

Hitachi Hoists

Electric Chain Hoist



HITACHI Electric Chain Hoist



Widely used to make cargo handling more efficient.

A wide range of applications are provided for not only general machinery, automobile, can manufacturing and other plants but also for applications from primary to tertiary industries including warehouses and retail stores.



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

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

	(P11-P16)	Rated load	250kg	500kg	1t	2t	3t	5t	10t	15t	20t
Single speed model : S											
Dual speed model : SN											
Single phase model : SS, S1											

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

	(P17-P22)	Rated load	250kg	500kg	1t	2t	3t	5t	10t	15t	20t
Single speed model : F											
Dual speed model : FN											

Trolley series

		Rated load	250kg	500kg	1t	2t	3t	5t	10t	15t	20t
Motorized trolley-ET series	Single speed model : ET										
Motorized trolley-ST series	Single speed model : ST										
Chain driven trolley : BC											
Manual driven trolley : BP											

Dedicated electric chain hoist contents

- Twin hook type electric chain hoist —— 24
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Standard Specifications

Power Source*	Specifications		Standard model	CE Making model		
	50Hz		3 phase : 220/380-415V 1 phase : 220-240V	3 phase : 346-380V 1 phase : 200-220V		
	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 dual speed				
	4(5)	single speed dual speed				
	6(7)	single speed dual speed				
Color(Munsell)				Orange(2.5YR 6/12)		
Electrical Protection				IP54(S-series(1t and above),Trolley : IP44) (Equivalent when stuffing drain hole)		
Insulation Class of Motor				E		
Rating**				30%ED, 180starts/h(1 to 5S : 25%ED, 150starts/h)		
Classification				ISO M4, FEM 1Am		
Standards				— Machinery : 2006/42/EC EMC : 2004/108/EC		

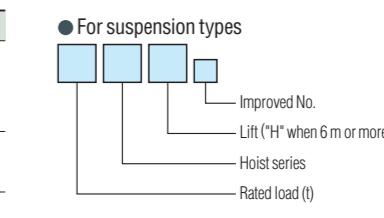
* For power sources other than those listed, see the dedicated electric chain hoists (page25).

** This shows the value at a load of 63% of the rated load.

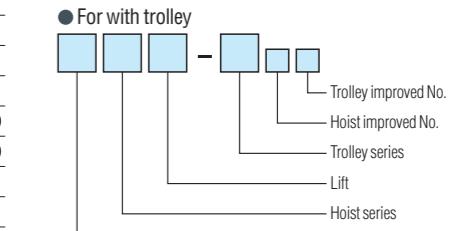
*** Make sure the average value per hour is not exceeded even during concentrated use in a short time.

*** 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.

Model Explanation



Ex. 2t, S series, Lift 6m
2 S H
— No improved No.—Blank field



Ex. 1t, SN series, Lift 3m, With motorized trolley-ET
1 SN T - ET 0 2
— "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-ET₂ : 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.

Load Condition	Load Ratio	Mean operating hour per day (h)					
		0.25	0.5	1	2	4	8
Light	K≤0.5						
Medium	0.5<K≤0.63						
Heavy	0.63<K≤0.8						
Severe	0.8<K						

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.

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)= $2 \times n \times N$

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.

$$2 \times 3 \times 25 = 150 \text{ Starts/h}$$

Lifting+Lowering (Number of times) — No. of transfer per hour (times)

Inching count (times) per lifting or lowering operation.

(2) Duty factor β (%) = $\frac{\text{Lift time (min)} \times 60}{\text{Total motor ON time (minutes) per hour under the most frequent condition.}} \times 100$

$$= 2 \times \frac{\ell}{V} \times N \times \frac{1}{60 \text{ min}} \times 100$$

Example calculation

Lift(m) — No. of transfer per hour(Times)

$$2 \times \frac{3}{10} \times 25 \div 60 \times 100 = 25\%$$

Lifting+Lowering (Times) — 1 hour (60 min)

Hoisting speed (m/min)

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

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).

$$K = \sqrt[3]{(0.3+0.4)^3 \times 0.5 + 0.3^3 \times 0.5} = 0.57$$

In this case, the load condition is comparable to "medium" and the average operating time per day is 2 hours or less. If used for a longer time than this, an electric chain hoist

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		S series F series	—	 		
Manual Driven Trolley Type			BP series P16 P22	Pushbutton cable		
Chain Driven Trolley Type		 BC series P15 P21	P15 P21	2PB(H) For single speed 2PBN(H) For double speed		 Crane girder switch unit (24V operation) GMB-10
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	P13 P20	6PB(H) 6PBN(H)		 Crane girder switch unit (24V operation) GMB-10
Manual Driven Trolley Motorized Travel Type			BP series P16 P22	 Wiring unit 4PB(H)-C 4PBN(H)-C		
Chain Driven Trolley Motorized Travel Type		BC series P15 P21	P15 P21	Crane saddle TL series TLM series TH series THM series SL series SLM series		

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	Character			
For Single Speed Type	2PB	3	2	T-VCT 3CX0.75mm ²	VCT 4CX2mm ²	Character			
	2PBH	6				Contact	2a		
	4PB	3	4	T-VCT 5CX0.75mm ²	—	Character			
	4PBH	6				Contact	2a	2a	
	6PB	3	6	T-VCT 8CX0.75mm ²	—	Character			
	6PBH	6				Contact	2a	2a	2a
For Dual Speed Type	2PBN	3	2	T-VCT 5CX0.75mm ²	VCT 4CX2mm ²	Character			
	2PBNH	6				Contact	4a+2b		
	4PBN	3	4	T-VCT 6CX0.75mm ²	—	Character			
	4PBNH	6				Contact	4a+2b	2a	
	6PBN	3	6	T-VCT 8CX0.75mm ²	—	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	Character				
For Single Speed Type	3PBE	3	3	T-VCT 4CX0.75mm ²	VCT 4CX2mm ²	Character				
	3PBEH	6				Contact	1b	2a		
	5PBE	3	5	T-VCT 7CX0.75mm ²	—	Character				
	5PBEP	6				Contact	1b	2a	2a	
	7PBE	3	7	T-VCT 8CX0.75mm ²	—	Character				
	7PBEP	6				Contact	1b	2a	2a	2a
For Dual Speed Type	3PBNE	3	3	T-VCT 5CX0.75mm ²	VCT 4CX2mm ²	Character				
	3PBNEH	6				Contact	1b	4a+2b		
	5PBNE	3	5	T-VCT 7CX0.75mm ²	—	Character				
	5PBNEH	6				Contact	1b	4a+2b	2a	
	7PBNE	3	7	T-VCT 9CX0.75mm ²	—	Character				
	7PBNEH	6				Contact	1b	4a+2b	2a	2a

Standard Specifications Quick Reference

Hoist main unit

Capacity (kg)	Hoisting Speed (m/min)(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
250	Single	10/12	—	0.45/0.55	—	3	6.3	1	3	1/4S ₂	11,12	—	—	—
250	Single	10/12	—	0.45/0.55	—	3	6.3	1	6	1/4SH ₂	11,12	—	—	—
250	Dual	7.2/8.5	1.8/2.1	0.32/0.38	0.08/0.1	3	6.3	1	3	1/4SN ₂	11,12	—	—	—
250	Dual	7.2/8.5	1.8/2.1	0.32/0.38	0.08/0.1	3	6.3	1	6	1/4SNH ₂	11,12	—	—	—
250	Single	5/6	—	0.25/0.3	—	1	6.3	1	3	1/4SS ₂	11,12	—	—	—
250	Single	5/6	—	0.25/0.3	—	1	6.3	1	6	1/4SSH ₂	11,12	—	—	—
500	Single	7.2/8.5	—	0.63/0.75	—	3	6.3	1	3	1/2S ₂	11,12	—	—	—
500	Single	7.2/8.5	—	0.63/0.75	—	3	6.3	1	6	1/2SH ₂	11,12	—	—	—
500	Dual	7.2/8.5	1.8/2.1	0.63/0.75	0.16/0.19	3	6.3	1	3	1/2SN ₂	11,12	—	—	—
500	Dual	7.2/8.5	1.8/2.1	0.63/0.75	0.16/0.19	3	6.3	1	6	1/2SNH ₂	11,12	—	—	—
500	Single	3.6/4.3	—	0.32/0.37	—	1	6.3	1	3	1/2SS ₂	11,12	—	—	—
500	Single	3.6/4.3	—	0.32/0.37	—	1	6.3	1	6	1/2SSH ₂	11,12	—	—	—
1,000	Single	4.6/5.5	—	0.8/1.0	—	3	7.1	1	3	1S	11,12	—	○	—
1,000	Single	4.6/5.5	—	0.8/1.0	—	3	7.1	1	6	1SH	11,12	—	○	—
1,000	Single	7.1/8.5	—	1.3/1.6	—	3	7.1	1	3	1F	17,18	○	○	○
1,000	Single	7.1/8.5	—	1.3/1.6	—	3	7.1	1	6	1FH	17,18	○	○	○
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	11,12	—	○	—
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	11,12	—	○	—
1,000	Single	2.3/2.8	—	0.4/0.5	—	1	7.1	1	3	1S1	11,12	—	—	—
1,000	Single	2.3/2.8	—	0.4/0.5	—	1	7.1	1	6	1SH1	11,12	—	—	—
2,000	Single	2.3/2.8	—	0.8/1.0	—	3	7.1	2	3	2S	11,12	—	○	—
2,000	Single	2.3/2.8	—	0.8/1.0	—	3	7.1	2	6	2SH	11,12	—	○	—
2,000	Single	6.8/8.2	—	2.4/2.9	—	3	10	1	3	2F	17,18	○	○	○
2,000	Single	6.8/8.2	—	2.4/2.9	—	3	10	1	6	2FH	17,18	○	○	○
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	11,12	—	○	—
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	11,12	—	○	—
2,000	Dual	6.8/8.2	1.7/2.1	2.4/2.9	0.6/0.7	3	10	1	3	2FN	17,18	○	○	○
2,000	Dual	6.8/8.2	1.7/2.1	2.4/2.9	0.6/0.7	3	10	1	6	2FNH	17,18	○	○	○
2,000	Single	1.1/1.4	—	0.4/0.5	—	1	7.1	2	3	2S1	11,12	—	—	—
2,000	Single	1.1/1.4	—	0.4/0.5	—	1	7.1	2	6	2SH1	11,12	—	—	—
3,000	Single	1.5/1.8	—	0.8/1.0	—	3	7.1	3	3	3S	11,12	—	○	—
3,000	Single	1.5/1.8	—	0.8/1.0	—	3	7.1	3	6	3SH	11,12	—	○	—
3,000	Single	4.1/4.9	—	2.4/2.9	—	3	10	2	3	3F	17,18	○	○	○
3,000	Single	4.1/4.9	—	2.4/2.9	—	3	10	2	6	3FH	17,18	○	○	○
3,000	Dual	4.0/4.8	1.0/1.2	2.4/2.9	0.6/0.7	3	10	2	3	3FN	17,18	○	○	○
3,000	Dual	4.0/4.8	1.0/1.2	2.4/2.9	0.6/0.7	3	10	2	6	3FNH	17,18	○	○	○
3,000	Single	0.8/0.9	—	0.4/0.5	—	1	7.1	3	3	3S1	11,12	—	—	—
3,000	Single	0.8/0.9	—	0.4/0.5	—	1	7.1	3	6	3SH1	11,12	—	—	—
5,000	Single	0.9/1.1	—	0.8/1.0	—	3	7.1	5	3	5S	11,12	—	○	—
5,000	Single	0.9/1.1	—	0.8/1.0	—	3	7.1	5	6	5SH	11,12	—	○	—
5,000	Single	2.8/3.3	—	2.4/2.9	—	3	10	3	3	5F	17,18	○	○	○
5,000	Single	2.8/3.3	—	2.4/2.9	—	3	10	3	6	5FH	17,18	○	○	○
5,000	Dual	2.8/3.3	0.7/0.8	2.4/2.9	0.6/0.7	3	10	3	3	5FN	17,18	○	○	○
5,000	Dual	2.8/3.3	0.7/0.8	2.4/2.9	0.6/0.7	3	10	3	6	5FNH	17,18	○	○	○
5,000	Single	0.45/0.55	—	0.4/0.5	—	1	7.1	5	3	5S1	11,12	—	—	—
5,000	Single	0.45/0.55	—	0.4/0.5	—	1	7.1	5	6	5SH1	11,12	—	—	—
10,000	Single	2.8/3.3	—	2.4/2.9×2	—	3	10	4	6	10FH	17,18	○	○	○
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	17,18	○	○	○
15,000	Single	1.8/2.2	—	2.4/2.9×2	—	3	10	6	6	15FH	17,18	○	○	○
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	17,18	○	○	○
20,000	Single	1.4/1.6	—	2.4/2.9×2	—	3	10	8	6	20FH	17,18	○	○	○

