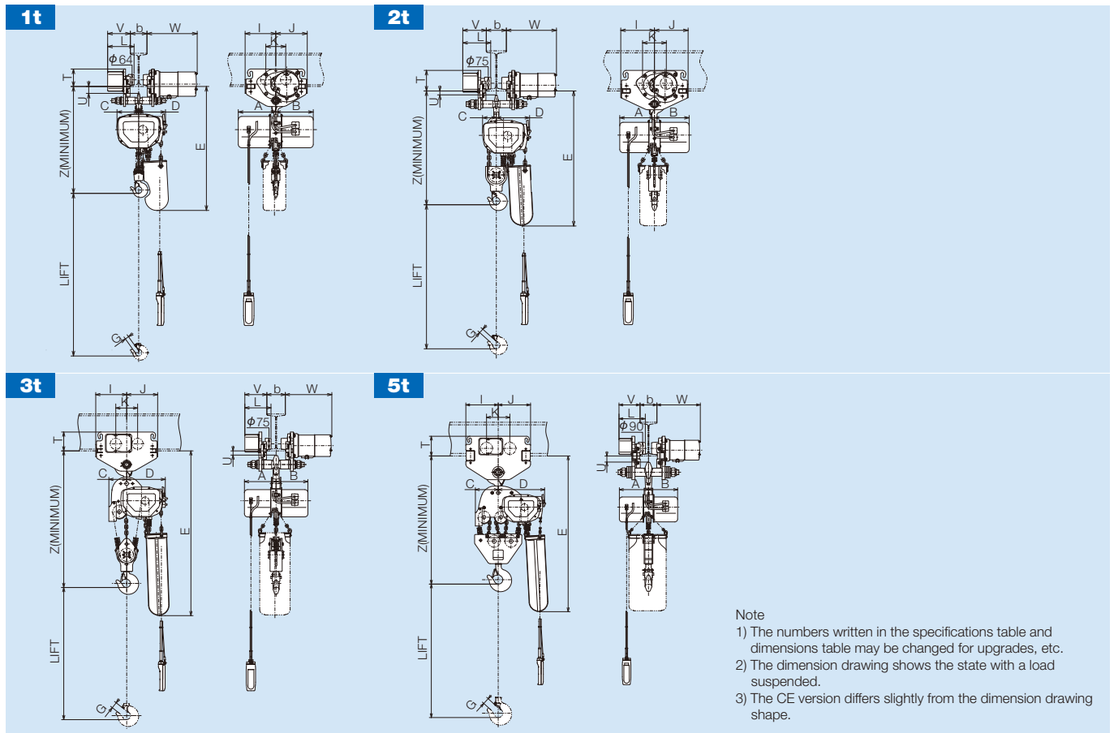
Model Name		1S1	1SH1	2S1	2SH1
Rated Load (kg)		1,000		2,000	
Dimensions (mm)	Z	540		665	
	A	246		246	
	B	246		246	
	C	135		90	
	D	170		215	
	D'(CE)	170		215	
	E	680		705	775
	G	23		26	
Approx. Weight (kg)		39	44	51	61

All dimensions and specifications are subject to change without notice.

With motorized trolley-ET

This can be combined with a 4-point or 6-point pushbutton and used as a motorized trolley or overhead traveling crane.

Dimensions



Note
1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.
2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

Specifications table

Chain Hoist Model Name		1S(H)	1SN(H)	2S(H)	2SN(H)	3S(H)	5S(H)
Trolley Type		1ET		2ET		3ET	5ET
Rated Load	(kg)	1,000		2,000		3,000	5,000
Dimensions (mm)	Z	610	620	721	721	862	984
	A	216	216	216	216	216	216
	B	216	246	216	246	216	216
	C	135	135	90	90	125	175
	D	170	170	215	215	270	340
	D'(CE)	170	170	215	215	270	340
	E	750	750	770(840)		910(1,125)	1,170(1,200)
	G	23	23	26	26	42	48
	I	185		210		210	240
	J	190		210		210	240
	K	120		148		148	173
	L	182		200		203	219
	T	110		140		140	156
	U	38		18		16	34
	V	159		172		175	181
	W	303		313		316	323
Min.Curve Radius	(m)	1.5		1.8		2.0	3.0
Applicable Beam Width b	(mm)	75–125		100–150			125–175
Approx.Weight	(kg)	75(80)	80(85)	101(111)	106(116)	121(132)	174(191)

All dimensions and specifications are subject to change without notice.

