

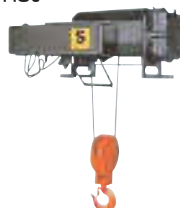

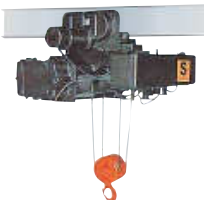
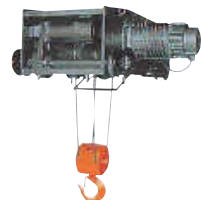



By the utilization of state-of-the-art technology, we realize highly developed safety and improved operation of our loading system.



Hoist Type (Shapes)

Suspended Type		Frame mounted Type
This hoist is fixed at the ceiling and used only for lifting and lowering cargo.		This hoist is fixed on the pedestal and used only for lifting and lowering cargo. (This hoist is usually used for the same application as suspended type as well as the substitution for a winch.)
E-1/4 	R-2-LK3 	S-2.8-HS3 
Monorail Type	Low-head Type	Double rail Type
Motor Operated Traversing Hoist This hoist travels in parallel to the traverse rail by motor driven trolley. (This type of hoist is the most widely used)	Motor Operated Traversing Hoist When this type of hoist performs hoisting to the upper limit, the distance between the bottom surface of the rail and the center of the hook becomes very short compared with Monorail Type. (Therefore, this type is very useful for use in a place with a small height of ceiling)	Motor Operated Traversing Hoist This hoist travels on the 2 rails of the hoist type overhead crane in the traverse direction. (Since its stability is extremely high, in particular, this type is often used for a large capacity.)
R-2-LM3 	S-2-LD2 	S-2.8-LR3A 

Introduction of Products

Hoists	
 <p>U2, HU2 Type (1/2-60t)</p> <p>Mitsubishi original inverter specially developed for hoist has realized the miniaturization and versatility. Functions, which detect the hook position and change to higher hoisting speed when zero load is detected, offer high level of operation efficiency.</p>	 <p>UR Type (1-2.8t)</p> <p>This hoist is produced by utilizing the power electronics technology accumulated by MITSUBISHI ELECTRIC, and has new variable speed type. This type is popular for excellent operation.</p>
 <p>S Type (1/2-60t)</p> <p>For high frequency use S type series is heavy-duty type hoists for applications involving high frequency operations. Its winding speed and the duty class is the highest available. For more safety, a microprocessor control circuit which auto-matically prevent overloading is installed.</p>	 <p>R Type (1-2.8t)</p> <p>For medium frequency use This hoist is structurally simple and economical with real capability. This hoist is provided with onerank higher capability and both power and worthy of its real capability and economical efficiency.</p>
 <p>U-X · S-X Type (1/2-30t) (1/2-60t)</p> <p>Inverter explosion-proof type (U-X Type) ※Only 200V class is available U-X Type is the first inverter explosion-proof type in the industry. Explosion-Proof Type (S-X Type) Hoists used in places where explosive gas or steam exist must pass the Explosion-Protection Examination. Explosive grade d2 and Ignition degree 4 grade are available.</p>	 <p>E Type (150kg-490kg)</p> <p>For low frequency use This series consists of easy-to-use, and light-duty models that are suitable for a variety of uses. A full range of attachments is available for every application. Double wire rope has been used to ensure absolute safety.</p>
Crane related Equipment	
	<p>Saddle for Crane (~20t×27m)</p> <p><ST-D · MT> Top-Running Crane Saddle and <SP-D · MP> Suspension Crane Saddle are available. A travelling device that adopts Channel frame makes the installation to the main beam easy. (ST-D, SP-D)</p>
Other related Equipments	
<p><TIB> Inverter control box for saddle motor <LCV-B> Over load detection device (Detection of current)</p> 	<p>Gear motor for Crane Saddle (SGM) (0.4kw-3.7kw)</p> <p><SGM-A> is easy handling gear motor for crane saddle. There are two speed types of output axis rotation. (Low speed and High speed) It allows customers to choose the most suitable type of gear motor.</p> 

Mitsubishi Electric Hoist Catalogue

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LCV-B 53

THE MITSUBISHI ELECTRIC HOIST APPLICATIONS AND SELECTION DIAGRAM

The diagram enables you to select the most suitable hoist type for each customer's condition:

The hoist type selection diagram

Rate of loading	Total operating hour h	Total operating hour						
		Under 800	Over 800 to Under 1600	Over 1600 to Under 3200	Over 3200 to Under 6300	Over 6300 to Under 12500	Over 12500 to Under 25000	Over 25000
		A	A	A	B	C	D	E
		A	A	B	C	D	E	F
		A	B	C	D	E	F	F
		B	C	D	E	F	F	F
		E Type	R Type	U2·HU2 S Type	U2·HU2 S Type (special)	Crab Crane		

- ① Signs such as A or B grade stand for the application group of the crane structure standard.
- ② C grade applied the hoist of S, U2, HU2 series lift more than 12m.
- ③ The licence of Crab type production is necessary about the large-capacity hoist more than 30t. In addition, please specify the application group.

Percentage of duty cycle and number of starts per Hr.

Type	Percentage of duty cycle and number of starts per Hr.	Percentage of duty cycle(%)					
		E	R	S	U2(-5)	U2(7.5t~) HU2	UR
Lifting	Percentage of duty cycle(%)	25	25	40	40	25	25
	Number of starts Per Hr(S/Hr)	150	250	400	240	150	150
Traversing	Percentage of duty cycle(%)	25					
	Number of starts Per Hr(S/Hr)	250					

Starting frequencies represent the number of starts during one hour at the busiest rate of operation.
Special designs are required for applications involving load/time ratios in excess of 40% or starting number frequencies in excess of 400/hour. Consult your dealer.

Total time motor is under power during 1 hour of operation at busiest rate(minutes) × 100
ED(%) = $\frac{\text{minutes}}{60} \times 100$

The kind of the crane and crane classes of the hoisting devices

Classification of the crane	Class of the hoisting device
For Power plants, Disassemble and assemble crane	A
For Machinery and assembly factory crane	A
For general factory crane	B—D
Installed on a ceiling (with bucket, magnet)	D—F
Ladle crane	E—F
Charging crane	F
Forging crane	F
General use Portal bridge crane (with hook)	B—C

Limit at allowable use frequency consection (More than 7.5t, Less than 5t)

load	Operating hour of a day						
	Rate of loading						
	~1	~2	~4	~6	~8	~16	16~
Light	Crane used normally in under 50% of the rated load						
Moderate	Crane used normally from 50% to under 63% of the rated load						
Heavy	Crane used normally from 63% to under 80% of the rated load						
Very heavy	Crane used normally in more than 80% of the rated load						

Basic term of the hoist (crane)

There are many technical terms in this catalogue and the words that are generally used. The most basic words are explained below.

① Hoisting load
The maximum load that hoist (crane) can burden
※The load that includes mass of a hook (lifting tod) and rated load

② Rated load
The load that deducted the mass of a hook and the lifting tool from hoisting load
※We display rating load with capacity.

③ Lift
Vertical movement distance of the hook
※The standard lift of Mitsubishi hoist
● Low lift Less than 3t → 6m
More than 5t → 8m
● High lift 12m

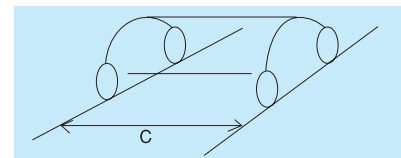
④ Hoisting(Lifting)/Lowering
Vertical motion of the load

⑤ Traversing
Motion of hoist

⑥ Travelling
Motion of crane
※Distance hoist moves (speed) Traversing distance(speed)
※Distance crane moves (speed) Travelling distance(speed)

⑦ Minimum head room
From the upper end of the lift
● Monorail Type ...To under surface of I-beam
● Double rail type ...To contact surface with the rail
● Suspended Type ...To the bolt hole center for suspending
● Frame mounted Type ...To the under surface of a mounting frame
※The minimum head room is indicated as "N" dimensions.

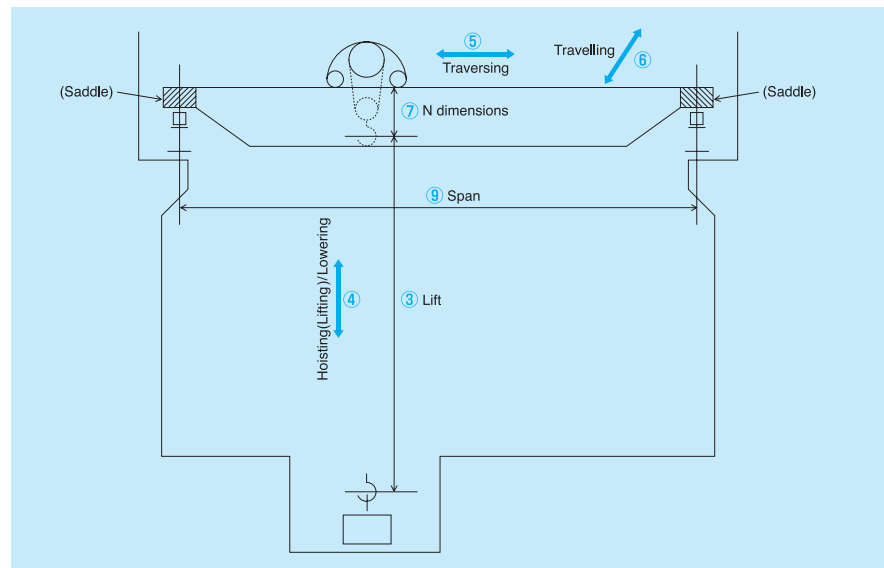
⑧ Wheel distance of the hoist
Distance between the center of the traversing rail (only as for the Double rail Type)



※The length between rails is indicated as "C" dimensions.

⑨ Span
Distance between the center of the traversing rails

⑩ Crane
Machine loaded by power, and to carry up and down, front and back and right and left
※The crane especially called Telfer works only up and down, right and left.



The selection of the model

At first, select by purpose of use, use condition, frequency of use and decide concrete model by capacity, lift, shape(Suspended Type, Frame mounted Type, with traversing) and hoisting speed next.

① Allowable frequency of use

Select the model by the start number of times (the number of times of the up and down operation of the push button), percentage of duty cycle.(Please refer to the hoist applications and selection diagram of P3.)

② Capacity

S series, U2 series :1/2-60t, HU2 series:10t - 60t R series, UR series :1t - 2.8t

③ Lift

We have Low lift type and High lift type. As for the low lift, 6m (more than 5t, 8m), the high lift is 12m. Most models make both high lift and low lift.

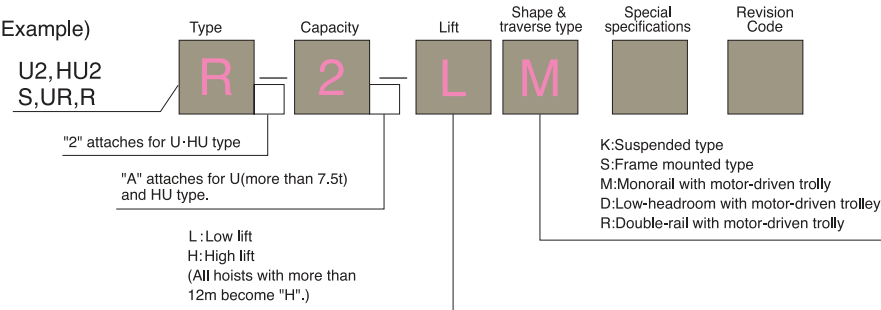
④ Shape

Suspended Type, Frame mounted Type, Monorail Type, Low-head Type, Double rail Type

※ There is some hoist which we don't produce by a model, capacity. (Please refer to production overview of P6.)

Function code

(Example)



In the case of special hoists, the following code attaches to the end of function code.

Special specifications	Code	Special specifications	Code
With hoisting inverter	H	With electric limit switch	E
With hoisting and traversing inverter	S	With emergency brake	B
With traversing inverter(S type, R type)	T	Explosion-proof type	X
With gear type limit switch	G		

The viewpoint of the catalogue

① MITSUBISHI Hoist applications and selection diagram, allowable duty cycle and the number of starts per Hr.

The allowable duty cycle and the number of starts per Hr. are described. Confirm how much frequency you use hoist at, and select the most suitable model.

② Production Overview Table

You can distinguish a production range according to the production overview table.

③ Specifications

We describe basic specifications of the hoist. You can identify wire rope size, motor capacity, lifting and traversing speed, current value, in addition, basic specifications.

④ Outline Drawings

We have outline drawings type-by-type. Minimum head room(N dimentions), general weight, applicable I-Beams are described in it. Please warm being the model that the minimum radius curvatures grows big with the I-Beam of small size by the facia column of the applicable I-Beam.

Production model

	Type	Frequency of use	Type of Control system		Capacity(t)												
			Inverter	Magnetic contactor	1/2	1	2	3	5	7.5	10	15	20	30	45	60	
Variable speed type	U2	High	○		○	○	○	○	○	○	○	○	○	○	○	○	○
	UR	Medium	○			○	○	○	○								
Fixed speed type	S	High		○	○	○	○	○	○	○	○	○	○	○	○	○	○
	R	Medium		○	○	○	○										

High speed series "HU2" type and Explosion-proof series "S-X" type are also available.

