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HITACHI HOISTS

HITACHI
Inspire the Next

Electric Chain Hoist

2t/2.8t/5t

Debut!

Super F Series



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For further information, please contact your nearest sales representative.

The business facilities and other establishments of Hitachi Equipment Systems Co., Ltd. are certified under ISO 14001 (the international standard for environmental management systems).



JACO-EC97J1095 Narashino Division
JACO-EM5428 Nakajo Division
JACO-EC97J1107 Air Compressor System Division
JACO-EC99J2009 Energy Saving Systems Division
Principal Office
JQA-EM0449 Service station (50 Hz region)
Kansai Business Facility

In terms of quality, the company is certified under ISO 9001 (the international for quality management system) and works to provide high quality in goods and service.

Hitachi Super F Hoist has improved functionality from the previous Hitachi Chain Hoist, which has been used for a wide range of applications such as general machineries, automobiles, warehouses and furthermore. Compared to the previous Hitachi Chain Hoist, its speed, safety, durability and maintenance ability have been largely improved. Hitachi Super F Hoist is aimed for an easier use and more convenience and make cargo handling more efficient and realize a higher safety.

Super F Series

Super Functions

Super 1

Faster hoisting speed

Speedy

- 40% increase of hoisting speed with single chain for 3t
- 25% increase of hoisting speed with double chain for 5t

Super 2

Easier control

Safety

- Cushion starting/stopping & variable speed function

Super 3

Higher durability

Strong

- Rating 45%ED (High-speed 30% + Low-speed 15%)
- Protective structure against dust and water streams (IP55)

Super 4

Higher safety

Smooth

- Double brake function [Electric brake + Mechanical brake (at 2nd-stage gear)]
- Overload limiter + duplex winding prevention mechanism (Slip clutch + electric limit switch)
- Emergency stop button equipped as a standard
- Low voltage control(24V)
- Function of reverse phase inspection relay
- Anti-drop mechanism of a trolley equipped as a standard

Super 5

Easier maintenance

Simple

- All electric parts are assembled into one switch case
- One push lock type outlet
- Easy to attach/remove with fixed upper hook pin
- Display of maintenance information: number of starting times, operation hours
- Grease → Lubrication oil: Easy to exchange lubrication just by changing oil



Standard specifications

Power source (3phase)	380-415V 50Hz, 440-460V 60Hz
Operation method	Operating push button
Control voltage	24V
Power method	Suspension type with manual driven trolley or chain driven trolley : with 5m power cable With motorized trolley : no power cable
Push button switch (dual speed)	3 (Stop, ↑, ↓) 5 (Stop, ↑, ↓, ←, →)
Color(munsell)	Orange(2.5YR 6/12), Black(N1.0)
Electrical protection	IP55 Push button : IP65 (Equivalent when stuffing drain hole: indoor type)
Insulation class of motor	B
Rating*	High-speed : 30%ED, 90starts/h Low-speed : 15%ED, 180starts/h
Standards	Machinery : 06/42/EC EMC : 04/108/EC

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

*Dual speed have an added low speed to allow time 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 1/4 of the high speed, are combined.

Model explanation

● For suspension types

2.8 SFN H

① ② ③

● For with trolley

2.8 SFN H — SFTN

① ② ③ ④

① Rated load(t) ② Hoist series

③ Lift("H" when 6m or more) ④ Trolley series

Application example

Feature	Advantage
High hoisting speed	Save operating time for high lift
Cushion starting/stopping	Lower vibration of cargo
Overload preventing structure	Applicable for jib crane
Improved load ratio	Applicable for higher load ratio
Improved protective structure	Applicable for variable environment
Special lift is available by changing a chain container	Lift can be modified between 12m and 20m

Simple

Super 5

Casing

Durable structure by aluminum die casting body

Super 3

Oil bath

- Low noise
- Easy replacement

■ Suspension type

Upper hook

Easy to remove hook by pin method

Super 3

Sprocket connected with the chain

Lower vibration with 5-tooth sprocket

Super 5

Gears

Easy check-out on gears with a window

Super 2

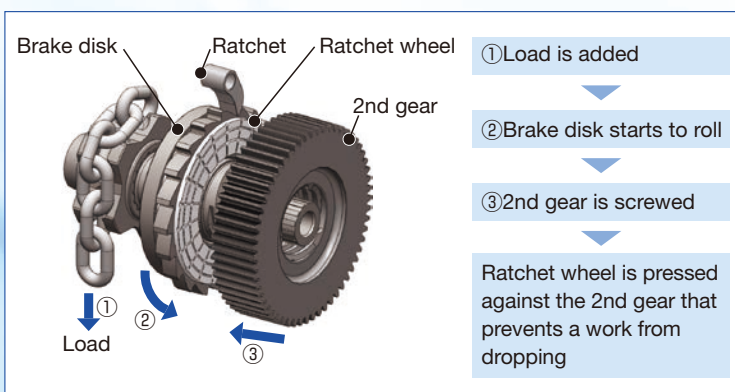
Slip clutch

Operation stops with idle running of a motor in case of over load or problems on a chain