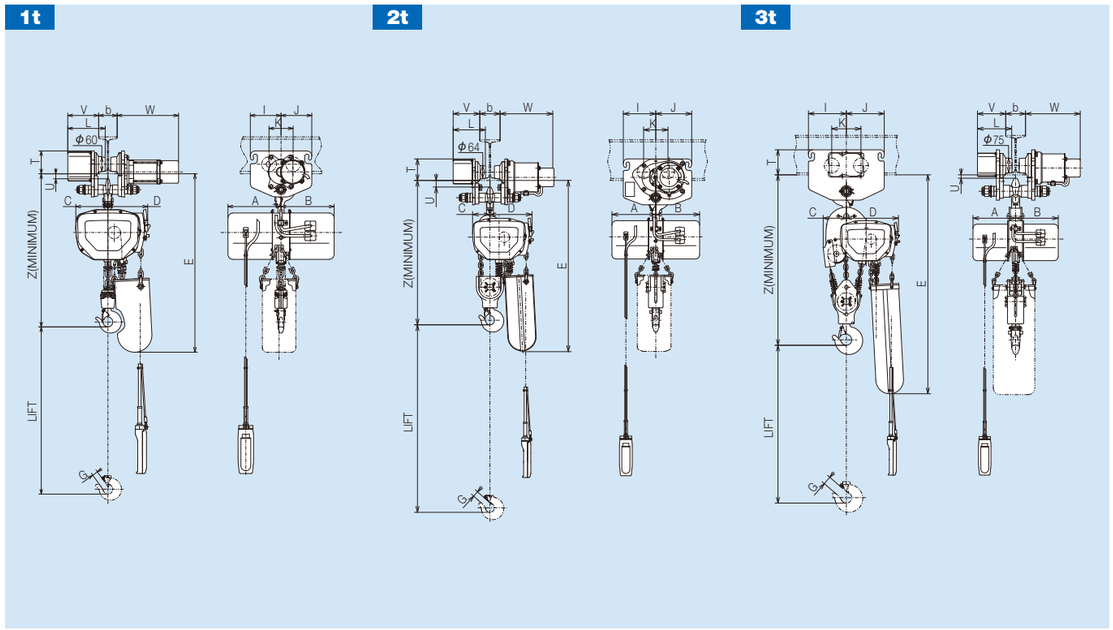
Motorized trolley specifications table

Series Name		ET series				ST series		
Model Name		1ET	2ET	3ET	5ET	1ST	2ST	3ST
Working Load Limit	(kg)	1,000	2,000	3,000	5,000	1,000	2,000	3,000
Traveling Speed (m/min)	50Hz	10.5(21)				10.5		
	60Hz	12.5(25)				12.5		
Motor Output (kW)	50Hz	0.14(0.27)		0.3(0.6)		0.07	0.14	0.2
	60Hz	0.16(0.32)		0.35(0.7)		0.08	0.16	0.24
Applicable Beam Width b	(mm)	75–125	100–150		125–175	75–125	100–150	
Rating		25%ED				25%ED		

With motorized trolley-ST

This can be combined with a 4-point or 6-point pushbutton and used as a motorized trolley or overhead traveling crane.

Dimensions



Specifications table

Chain Hoist Model Name		1S(H)	1SN(H)	2S(H)	2SN(H)	3S(H)
Trolley Type		1ST		2ST		3ST
Rated Load	(kg)	1,000		2,000		3,000
Dimensions (mm)	Z	590	590	719	719	852
	A	216	216	216	216	216
	B	216	246	216	246	216
	C	135	135	90	90	125
	D, D'(CE)	170	170	215	215	270
	E	730	730	772(842)		900(1,115)
	G	23	23	26	26	42
	I	125		160		192
	J	125		177		192
	K	98		120		148
	L	156		163		180
	T	101		119		140
	U	18		19		5
	V	130		135		145
	W	255		270		280
Min.Curve Radius	(m)	1.8		2.5		3.0
Applicable Beam Width b	(mm)	75–100		100–150		100–150
Approx.Weight	(kg)	60(65)	65(70)	86(96)	91(101)	109(120)

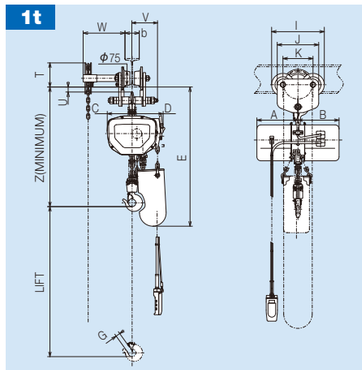
All dimensions and specifications are subject to change without notice.

With chain driven trolley-BC

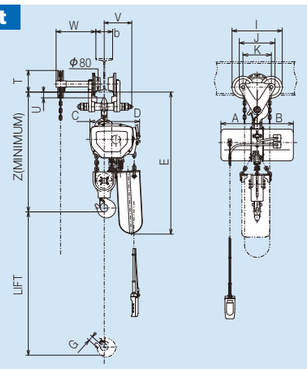
The electric chain hoist with chain driven trolley is suitable for relatively heavy loads not transported a long distance.

Dimensions

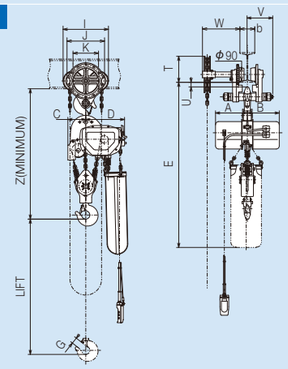
1t



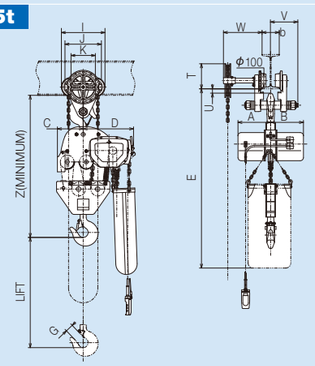
2t



3t



5t



Note
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2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

Specifications table

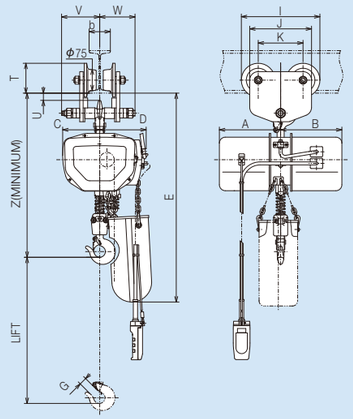
Chain Hoist Model Name		1S(H)	1SN(H)	2S(H)	2SN(H)	3SH	5SH
Trolley type		1BC(H)		2BC(H)		3BCH	5BCH
Rated Load	(kg)	1,000		2,000		3,000	5,000
Dimensions (mm)	Z	585	585	723	723	866	980
	A	216	216	216	216	216	216
	B	216	246	216	246	216	216
	C	135	135	90	90	125	175
	D	170	170	215	215	270	340
	D'(CE)	170	170	215	215	270	340
	E	740	740	775(845)		1,130	1,190
	G	23	23	26	26	42	48
	I	277		300		306	319
	J	218		213		240	262
	K	158		169		172	177.2
	T	131		143		191	194
	U	23		22		21	30
	V	135		165		173	200
	W	220		236		252	284
Min. Curve Radius	(m)	1.2		1.5		1.5	2.4
Applicable Beam Width b	(mm)	75–125		100–150		100–150	125–175
Approx. Weight	(kg)	58(66)	63(71)	73(86)	78(91)	116	161

With manual driven trolley-BP

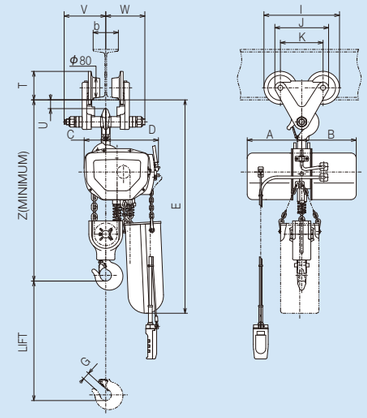
The electric chain hoist with manual driven trolley is suitable for relatively light loads transported a short distance.