Motorized 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	3BC(H)		2.0
5t	5BC(H)	125~175	3.0
10t	5ET×2	10.5	5.0
15t	7.5ET×2	12.5	5.0
20t	10ET×2	14	17
			175, 190
			Straight

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	3BC(H)		1.5
5t	5BC(H)	125~175	2.4

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 ₅ -10	Inverted hat cross-section structure
	2.8	12		TL ₅ -28	Double channel structure (TH ₅ -10, TH ₅ -28 Use uniform thickness channel steel)
	1	10		TH ₅ -10	
	2.8	12		TH ₅ -28	
	3	16		TH ₅ -30	
	5.6	18		TH ₅ -56	
Suspension Crane Saddle	11.2	20	25/30	TH-112	L-shaped frame structure
	0.6	10	21/25	SL-6	
	1	10		SL-10	
	2.8	12		SL-28	Double channel structure (SL-10, SL-28 Use uniform thickness channel steel)

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 S series S / F series F

HELICAL GEARING SF

used where practical to provide quiet operation.

LONG LIFE BRAKE UNIT SF

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 SF

with mechanical-interlocking against line short by mechanical shock.

POWER CHAIN SF

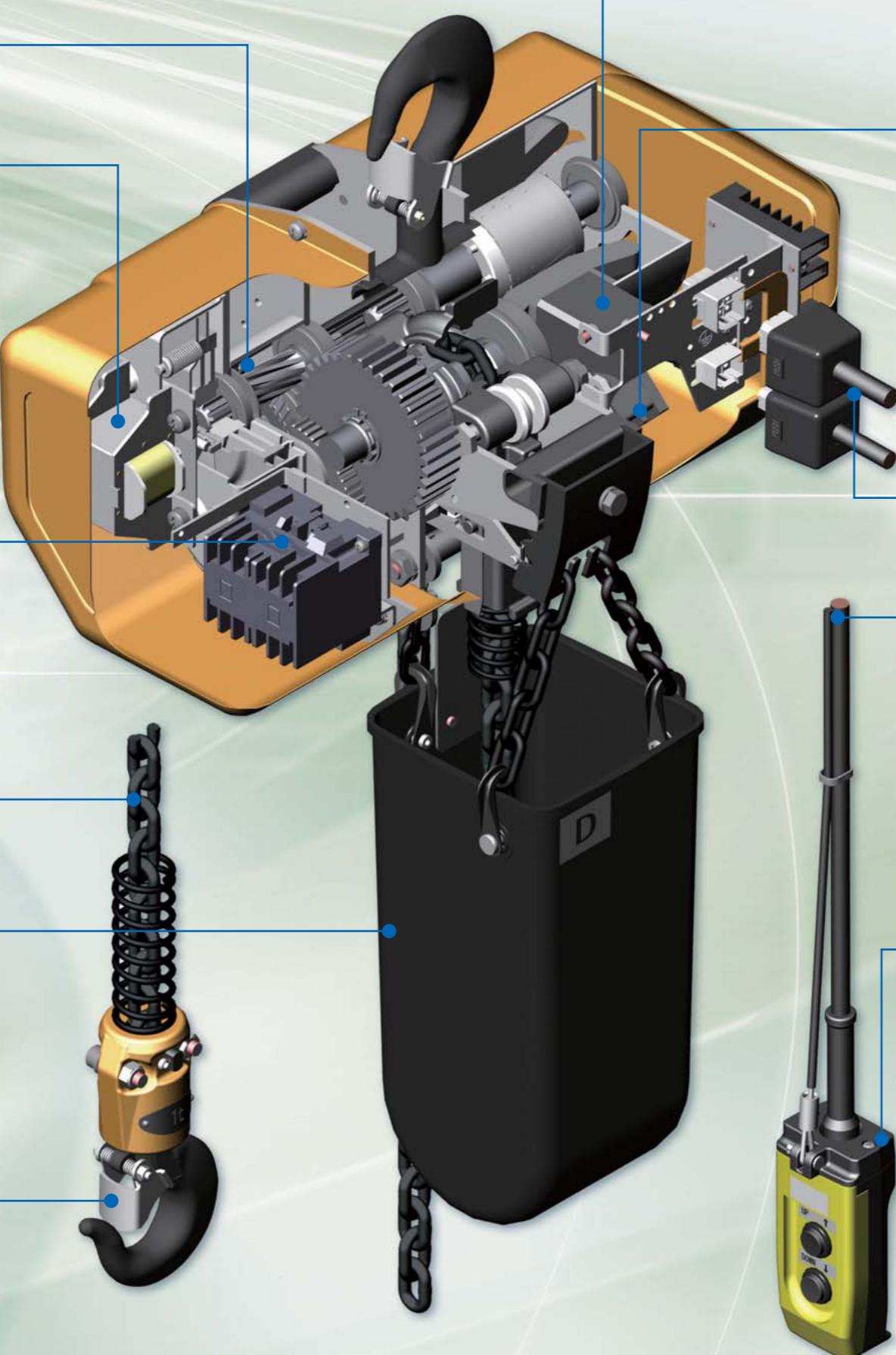
special (patented) alloy steel chain surface hardened for optimum strength and wear resistance.
(U.S. PAT. 3830054)

CHAIN CONTAINER SF

as standard part for safer operation.

LOWER HOOK SF

is heat-treated and equipped with safety latch and 360° swivelling.



REVERSE PHASE INSPECTION RELAY SF

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) SF

interrupt motor power to prevent hook overtravel and hazardous condition such as chain kink.

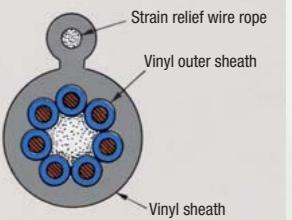
AUXILIARY BRAKE SYSTEM F

F series hoists equipped with auxiliary brake.



PLUG-IN CABLES SF

reduce maintenance time and installation.



PUSHBUTTON CABLE SF

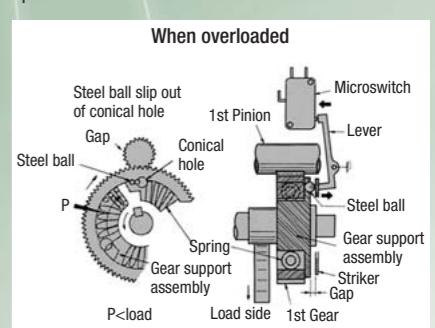
is molded with strain relief wire rope into one body.
This assures easier and safer operation.

PUSHBUTTON SWITCH SF

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 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



Conform with Essential Requirements Set Out in European Directives

Outline

CE MARKING MODEL

S series S / F series F

HELICAL GEARING SF

used where practical to provide quiet operation.

LONG LIFE BRAKE UNIT SF

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 SF

with mechanical-interlocking against line short by mechanical shock.