Production Overview Table

<U2><S> Type

Capacity(t)	Motor Operated Traversing			Suspended Type	Frame mounted Type
	Monorail Type	Low-head Type	Double Rail Type		
	LM/HM	LD/HD	LR/HR	LK/HK	LS/HS
1/2	6m/12m	6m/	—	6m/12m	—
1	6m/12m	6m/12m	—	6m/12m	6m/12m
2	6m/12m	6m/12m	—	6m/12m	6m/12m
2.8	6m/12m	6m/12m	6m/12m	6m/12m	6m/12m
5	8m/12m	8m/12m	8m/12m	8m/12m	8m/12m
7.5	8m/12m	8m/12m	8m/12m	8m/12m	8m/12m
10	8m/12m	8m/12m	8m/12m	8m/12m	8m/12m
15	8m/12m	—	8m/12m	8m/12m	8m/12m
20	/12m	—	/12m	—	/12m
30	—	—	/12m	—	/12m
40	—	—	6.5m/11.5m	—	6.5m/11.5m
45	—	—	/12m	—	/12.5m
60	—	—	—	—	9.5m/14.5m

<HU2> Type

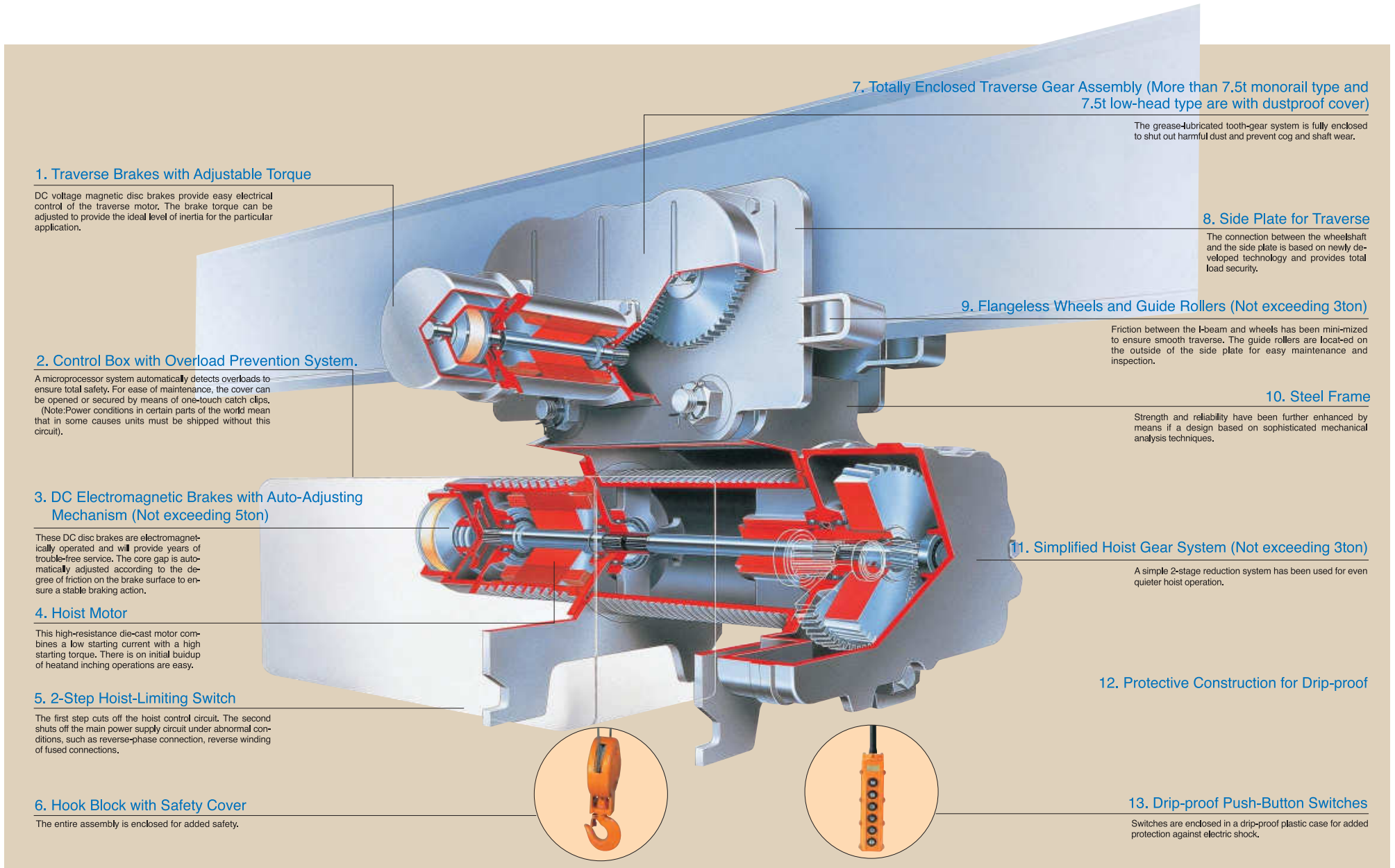
Capacity(t)	Motor Operated Traversing			Suspended Type	Frame mounted Type
	Monorail Type	Low-head Type	Double Rail Type		
	LM/HM	LD/HD	LR/HR	LK/HK	LS/HS
10	8m/12m	8m/12m	8m/12m	8m/12m	8m/12m
15	8m/12m	—	8m/12m	8m/12m	8m/12m
20	—/12m	—	—/12m	—/12m	—/12m
30	—	—	—/12m	—	—/12m
40	—	—	6.5m/11.5m	—	6.5m/11.5m
45	—	—	—/12.5m	—	—/12.5m
60	—	—	—	—	9.5m/14.5m

<UR><R> Type

Capacity(t)	Motor Operated Traversing			Suspended Type
	Monorail Type	Low-head Type	Double Rail Type	
	LM/HM	LD/HD	LR/HR	LK/HK
1	6m/12m	6m/	—	6m/12m
2	6m/12m	6m/	—	6m/12m
2.8	6m/12m	6m/	6m/	6m/12m

SUPERB MECHANICAL FEATURES BASED ON A TRADITION OF ADVANCED TECHNOLOGY.

Control Box, traversing motor and oil gauge are arranged on the same side for ease of maintenance.



1. Traverse Brakes with Adjustable Torque

DC voltage magnetic disc brakes provide easy electrical control of the traverse motor. The brake torque can be adjusted to provide the ideal level of inertia for the particular application.

2. Control Box with Overload Prevention System.

A microprocessor system automatically detects overloads to ensure total safety. For ease of maintenance, the cover can be opened or secured by means of one-touch catch clips. (Note: Power conditions in certain parts of the world mean that in some cases units must be shipped without this circuit).

3. DC Electromagnetic Brakes with Auto-Adjusting Mechanism (Not exceeding 5ton)

These DC disc brakes are electromagnetically operated and will provide years of trouble-free service. The core gap is automatically adjusted according to the degree of friction on the brake surface to ensure a stable braking action.

4. Hoist Motor

This high-resistance die-cast motor combines a low starting current with a high starting torque. There is no initial buildup of heat and inching operations are easy.

5. 2-Step Hoist-Limiting Switch

The first step cuts off the hoist control circuit. The second shuts off the main power supply circuit under abnormal conditions, such as reverse-phase connection, reverse winding or fused connections.

6. Hook Block with Safety Cover

The entire assembly is enclosed for added safety.

7. Totally Enclosed Traverse Gear Assembly (More than 7.5t monorail type and 7.5t low-head type are with dustproof cover)

The grease-lubricated tooth-gear system is fully enclosed to shut out harmful dust and prevent cog and shaft wear.

8. Side Plate for Traverse

The connection between the wheelshaft and the side plate is based on newly developed technology and provides total load security.

9. Flangeless Wheels and Guide Rollers (Not exceeding 3ton)

Friction between the I-beam and wheels has been minimized to ensure smooth traverse. The guide rollers are located on the outside of the side plate for easy maintenance and inspection.

10. Steel Frame

Strength and reliability have been further enhanced by means of a design based on sophisticated mechanical analysis techniques.

11. Simplified Hoist Gear System (Not exceeding 3ton)

A simple 2-stage reduction system has been used for even quieter hoist operation.

12. Protective Construction for Drip-proof

13. Drip-proof Push-Button Switches

Switches are enclosed in a drip-proof plastic case for added protection against electric shock.

U2·HU2 Type Series Ultra type 1/2t~60t

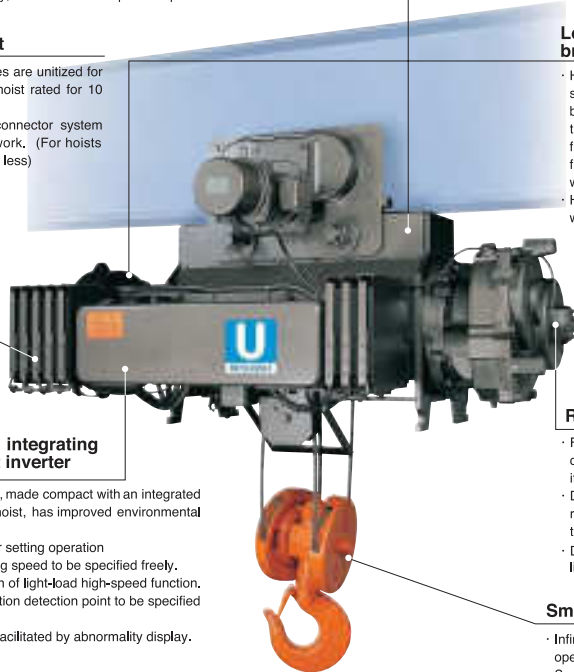
Included over load prevention function as standard equipment

Adoption of S type body

This series is based on the model S, high-performance parent body which features highest-in-class hoisting speed, power, and durability, and withstands repeated operations.

Resistance unit

- Cement resistances are unitized for downsizing. (For hoist rated for 10 ton or less)
- Adoption of the connector system facilitates hoist work. (For hoists rated for 10 ton or less)



Low-wearing electromagnet brake

Heat-generation and wear are small under severe inching operations accompanied by braking operations at low motor-speeds in the inverter-driven power train.(However, frequent use of the unloaded high-speed function may result in increased brake disk wear.)
Hoists rated for 7.5 ton or more are equipped with an emergency brake.

Rotating sensor

- Full-time monitoring of hoist motor motion; detects abnormalities and stops the machine if necessary as a safety precaution.
- Detects position using rotation pulses; reduces machine speed when approaching the upper or the lower limit and stops it there.
- Detects light-load and automatically operates light-load high-speed.

Smooth operation

- Infinitesimal and light-moving inching operations
- Smooth changeover between high- and low-speed operations

Control panel integrating purpose-built inverter

- The control panel, made compact with an integrated inverter only for hoist, has improved environmental resistance.
- Simple parameter setting operation
 - * Allows operating speed to be specified freely.
 - * Allows selection of light-load high-speed function.
 - * Allows the position detection point to be specified freely.
- Troubleshooting facilitated by abnormality display.

Introduction of UA type 45 kW series

45 kW hoisting motor has further improved machine speed

Type	Capacity (t)	Hoisting speed m/min	Hoisting Motor	
			Capacity(kW)	Poles(P)
UA	15	1.3/1.3	45	4
	20	1.1/1.1		
	30	0.75/7.5		
	40	0.56/5.6		
	45	0.5/5		
	50	0.45/4.5		
60	0.37/3.7			

*Outside dimensions of this hoist differ from those listed on this catalog; contact us for further information.
*A general-purpose inverter will be installed.
*Some functions of this hoist differ from those on other Soukai-TEI products.

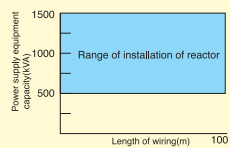
Manufacturing specifications for typical large-capacity hoists

Type	Capacity (t)	Hoisting speed m/min	Hoisting Motor	
			Capacity(kW)	Poles(P)
U	100	0.36/2.2	24kW ×2台	4
UA	100	0.67/4 Light-load high-speed function 6m/min	45kW ×2台	4

※ 400 V series are also available; contact us for further information.

AC Reactor

The inverter hoist might be damaged when it is connected directly with the large capacity power transformer(more than 500kVA transformer), there is a switch of the phase advance capacitor and the excessive peak current inflows into the power supply input circuit. In such cases, please make sure that the AC reactor is installed on the primary side of the inverter hoist.



Inverter hoist that develops new use and new field

Type	Capacity(t)		Wire Rope				Hoisting			Traversing																													
	Capacity	Lift(m)	Monorail type		Double rail type	Rope specification	Inverter Operation		Motor	Monorail·Low-head type			Double rail type																										
			2falls	4falls			speed m/min	On-head		Unloaded	Out put (kW)	speed m/min	Motor Magnetic contactor operation	speed m/min	Motor Magnetic contactor operation																								
	Low	High	2falls	4falls	4falls	4falls	Low speed	High speed	Low speed	High speed	Low speed	High speed	Low speed	High speed	Low speed	High speed																							
U2	1/2	6	φ6.3	—	φ4	—	6×W (19) B Class JISG3325	1.4	13	19.5	1.2	4	21	25	2.5	25	—	—	—	—	—	—	—																
	1		φ8	—	φ6.3	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—																
	2		φ10	—	φ8	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—																
	2.8	12	φ12.5	—	φ9	φ9	—	1.1	10	15	4.9	4	21	25	2.5	25	0.5	0.6	21	25	2.5	25	0.5	0.6															
	3		φ12.5	—	φ9	φ9	—	—	—	—	—														—	—	—	—	—	—	—	—	—	—					
	5		φ11.2	φ11.2	φ11.2	—	6×F (29) B Class JISG3325	0.9	8	12	7.5														—	—	—	—	—	—	—	—	—	—	—	—	—		
	7.5	8	φ14	φ14	φ14	—	—	0.7	7	10.5	10	6	12	15	1.5	15	0.85	1.0	12	15	1.5	15	0.85	1.0	—	—													
	10		φ16	φ16	φ16	—	—	0.6	6	12	20																—	—	—	—	—	—	—	—	—	—	—	—	—
	15		φ20	φ20	φ20	—	—	0.5	5	10	20																—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	φ22.4	—	0.5	5	10	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—													
	30	—	—	—	—	φ25	—	0.4	3.3	6.6	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—													
40	6.5	—	—	—	φ22.4	—	0.3	2.5	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
45	—	11.5	—	—	φ25	—	0.3	2.2	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
45	—	19	—	—	φ25	—	0.3	2.2	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
HU2	10	8	φ16	φ16	φ16	—	6×F (29) B Class JISG3325	0.9	9	13.5	18	4	12	15	1.5	15	1.5	1.8	12	15	1.8	18	0.75	1.8	—	—													
	15		φ20	—	φ20	—	—	0.75	7.5	11	30																—	—	—	—	—	—	—	—	—	—	—	—	—
	20		φ22.4	—	φ22.4	—	—	0.5	5	7.5	30																—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	φ25	—	0.5	5	7.5	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
	40	6.5	—	—	—	φ22.4	—	0.4	3.7	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
	45	—	11.5	—	—	φ25	—	0.4	3.3	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
	50	—	—	—	—	—	—	0.005 (0.3)	0.05 (3)	※2	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—													
	60	—	—	—	—	—	—	0.0046 (0.25)	0.0416 (2.5)	※2	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—													

※1 Please note that 40t is 8falls and 45t is 6falls. (Please contact us for 60t separately.)
※2 Please contact us for 50t and 60t separately

※3 Rope specification of 112falls is 6×F (29)

Standard Specifications

- Power supply: 3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available) 3-phase 400V 50/60Hz control 200V, 440V 60Hz control 220V 3-phase 380V 50Hz control 48V(100V and 24V are also available)
- Operating method: Push button switch operations
- Power supply system: Cable feeding, trolley feeding (only double trolley)
- Ambient air temperature: -10°C to 40°C (Non condensation)
- Ambient air humidity: 90% or less (Non condensing)
- Enclosure: Simplified out door type (JIS C 9520, equivalent to IP-44)
- Please prepare the shelter place or the installation of rain cover when it is used in outdoor.
- Applicable standard: JIS C 9620 electric hoist/crane structure standard.
- Color coating: Main body: Metallic gray (Equivalent to Munsell N4.0)
Hook block: Munsell 7.5YR7/14
Pushbutton: Equivalent to Munsell 7.5YR7/13

Note: There are differences between 200V class and 400V(380V) class in outline and specifications, etc. Please contact us for 400V(380V) class separately.