Dimensions

1t



2t



Specifications table

Chain Hoist Model Name		1S(H)	1SN(H)	2S(H)	2SN(H)
Trolley type		1BP		2BP	
Rated Load	(kg)	1,000		2,000	
Dimensions (mm)	Z	595	595	723	723
	A	216	216	216	216
	B	216	246	216	246
	C	135	135	90	90
	D	170	170	215	215
	D'(CE)	170	170	215	215
	E	740	740	775(845)	
	G	23	23	26	26
	I	277		300	
	J	199		213	
	K	139		169	
	T	110		128	
	U	23		22	
	V	135		165	
	W	125		155	
Min.Curve Radius	(m)	1.2		1.5	
Applicable Beam Width b	(mm)	75–125		100–150	
Approx.Weight	(kg)	52(57)	57(62)	66(76)	71(81)

Chain driven trolley, manual driven trolley specifications table

Classification		Chain driven trolley				Manual driven trolley	
Model Name		1BC(H)	2BC(H)	3BCH	5BCH	1BP	2BP
Working Load Limit	(kg)	1,000	2,000	3,000	5,000	1,000	2,000
Standard Lift	(m)	3(6)	3(6)	6	6	—	—
Min. Curve Radius	(m)	1.2	1.5	1.5	2.4	1.2	1.5
Applicable Beam Width b	(mm)	75–125	100–150		125–175	75–125	100–150

For a crane that uses a chain or manual driven trolley for transverse movement and an electric motor for travel, please purchase a 4PB(H)-C, 4PBN(H)-C type wiring unit (See page 23).

F series

Electric chain hoist

Suspension type

- Single speed model
- Dual speed model

Specifications table

SINGLE SPEED (3 PHASE)

F(H)

Model Name		1F(H)	2F(H)	3F(H)	5F(H)	10FH	15FH	20FH
Rated Load	(kg)	1,000	2,000	3,000	5,000	10,000	15,000	20,000
Standard Lift	(m)	3(6)				6		
Hoisting Speed (m/min)	50Hz	7.1	6.8	4.1	2.8	2.8	1.8	1.4
	60Hz	8.5	8.2	4.9	3.3	3.3	2.2	1.6
Motor Output (kW)	50Hz	1.3	2.4			2.4×2		
	60Hz	1.6	2.9			2.9×2		
Link Chain	Dia. (mm)	ϕ7.1	ϕ10					
	No. of Falls	1	1	2	3	4	6	8
Rating		30% ED						
Power Cord Length		5m						

DUAL SPEED (3 PHASE)

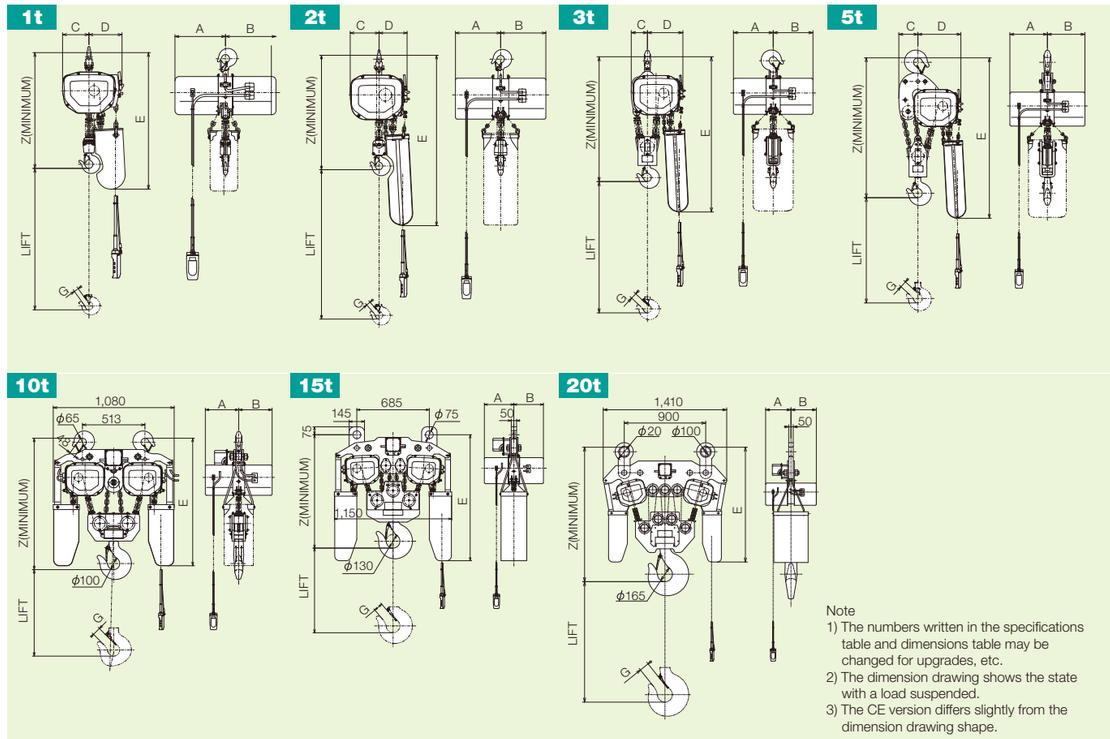
FN(H)

Model Name		2FN(H)	3FN(H)	5FN(H)	10FNH	15FNH
Rated Load	(kg)	2,000	3,000	5,000	10,000	15,000
Standard Lift	(m)	3(6)			6	6
Hoisting Speed (m/min)	50Hz	6.8/1.7	4.0/1.0	2.8/0.7	2.8/0.7	1.8/0.45
	60Hz	8.2/2.1	4.8/1.2	3.3/0.8	3.3/0.8	2.2/0.55
Motor Output (kW)	50Hz	2.4/0.6			2.4/0.6×2	
	60Hz	2.9/0.7			2.9/0.7×2	
Link Chain	Dia. (mm)	ϕ10				
	No. of Falls	1	2	3	4	6
Rating		20% ED				
Power Cord Length		5m				

All dimensions and specifications are subject to change without notice.