POWER CHAIN SF

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

CHAIN CONTAINER SF

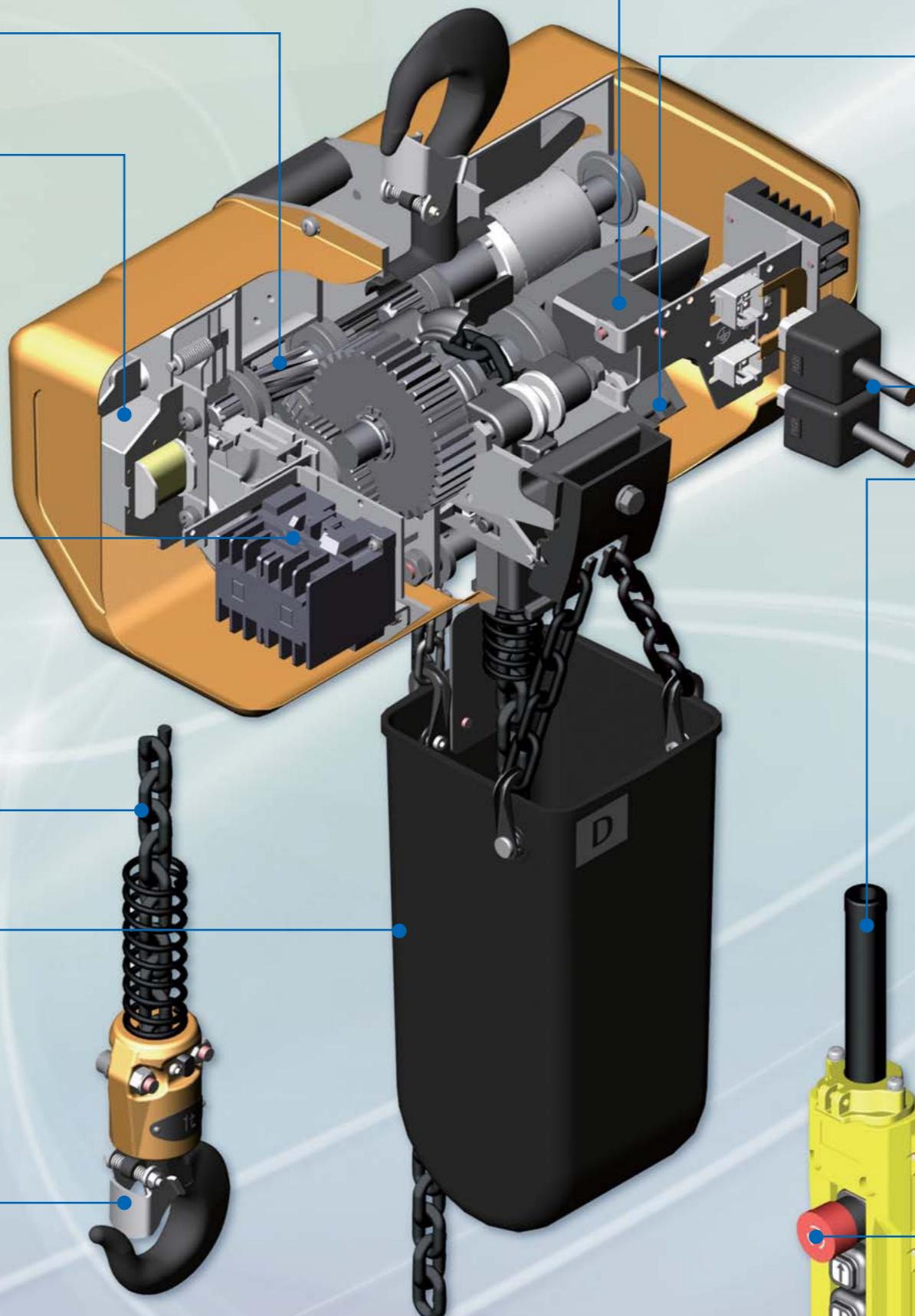
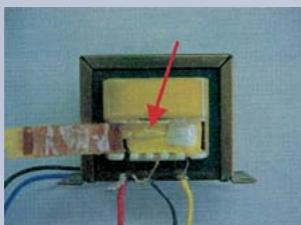
as standard part for safer operation.

LOWER HOOK SF

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 SF

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) SF

interrupt motor power to prevent hook overtravel and hazardous condition such as chain kink.

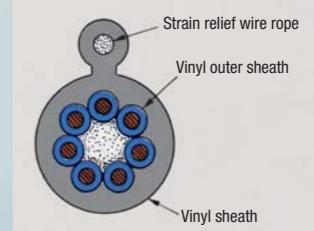
AUXILIARY BRAKE SYSTEM F

F series hoists equipped with auxiliary brake.



PLUG-IN CABLES SF

reduce maintenance time and installation.



PUSHBUTTON CABLE SF

is molded with strain relief wire rope into one body.
This assures easier and safer operation.

PUSHBUTTON SWITCH SF

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.

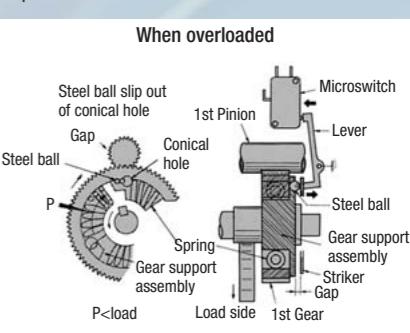
● EMERGENCY STOP BUTTON

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



HITACHI OVERLOAD LIMITER SF

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



Outline

S series

F series

Others

S series

Electric chain hoist

Suspension type

Single speed model

Dual speed model

Single phase model



■ Specifications table

SINGLE SPEED (3 PHASE)

S(H)

Rated Load (kg)		250	500	1,000	2,000	3,000	5,000
Model Name		1/4S(H)₂	1/2S(H)₂	1S(H)	2S(H)	3S(H)	5S(H)
Standard Lift (m)		3(6)					
Hoisting Speed (m/min)	50Hz	10	7.2	4.6	2.3	1.5	0.9
	60Hz	12	8.5	5.5	2.8	1.8	1.1
Motor Output (kW)	50Hz	0.45	0.63	0.8	0.8	0.8	0.8
	60Hz	0.55	0.75	1.0	1.0	1.0	1.0
Link Chain	Dia. (mm)	∅6.3	∅6.3	∅7.1	∅7.1	∅7.1	∅7.1
	No. of	1	1	1	2	3	5
Rating		30% ED			25% ED		
Power Cord Length		5m					

DUAL SPEED (3 PHASE)

SN(H)

Rated Load (kg)		250	500	1,000	2,000
Model Name		1/4SN(H)₂	1/2SN(H)₂	1SN(H)	2SN(H)
Standard Lift (m)		3(6)			
Hoisting Speed (m/min)	50Hz	7.2/1.8	7.2/1.8	4.6/1.2	2.3/0.6
	60Hz	8.5/2.1	8.5/2.1	5.5/1.4	2.8/0.7
Motor Output (kW)	50Hz	0.32/0.08	0.63/0.16	0.8/0.2	0.8/0.2
	60Hz	0.38/0.1	0.75/0.19	0.1/0.25	0.1/0.25
Link Chain	Dia. (mm)	∅6.3	∅6.3	∅7.1	∅7.1
	No. of Falls	1	1	1	2
Rating		25% ED		20/10% ED	
Power Cord Length		5m			

SINGLE PHASE

SS(H)₂, S(H)₁

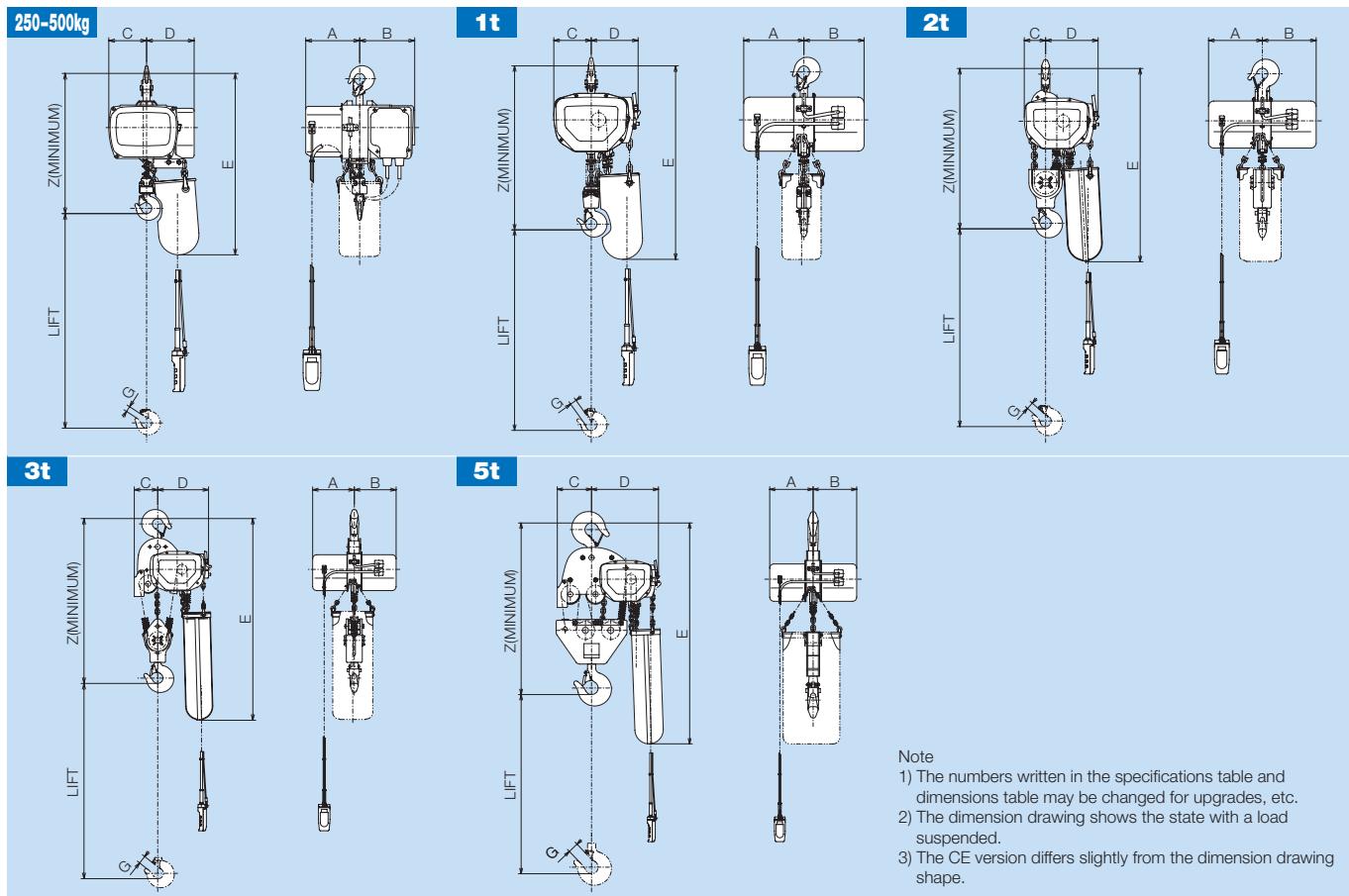
Rated Load (kg)		250	500	1,000	2,000	3,000	5,000
Model Name		1/4SS(H)₂	1/2SS(H)₂	1S(H)₁	2S(H)₁	3S(H)₁	5S(H)₁
Standard Lift (m)		3(6)					
Hoisting Speed (m/min)	50Hz	5.0	3.6	2.3	1.1	0.8	0.45
	60Hz	6.0	4.3	2.8	1.4	0.9	0.55
Motor Output (kW)	50Hz	0.25	0.32	0.4	0.4	0.4	0.4
	60Hz	0.30	0.37	0.5	0.5	0.5	0.5
Link Chain	Dia. (mm)	∅6.3	∅6.3	∅7.1	∅7.1	∅7.1	∅7.1
	No. of Falls	1	1	1	2	3	5
Rating		25% ED			20% ED		
Power Cord Length		5m					

All dimensions and specifications are subject to change without notice.