U2·HU2 Type (200V/400 class)

Features of U2·HU2 type

- 1** Reduction of shock at starting and stopping

This feature reduces the shaking of the hoisting load and the building, facilitating delicate positioning.
- 2** Selectable hoisting speed

Hoist speed can be freely selected in a range from minimum speed to standard speed, allowing selection of the most suitable speed for a particular job. Switching between high and low speed is facilitated by a two-stage push-button operation.
- 3** Highly controllable inching operation

By inching operation, hook position can be controlled accurately with ease. The traversing inverter allows sharp speed reduction by reverse direction operation.
- 4** Low-wearing brake and machine parts

Low-wearing brake disks reduce shock on wire rope, sheaves, and gears, extending their service life. Non-contact main circuits eliminate the replacement of electromagnetic contacts required in the case of general-purpose hoists. (However, frequent use of light-load high-speed mode may increase brake disk wear.) Simplified design has reduced the number of components. This contributes to reduce failure risk and lengthening parts service life. Able to check wear of parts through the check window on the brake box. (Wear limit guides machined on the pressure plate and brake disks. Able to check whether the adjustment ring has dropped.)
- 5** Electronic limit switches (for the upper and the lower limit)

The position of hook is detected, for automatic deceleration and stopping. All set points can be moved together. This simplifies after wire rope replacement. Unnecessary set points can be nullified; for example, when using the lower limit stop point only, adjustment can be completed quickly, because other points do not need setting.
- 6** Light-load high-speed operation function

This function allows an increase of up to 1.5 times the standard speed for machines rated for 7.5 ton or less and up to twice the standard speed with machines rated for 10 ton or more. The light-load evaluation criterion is adjustable within a range between 0 and 25 percent of the rated load. It is possible to accommodate not only the unloaded state but also the weight of hoisting accessories, up to 25% of the rated loading. The light-load high-speed function can be used even under the combined hoisting operation. Settings are adjustable, so R-phase voltage may be output at terminal OUT3 for evaluation. With terminal OUT3 of each hoist connected to terminal IN4 of the partner hoist, light-load high-speed mode is activated when the partner hoist also detects light-load state; This arrangement ensures coordinated switching to light-load high-speed mode. Settings can now be changed for the light-load high-speed frequency
- 7** The overload prevention function is now a standard feature

The overload evaluation criterion is adjustable within a range between 100 and 125 percent of the rated load. The overload detection signal is output by terminal [OUT3]. It can be set to stop hoisting when the overload is detected. (The overload prevention function is set not to stop hoisting before shipment.)
- 8** Abundant output signals

Signals are output from out1 at the upper limit stop point, and from out2 at the lower limit. Signals are output from out3 when overload evaluation carried out, while signals are output from OUT4 during operation. Settings can be made to obtain signals from OUT3 when light-loading evaluation is carried out.
- 9** The speed-coordination function

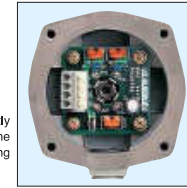
This improvement suppresses the tilting of the hoisted load occurring in combined hoisting operation. Both low-speed hoisting and low-speed lowering operations are carried out within the 20% range, the JIS specification. Stability of hoisting and lowering speeds is very high to 1%.
- 10** Contribution to environment

We try for the removal of an environmental toxic substance. (Lead is not included in solder of a print board, alloy stopper of a rope terminal, and paint. Changed 6 values chrome plating on 3 values chrome plating.) Asbestos is not included in brake disks and packing at all. Achieved energy saving because of few motor temperature rises at the time of inching operation.
- 11** Protection function

Stop automatically temporarily for safety when a power failure, an abnormal power-supply voltage, and the overcurrent, etc. are detected. The error release ... If the push button is reset excluding a part of error mode, it is possible to release, and to drive. (The stop mode for which driving reset is necessary recommends checking.)

Rotation sensor

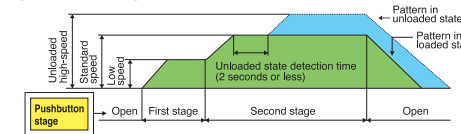
The rotation sensor monitors U2 type functions.



The rotation sensor's encoder constantly monitors rotation speed and direction of the motor shaft (the first gear shaft), displaying the following functions:

Function	Description
1 Drop detection function	If rotation is in the "down" direction despite an "up" pushbutton command, this function immediately activates the hoist brake, preventing the load from dropping.
2 Electronic limit switch (for the upper and the lower limit)	This switch totals the number of rotation pulses and decelerate or stop at the specified deceleration or stop position, and stores the travel distance.
3 Unloaded high-speed function Light-load high-speed function	The amount of motor slip depends on the magnitude of the load. When the amount of slip falls below a preset level, the hoist is automatically judged to be in unloaded state, it switches over to high speed mode.
4 Speed-coordination function	This revises frequency to maintain constant speed when the load changes.

Operation patterns changed by the pushbutton operation



Operation history display function

Failure history display : When a failure occurs, stopping the hoist, this function helps to track down the cause of failure by showing the history of past failures. It helps solve the problem when a failure has occurred.

Error history output : The number of times of operation and the time when an error occurred are output.

Number of starts/operating hours display : This display shows the hoist's working history. It is also useful in determining when to replace consumables.

* Contact us for a specially-built product.

U2 TYPE application examples



Factory building with an office on the upper level (The building does not shake.)



Plating line and metal mold machining line



Transportation of fragile items like glass products (No shocks are transmitted to the hoisted load.)



Accurate positioning (The hoisted load does not shake.)

Options

- * Improved ease of use
- Synchronous by speed-coordination function**
Controls tilt of load when hoisted by two or more hoists.
- Multi-stage speed function**
This function is useful in automatic operations using a sequencer; for one of eight-stage inputs for either hoisting or lowering a load, the machine can be operated at the desired speed.
- Position detection multi-point output**
Using an ELS circuit board, this function provides operation information on how the machine is being used.
- Rotation signal output**
Using a BTS circuit board, this function allows a two-phase signal to be sent to the sequencer or similar devices.

Hoist-specific inverter control panel

- * The compactly-designed control panel is also vibration resistant.
- * Parameter settings have been simplified, requiring only four buttons.



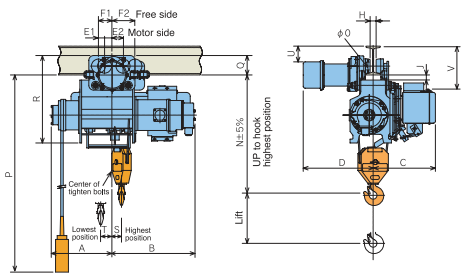
Attention in use

- The inverter hoist doesn't stop the push-button of turning off at once. It stops as the cushion working, and operate in consideration of the stopping distance, please.
- Using memory unit of the microcomputer data. Please avoid the entering cutting of a needless power supply. (The longevly frequency of the memory unit is 100,000 times in the power supply interception.)
- Notes concerning the noise → Disorder and the malfunction of the voice might be caused by the setting condition in a nearby television and an electronic equipment including the radio etc. For this case, we will recommend the installation of the noise filter.

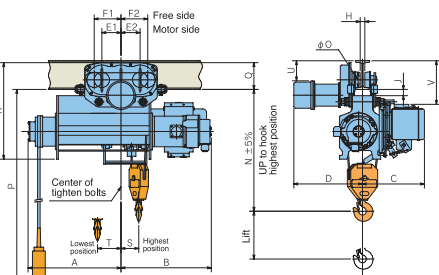
Monorail Type U2 (1/2t·1t·2.8t·3t·5t)

※Contact us for 400V class outline

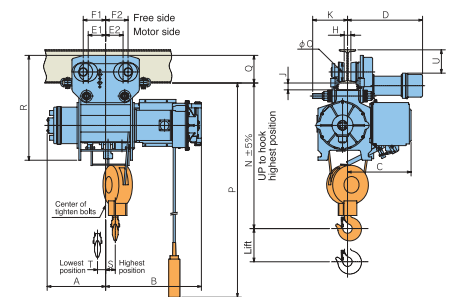
U2-1/2-LMH2



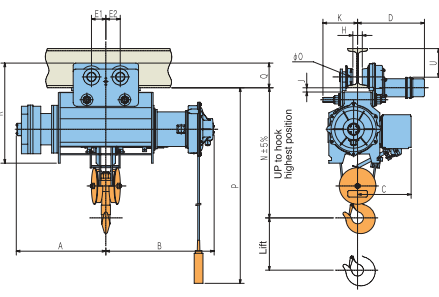
U2-1/2-HMH2



U2-1·2·2.8·3



U2-5



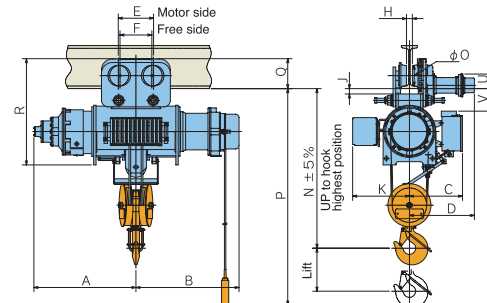
Model	U2-1/2				U2-1				U2-2				U2-2.8 (3)				U2-5										
	LMH2	LMS2	HMH2	HMS2	LMH2	LMS2	HMH2	HMS2	LMH2	LMS2	HMH2	HMS2	LMH3	LMS3	HMH3	HMS3	LMH3	LMS3	HMH3	HMS3							
Cap.(t)	1/2				1				2				2.8 (3)				5										
Lift(m)	12				12				12				12				12										
Dimensions(mm)	A	315		485	321	508	352	509	373	542	685	810															
	B	433		473	518	551	577	605	658	689	830	955															
	C	324				345			383			410															
	E1	38		100		100		105		105		110															
	E2	58		100		100		105		105		110															
	F1	70		140		140		135		135																	
	F2	120		140		140		135		135																	
	K				208	167		210		216		265															
	N	625		635		735		875		1045		996															
	O	73		80		80		114		114		125															
	P	6000		12000		6000	12000		6000	12000		6000	12000		8000	12000											
	R	455		505		545		632		720		766															
S	50		93		71	105		58	101		60	97															
T	58		123		42	119		49	113		47	115															
Min.rad.curvature(m)	1.2 (4.0)		1.8 (7.0)		1.8 (7.0)		1.8 (5.0)		2.0		5.0 6.3		5.0 6.3														
Weight(kg)	120	120	150	150	175	190	290	315	390	425	630	700															
Hook block weight(kg)	4.5				7.5				15				27				42										
I-Beam related dimensions	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V			
Applicable I-Beam (mm)	150×75×5.5	364	30	27	100	75	216	360	24	33	140	105	227	360	24	33	140	105									
	200×100×7	376	54	26	101	125	265	372	48	33	140	155	277	372	48	33	140	155	453	40	41	167	140				
	250×125×7.5						385	74	31	142	203	325	385	74	31	142	203	465	64	39	169	188	465	64	34	169	188
	300×150×8																		478	90	38	170	237				
	300×150×11.5																		478	90	29	179	228	478	90	24	179
450×175×13																							524	96	27	193	365
600×190×13																											

Note: rad.cur() at I-Beam U2-1/2, 1...150×75×5.5 U2-2...200×100×7 Note Applicable I-Beam =Standard =required special attachment

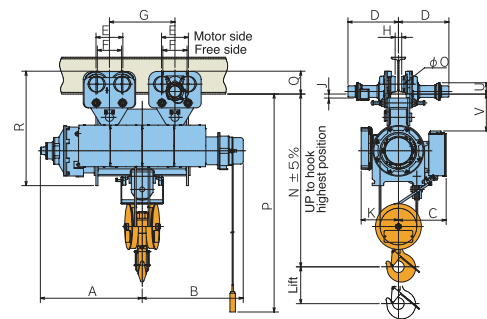
Monorail Type U2 (7.5t·10t·15t·20t)

※Contact us for 400V class outline

U2-7.5A·10A



U2-15A·20A



Model	U2-7.5A				U2-10A				U2-15A				U2-20A												
	LMH6	LMS6	HMH6	HMS6	LMH6	LMS6	HMH6	HMS6	LMH6	LMS6	HMH6	HMS6	LMH6	LMS6	HMH6	HMS6									
Cap.(t)	7.5				10				15				20												
Lift(m)	12				12				12				12												
Dimensions(mm)	A	881		1006	949		1074	1045		1195		1243													
	B	1004		1129	959		1084	1085		1235		1235													
	C	458				493			558			583													
	E	300				328			300			328													
	F	270				296			270			296													
	G	—				—		620	800			800													
	K	497				528			430			455													
	N	1270				1450			1930			2090													
	O	173				193			173			193													
	P	8000		12000		8000		12000	8000		12000		12000												
	R	903				988			1268			1398													
	Min.rad.curvature(m)	5.0	12.5	5.0	12.5	5.0	12.5	5.0	12.5	Straightline				Straightline											
Weight(kg)	900			970	1250		1350	2200		2350		2700													
Hook block weight(kg)	80				100				190				280												
I-Beam related dimensions	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	
Applicable I-Beam (mm)	400×150×12.5	578	60	49	254	117	150	604	54	49	279	141	210												
	450×175×13	590	85	49	254	117	150	617	78	49	279	141	210	590	85	49	254	117	347	616	81	49	279	141	451
	600×190×13	598	100	50	253	116	151	624	94	50	278	140	211	598	100	50	253	116	348	624	96	50	278	140	452

Note: Applicable I-Beam =Standard

Low-head Type

U2

(1/2t·1t·2t·2.8t·3t·5t)

※Contact us for 400V class outline

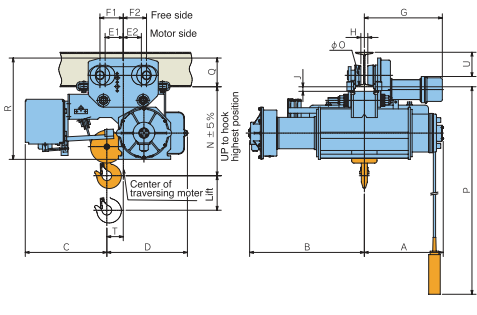
Low-head Type

U2

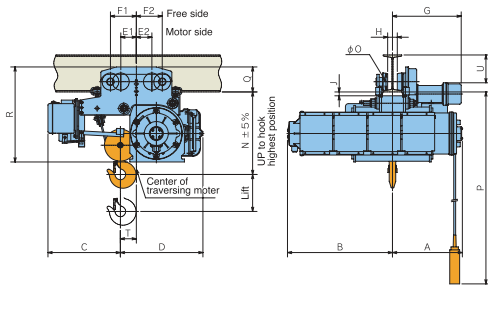
(7.5t·10t)