Suspension type

Dimensions



Note
1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.
2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

Specifications table

SINGLE SPEED (3 PHASE)

Model Name		1F	1FH	2F	2FH	3F	3FH	5F	5FH	10FH	15FH	20FH
Rated Load	(kg)	1,000		2,000		3,000		5,000		10,000	15,000	20,000
Dimensions	Z	540		670		830		1,020		1,060	1,235	1,440
	A	250		280		280		280		280	280	280
	B	250		280		280		280		280	280	280
	C	135		175		120		145		—	—	—
	D	170		170		245		330		—	—	—
	E	680		845	1,060	1,090	1,100	1,295	1,305	1,040	1,280	1,400
	G	23		26		42		48		68	86	108
Approx. Weight	(kg)	42	47	81	87	103	113	140	152	330	490	690

All dimensions and specifications are subject to change without notice.

DUAL SPEED (3 PHASE)

Model Name		2FN	2FNH	3FN	3FNH	5FN	5FNH	10FNH	15FNH
Rated Load	(kg)	2,000		3,000		5,000		10,000	15,000
Dimensions	Z	680		830		1,020		1,060	1,235
	A	280		280		280		280	280
	B	330		330		330		330	330
	C	175		120		145		—	—
	D	170		245		330		—	—
	E	845	1,060	1,090	1,100	1,295	1,305	1,040	1,280
	G	26		42		48		68	86
Approx. Weight	(kg)	96	102	116	128	146	167	360	520

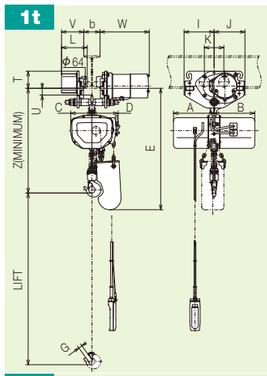
All dimensions and specifications are subject to change without notice.

With motorized trolley-ET

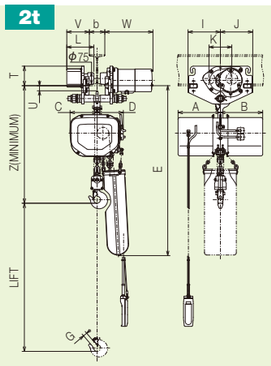
This can be combined with a 4-point or 6-point pushbutton and used as a motorized trolley or overhead traveling crane.

Dimensions

1t



2t



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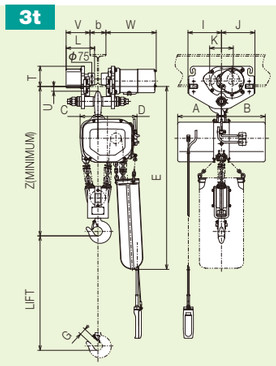
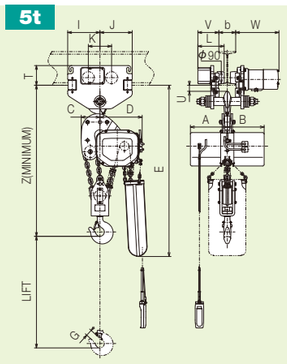
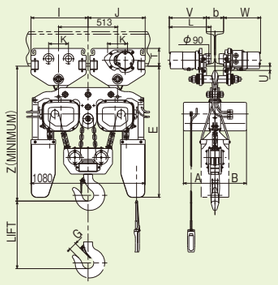


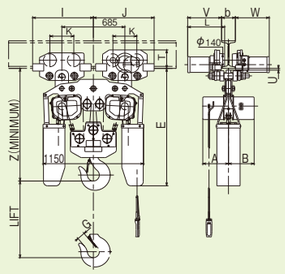
5t



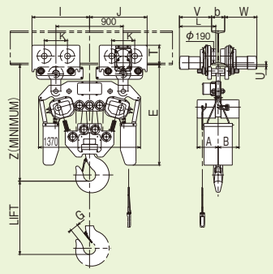
10t



15t



20t



Note
1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.
2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

Specifications table

Chain Hoist Model Name		1F(H)	2F(H)	2FN(H)	3F(H)	3FN(H)	5F(H)	5FN(H)	10FH		10FNH		15FH		15FNH		20FH	
Trolley Type		1ET	2ET		3ET		5ET		5ET×2				7.5ET×2				10ET×2	
Rated Load	(kg)	1,000	2,000		3,000		5,000		10,000				15,000				20,000	
Dimensions (mm)	Z	610	731	736	892	892	1,112	1,112	1,150	1,152	1,150	1,152	1,210	1,212	1,210	1,212	1,520	1,515
	A	250	280	280	280	280	280	280	280		280		280		280		280	
	B	250	280	330	280	330	280	330	280		330		280		330		280	
	C	135	185	185	120	120	145	145	—		—		—		—		—	
	D	170	170	170	245	245	330	330	—		—		—		—		—	
	E	750	945(1,125)		1,130(1,185)		1,410		1,130		1,130		1,265		1,265		1,375	
	G	23	26	26	42	42	48	48	68		68		86		86		108	
	I	185	210		210		240		500		500		663		663		770	
	J	190	210		210		240		500		500		663		663		770	
	K	120	148		148		173		173		173		260		260		309	
	L	182	200		203		219		362		362		434		434		511	
	T	110	140		140		156		158	156	158	156	205	203	205	203	280	285
	U	38	18		16		34		32	34	32	34	15	17	15	17	23	18
	V	159	172		175		181		323		323		401		401		455	
	W	303	313		316		323		323		323		401		401		455	
Min. Curve Radius	(m)	1.5	1.8		2.0		3.0		5.0		5.0		5.0		5.0		Straight	
Applicable Beam Width b	(mm)	75-125	100–150		100–150		125–175		150	175	150	175	150	175	150	175	175	190
Approx. Weight	(kg)	80(85)	132(139)	147(154)	161(175)	176(190)	217(238)	232(253)	502		532		860		890		1,490	

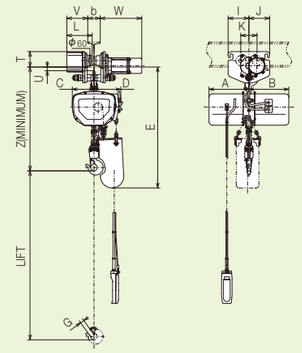
All dimensions and specifications are subject to change without notice.