Suspension type

Sseries

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		1/4S ₂	1/4SH ₂	1/2S ₂	1/2SH ₂	1S	1SH	2S	2SH	3S	3SH	5S	5SH	
Rated Load (kg)		250	500			1,000			2,000			3,000	5,000	
Dimensions (mm)	Z	450	450	530		645		800		895				
	A	181	181	216		216		216		216		216		
	B	184	184	216		216		216		216		216		
	C	125	125	135		90		125		175				
	D	165	165	170		215		270		340				
	D'(CE)	200	200	170		215		270		340				
	E	620	620	680	705	775	835	1,050	1,065	1,095	42	48		
Approx. Weight (kg)		28	31	31	34	37	42	49	59	61	72	88	105	

All dimensions and specifications are subject to change without notice.

DUAL SPEED (3 PHASE)

Model Name		1/4SN ₂	1/4SNH ₂	1/2SN ₂	1/2SNH ₂	1SN	1SNH	2SN	2SNH
Rated Load (kg)		250	500			1,000			2,000
Dimensions (mm)	Z	450	450	530	645				
	A	183	183	216	216				
	B	210	210	246	246				
	C	125	125	135	90				
	D	185	185	170	215				
	D'(CE)	200	200	170	215				
	E	620	620	680	705	775			
Approx. Weight (kg)		33	36	36	39	42	47	54	64

SINGLE PHASE

Model Name		1/4SS ₂	1/4SSH ₂	1/2SS ₂	1/2SSH ₂	1S1	1SH1	2S1	2SH1	3S1	3SH1	5S1	5SH1	
Rated Load (kg)		250	500			1,000			2,000			3,000	5,000	
Dimensions (mm)	Z	450	450	530	645									
	A	181	181	246	246							246		
	B	210	210	246	246							246		
	C	125	125	135	90							125		
	D	165	165	170	215							270		
	D'(CE)	200	200	170	215							340		
	E	620	620	680	705	775						1,095		
Approx. Weight (kg)		34	37	34	37	39	44	51	61	63	74	90	107	

All dimensions and specifications are subject to change without notice.

Outline

S series

F series

Others

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

250-500kg

Part	Value
Z(MINIMUM)	100
LIFT	100
V	100
b	100
W	100
φ64	100
L	100
C	100
D	100
E	100

1t

Part	Value
Z(MINIMUM)	100
LIFT	100
V	100
b	100
W	100
φ64	100
L	100
C	100
D	100
E	100
A	100
B	100

2t

Part	Value
Z(MINIMUM)	100
LIFT	100
V	100
b	100
W	100
φ75	100
L	100
C	100
D	100
E	100
A	100
B	100

3t

Part	Value
Z(MINIMUM)	100
LIFT	100
V	100
b	100
W	100
φ75	100
L	100
C	100
D	100
E	100
I	100
J	100

5t

Part	Value
Z(MINIMUM)	100
LIFT	100
V	100
b	100
W	100
φ90	100
L	100
C	100
D	100
E	100
I	100
J	100
K	100
A	100
B	100

■ Specifications table

Chain Hoist Model Name		1/4S(H) ₂	1/4SN(H) ₂	1/2S(H) ₂	1/2SN(H) ₂	1S(H)	1SN(H)	2S(H)	2SN(H)	3S(H)	5S(H)
Trolley Type		1ET						2ET		3ET	5ET
Rated Load (kg)		250		500		1,000		2,000		3,000	5,000
Dimensions (mm)	Z	523	523	523	523	600	600	700	700	865	984
	A	181	183	181	183	216	216	216	216	216	216
	B	184	210	184	210	216	246	216	246	216	216
	C	125	125	125	125	135	135	90	90	125	175
	D	165	185	165	185	170	170	215	215	270	340
	D'(CE)	200	200	200	200	170	170	215	215	270	340
	E	693	693	693	693	750	750	770(840)		910(1,125)	1,170(1,200)
	G	19	19	19	19	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)		66(69)	71(74)	69(72)	74(77)	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

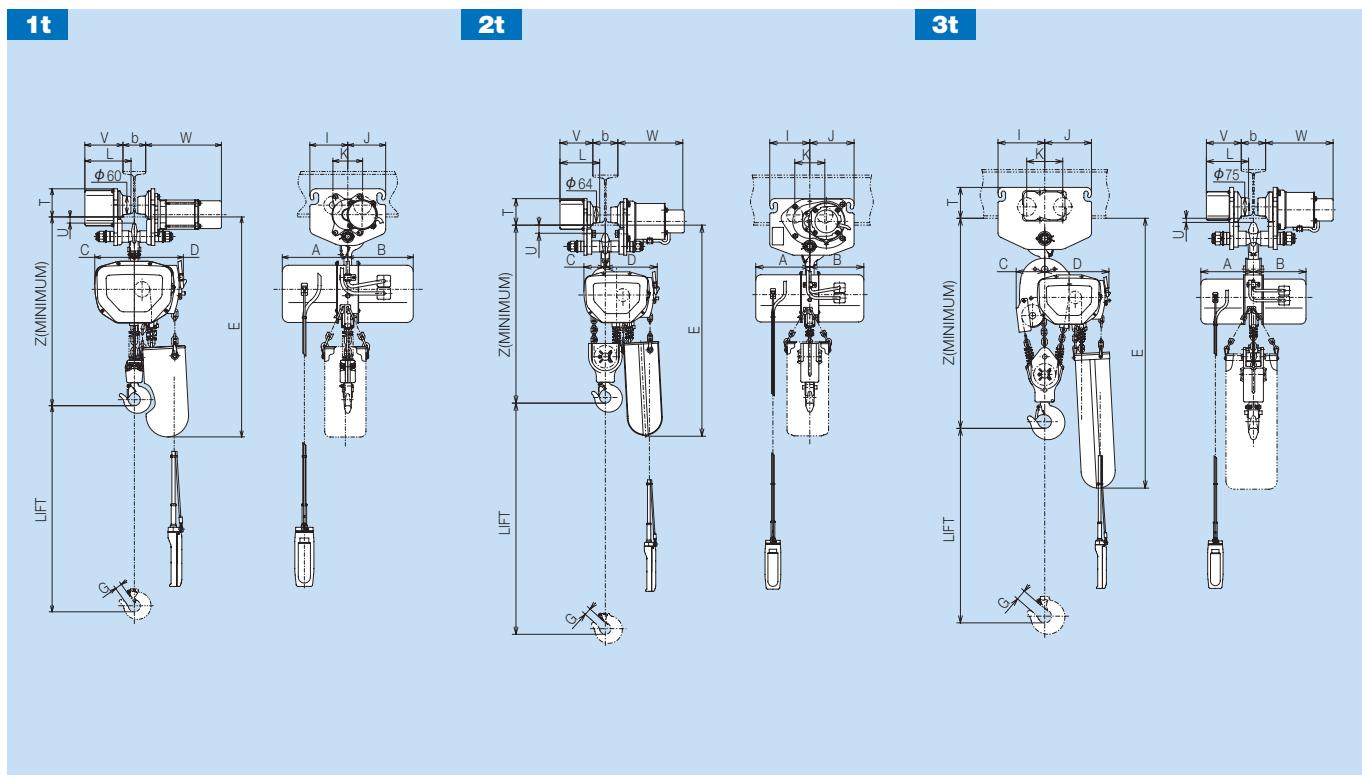
Series Name		ET series				ST series		
Model Name		1ET	2ET	3ET	5ET	1ST	2ST	3ST
Working Load Limit (kg)		1,000	2,000	3,000	5,000	1,000	2,000	3,000
Traveling Speed (m/min)	50Hz	10.5(21)				10.5		
	60Hz	12.5(25)				12.5		
Motor Output (kW)	50Hz	0.14(0.27)		0.3(0.6)		0.07	0.14	0.2
	60Hz	0.16(0.32)		0.35(0.7)		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

Sseries

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	578	578	700	700
	A	216	216	216	216
	B	216	246	216	246
	C	135	135	90	90
	D, D'(CE)	170	170	215	215
	E	730	730	772(842)	900(1,115)
	G	23	23	26	26
	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.