Super 2

Container

Seal aperture to prevent a chain from coming out of a container



Strong

Super 3

Traveling motor

Higher durability

Super 4

Super 5

Controlling part

Easy maintenance by integrating electric parts in one assembly

Super 3

Protection structure

Protected against dust and water stream (IP55)

■ With motorized trolley

Super 3

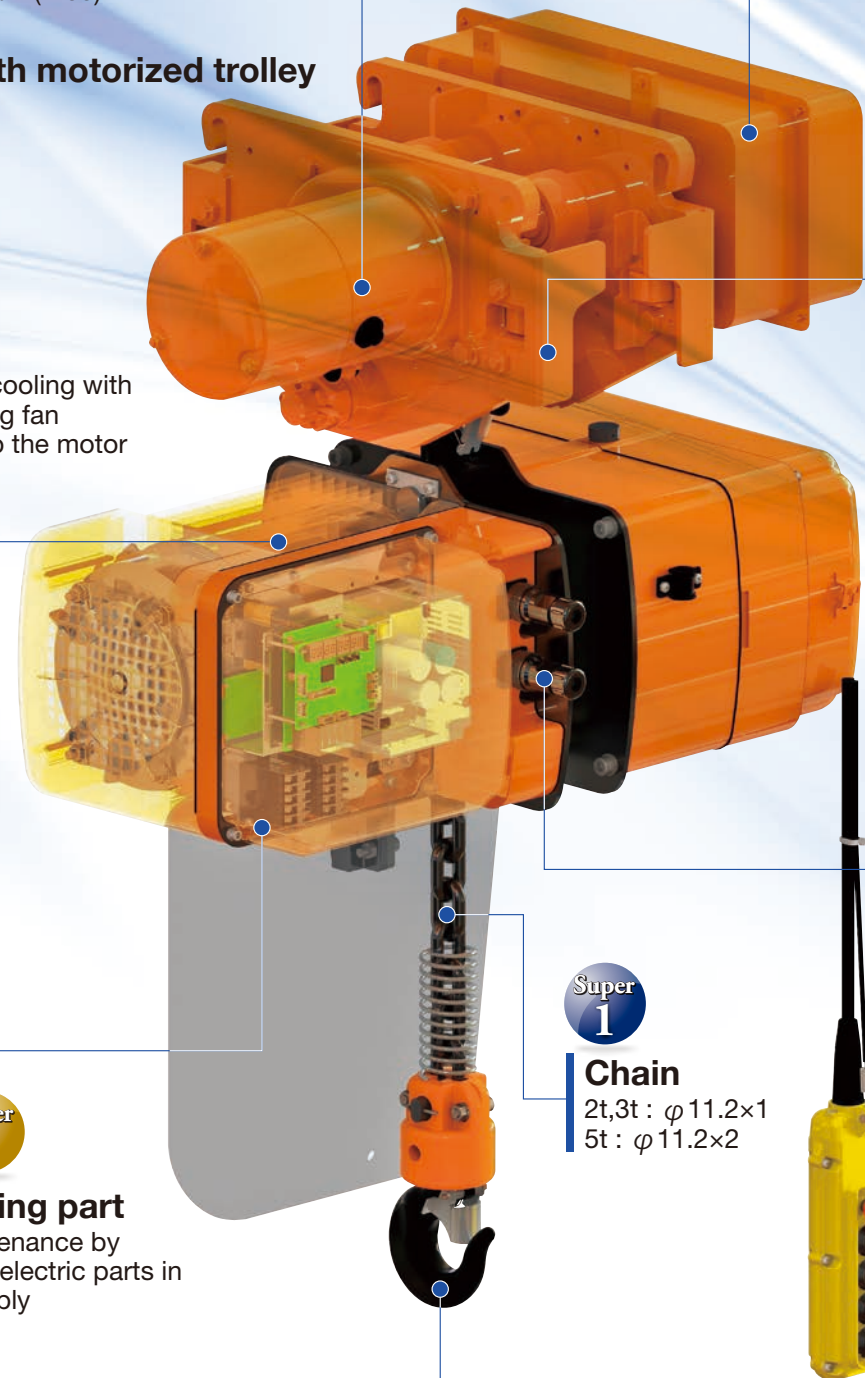
Motor

Improved cooling with fin + cooling fan attached to the motor

Super 2

Anti-drop metal

Prevent drops fitting even when a wheel is broken.