With motorized trolley-ST

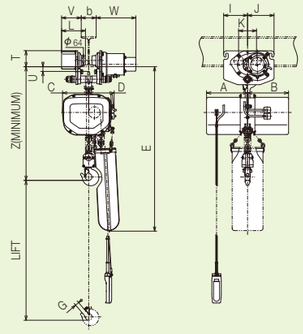
This can be combined with a 4-point or 6-point pushbutton and used as a motorized trolley or overhead traveling crane.

Dimensions

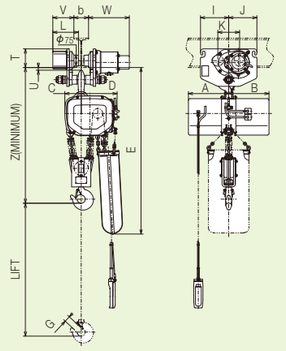
1t



2t



3t



Specifications table

Chain Hoist Model Name		1F(H)	2F(H)	2FN(H)	3F(H)	3FN(H)
Trolley Type		1ST	2ST		3ST	
Rated Load	(kg)	1,000	2,000		3,000	
Dimensions (mm)	Z	582	715	715	872	872
	A	250	280	280	280	280
	B	250	280	330	280	330
	C	135	185	185	120	120
	D	170	170	170	245	245
	E	725	935(1,115)		1,110(1,165)	
	G	23	26	26	42	42
	I	125	160		192	
	J	125	177		192	
	K	98	120		148	
	L	156	163		180	
	T	101	119		140	
	U	18	19		5	
	V	130	135		145	
	W	255	270		280	
Min. Curve Radius	(m)	1.8	2.5		3.0	
Applicable Beam Width b	(mm)	75–125	100–150		100–150	
Approx. Weight	(kg)	66(71)	117(124)	132(139)	140(161)	155(176)

Motorized trolley specifications table

Series Name		ET series							ST series		
Model Name		1ET	2ET	3ET	5ET	5ET×2	7.5ET×2	10ET×2	1ST	2ST	3ST
Working Load Limit	(kg)	1,000	2,000	3,000	5,000	10,000	15,000	20,000	1,000	2,000	3,000
Travelling Spead (m/min)	50Hz	10.5(21)				10.5		14	10.5		
	60Hz	12.5(25)				12.5		17	12.5		
Motor Output (kW)	50Hz	0.14(0.27)		0.3(0.6)		0.3×2	0.35×2	0.7×2	0.07	0.14	0.2
	60Hz	0.16(0.32)		0.35(0.7)		0.35×2	0.42×2	0.84×2	0.08	0.16	0.24
Applicable Beam Width b	(mm)	75–125	100–150		125–175	150, 175		175, 190	75–125	100–150	
Rating		25%ED						40%ED	25%ED		

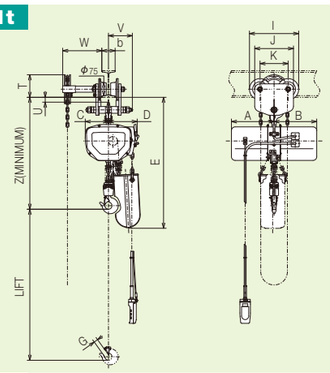
All dimensions and specifications are subject to change without notice.

With chain driven trolley-BC

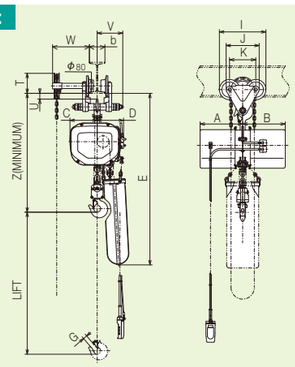
The electric chain hoist with chain driven trolley is suitable for relatively heavy loads not transported a long distance.

Dimensions

1t



2t



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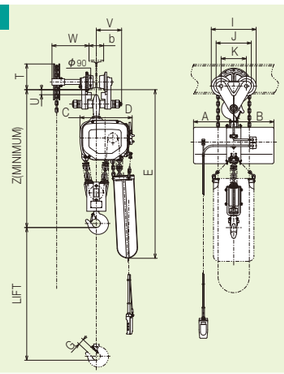
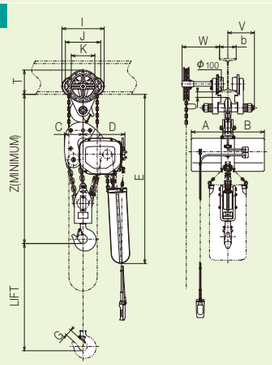


5t



Note
1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.
2) The dimension drawing shows the state with a load suspended.
3) The CE version differs slightly from the dimension drawing shape.

Specifications table

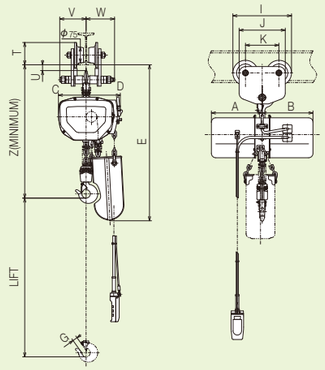
Chain Hoist Model Name		1F(H)	2F(H)	2FN(H)	3FH	3FNH	5FH	5FNH
Trolley type		1BC(H)	2BC(H)		3BCH		5BCH	
Rated Load	(kg)	1,000	2,000		3,000		5,000	
Dimensions (mm)	Z	595	717	717	896	896	1,105	1,105
	A	250	280	280	280	280	280	280
	B	250	280	330	280	330	280	330
	C	135	175	175	120	120	145	145
	D	170	170	170	245	245	330	330
	E	740	1,130	1,130	1,180	1,180	1,405	1,405
	G	23	26	26	42	42	48	48
	I	277	300		306		319	
	J	218	213		240		262	
	K	158	169		172		177.2	
	L	—	—		—		—	
	T	131	143		191		194	
	U	23	22		21		30	
	V	135	165		173		200	
	W	220	236		252		284	
Min. Curve Radius	(m)	1.2	1.5		1.5		2.4	
Applicable Beam Width b	(mm)	75–125	100–150		100–150		125–175	
Approx. Weight	(kg)	63(71)	104(114)	120(129)	157	170	198	223

With manual driven trolley-BP

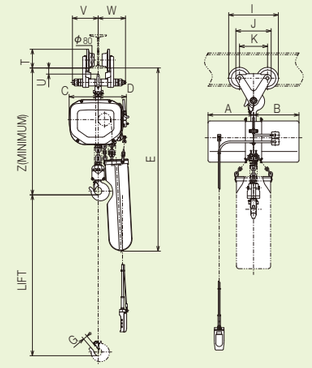
The electric chain hoist with manual driven trolley is suitable for relatively light loads transported a short distance.