※Contact us for 400V class outline

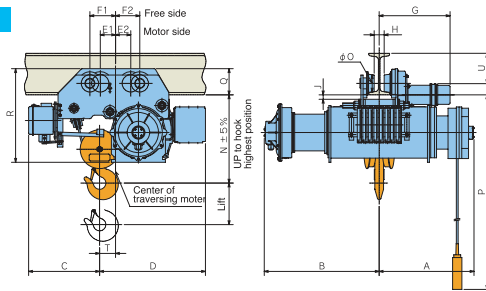
U2-1/2 · 1 · 2



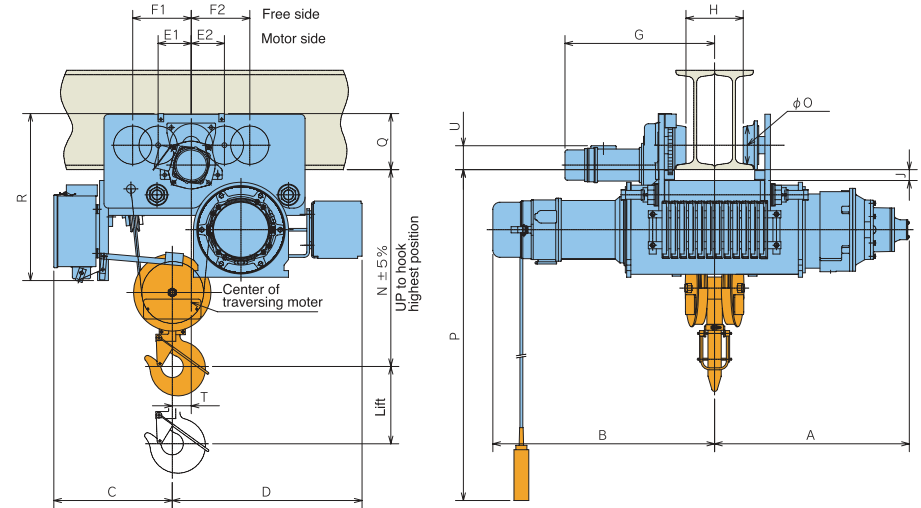
U2-2.8 · 3



U2-5



U2-7.5 · 10



Model	U2-1/2					U2-1					U2-2					U2-2.8 (3)					U2-5																
	LDH2	LDS2	LDH2	LDS2	HDH2	HDS2	LDH2	LDS2	HDH2	HDS2	LDH3	LDS3	HDH3	HDS3	LDH3	LDS3	HDH3	HDS3	LDH3	LDS3	HDH3	HDS3															
Cap.(t)	1/2					1					2					2.8 (3)					5																
Lift(m)	6					6					12					6					12					8					12						
Dimensions(mm)	A	433		444		611		457		635		472		622		685		810	A	433		444		611		457		635		472		622		685		810	
	B	528		616		784		668		847		711		861		830		955	B	528		616		784		668		847		711		861		830		955	
	C	371				423				473				490				513	C	371				423				473				490				513	
	D	272				356				467				558				764	D	272				356				467				558				764	
	E1	58				100				105				105				110	E1	58				100				105				105				110	
	E2	38				100				105				105				110	E2	38				100				105				105				110	
	F1	120				140				135				175				185	F1	120				140				135				175				185	
	F2	70				140				135				175				175	F2	70				140				135				175				175	
	N	345				410				505				535				650	N	345				410				505				535				650	
	O	73				80				114				114				125	O	73				80				114				114				125	
	P	6000				6000		12000		6000		12000		6000		12000		8000	12000	P	6000				6000		12000		6000		12000		6000		12000		8000
R	410				495				588				643				676	R	410				495				588				643				676		
T	66				58				95				108				115	T	66				58				95				108				115		
Min.rad.curvature(m)	1.2 (4.0)					1.8 (7.0)					1.8 (5.0)					2.0					6.3																
Weight(kg)	150					200					305					405					640					710											
Hook block weight(kg)	5.5					8					15					25					42																
I-Beam related dimensions	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U												
	150×75×5.5	364	30	19	101	75	360	24	21	140	105	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—											
	200×100×7	376	54	20	101	125	372	48	21	140	155	453	40	26	167	140	—	—	—	—	—	—	—	—	—	—											
	250×125×7.5	—	—	—	—	—	385	74	19	142	203	465	64	24	169	188	465	64	26	169	188	—	—	—	—	—											
	300×150×8	—	—	—	—	—	—	—	—	—	—	478	90	23	170	237	—	—	—	—	—	—	—	—	—	—											
	300×150×11.5	—	—	—	—	—	—	—	—	—	—	478	90	14	179	228	478	90	16	179	228	512	72	31	189	219											
	450×175×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	524	96	27	193	365											
600×190×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—												

Note.rad.cur() at I-Beam U2-1/2, 1...150×75×5.5 U2-2...200×100×7 Note Applicable I-Beam =Standard =required special attachment

Model	U2-7.5A				U2-10A											
	LDH6	LDS6	HDH6	HDS6	LDH6	LDS6	HDH6	HDS6								
Cap.(t)	7.5				10											
Lift(m)	8				12											
Dimensions(mm)	A	881		1006	949		1074	A	881		1006	949		1074		
	B	1004		1129	959		1084	B	1004		1129	959		1084		
	C			536			619	C			536			619		
	D			859			946	D			859			946		
	E1			150			604	E1			150			604		
	E2			150			164	E2			150			164		
	F1			265			528	F1			265			528		
	F2			265			162	F2			265			162		
	N			880			990	N			880			990		
	O			173			193	O			173			193		
P	8000		12000		8000		12000	P	8000		12000		8000		12000	
R			756			873	R			756			873			
T			86			363	T			86			363			
Weight(kg)	1000				1070				1550				1650			
Hook block weight(kg)	80				100											
I-Beam related dimensions	G	H	J	Q	U	G	H	J	Q	U						
	450×175×13 2 rails	678	257	49	254	109	711	253	49	279	141					
600×190×13 2 rails	693	288	50	253	108	726	284	50	278	140						

Note Applicable I-Beam =Standard

Double rail Type

U2 (2.8t·3t·5t)

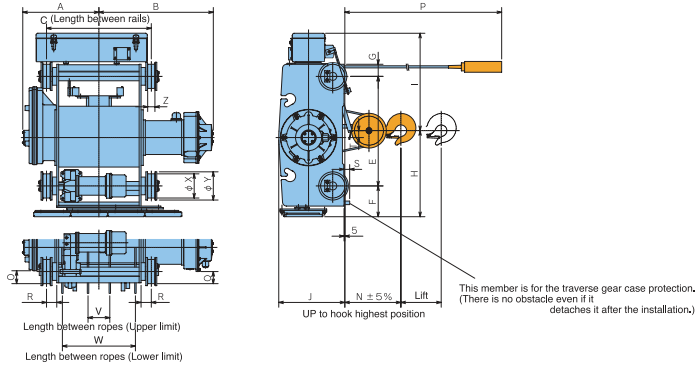
※Contact us for 400V class outline

Double rail Type

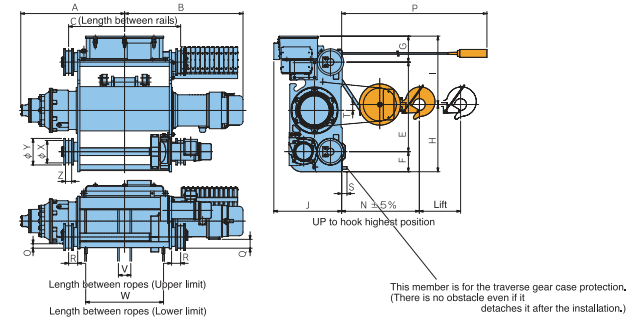
U2 (7.5t·10t·15t·20t·30t)

※Contact us for 400V class outline

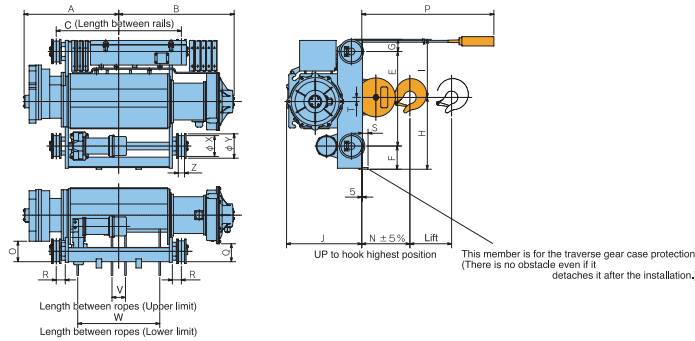
U2-2.8 · 3



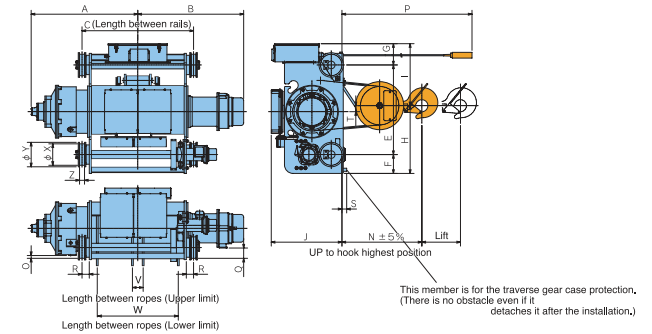
U2-7.5A · 10A



U2-5



U2-15A · 20A · 30A



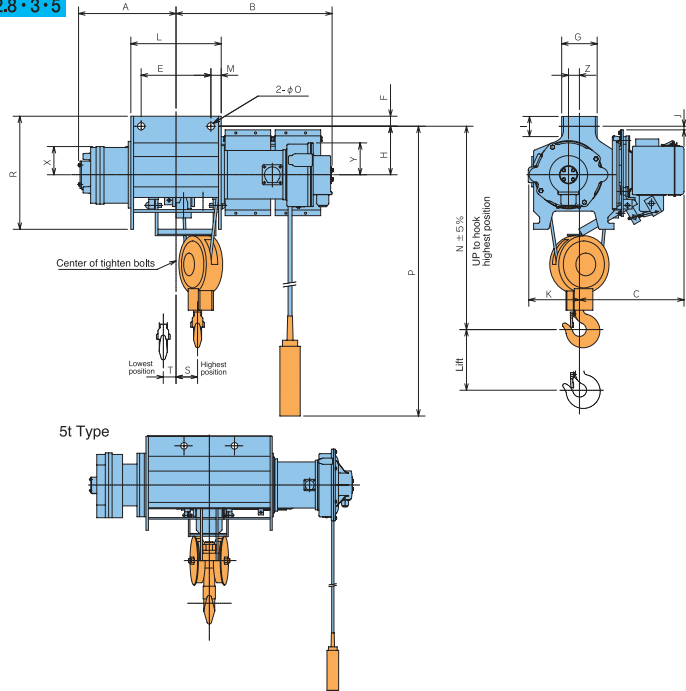
Model	U2-2.8 (3)				U2-5			
	LRH3A	LRS3A	HRH3A	HRS3A	LRH3A	LRS3A	HRH3A	HRS3A
Cap.(t)	2.8 (3)				5			
Lift(m)	6				8			
Dimensions(mm)	A	472		622	685		810	
	B	711		861	830		955	
	C	650		950	900		1150	
	E		690			680		
	F		191			167		
	G		75			88		
	H		534			517		
	I		605			418		
	J		410			541		
	N		345			346		
	O		52			125		
	P	6000		12000		8000		12000
	Q		75			129		
	R		63			65		
S		35			40			
T		43			30			
V	135		130		97		100	
W	453		753		590		840	
X		150			150			
Y		175			175			
Z		45			45			
Weight(kg)	440				690			
Hook block weight(kg)	25				42			
Applicable I-Beam(mm)	12kg rails or 38mm steel square bars							

Model	U2-7.5A				U2-10A				U2-15A				U2-20A		U2-30A							
	LRH6	LRS6	HRH6	HRS6	LRH6	LRS6	HRH6	HRS6	LRH6	LRS6	HRH6	HRS6	HRH6	HRS6	HRH6	HRS6						
Cap.(t)	7.5				10				15				20		30							
Lift(m)	8				12				8				12		12							
Dimensions(mm)	A	881		1006	949		1074		1045		1195		1243		1456							
	B	1004		1129	959		1084		1085		1235		1235		1285							
	C	950		1200	950		1200		1000		1300		1300		1400							
	E		760			840				1000				1045		1190						
	F		170			170				220				220		220						
	G		223			233				243				248		246						
	H		570			613				760				790		850						
	I		583			630				703				723		806						
	J		575			575				813				824		868						
	N		630			710				860				910		1020						
	O		40			38				30				32		15						
	P	8000		12000		8000		12000		8000		12000		12000		12000						
	Q		75			30				85				120		115						
	R		77			82				84				84		89						
	S		45			55				55				55		45						
	T		50			53				70				70		80						
	V	105		80		100		100		110		135		125		150						
W	660		910		620		870		660		960		945		990							
X		190			190				250				250		250							
Y		225			225				285				285		285							
Z		52			52				58				58		73							
Weight(kg)	950				1030				1300				1410		2000		2200		2600		3700	
Hook block weight(kg)	80				100				190				280		380							
Applicable I-Beam(mm)	15kg rails or 44mm steel square bars								22kg rails or 50mm steel square bars				37kg rails or 68mm steel square bars									

Suspended Type U2 (1/2t·1t·2t·2.8t·3t·5t)

※Contact us for 400V class outline

U2-1/2·1·2·2.8·3·5



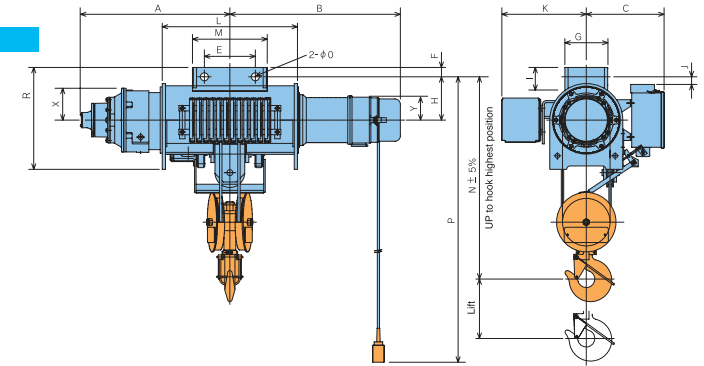
Model	U2-1/2		U2-1		U2-2		U2-2.8 (3)		U2-5		
	LKH2	HKH2	LKH2	HKH2	LKH2	HKH2	LKH3	HKH3	LKH3	HKH3	
Cap.(t)	1/2		1		2		2.8 (3)		5		
Lift(m)	6	12	6	12	6	12	6	12	8	12	
Dimensions(mm)	A	315	486	321	508	352	509	373	542	685	810
	B	433	473	518	551	577	605	658	689	830	955
	C	324		345		383		408		410	
	E	170	230	230	230	230	230	230	230	290	
	F	28	33	33		38		43		60	61
	G	140	117	117		151		176		229	
	H	155		160		177		215		225	
	I	75	78	63		67		80		105	106
	J	3		12		21		89		114	
	K	151		167		190		216		236	
	L	283	493	298	518	323	508	323	523	725	975
	M	32	42	34	67	47	75	46	77	217	342
	N	570		670		800		965		905	
	O	20	24	24		33		33		38	
	P	6000	12000	6000	12000	6000	12000	6000	12000	8000	12000
	R	328	333	373		425		518		546	
	S	50	93	71	105	58	101	60	97	—	
	T	58	123	42	119	49	113	47	115	—	
	X	87		107		140		172		205	
Y	83		105		150		150		206		
Z	20		36		30		30		30		
Weight(kg)	100	110	145	160	230	255	325	360	580	650	
Applicable I-Beam(mm)	4.5		7.5		15		27		42		

The pushbutton position of U2-1/2 is positioned on the side of hoisting deceleration part.