Outline

S series

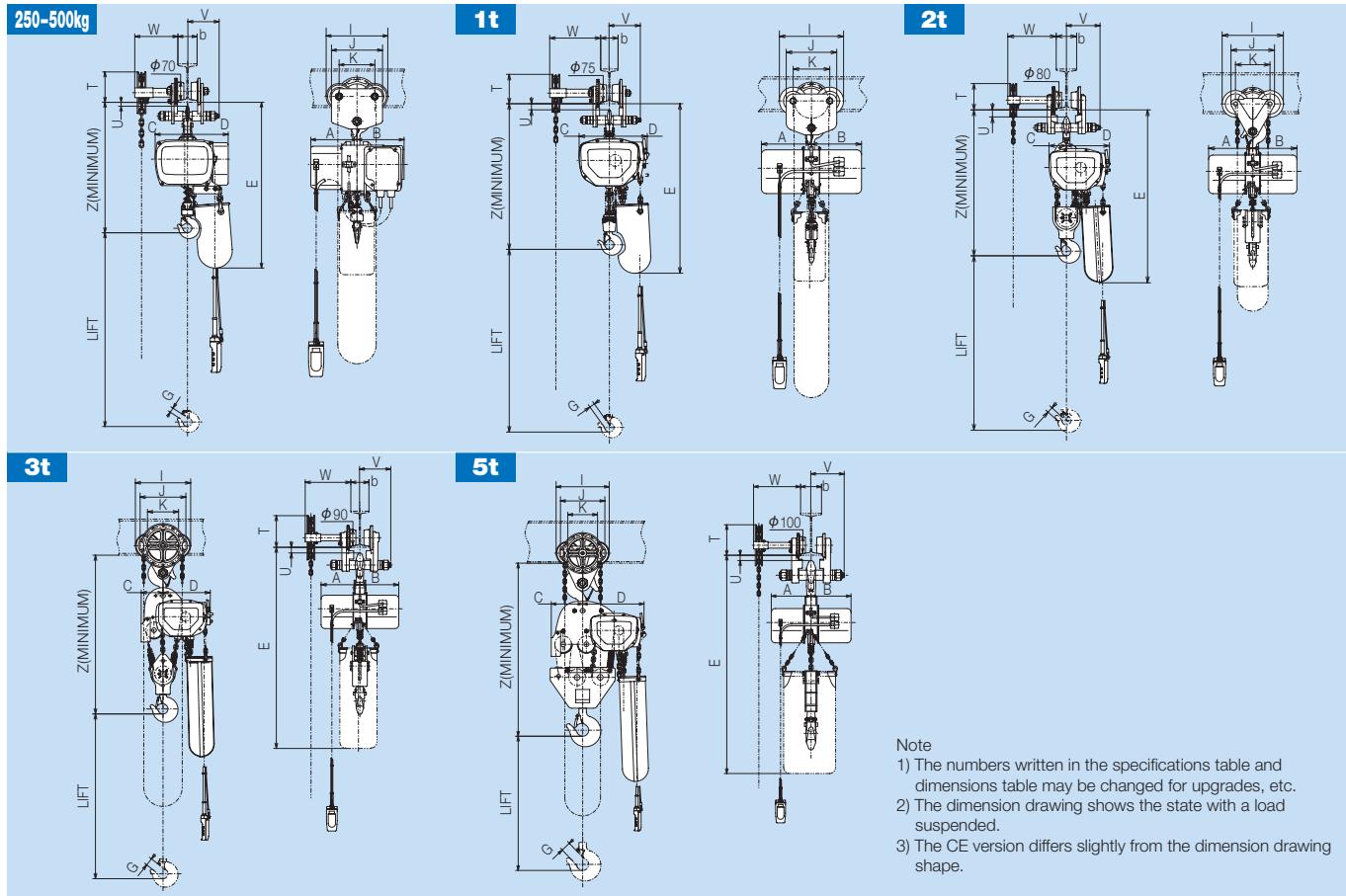
F series

Others

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



Specifications table

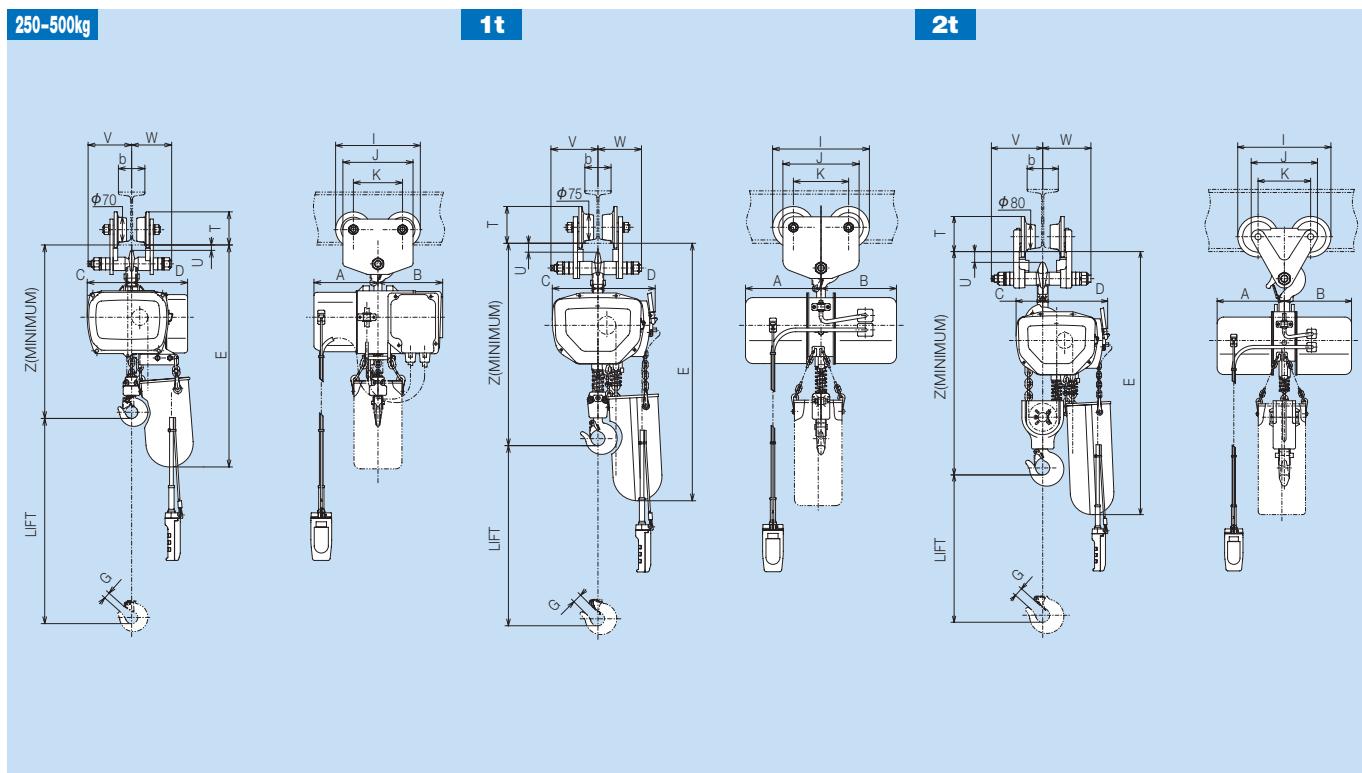
Chain Hoist Model Name	1/4S(H) ₂	1/4SN(H) ₂	1/2S(H) ₂	1/2SN(H) ₂	1S(H)	1SN(H)	2S(H)	2SN(H)	3SH	5SH	
Trolley type	1/2BC(H)				1BC(H)		2BC(H)		3BCH	5BCH	
Rated Load (kg)	250		500		1,000		2,000		3,000		
Dimensions (mm)	Z	513	513	513	513	585	585	703	703	866	980
	A	181	183	181	183	216	216	216	216	216	216
	B	184	210	184	210	216	246	216	246	216	216
	C	125	125	125	125	135	135	90	90	125	175
	D	165	185	165	185	170	170	215	215	270	340
	D'(CE)	200	200	200	200	170	170	215	215	270	340
	E	685	685	685	685	740	740	775(845)		1,130	1,190
	G	19	19	19	19	23	23	26	26	42	48
	I	242				277		300	306	319	
	J	199				218	213	240	240	262	
	K	139				158	169	172	172	177.2	
Min. Curve Radius (m)	I	1.0				1.2	1.5	1.5	1.5	2.4	
	J	75–125				75–125	100–150	100–150	100–150	125–175	
	K	75–125				135	165	173	173	200	
	L	220				220	236	252	252	284	
	M	188				188	220	236	236	284	
Applicable Beam Width b (mm)	44(50)		49(55)	47(53)	52(58)	58(66)	63(71)	73(86)	78(91)	116	161
Approx. Weight (kg)	44(50)		49(55)	47(53)	52(58)	58(66)	63(71)	73(86)	78(91)	116	161

With manual driven trolley-BP

Sseries

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

Dimensions



Specifications table

Chain Hoist Model Name		1/4S(H) ₂	1/4SN(H) ₂	1/2S(H) ₂	1/2SN(H) ₂	1S(H)	1SN(H)	2S(H)	2SN(H)
Trolley type		1/2BP				1BP		2BP	
Rated Load (kg)		250		500		1,000		2,000	
Dimensions (mm)	Z	513	513	513	513	585	585	703	703
	A	181	183	181	183	216	216	216	216
	B	184	210	184	210	216	246	216	246
	C	125	125	125	125	135	135	90	90
	D	165	185	165	185	170	170	215	215
	D'(CE)	200	200	200	200	170	170	215	215
	E	685	685	685	685	740	740	775(845)	
	G	19	19	19	19	23	23	26	26
	I	242				277		300	
	J	199				199		213	
Dimensions (mm)	K	139				139		169	
	T	98				110		128	
	U	13				23		22	
	V	124				135		165	
	W	114				125		155	
	Min.Curve Radius (m)	1.0				1.2		1.5	
	Applicable Beam Width b (mm)	75–125				75–125		100–150	
Approx.Weight (kg)		38(41)	43(46)	41(44)	46(49)	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		1/2BC(H)	1BC(H)	2BC(H)	3BC(H)	5BCH	1/2BP	1BP	2BP
Working Load Limit (kg)		500	1,000	2,000	3,000	5,000	500	1,000	2,000
Standard Lift (m)		3(6)	3(6)	3(6)	6	6	—	—	—
Min. Curve Radius (m)		1.0	1.2	1.5	1.5	2.4	1.0	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).