Super 5

Outlet

Easy to attach/remove outlet by "one push lock type"

Super 1

Chain

2t,3t: $\phi 11.2 \times 1$
5t: $\phi 11.2 \times 2$

Super 4

Super 5

Controlling part

Easy maintenance by integrating electric parts in one assembly

Super 4

Lower hook

Improved on easy hanging by larger dimension of an aperture

Smooth

Safety

Speedy

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

Operating Condition	Main Unit	Upper Hook	Trolley	Push button Cable
Suspension type		Standard or 90° direction change 	—	3 push button
Chain driven trolley type		90° direction change 	Chain driven trolley 	
Motorized trolley type		Standard 	Motorized trolley 	5 push button



■ Combination with SFTN

Please prepare power cable
*Refer to page 9 for the cable length

Connection cable is included in trolley

Please prepare pushbutton cable with 5 buttons for SF (Pushbutton cable is not included to hoist)
*Refer to the picture of the upper part of page 5

■ Combination with existing trolley(ET2, ST2)

Please prepare power cable

Please prepare upper hook for SF (Upper hook for SF is not included)
*Refer to the picture of the upper part of page 5

Please prepare connection cable for SF (part code 813472)

*Upper hook for SF is not included

■ Combination with chain driven trolley.(BC(H))

Please prepare upper hook for SF (right-angled) (Upper hook for SF is not included)
*Refer to the picture of the upper part of page 5

Please prepare pushbutton cable for SF and power cable.
*Refer to the picture of the upper part of page 5

■ Specifications table

		Rated Load(kg)		
		2,000	3,000	5,000
Model name	Hoist	2SFNH	3SFNH	5SFNH
	Trolley	3SFTN		5SFTN
Hoisting speed(m/min)	High-speed	8.5	7.0	4.2
	Low-speed	2.1	1.8	1.1
Motor output(kW)	High-speed	3.0	3.7	
	Low-speed	0.75	0.9	
Traveling speed(m/min)	High-speed	25		
	Low-speed	6.3		
Motor output(kW)	High-speed	0.7		
	Low-speed	0.18		
Link chain	Dia.(mm)	φ11.2		
	No.of Falls	1	1	2
Rating	High-speed	30%ED、90starts/h		
	Low-speed	15%ED、180starts/h		

■Dimensions

Suspension type		With motorized trolley-SFTN	
2t,3t	<p>approximate.weight Lift 3m : 125kg Lift 6m : 134kg</p>	2t,3t	<p>approximate.weight Lift 3m : 196kg Lift 6m : 205kg</p>
5t	<p>approximate.weight Lift 3m : 164kg Lift 6m : 181kg</p>	5t	<p>approximate.weight Lift 3m : 259kg Lift 6m : 273kg</p>

1. All dimensions and specifications are subject to change without notice. 2.The dimension drawing shows the state with a load suspended. 3.The length shown is for 6m lift. 4.The length in [] shows the minimum beam width of all the range. The length will be different depending on the thickness of a beam. 5.b length shows the applicable beam width. 6.If 2t hoist is combined with electric trolley, the hoist will be 3t(SF series) 7.Attached cushion or cushion mechanism to prevent the electronic parts from being damaged

Others 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.

Type	Rated load(kg)	Chain specification	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
SFN	2,000	φ11.2×1	Lift+0.6	A						B						steel plate			
	3,000	φ11.2×1	Lift+0.6	A						B						steel plate			
	5,000	φ11.2×2	2×Lift+1.1	A			B			steel plate									

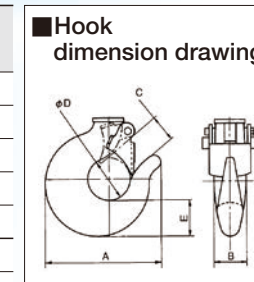
■Other specifications(option)

item	Content
Electric limit switch	This interrupts motor power to prevent hook overtravel and hazardous condition such as chain kink
Optional voltage	200V
Insulation grade change	The standard product uses B grade insulation, but F grade insulation is available (motor only)
Tropical treatment added	The motor is varnish treated twice when it will be subjected to high humidity conditions.
On beam first stage	The SFTN trolley beam width is one grade higher than the standard.
Optional chain container	Plastic is a standard specification, but it can also be fixed to steel plate.

Technical materials

■Hook dimension/load block weight/chain weight

	Model	2SFN(H), 3SFN(H)	5FNH(H)
Upper hook dimension (mm)	A	154	180
	B	42	55
	C	44	48
	D	55	65
	E	46.5	56.5
Lower hook dimension (mm)	A	161	182
	B	42	48
	C	60	65
	D	43	56.5
	E	43	56.5
Load block weight (kg)		6.0	28.0
Chain weight (kg)	per 1m chain	2.8	2.8
	per 1m lift	2.8	5.6



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

Type	Cable size			
	2.0mm ²		3.5mm ²	
	Hoist only	With motor trolley	Hoist only	With motor trolley
2SFNH				
3SFNH	17	13	30	23
5SFNH				

■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 hits 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
100	50×50×6	40	M16
125		50	
150	65×65×6	60	M20