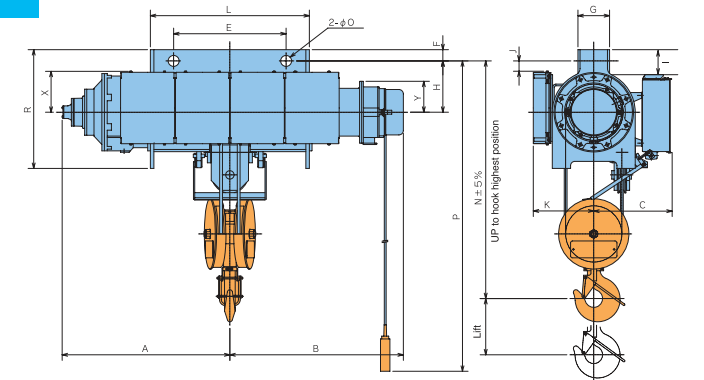
Suspended Type U2 (7.5t·10t·15t·20t)

※Contact us for 400V class outline

U2-7.5A · 10A



U2-15A · 20A

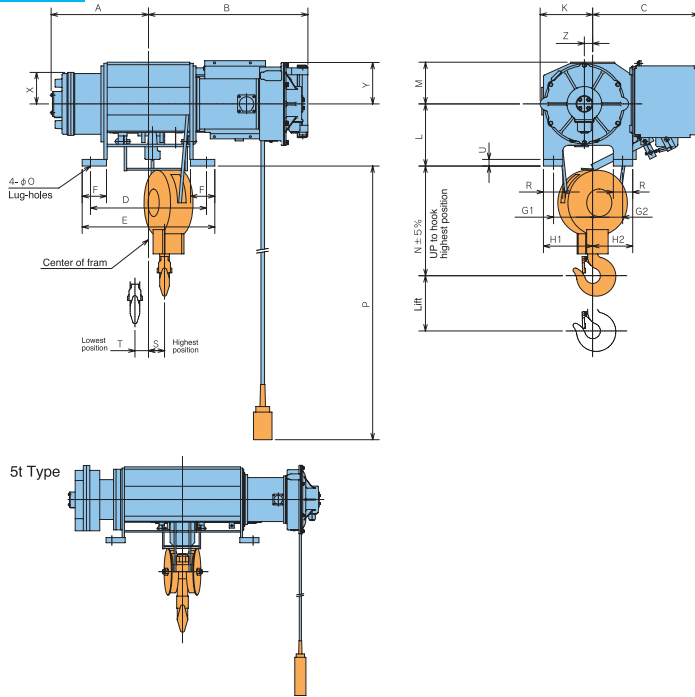


Model	U2-7.5A		U2-10A		U2-15A		U2-20A-HKH6	
	LKH6	HKH6	LKH6	HKH6	LKH6	HKH6		
Cap.(t)	7.5		10		15		20	
Lift(m)	8	12	8	12	8	12	12	
Dimensions(mm)	A	881	1006	949	1074	1045	1195	1243
	B	1004	1129	959	1084	1085	1235	1235
	C	458		493		558		583
	E	300		320		620		800
	F	55		60		80		100
	G	252		252		225		225
	H	255		290		365		410
	I	120		120		178		217
	J	45		100		73		118
	K	497		528		430		455
	L	796	1046	786	1036	831	1131	1131
	M	440		460		—		—
	N	1165		1380		1680		1800
O	47		53		78		103	
P	8000	12000	8000	12000	8000	12000	12000	
R	600		660		845		935	
X	188		218		292 (to resistor)		322 (to resistor)	
Y	152		220		220		220	
Weight(kg)	700	770	1050	1150	1500	1650	2000	
Applicable I-Beam(mm)	80		100		190		280	

Frame mounted Type U2 (1t·2t·2.8t·3t·5t)

※Contact us for 400V class outline

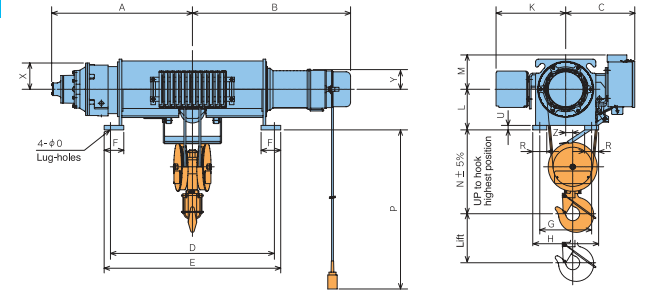
U2-1·2·2.8·3·5



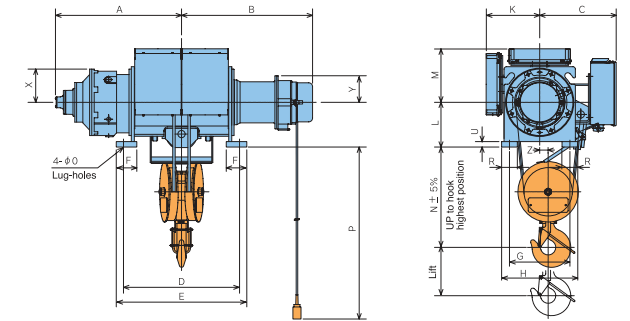
Frame mounted Type U2 (7.5t·10t·15t·20t·30t)

※Contact us for 400V class outline

U2-7.5A·10A



U2-15A·20A·30A



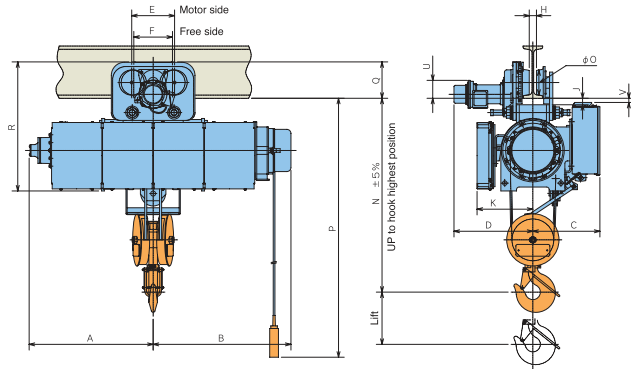
Model	U2-1		U2-2		U2-2.8 (3)		U2-5		
	LSH2	HSH2	LSH2	HSH2	LSH3	HSH3	LSH3	HSH3	
Cap.(t)	1		2		2.8 (3)		5		
Lift(m)	12		12		12		12		
Dimensions(mm)	A	321	352	445	373	473	685	810	
	B	518	628	577	670	658	758	830	
	C	345		383		408		410	
	D	385	605	420	605	430	630	850	
	E	435	655	480	665	500	700	920	
	F	75		88		99		115	
	G1·G2	121/84		141/109		170/130		175/145	
	H1·H2	151/114		178/145		210/170		220/190	
	K	167		190		216		236	
	L	180		225		275		260	
	M	148		157		181		206	
	N	330		410		490		420	
	O	15		19		24		28	
	P	6000	12000	6000	12000	6000	12000	8000	12000
	R	60		70		80		90	
	S	71	182	58	165	60	166	—	—
	T	42	42	49	49	47	47	—	—
U	18		24		27		31		
X	107		140		172		205		
Y	105		150		150		206		
Z	36		30		30		30		
Weight(kg)	125	145	185	225	320	360	580	650	
Hook block weight(kg)	7.5		15		27		42		

Model	U2-7.5A		U2-10A		U2-15A		U2-20A-HSH6	U2-30A-HSH6	
	LSH6	HSH6	LSH6	HSH6	LSH6	HSH6			
Cap.(t)	7.5		10		15		20	30	
Lift(m)	12		12		12		12	12	
Dimensions(mm)	A	881	1006	949	1074	1045	1195	1243	
	B	1004	1129	959	1084	1085	1235	1235	
	C	493		531		633		663	713
	D	920	1170	920	1170	960	1260	1260	
	E	1010	1260	1010	1260	1080	1380	1380	
	F	140		150		170		170	200
	G	370		370		500		500	620
	H	470		490		630		640	770
	K	497		500		458		470	467
	L	290		310		370		395	435
	M	245		265		443		468	522
	N	580		670		810		870	960
	O	35		35		47		47	54
	P	8000	12000	8000	12000	8000	12000	12000	12000
	R	100		120		130		140	150
	U	31		35		41		41	49
	X	188		218		275		308	320
Y	152		220		220		220	220	
Z	50		53		70		70	80	
Weight(kg)	700	770	1050	1150	1500	1650	2000	3300	
Hook block weight(kg)	80		100		190		280	380	

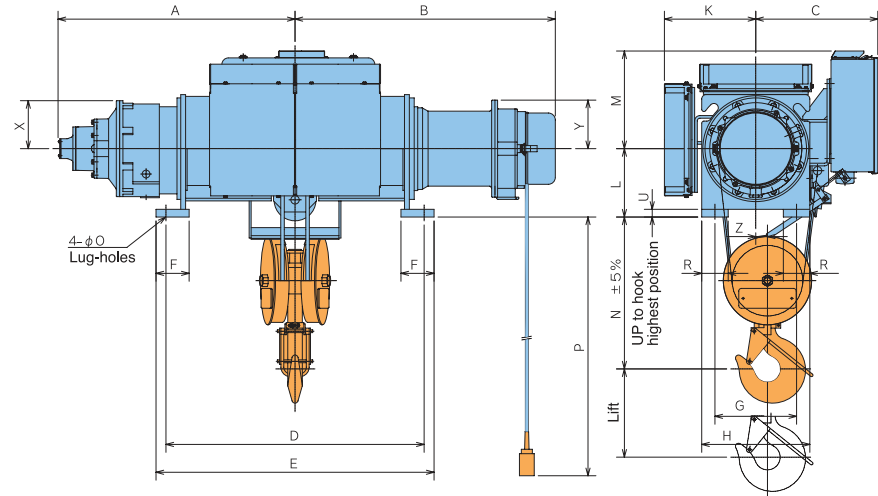
Monorail Type (High speed type) HU2 (10t) ※Contact us for 400V class outline

Frame mounted (High speed type) HU2 (10t·15t·20t·30t) ※Contact us for 400V class outline

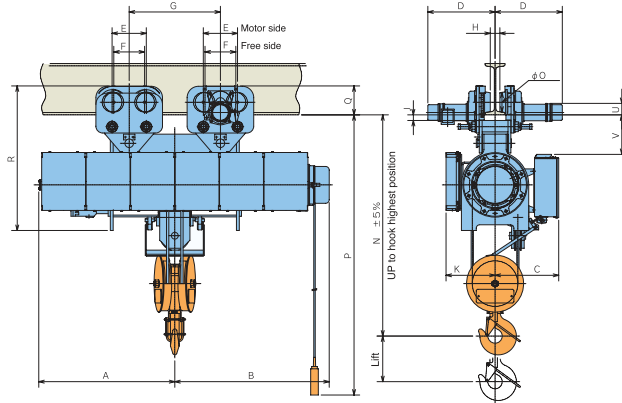
HU2-10A



HU2-10A · 15A · 20A · 30A



HU2-15A · 20A



Model	HU2-10A				HU2-15A				HU2-20A										
	LMH6	LMS6	HMH6	HMS6	LMH6	LMS6	HMH6	HMS6	HMH6	HMS6	HMH6	HMS6							
Cap.(t)	10				15				20										
Lift(m)	8 12				8 12				12										
Dimensions(mm)	A	949		1074	1045		1195		1243		1243	1456							
	B	1055		1180	1205		1355		1355		1355	1405							
	C		513			558			583			713							
	D		328		300		328		328			1380							
	E		296		270		296		296			1480							
	F					270		270		296									
	G				620		800		800										
	K		427			443			455										
	N		1450			1930			2090										
	O		193			173			193										
P	8000		12000		8000		12000		12000		12000								
R		988			1268			1398											
Min.rad.curvature(m)	5.0	12.5	5.0	12.5	Straight line				Straight line										
Weight(kg)	1400				2400				3050										
Hook block weight(kg)	100				190				280										
I-Beam related dimensions	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	
Applicable I-Beam(mm)	400X150X12.5	604	54	49	279	141	32												
	450X175X13	617	78	49	279	141	32	590	85	49	254	117	347	616	78	49	279	141	451
	600X190X13	624	94	50	278	140	33	598	100	50	253	116	348	624	94	50	278	140	452

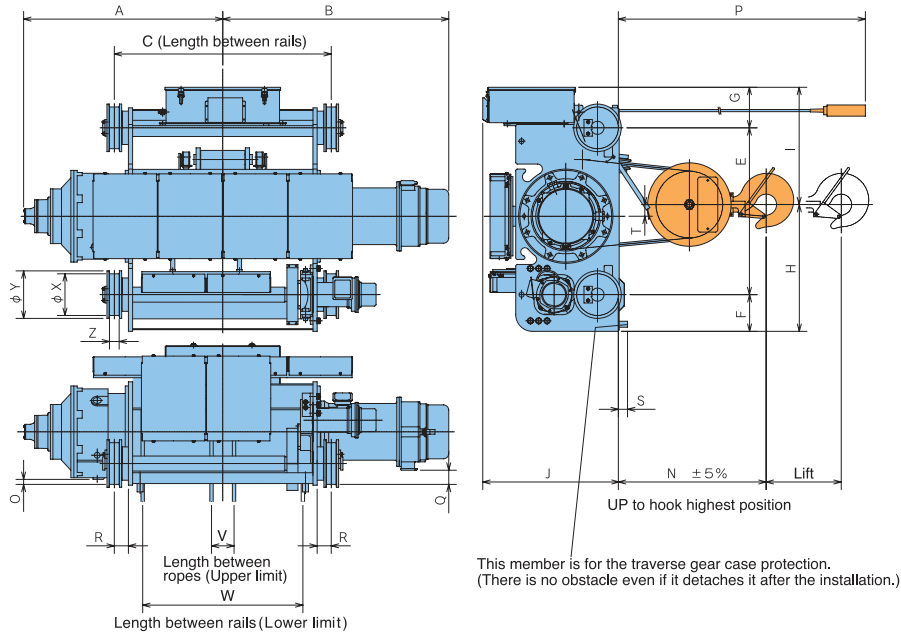
Note Applicable I-Beam =Standard

Model	HU2-10A		HU2-15A		HU2-20A	HU2-30A	
	LSH6	HSH6	LSH6	HSH6	HSH6	HSH6	
Cap.(t)	10		15		20	30	
Lift(m)	8 12		8 12		12	12	
Dimensions(mm)	A	949	1074	1045	1195	1243	1456
	B	1055	1180	1205	1355	1355	1405
	C	553		633		663	713
	D	920	1170	960	1260	1260	1380
	E	1010	1260	1080	1380	1380	1480
	F	150		170		170	200
	G	370		500		500	620
	H	490		630		640	770
	K	414		458		470	567
	L	310		370		395	435
	M	443		443		468	522
	N	670		810		870	960
	O	35		47		47	54
	P	8000	12000	8000	12000	12000	12000
	R	120		130		140	150
	U	35		41		41	49
	X	302 (to resister)		218		275	320
	Y	220		220		220	220
	Z	53		70		70	80
Weight(kg)	1200	1300	1700	1850	2200	3500	
Hook block weight(kg)	100		190		280	380	