Outline

S series

F series

Others

F series

Electric chain hoist

Suspension type

Single speed model

Dual speed model



■ Specifications table

SINGLE SPEED (3 PHASE)

F(H)

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

DUAL SPEED (3 PHASE)

FN(H)

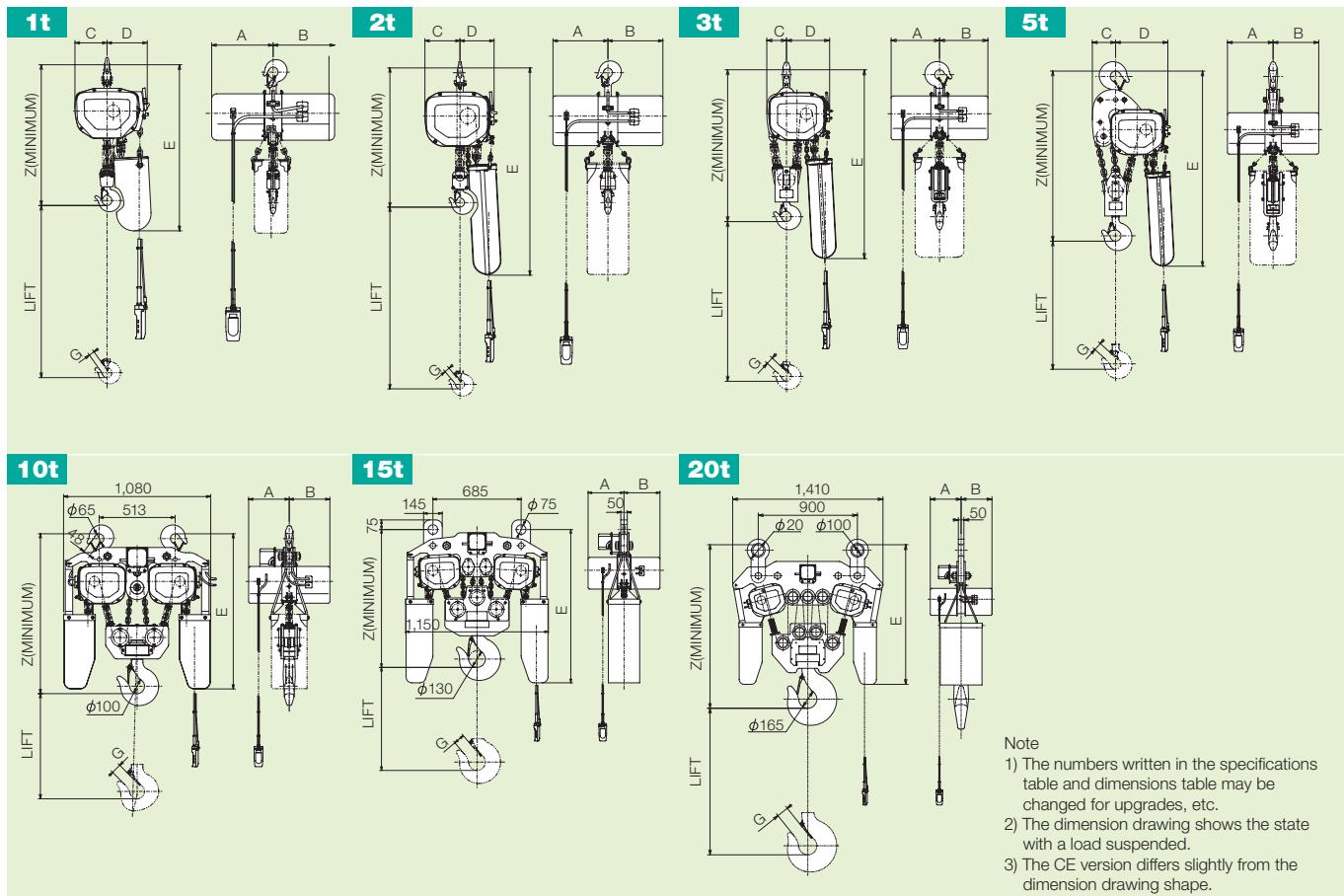
Rated Load (kg)	2,000	3,000	5,000	10,000	15,000
Model Name	2FN(H)	3FN(H)	5FN(H)	10FNH	15FNH
Standard Lift (m)	3(6)			6	
Hoisting Speed (m/min)	50Hz	6.8/1.7	4.0/1.0	2.8/0.7	2.8/0.7
	60Hz	8.2/2.1	4.8/1.2	3.3/0.8	3.3/0.8
Motor Output (kW)	50Hz	2.4/0.6			2.4/0.6×2
	60Hz	2.9/0.7			2.9/0.7×2
Link Chain	Dia.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

All dimensions and specifications are subject to change without notice.

Suspension type

Fseries

Dimensions



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 (mm)	Z	535		660		820		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	80	87	99	113	121	142	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 (mm)	Z	660		820		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	112	126	146	167	360	520	

All dimensions and specifications are subject to change without notice.

Outline

S series

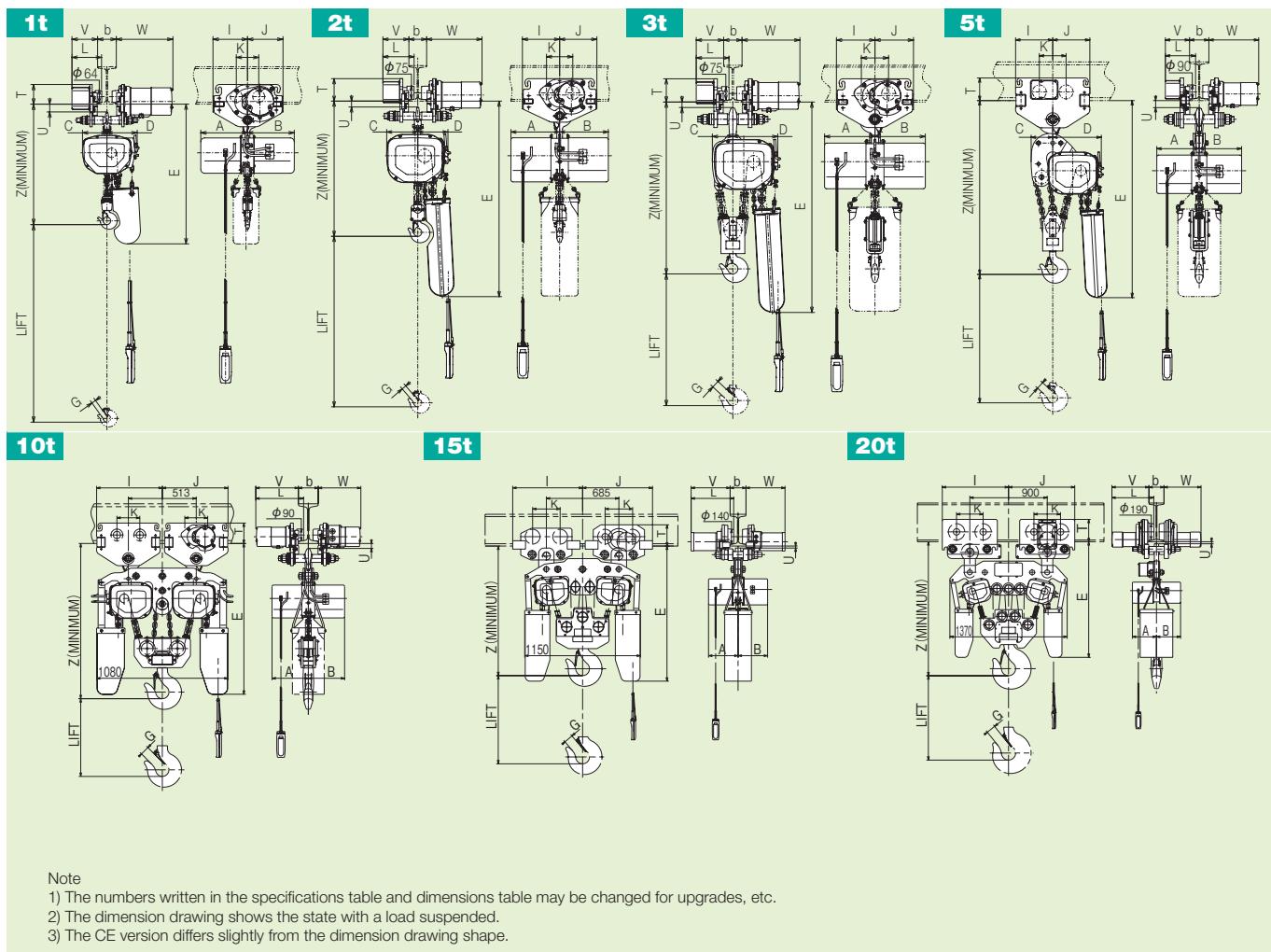
F series

Others

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	1FH	2FH	2FN(H)	3FH	3FN(H)	5FH	5FN(H)	10FH	10FNH	15FH	15FNH	20FH
Trolley Type	1ET	2ET	3ET	5ET		5ET×2		5ET×2		7.5ET×2		10ET×2
Rated Load (kg)	1,000	2,000	3,000	5,000		10,000		10,000		15,000		20,000
Dimensions (mm)	Z	604	715	715	882	882	1,112	1,112	1,150	1,152	1,150	1,152
	A	250	280	280	280	280	280	280	280	280	280	280
	B	250	280	330	280	330	280	330	280	330	280	330
	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
	G	23	26	26	42	42	48	48	68	68	86	86
	I	185	210		210		240		500		663	663
	J	190	210		210		240		500		663	663
	K	120	148		148		173		173		260	260
	L	182	200		203		219		362		434	434
	T	110	140		140		156		158	156	205	203
	U	38	18		16		34		32	34	15	17
	V	159	172		175		181		323		401	401
	W	303	313		316		323		323		401	455
Min. Curve Radius (m)	1.5	1.8		2.0		3.0		5.0		5.0		5.0
Applicable Beam Width b (mm)	75-125	100-150		100-150		125-175		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