Dimensions

1t



2t



Specifications table

Chain Hoist Model Name		1F(H)	2F(H)	2FN(H)
Trolley type		1BP	2BP	
Rated Load	(kg)	1,000	2,000	
Dimensions (mm)	Z	595	717	717
	A	250	280	280
	B	250	280	330
	C	135	175	175
	D	170	170	170
	E	740	1,130	1,130
	G	23	26	26
	I	277	300	
	J	218	213	
	K	158	169	
	L	—	—	
	T	110	128	
	U	23	22	
	V	125	155	
	W	135	165	
Min. Curve Radius	(m)	1.2	1.5	
Applicable Beam Width b	(mm)	75–125	100–150	
Approx. Weight	(kg)	57(62)	97(104)	113(119)

Chain driven trolley, manual driven trolley specifications table

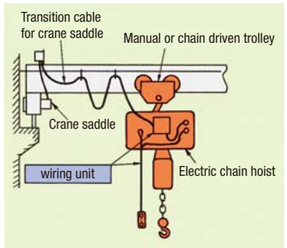
Classification		Chain driven trolley				Manual driven trolley	
Model Name		1BC(H)	2BC(H)	3BCH	5BCH	1BP	2BP
Working Load Limit	(kg)	1,000	2,000	3,000	5,000	1,000	2,000
Standard Lift	(m)	3(6)	3(6)	6	6	—	—
Min. Curve Radius	(m)	1.2	1.5	1.5	2.4	1.2	1.5
Applicable Beam Width b	(mm)	75–125	100–150		125–175	75–125	100–150

For a crane that uses a chain or manual driven trolley for transverse movement and an electric motor for travel, please purchase a 4PB(H)-C, 4PBN(H)-C type wiring unit (See page 23).

Crane wiring unit

4-point pushbutton crane wiring unit

- This is a wiring unit for connecting to the crane electro-magnetic switch and the hoist main unit.
- Connection can be done simply by just attaching to the hoist main unit.
- A unique HITACHI operation cable with a single protective wire provides excellent operability and durability.
- The pushbutton is made of drip-proof hardened plastic.
- The pushbutton cable employs a one-touch outlet to allow it to be connected easily.



Specifications table

The product is a wiring unit that combines an electric chain hoist with an crane saddle for use with manual traverse (manual or chain driven trolley) and motorized travel 4-point pushbutton cranes.

For single speed models

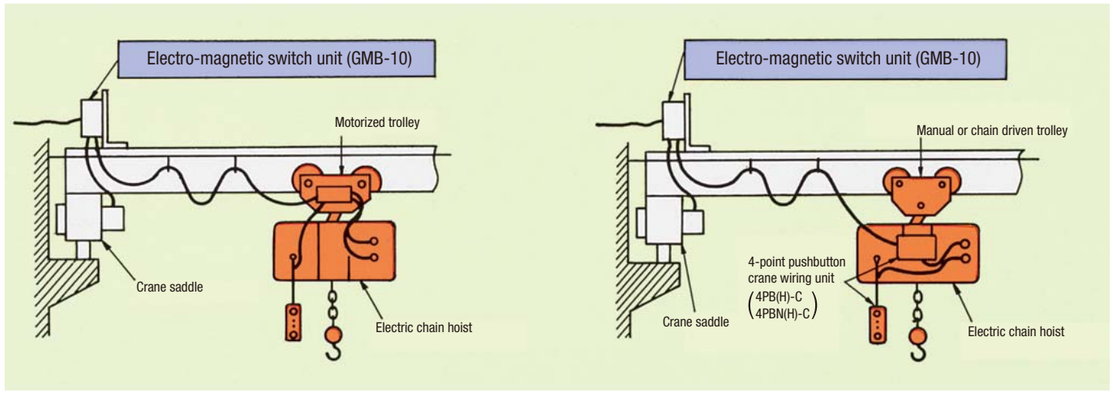
Model Name	4PB-C	4PBH-C
Lift	3m	6m
Approx. Weight	3kg	3.5kg

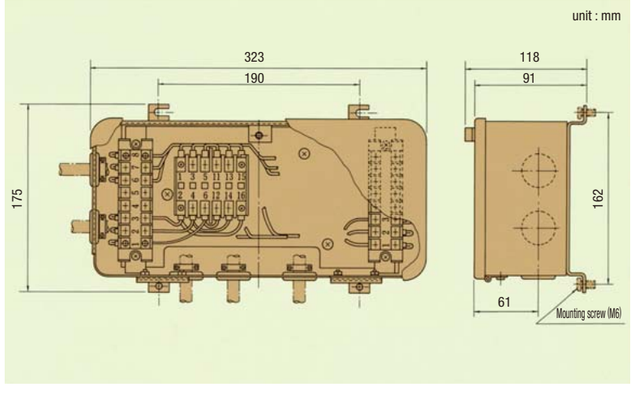
For double speed models

Model Name	4PBN-C	4PBNH-C
Lift	3m	6m
Approx. Weight	3.5kg	4kg

Electro-magnetic switch unit with crane case

- This is the electro-magnetic switch unit with a case for girder operation (24V) for when a HITACHI electric chain hoist (with motorized trolley) is used in a crane girder system. (Applicable up to HITACHI crane saddle TLU5-56 and TH5-56)
- Install in a freely selected location of the girder system, and the transition cables for girder and trolley, and the power cable are connected to the terminal block.