Double rail Type(High speed type) **HU2** (10t·15t·20t·30t)

※Contact us for 400V class outline

HU2-10A · 15A · 20A · 30A

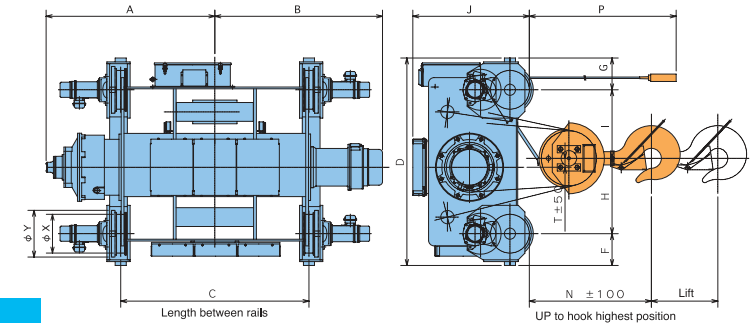


Model	HU2-10A				HU2-15A				HU2-20A		HU2-30A		
	LRH6	LRS6	HRH6	HRS6	LRH6	LRS6	HRH6	HRS6	HRH6	HRS6	HRH6	HRS6	
Cap.(t)	10		15		20		30						
Lift(m)	8		12		8		12		12		12		
Dimensions(mm)	A	949		1074	1045		1195	1243		1456			
	B	1055		1180	1205		1355	1355		1405			
	C	950		1200	1000		1300	1300		1400			
	E		840			1000			1045		1190		
	F		170			220			220		220		
	G		253			243			248		246		
	H		613			760			790		850		
	I		650			703			723		806		
	J		753			813			824		868		
	N		710			860			910		1020		
	O		38			30			32		15		
	P	8000		12000		8000		12000	12000		12000		
	Q		30			85			120		115		
	R		82			84			84		89		
S		55			55			55		45			
T		53			70			70		80			
V		100		100		110		135		125	150		
W		620		870		660		960		945	990		
X			190			250			250		250		
Y			225			285			285		285		
Z			52			58			58		73		
Weight(kg)	1450		1560		2200		2400		2800		3900		
Hook block weight(kg)	100				190				280		380		
Applicable I-Beam(mm)	15kg rails or 44mm steel square bars				22kg rails or 50mm steel square bars				37kg rails or 65mm steel square bars				

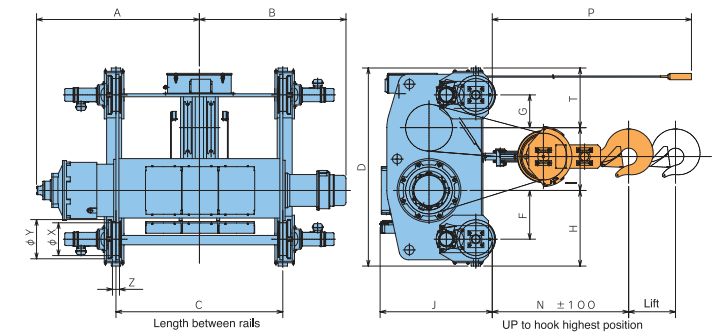
Double rail Type(High speed type) **U2·HU2** (40t·45t)

※Contact us for 400V class outline

U2-40A, HU2-40A



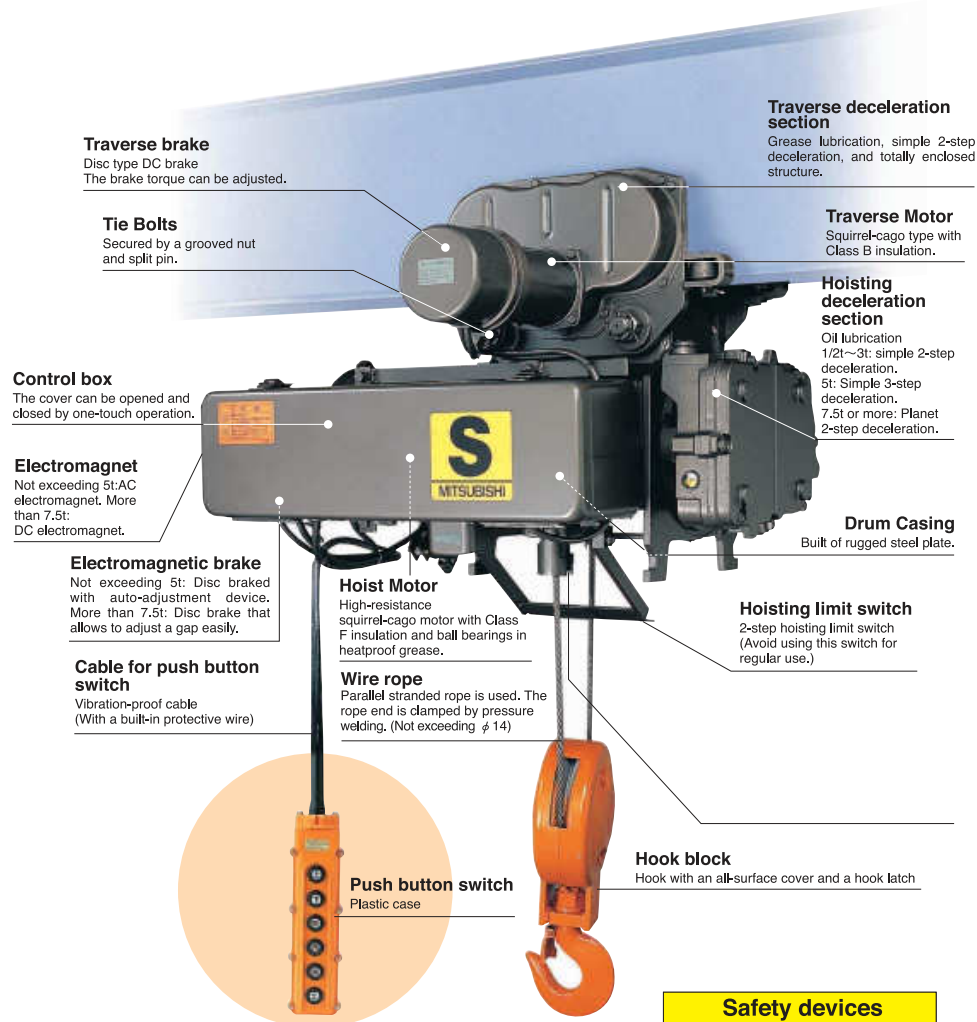
U2-45A, HU2-45A



Model	U2-40A		HU2-40A		U2-45A		HU2-45A		
	LRH6	HRH6	LRH6	HRH6	HRH6	HRH6	HRH6	HRH6	
Cap.(t)	40		40		45		45		
Lift(m)	6.5	11.5	6.5	11.5	12.5	19	12.5	19	
Dimensions(mm)	A	1525	1875	1525	1875	1740	2090	1740	2090
	B	1515	1865	1635	1985	1565	1915	1685	2035
	C	1700	2400	1700	2400	1780	2480	1780	2480
	D	1874		1874		2114		2114	
	F	287		287		520		520	
	G	287		287		350		350	
	H	681		681		807		807	
	I	619		619		670		670	
	J	1055		1055		1200		1200	
	N	1110		1110		1450		1450	
	P	7500	12500	7500	12500	11000	16000	11000	16000
	T	81		81		637		637	
	X	350		350		350		350	
	Y	419		419		419		419	
Z	-		-		75		75		
Weight(kg)	5000	5500	5100	5600	6200	6700	6300	6800	
Hook block weight(kg)	750		750		730		730		
Applicable I-Beam(mm)	37kg rails or 65mm steel square bars								

S Type Series

Strong type High speed type 1/2t~60t



Safety devices

※Optional equipment:
Over loading alarm (O.L.A) device,
Emergency brake
1t~60t optional equipment

S type offers the best lifting speed, power and durability in this class.

Type		Capacity(t)		Lift(m)		Wire rope				Hoisting				Traversing								
						Monorail type		Double rail type		Speed (m/min)		Motor		Mono-rail · Low-earoom				Double-rail				
						2falls	4falls	4falls	4falls	50 Hz	60 Hz	50 Hz	60 Hz	Speed (m/min)		Motor		Speed (m/min)		Motor		
S	1/2	Low	High	φ 6.3	—	φ 4	—	6×W(19)B class JIS G 3525	11	13	1.0	1.2	21	25	0.22	0.26	—	—	—	—		
				φ 8 ※3	—	φ 6.3	—		2.0	2.4	—	—					—	—				
	1	6	High	Low	φ 10	—	φ 8	—	6×F(29) B class JIS G 3525	8.4	10	4.1	4.9	4	21	25	0.5	0.6	—	—	—	—
					φ 12.5	—	φ 9	φ 9		4.4	5.3	21	25						0.5	0.6		
	2	6	High	Low	φ 12.5	—	φ 9	φ 9	6×F(29) B class JIS G 3525	6.7	8	6.2	7.5	4	21	25	0.85	1.0	—	—	—	—
					φ 12.5	—	φ 9	φ 9		4.4	5.3	21	25						0.5	0.6		
	2.8	6	High	Low	φ 12.5	—	φ 9	φ 9	6×F(29) B class JIS G 3525	5.8	7	8.3	10	4	21	25	0.85	1.0	—	—	—	—
					φ 12.5	—	φ 9	φ 9		4.4	5.3	21	25						0.5	0.6		
	3	6	High	Low	φ 12.5	—	φ 9	φ 9	6×F(29) B class JIS G 3525	5	6	10	12	4	21	25	0.85	1.0	—	—	—	—
					φ 12.5	—	φ 9	φ 9		4.4	5.3	21	25						0.5	0.6		
	5	12	High	Low	φ 11.2	φ 11.2	φ 11.2	φ 11.2	6×F(29) B class JIS G 3525	5	6	10	12	4	21	25	0.85	1.0	—	—	—	—
					φ 11.2	φ 11.2	φ 11.2	φ 11.2		4.4	5.3	21	25						0.5	0.6		
	7.5	8	High	Low	φ 14	φ 14	φ 14	φ 14	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—
					φ 14	φ 14	φ 14	φ 14		4.4	5.3	21	25						0.5	0.6		
10	8	High	Low	φ 16	φ 16	φ 16	φ 16	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 16	φ 16	φ 16	φ 16		4.4	5.3	21	25						0.5	0.6			
15	8	High	Low	φ 20	—	φ 20	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 20	—	φ 20	—		4.4	5.3	21	25						0.5	0.6			
20	—	High	Low	φ 22.4	—	φ 22.4	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 22.4	—	φ 22.4	—		4.4	5.3	21	25						0.5	0.6			
30	—	High	Low	φ 25	—	φ 25	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 25	—	φ 25	—		4.4	5.3	21	25						0.5	0.6			
40	—	High	Low	φ 22.4	—	φ 22.4	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 22.4	—	φ 22.4	—		4.4	5.3	21	25						0.5	0.6			
45	—	High	Low	φ 25	—	φ 25	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 25	—	φ 25	—		4.4	5.3	21	25						0.5	0.6			
60	—	High	Low	φ 25	—	φ 25	—	6×F(29) B class JIS G 3525	4.2	5	17	20	4	21	25	0.85	1.0	—	—	—	—	
				φ 25	—	φ 25	—		4.4	5.3	21	25						0.5	0.6			

※1 40t has 9falls and 45t has 6falls.(Regarding 60t, please inquire separately)

※2 Please contact us for 60t separately

※3 Rope specification of 11.2falls is 6×F(29)

- Power supply.....3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available)···3-phase 400V 50/60Hz control 200V, 440V 60Hz control 220V 3-phase 380V 50Hz control 48V (100V and 24V are also available)
- Operating method.....Push button switch operations

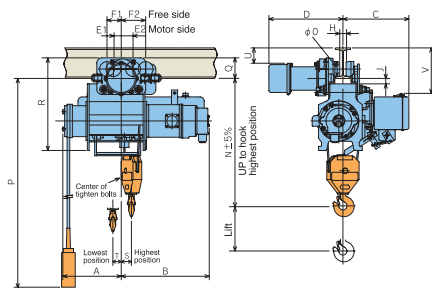
	1/2~3t	5~45t
Suspended type	2 Points	4 Points
Frame mounted type	U D	ON OFF U D
Motor operated traversing hoist	6 Points	8 Points
	U D E W S N	ON OFF U D E W S N

Standard specifications

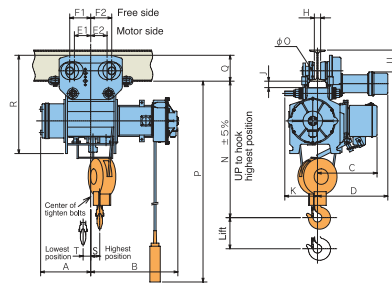
- Rating...30 min.(JIS C 9620)
- Power supply system...Both trolley feeding and cable feeding are available. However, neither trolley nor cable is attached.
- Enclosure...Conforming to JIS C 4004 drip-proof type(simplified outdoor type)
- Applicable standard...JIS C 9620 electric hoist/crane structure standard
- Color coating... Main body: Metallic gray(Equivalent to Munsell N4.0)
Hook block: Munsell 7.5YR7/14
Pushbutton: Equivalent to Munsell 7.5YR7/13
- Ambient air temperature...-10°C to 40°C(Non congelation)
- Ambient air humidity...90% or less(Non condensig)

Monorail Type S (1/2t·1t·2.8t·3t·5t)

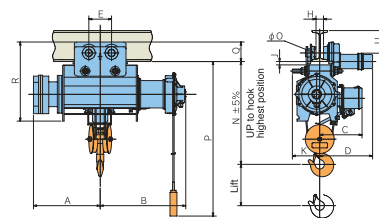
S-1/2



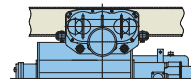
S-1·2·2.8·3



S-5



(Shape of S-1/2-HM)



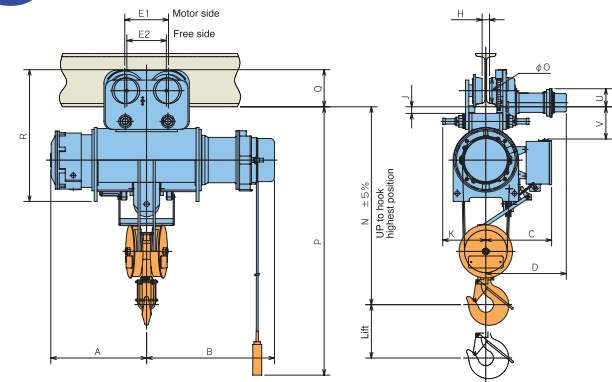
Note: In the case of trolley electric supply type, balance weight is required.