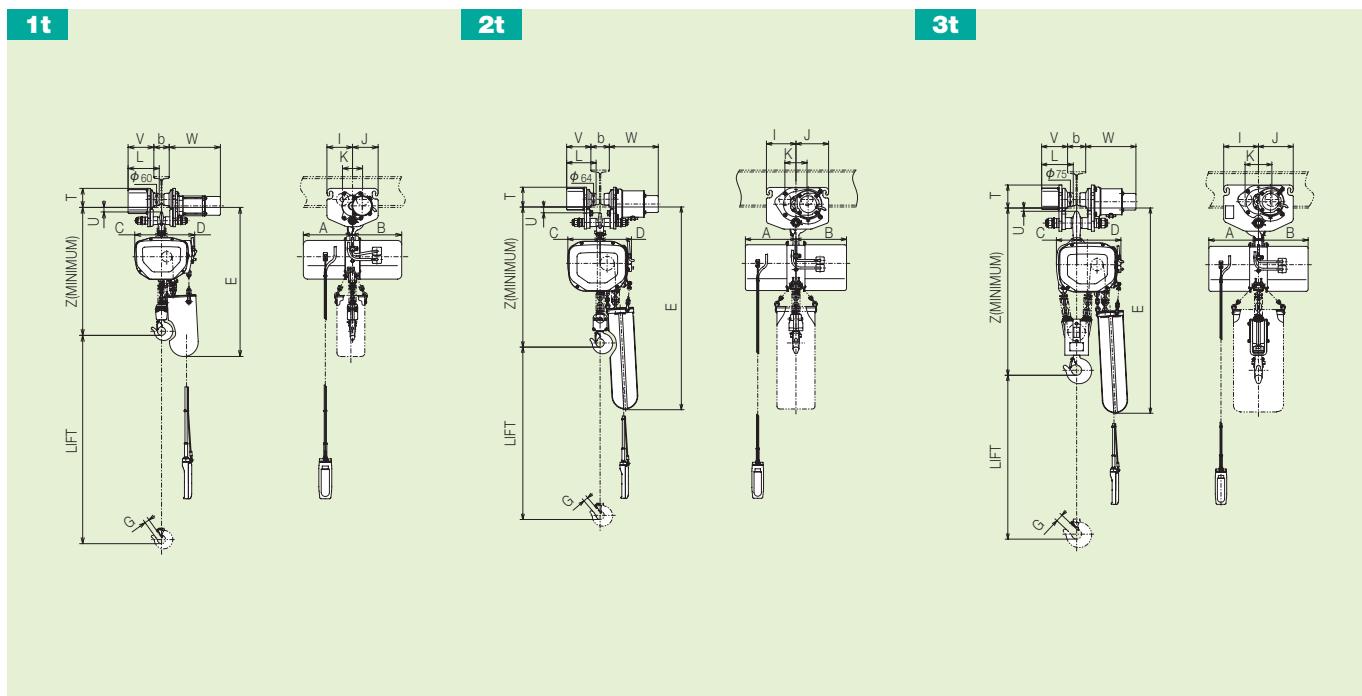
All dimensions and specifications are subject to change without notice.

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.

Fseries

Dimensions



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
	A	250	280	280	280
	B	250	280	330	330
	C	135	185	185	120
	D	170	170	170	245
	E	725	935(1,115)		1,110(1,165)
	G	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)	75–125	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 Speed (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.

Outline

S series

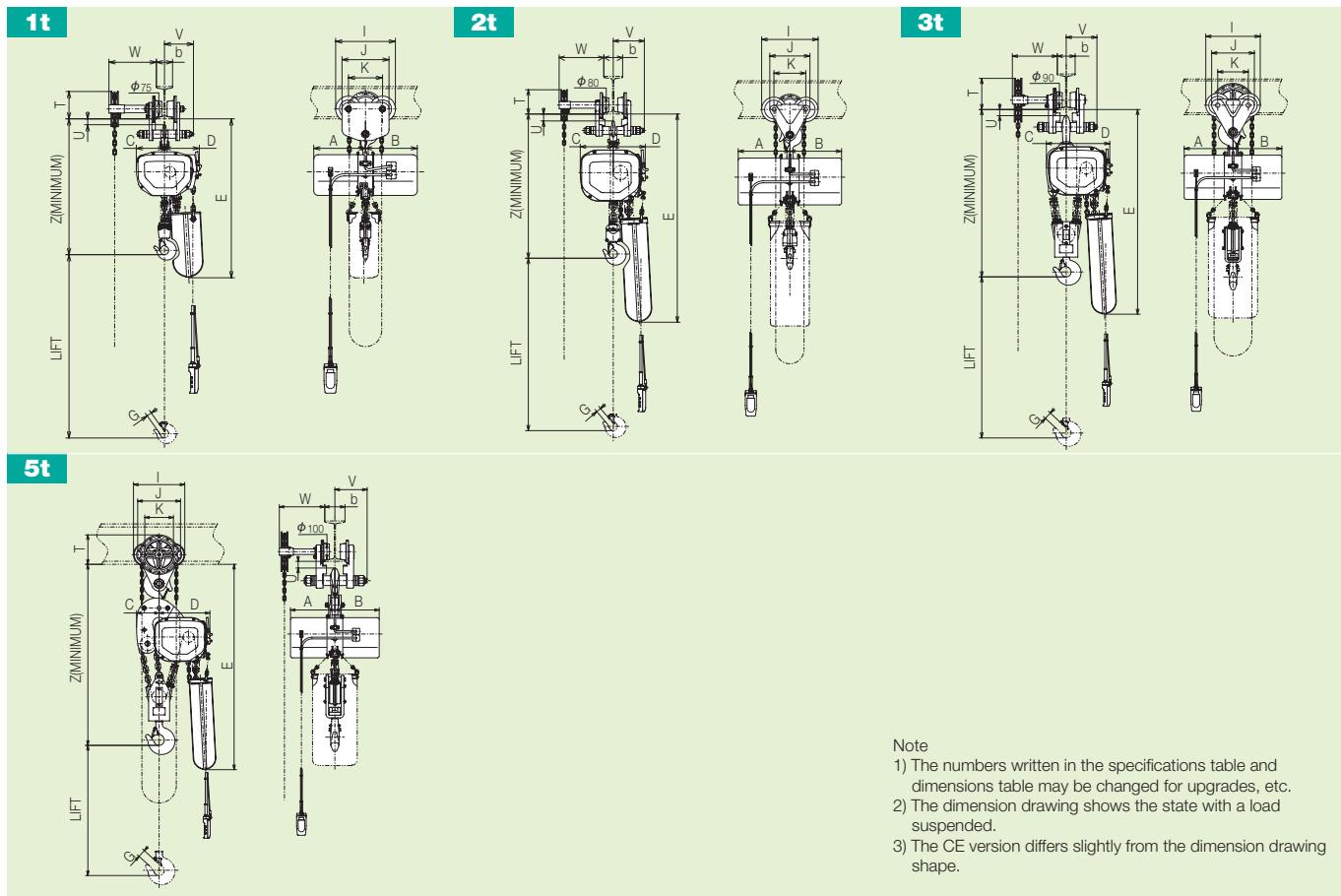
F series

Others

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



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	600	717	717	886	886	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	

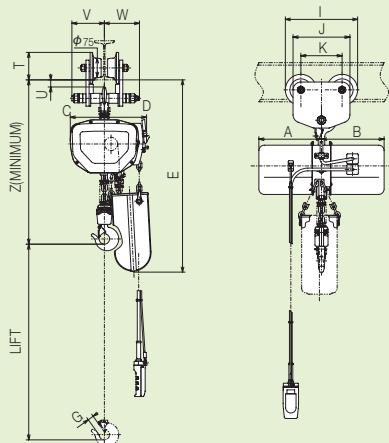
With manual driven trolley-BP

Fseries

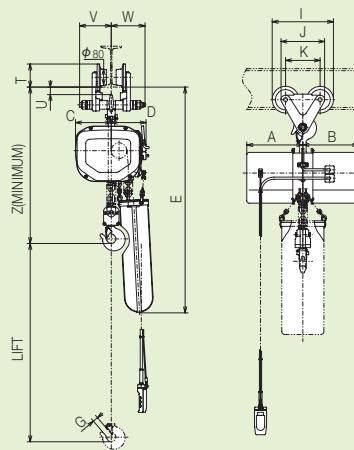
The electric chain hoist with manual driven trolley is suitable for relatively light loads transported a short distance.

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	600	717
	A	250	280
	B	250	280
	C	135	175
	D	170	170
	E	740	1,130
	G	23	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	
	1BC(H)	2BC(H)	3BCH	5BCH	1BP	2BP
Model Name	1,000	2,000	3,000	5,000	1,000	2,000
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).

Outline

S series

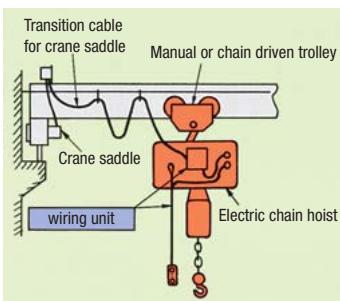
F series

Others

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 a 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