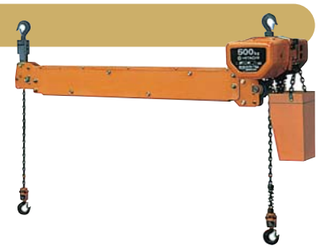
Specifications table

Model Name		GMB–10
Electro-magnetic Contactor	Type	HMU-12
	Control Voltage	24V
	Current Capacity	10A
Approx. Weight		4kg

Dedicated electric chain hoist

Twin hook type electric chain hoist

The HITACHI twin hook type electric chain hoist is a two-chain, two-hook type with two chain hoists in the same sprocket axis. Since there is 1 chain hoist drive, the load is kept level during hoisting. This is optimal for long items that must be hoisted from 2 points and cargo that must be kept level.



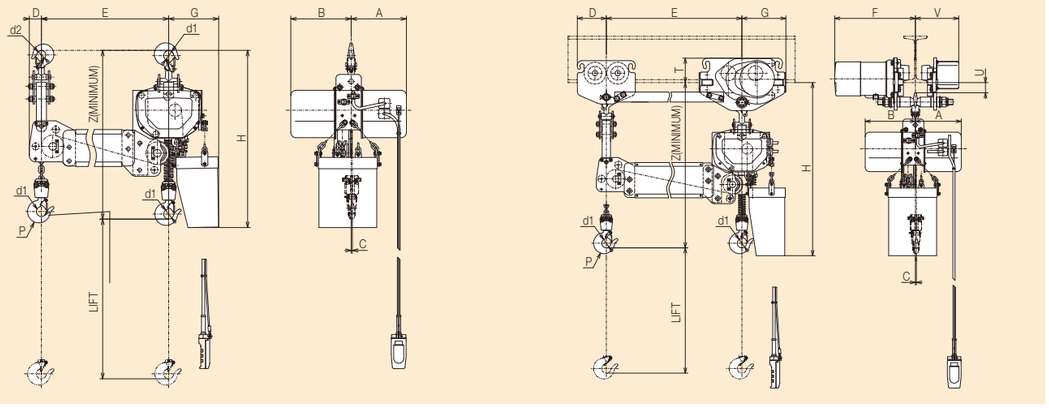
Basic specifications table

Model (main unit)			1/4SHT	1/2SHT	1SHT	1FHT	2FHT
Rated Load			125kg×2	250kg×2	500kg×2	500kg×2	1000kg×2
Standard Lift	(m)				6		
Hoisting Speed	(m/min)	50Hz	9.2	7.1	4.6	7.1	6.8
		60Hz	11	8.5	5.5	8.5	8.2
Traveling Speed	(m/min)	50Hz			10.5		
		60Hz			12.5		
Hoisting Motor	(kW)	50Hz	0.4	0.65	0.8	1.3	2.4
		60Hz	0.5	0.8	1.0	1.6	2.9
		No. of poles			2		
Traveling Motor	(kW)	50Hz			0.14		
		60Hz			0.16		
		No. of poles			4		
Link Chain	(dia./falls)				ϕ7.1 × 2		ϕ10 × 2

∗A load must always be applied to the lower hook P side, so please inform HITACHI when a original sling will not be used.

Dimensions

Suspension type **With motorized trolley (Option)**



Specifications table

Chain Hoist Model Name			1/4SHT	1/2SHT	1SHT	1FHT			2FHT		
Trolley Type			1ET						2ET		
Dimensions (mm)		A	212			246			286		
		B	252			286			339		
		C	5			5			6		
		D	125(48)			125(48)			125(61)		
		ϕd1	40			40			45		
		ϕd2	35.5			35.5			40		
		E	500–2,000(50 Interval) The actual dimensions differ slightly.								
		F	341	353	366	341	353	366	363	375	388
		G	190(170)			190(170)			210(170)		
		V	174	187	199	174	187	199	196	209	221
		T	110						140		
		U	38						18		
	With Motorized Trolley	H	837	836	834	837	836	834	992	989	980
		Z	744	743	741	744	743	741	877	874	865
	Suspension	H	765			765			925		
		Z	672			672			810		
Applicable Beam Width		(mm)	75–125			75–125			100–150		

∗The suspension type is shown in parentheses ( ).
∗Only the straight rail is applicable to the trolley.

Dedicated electric chain hoist

Optional power source electric chain hoist and trolley

When the power source specifications differ, the following power source products will be manufactured.

50Hz	240V
60Hz	230V, 380V, 440V, 460V

Electric chain hoist with the Hi-plated chain

This comes with a corrosion-resistant Hi-plated chain. The chain specifications and strength are those of a power chain.

Hi-plated chain	Electroless nickel plating (Chemical resistance strengthening treatment, Plating thickness 8 μm)

Optional control voltage model

The HITACHI electric chain hoist control voltage is 24V, but products with a specified operating voltage can be manufactured when they must match the voltage of other devices.

Control voltage	100V 50/60Hz, 200V 50/60Hz

Electric chain hoist with overload prevention unit (with OL)

The HITACHI electric chain hoist that employs an "overload protection unit" was produced in response for demand for increased safety.

*Lowering operation is possible after the overload prevention device operates. First push the lowering button once before beginning the operation.

Features

- Allows cargo handling work while preventing overloading.
- The operation load remains stable even after repeated operation.
- This devices was designed to avoid excessive shocks to ensure a long useful life.
- It is an electromechanical type, so it can support optional power source specifications.

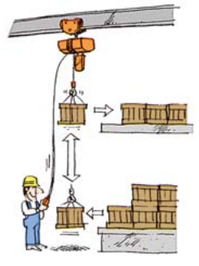
Operation load : 110 to 140%

Operation principles

Operation of the detection unit built into the reduction gear shuts off the hoist operation circuit. This is HITACHI's unique "overload prevention unit". It detects overload operation and then stops operation while keeping the load hoisted.

With geared limit switch (UDS)

- This type has a built-in switch (UDS switch) that allows the upper and lower limit stop positions to be freely set and that outputs signals of a mid points and other locations by detecting the motor speed.
- From 2 to 8 contacts is possible.
  2 of the contacts are used for the upper and lower limit switches.Unless otherwise specified, both the upper and lower limits are set at the time of shipment to be activated approximately 100 mm in front of the limit switch built into the main unit.



Traverse double speed motorized trolley series

This is suitable for applications requiring a stop system and efficient operation.