Model	S-1/2					S-1		S-2		S-2.8(3)		S-5																																						
	LM2	HM2				LM2	HM2	LM2	HM2	LM3	HM3	LM3	HM3																																					
Cap.(t)	1/2					1		2		2.8(3)		5																																						
Lift(m)	6					12		6		12		8																																						
Dimensions(mm)	A	287				457		287		474		322		479																																				
	B	433				473		518		551		563		593																																				
	C	324					345		383		408		410																																					
	E1	38				100				100				105																																				
	E2	58				100				100				105																																				
	F1	70				140				140				135																																				
	F2	120				140				140				135																																				
	K	—					167		210		216		265																																					
	N	625		635			735		875		1045		996																																					
	O	73				80				80				114																																				
	P	6000		12000			6000		12000			6000		12000																																				
	R	455				505				545				632																																				
	S	50				93				71		105		58		101																																		
T	58				123				42		119		49		113																																			
Min.rad.curvature(m)	1.2(4.0)					1.8(7.0)					1.8(7.0)					1.8(5.0)					2.0					5.0																								
Weight(kg)	115					135					165					180					280					305					375					410					560					630				
Hook block weight(kg)	4.5										7.5					15					27					42																								
I-Beam related dimensions	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V																				
	150×75×5.5	364	30	27	100	75	222	360	24	33	140	105	233	360	24	33	140	105	—	—	—	—	—	—	—	—	—	—	—	—	—																			
	200×100×7	376	54	26	101	125	271	372	48	33	140	155	283	372	48	33	140	155	453	40	41	167	140	—	—	—	—	—	—	—	—	—																		
	250×125×7.5	—	—	—	—	—	385	74	31	142	203	331	—	—	—	—	—	—	465	64	39	169	188	465	64	34	169	188	—	—	—	—																		
	300×150×8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	478	90	38	170	237	—	—	—	—	—	—	—	—	—																		
	300×150×11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	478	90	29	179	228	478	90	24	179	228	512	72	31	189	219																	
	450×175×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																	
600×190×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																		

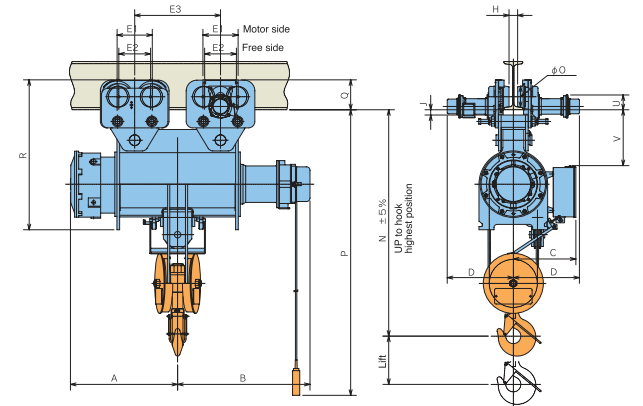
Note: rad.cur.() at I-Beam ●S-1/2,S-1···150×75×5.5 ●S-2···200×100×7 Note Applicable I-Beam =Standard =required special attachment

Monorail Type S (7.5t·10t·15t·20t)

S-7.5·10



S-15·20



Model	S-7.5					S-10		S-15		S-20											
	LM	HM				LM	HM	LM	HM	HM											
Cap.(t)	7.5					10		15		20											
Lift(m)	8					12		8		12											
Dimensions(mm)	A	669				794		719		844		799		949		999					
	B	1004				1129		959		1084		1085		1235		1235					
	C	458					493		558		583		583		583						
	E1	300				328				300				328							
	E2	270				296				270				296							
	E3	—					—		620		800		800		800						
	K	314				323				—				—							
	N	1270					1450					1930					2090				
	O	173					193					173					193				
	P	8000		12000			8000		12000			8000		12000			12000				
	R	903					988		1268		1398		1398		1398						
	Min.rad.curvature(m)	5.0					5.0		Straight line		Straight line		Straight line		Straight line						
	Weight(kg)	850					920		1200		1300		2100		2250		2600				
Hook block weight(kg)	80					100		190		280		280		280							
I-Beam related dimensions	D	H	J	Q	U	V	D	H	J	Q	U	V	D	H	J	Q	U	V			
	400×150×12.5	578	60	49	254	117	181	604	54	49	279	141	241	—	—	—	—	—			
	450×175×13	590	85	49	254	117	181	616	78	49	279	141	241	590	85	49	254	317	416		
	600×190×13	598	100	50	253	116	182	624	94	50	278	140	242	598	100	50	253	317	417		
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

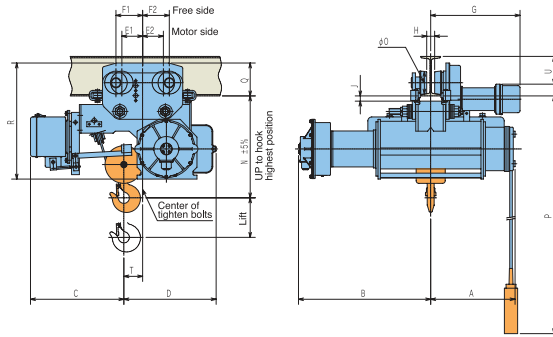
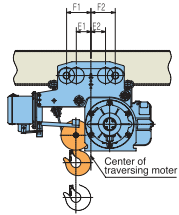
Note Applicable I-Beam =Standard

Low-head Type S (1/2t·1t·2t·2.8t·3t·5t)

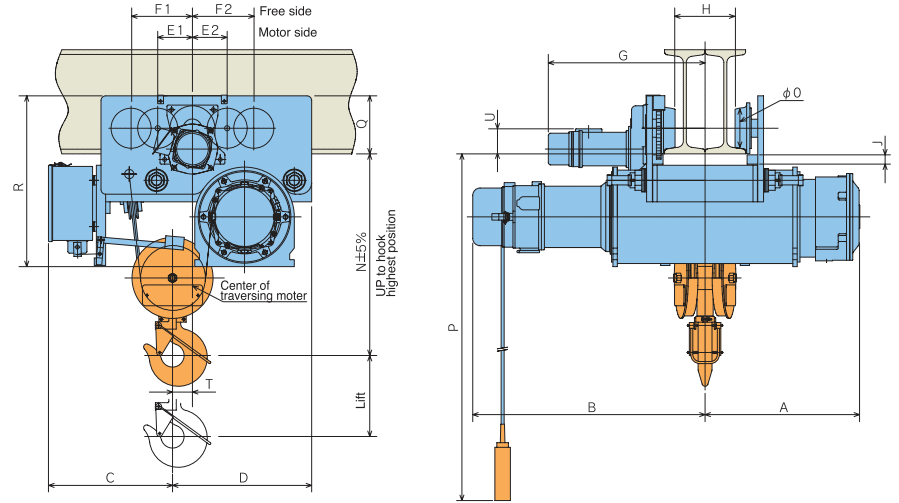
Low-head Type S (7.5t·10t)

S-1/2 · 1 · 2 · 2.8 · 3

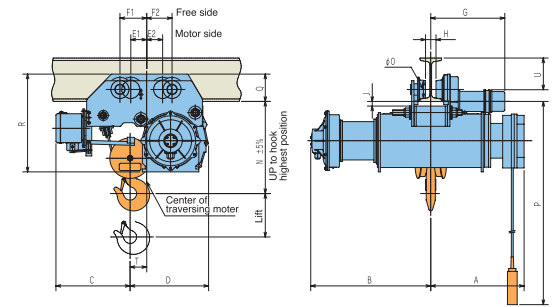
(Shapes of S-2.8t and 3t)



S-7.5 · 10



S-5



Model	S-1/2-LD2		S-1		S-2		S-2.8 (3)			S-5											
	LD2		HD2		LD2		HD2		LD3	HD3											
Cap.(t)	1/2		1		2		2.8 (3)			5											
Lift(m)	6		6		12		6			12											
Dimensions(mm)	A	407	429	597	427	605	440	590	646	771											
	B	528	616	784	668	847	711	861	830	955											
	C	371		423		473		490		513											
	D	272		356		467		558		542											
	E1	58		100		105		105		110											
	E2	38		100		105		105		110											
	F1	120		140		135		175		185											
	F2	70		140		135		175		175											
	N	345		410		505		535		650											
	O	73		80		114		114		125											
	P	6000	6000	12000	6000	12000	6000	12000	8000	12000											
	R	400		495		588		643		676											
T	66		58		95		108		115												
Min.rad.curvature(m)	1.2 (4.0)		1.8 (7.0)		1.8 (5.0)		2.0			6.3											
Weight(kg)	130		195		205		295		330		390		425		570		640				
Hook block weight(kg)	5.5		8		15		25			42											
I-Beam related dimensions	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U	
	150×75×5.5	364	30	19	101	75	360	24	21	140	105										
	200×100×7	376	54	20	101	125	372	48	21	140	155	453	40	26	167	140					
	250×125×7.5						385	74	19	142	203	465	64	24	169	188	465	64	26	169	188
	300×150×8											478	90	23	170	237					
	300×150×11.5											478	90	14	179	228	478	90	16	179	228
	450×175×13																524	96	27	193	365
600×190×13																					

Note: rad.cur() at I-Beam ● S-1/2, S-1...150×75×5.5 ● S-2...200×100×7 Note Applicable I-Beam =Standard =required special attachment

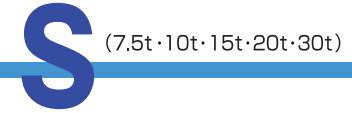
Model	S-7.5					S-10				
	LD		HD			LD		HD		
Cap.(t)	7.5		12			10		12		
Lift(m)	8		12			8		12		
Dimensions(mm)	A	669		794		719		844		
	B	1004		1129		959		1084		
	C		536				619			
	D		601				689			
	E1/E2		150/150				528/162			
	F1/F2		265/265				604/164			
	N		880				990			
	O		173				193			
	P	8000		12000			8000		12000	
	R		741				873			
T		86				363				
Min.rad.curvature(m)	Straight line					Straight line				
Weight(kg)	950		1020			1500		1600		
Hook block weight(kg)	80		100			100		100		
I-Beam related dimensions	G	H	J	Q	U	G	H	J	Q	U
	450×175×13 2rails	678	257	49	254	109	711	253	49	279
600×190×13 2rails	693	288	50	253	108	726	284	50	278	140

Note Applicable I-Beam =Standard

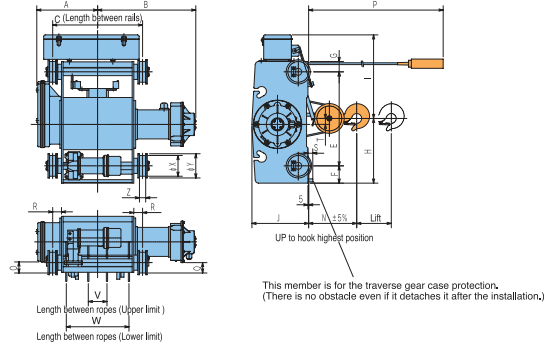
Double rail Type



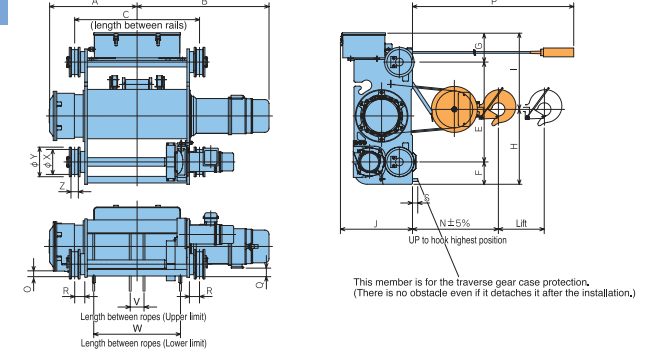
Double rail Type



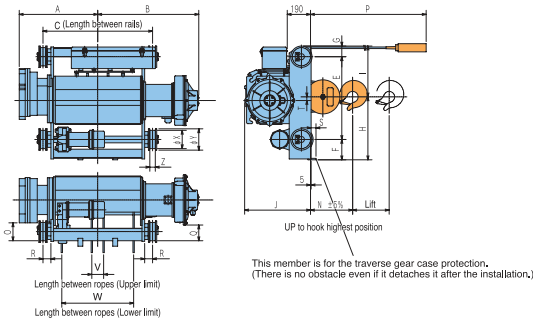
S-2.8 · 3



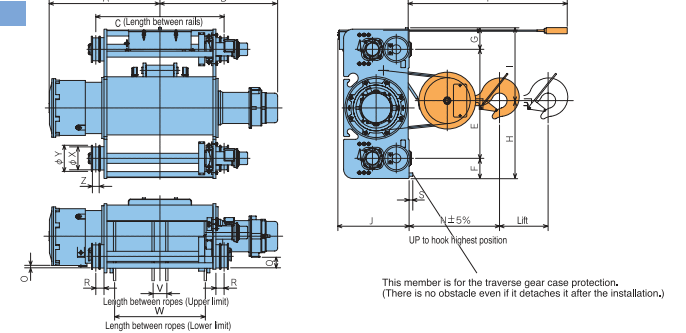
S-7.5 · 10 · 15 · 20



S-5



S-30



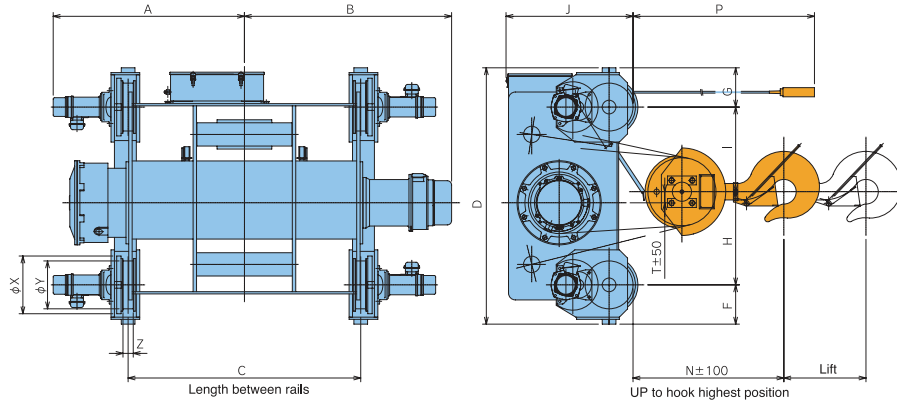
Model	S-2.8 (3)		S-5		
	LR3A	HR3A	LR3A	HR3A	
Cap.(t)	2.8 (3)		5		
Lift(m)	6	12	8	12	
Dimensions(mm)	A	440	590	646	771
	B	711	861	830	955
	C	650	950	900	1150
	E	680		680	
	F	125		167	
	G	75		88	
	H	468		517	
	I	605		418	
	J	410		541	
	N	345		346	
	O	52		125	
	P	6000	12000	8000	12000
	Q	75		129	
	R	63		65	
	S	35		40	
	T	43		30	
	V	135	130	97	100
W	453	753	590	840	
X	150		150		
Y	175		175		
Z	45		45		
Weight(kg)	425	475	660	740	
Hook block weight(kg)	25		42		
Applicable I-Beam(mm)	12kg rails or 38mm steel square bars				