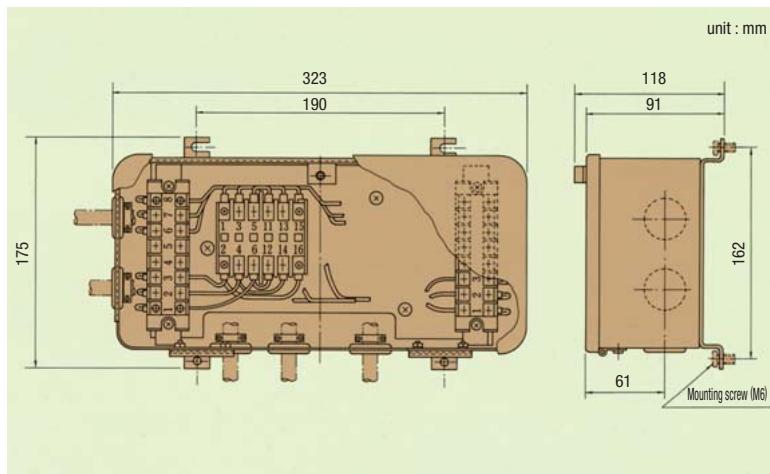
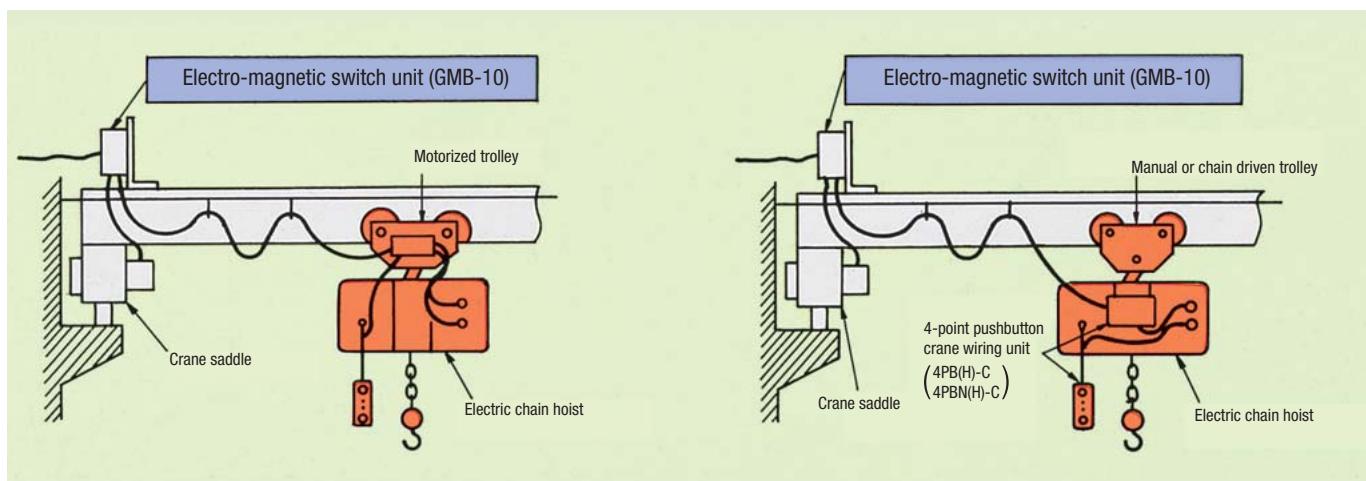
For double speed models

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.



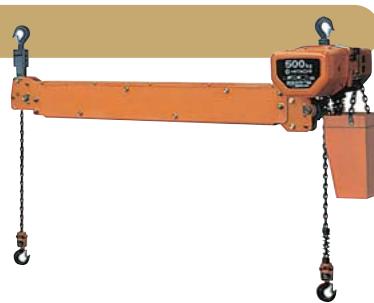
Specifications table

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.

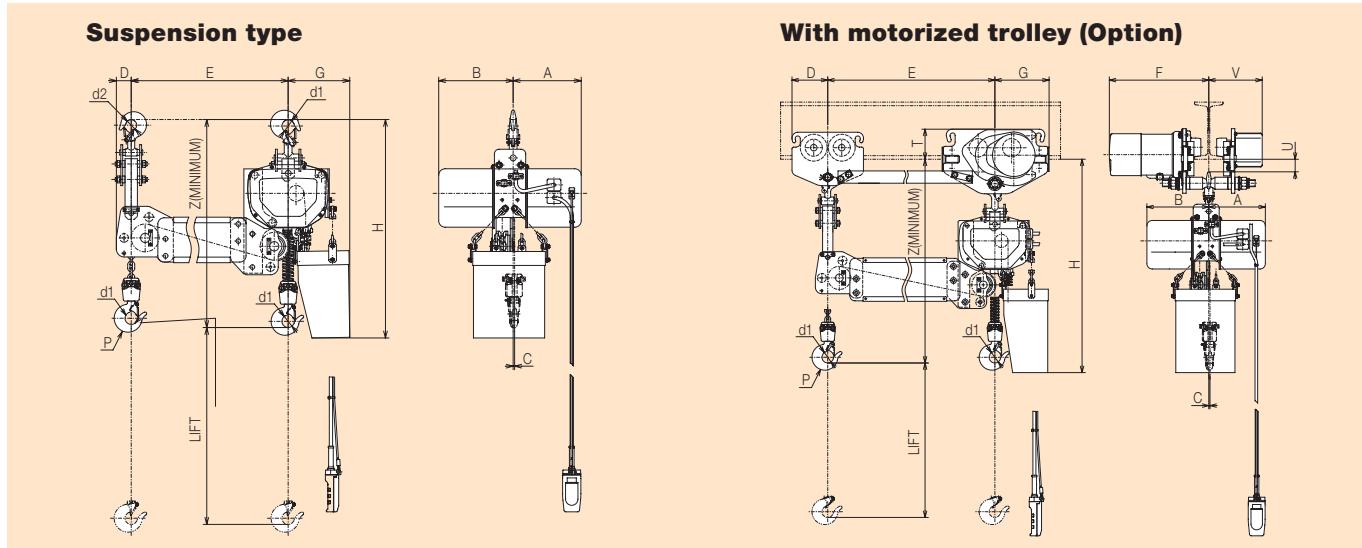


Basic specifications table

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
		60Hz	11	8.5	5.5	8.5
Traveling Speed	(m/min)	50Hz		10.5		
		60Hz		12.5		
Hoisting Motor	(kW)	50Hz	0.4	0.65	0.8	1.3
		60Hz	0.5	0.8	1.0	1.6
		No. of poles		2		2.4
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



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
With Motorized Trolley	T		110			140
	U		38			18
	H	837	836	834	837 836 834	992 989 980
	Z	744	743	741	744 743 741	877 874 865
	Suspension		765		765	925
Applicable Beam Width (mm)	Z		672		672	810
			75–125		75–125	100–150

* The suspension type is shown in parentheses ().

* Only the straight rail is applicable to the trolley.

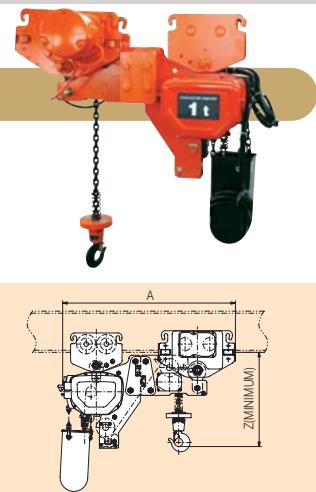
Dedicated electric chain hoist

Low head room type

The HITACHI low head room type has a smaller Z dimension (minimum distance between the rail bottom surface and the lower hook) making it effective for work that hoists the cargo as high as possible in structures with a low ceiling.

Hoist type	1/2SL	1SL	1FL	2FL	3FL	1/2SNL	1SNL	2FNL	3FNL
Trolley type		1ET		2ET	3ET	1ET		2ET	3ET
Hoisting Speed (m/min)	50Hz	7.1	4.6	7.1	6.8	4.1	7.1/1.8	4.6/1.2	6.8/1.7
	60Hz	8.5	5.5	8.5	8.2	4.9	8.5/2.1	5.5/1.4	8.2/2.1
Traveling Speed (m/min)	50Hz			10.5			10.5		
	60Hz			12.5			12.5		
Link Chain Diameter		φ7.1	φ7.1	φ7.1	φ10	φ10	φ7.1	φ7.1	φ10
No. of falls	1	1	1	1	2	1	1	1	2
Dimensions (mm)	Z	440	440	440	552	680	440	440	552
	A	846	846	846	1,080	1,160	846	846	1,080
									1,160

* Traverse only supports linear travel.



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 device 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.

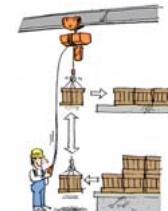
Operation principles

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.



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 traverse 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
S Series	250	Φ6.3×1	LIFT+0.5			Ax					Bx							Cx			
	500	Φ6.3×1	LIFT+0.5			Ax					Bx							Cx			
	1,000	Φ7.1×1	LIFT+0.7		D		D			E							F				
	2,000	Φ7.1×2	2×LIFT+1.4	D	I	E			F			G									
	3,000	Φ7.1×3	3×LIFT+2.4	E	F			G													
F Series	5,000	Φ7.1×5	5×LIFT+3.9	F	G																
	1,000	Φ7.1×1	LIFT+0.7		D				E								F				
	2,000	Φ10×1	LIFT+0.8	E		F						G					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.

Technical materials

Power cable allowable length

The power cable allowable length for the standard specification is shown in the following table.

When extending the power cable or relay cable, make a selection after referring to the following table.

Allowable Power Cord Length

When extending power cord, cord length should be less than the values in this Table.

(m)

	Rated Load (kg)	Cable Size																	
		0.75mm ²		AWG #18		1.25mm ²		AWG #16		2.0mm ²		AWG #14		AWG #12		3.5mm ²			
	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	Hoist only	With Motor Trolley	
S	250	31	27	34	29	52	45	54	47	74	52	76	54	—	—	—	—	—	
	500	27	20	29	21	46	33	48	34	74	52	76	54	—	—	—	—	—	
	1,000–5,000	27	20	29	21	46	33	23	18	74	52	76	54	118	86	125	92		
	1,000	13	10	14	11	22	18	11	8	35	29	36	30	57	48	61	51		
	2,000–5,000	—	—	—	—	—	—	—	17	13	17	13	28	21	30	23			
F	10,000–20,000	—	—	—	—	—	—	—	8	6	—	—	—	14	10	15	11		

* The length is calculated using 40V for the drop amount where the voltage drop only occurs in the cable. (For a power source of 400V)

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.

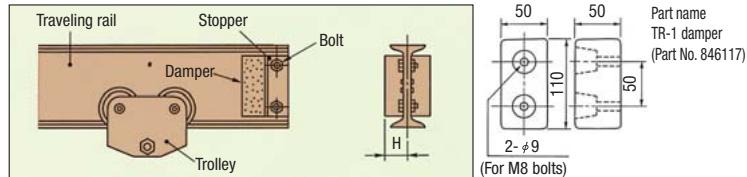
- Avoid using the stopper to stop the trolley by letting it run into the stopper.
- Using a stopper that is a different color from the travel rail is an effective means for preventing the trolley from striking the stopper because it makes the stopper stand out.

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 Rolled Steel Bar)	H (mm)	Bolts and Nuts
75		30	M10
100	50×50×6	40	
125		50	M16
150	65×65×6	60	
175		65	M20



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