Specifications table

Trolley type	1ETN	2ETN	3ETN	5ETN
Rated load	1t	2t	3t	5t
Rating	20%ED, 120Starts/h			
Applicable Beam Width (mm)	75–125	100–150		125–175

For a speed ratio of 4:1

Trolley type		1ETN	2ETN	3ETN	5ETN
Traveling Speed (m/min)	50Hz	21/5.3			
	60Hz	25/6.3			
Motor Output (kW)	50Hz	0.27/0.07		0.6/0.15	
	60Hz	0.32/0.08		0.7/0.18	
	No. of poles	2/8			

For a speed ratio of 2:1

Trolley type		1ETN	2ETN	3ETN	5ETN
Traveling Speed (m/min)	50Hz	21/10.5			
	60Hz	25/12.5			
Motor Output (kW)	50Hz	0.27/0.14		0.6/0.3	
	60Hz	0.32/0.16		0.7/0.35	
	No. of poles	2/4			

*When specifying a transverse double speed motorized trolley, the pushbutton switch configuration differs depending on whether the hoist unit and travel crane saddle are single speed or double speed, so contact HITACHI.
*The total value for low speed and high speed is shown for the rating.

Other products with changed specifications

Lift change (extension)

- The lift can be extended within the range in the following table, so specify as needed.
- Options other than those shown in the following table are also possible depending on the conditions, so contact HITACHI.

Chain Length and Chain Container

It is necessary to use a chain container of a capacity fitted to the length of chain to be contained.

	Rated Load(kg)	Chain System	Chain Length(m)	Lift (m) and Name of Container 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L Series	150	φ6.3×1	LIFT+0.5			Lx							Bx						Cx						
	250	φ6.3×1	LIFT+0.5			Lx							Bx						Cx						
	500	φ6.3×1	LIFT+0.5			Lx							Bx						Cx						
S Series	1,000	φ7.1×1	LIFT+0.7		D					E								F							
	2,000	φ7.1×2	2×LIFT+1.4	D		E			F					G											
	3,000	φ7.1×3	3×LIFT+2.4		E		F			G															
	5,000	φ7.1×5	5×LIFT+3.9		F		G																		
F Series	1,000	φ7.1×1	LIFT+0.7			D				E								F							
	2,000	φ10×1	LIFT+0.8		E			F							G					I					
	3,000	φ10×2	2×LIFT+1.6			F			G					I											
	5,000	φ10×3	3×LIFT+1.8				G			I															

Tropical treatment added

The motor is varnish treated twice when it will be subjected to high humidity conditions.

Insulation grade change

The standard product uses E grade insulation, but F grade insulation is possible (motor only).

On beam first stage

The ET trolley beam width is one grade higher than the standard.

With protective cover

This is a resin coated cloth main unit protective cover.

Upper hook direct connection type

This type directly connects the trolley and hoist body using an I-hook.

Optional chain container

Plastic is the standard specification, but it can also be made of steel plate.

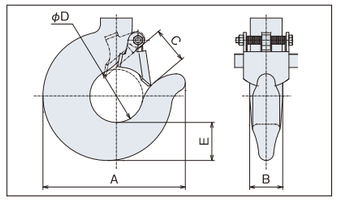
With thermal protector

This product can come with a thermal protector to prevent motor burnout.

Hook dimension / load block weight / chain weight

		L series			S series				F series						
		150kg	250kg	500kg	1t	2t	2.8t	5t	1t	2t	2.8t	5t	(7.5t)	10t	15t
Upper Hook dimension	A	88.5	88.5	88.5	97	127	154	180	97	124	154	180	180	180	—
	B	22.5	22.5	22.5	25	35	45	55	25	28	45	55	55	55	—
	C	27	27	27	29	34	40	48	29	33	40	48	48	48	—
	D	35.5	35.5	35.5	40	45	55	65	40	45	55	65	65	65	—
	E	26	26	26	30	36	46.5	56.5	30	36	46.5	56.5	56.5	56.5	—
Lower Hook dimension	A	85	85	85	105	123	154	186	105	123	154	186	295	295	365
	B	22	22	22	25	35	45	55	25	35	45	55	85	85	102
	C	27	27	27	23	26	42	48	23	26	42	48	68	68	86
	D	35	35	35	40	45	55	65	40	45	55	65	100	100	130
	E	23	23	23	25	36	46.5	56.5	25	36	46.5	56.5	95	95	122
Load block weight (kg)		1.0	1.0	1.0	1.5	6.2	11.0	18.0	1.5	3.7	13	25	65	65	120
Chain weight (kg)	Per 1m chain	0.86	0.86	0.86	1.14	1.14	1.14	1.14	1.14	2.23	2.23	2.23	2.23	2.23	2.23
	Per 1m lift					2.28	3.42	5.7			4.46	6.69	8.92	8.92	13.4

Hook dimension drawing



About the method with a stopper

■ Wheel stopper

After the trolley has been installed on the travel rail, always install a stopper on the end of the travel rail to prevent the trolley from dropping off.

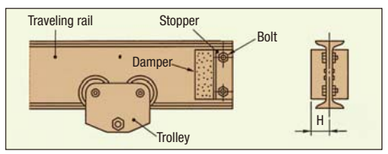
- Avoid using the stopper to stop the trolley by letting it run into the stopper.
- Using a stopper that is a different color from the travel rail is an effective means for preventing the trolley from striking the stopper because it makes the stopper stand out.

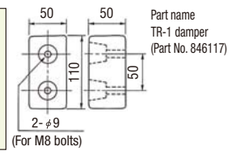
■ Damper

The stopper should be used with rubber or other shock absorbing material to absorb the shock when the trolley strikes the stopper. The rubber damper shown in the figure at right is available, so please make use of it.

Installation of trolley stopper

Runway Beam Width (mm)	Materials (L Shaped RolledSteel Bar)	H (mm)	Bolts and Nuts
75	50×50×6	30	M10
100		40	M16
125		50	
150	65×65×6	60	M20
175		65	





Part name
TR-1 damper
(Part No. 846117)

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Hitachi Industrial Equipment Systems Co., Ltd.

For further information, please contact your nearest sales representative.

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Registration date: July 22, 1996

Hitachi Industrial Equipment Systems Co., Ltd. (Taga Administrative division) obtained ISO 14001 certification, an international standard for environmental management systems.

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Hitachi Industrial Equipment Systems Co., Ltd. (Taga Administrative division) obtained international standard ISO 9001 certification for the quality assurance of the hoist motor block contained in this brochure.

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