Model	S-7.5		S-10		S-15		S-20-HR	S-30-HR	
	LR	HR	LR	HR	LR	HR			
Cap.(t)	7.5		10		15		20	30	
Lift(m)	8	12	8	12	8	12	12	12	
Dimensions(mm)	A	669	794	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	950	1200	950	1200	1000	1300	1300	1400
	E	760		840		1000		1045	1190
	F	170		170		220		220	220
	G	223		233		243		248	246
	H	570		613		760		790	850
	I	583		630		703		723	806
	J	543		543		743		748	763
	N	630		710		860		910	1020
	O	40		38		30		32	15
	P	8000	12000	8000	12000	8000	12000	12000	12000
	Q	75		30		85		120	115
	R	77		82		84		84	89
	S	45		55		55		55	45
	T	50		53		70		70	80
	V	105	80	100	100	110	135	125	150
W	660	910	620	870	660	960	945	990	
X	190		190		250		250	250	
Y	225		225		285		285	285	
Z	52		52		58		58	73	
Weight(kg)	900	980	1250	1360	1900	2100	2500	3600	
Hook block weight(kg)	80		100		190		280	380	
Applicable I-Beam(mm)	15kg rails or 44mm steel square bars				22kg rails or 50mm steel square bars			37kg rail or 68mm steel square bars	

Double rail Type

S (40t)

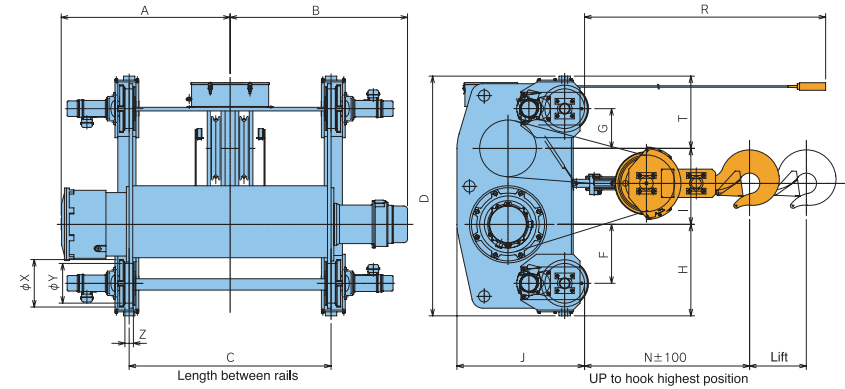
S-40



Double rail Type

S (45t)

S-45

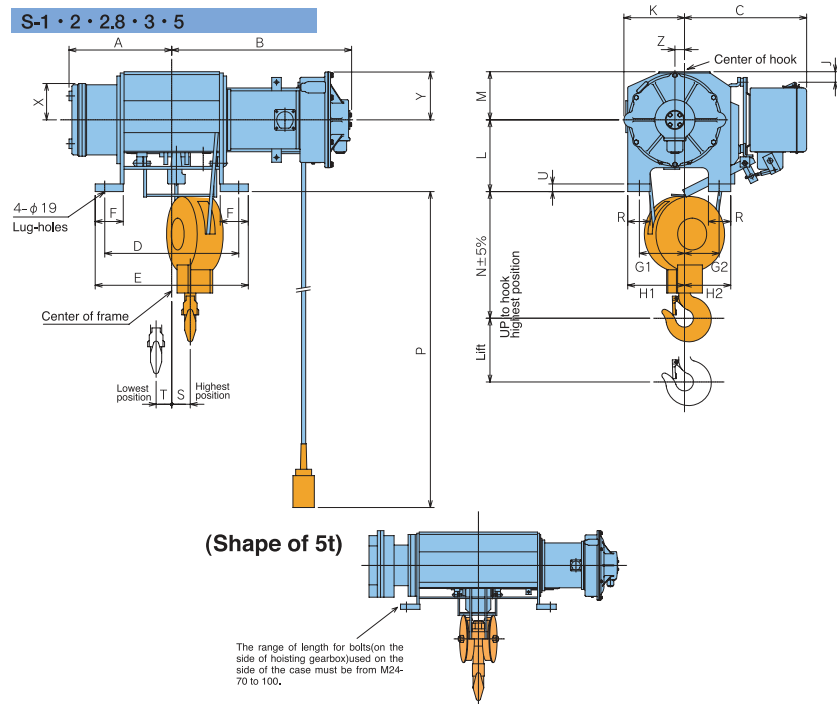


Model	S-40		
	LR	HR	
Cap.(t)	40		
Lift(m)	6.5	11.5	
Dimension(mm)	A	1399	1749
	B	1515	1865
	C	1700	2400
	D		1874
	F		287
	G		287
	H		681
	I		619
	J		930
	N		1110
	P	7500	12500
	T		81
	X		419
Y		350	
Z		75	
Weight(kg)	4800	5300	
Hook block weight(kg)		750	
Applicable I-Beam(mm)	37kg rails or 65mm steel square bars		

Model	S-45		
	HR	HR	
Cap.(t)	45		
Lift(m)	12.5	19.0	
Dimension(mm)	A	1490	1840
	B	1565	1915
	C	1780	2480
	D		2114
	F		520
	G		350
	H		807
	I		670
	J		1125
	N		1450
	P	11000	16000
	T		637
	X		419
Y		350	
Z		75	
Weight(kg)	6000	6500	
Hook block weight(kg)		730	
Applicable I-Beam(mm)	37kg rails or 65mm steel square bars		

Frame mounted Type S (1t·2t·2.8t·3t·5t)

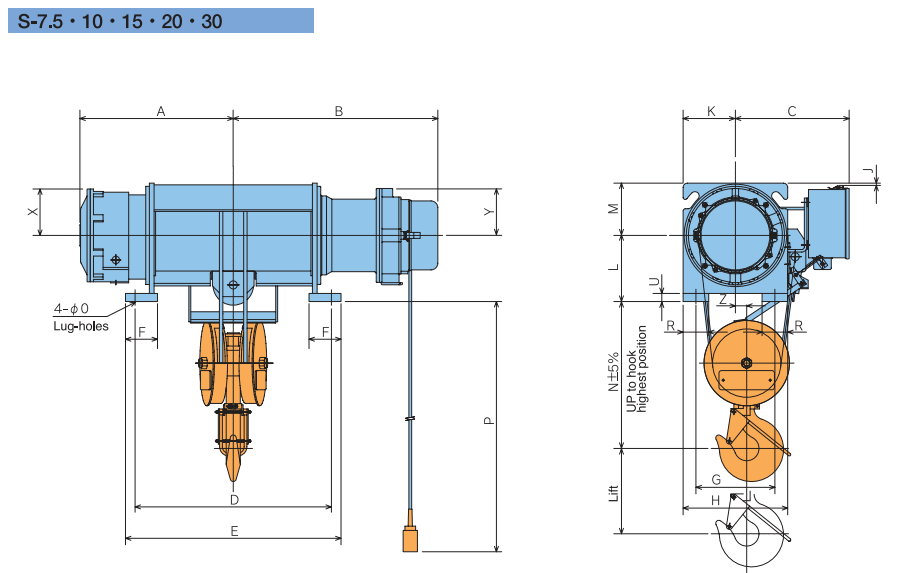
S-1 · 2 · 2.8 · 3 · 5



Model	S-1		S-2		S-2.8(3)		S-5		
	LS2	HS2	LS2	HS2	LS3	HS3	LS3	HS3	
Cap.(t)	1		2		2.8(3)		5		
Lift(m)	6	12	6	12	6	12	8	12	
Dimensions(mm)	A	287	397	322	415	341	441	646	771
	B	518	628	563	657	610	710	830	955
	C	345		383		408		410	
	D	385	605	420	605	430	630	850	1100
	E	435	655	480	665	500	700	920	1170
	F	75		88		99		115	
	G1/G2	121/84		141/109		170/130		175/145	
	H1/H2	151/114		178/145		210/170		220/190	
	J	23		33		93		125	
	K	167		190		216		236	
	L	180		225		275		260	
	M	136		151		181		206	
	N	330		410		490		420	
	O	15		19		24		28	
	P	6000	12000	6000	12000	6000	12000	8000	12000
	R	60		70		80		90	
	S	71	182	58	165	60	166	—	
	T	42	42	49	49	47	47	—	
	U	18		24		27		31	
X	107		140		172		205		
Y	105		150		150		206		
Z	36		30		30		30		
Weight(kg)	115	135	175	215	305	345	510	580	
Hook block weight(kg)	7.5		15		27		42		

Frame mounted Type S (7.5t·10t·15t·20t·30t)

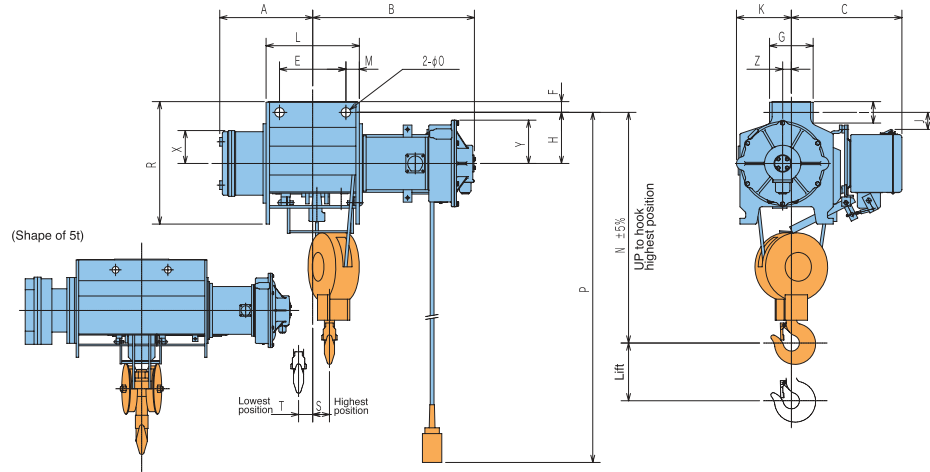
S-7.5 · 10 · 15 · 20 · 30



Model	S-7.5		S-10		S-15		S-20-HS	S-30-HS	
	LS	HS	LS	HS	LS	HS			
Cap.(t)	7.5		10		15		20	30	
Lift(m)	8	12	8	12	8	12	12	12	
Dimensions(mm)	A	669	794	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	493		531		633		663	713
	D	920	1170	920	1170	960	1260	1260	1380
	E	1010	1260	1010	1260	1080	1380	1380	1480
	F	140		150		170		170	200
	G	370		370		500		500	620
	H	470		490		630		640	770
	J	2		12		2		12	12
	K	215		245		295		320	385
	L	290		310		370		395	435
	M	215		245		295		320	355
	N	580		670		810		870	960
	O	35		35		47		47	54
	P	8000	12000	8000	12000	8000	12000	12000	12000
	R	100		120		130		140	150
	U	31		35		41		41	49
	X	188		218		275		308	320
	Y	152		220		220		220	220
Z	50		53		70		70	80	
Weight(kg)	650	720	1000	1100	1400	1550	1900	3200	
Hook block weight(kg)	80		100		190		280	380	

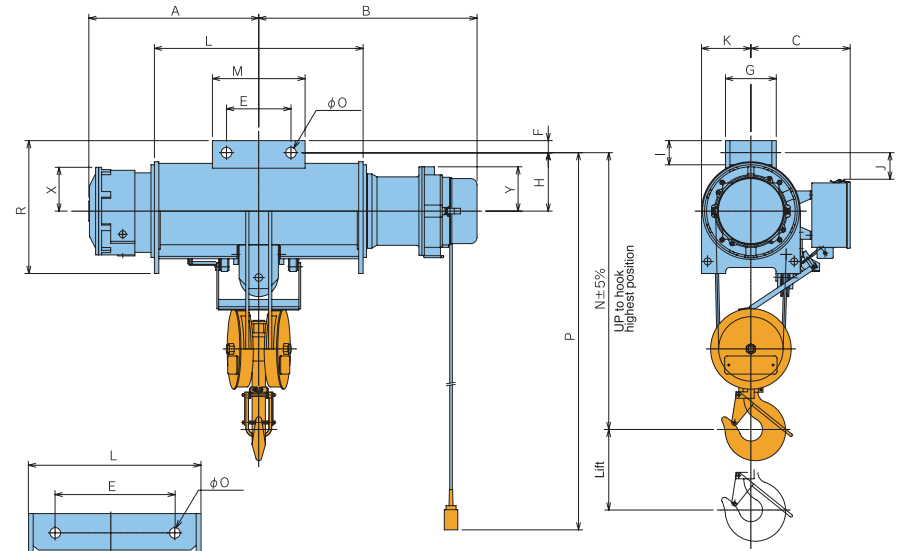
Suspended Type S (1/2t · 1t · 2t · 2.8t · 3t · 5t)

S-1/2 · 1 · 2 · 2.8 · 3 · 5



Suspended Type S (7.5t · 10t · 15t · 20t)

S-7.5 · 10 · 15 · 20



For 15t and 20t, apply above figure.

Model	S-1/2		S-1		S-2		S-2.8 (3)		S-5		
	LK2	HK2	LK2	HK2	LK2	HK2	LK3	HK3	LK3	HK3	
Cap.(t)	1/2		1		2		2.8 (3)		5		
Lift(m)	6	12	6	12	6	12	6	12	8	12	
Dimensions(mm)	A	287	457	287	474	322	479	341	510	646	771
	B	433	473	518	551	563	593	610	641	830	955
	C	324		345		383		408		410	
	E	170	230	230		230		230		290	
	F	28	33	33		38		43		60	61
	G	140	117	117		151		176		229	
	H	155		160		177		215		225	
	I	75	78	63		67		80		105	106
	J	18		47		59		127		145	
	K	151		167		190		216		236	
	L	283	493	298	518	323	508	323	523	725	975
	M	32	42	34	67	47	75	46	77	217	342
	N	570		670		800		965		905	
	O	20	24	24		33		33		38	
	P	6000	12000	6000	12000	6000	12000	6000	12000	8000	12000
	R	328	333	373		425		518		546	
	S	50	93	71	105	58	101	60	97	—	
T	58	123	42	119	49	113	47	115	—		
X	87		107		140		172		205		
Y	85		105		150		150		206		
Z	20		36		30		30		30		
Weight(kg)	90	105	135	150	220	245	310	345	510	580	
Hook block weight(kg)	4.5		7.5		15		27		42		

Note: In the case of S-1/2, the position of pendent push button is on the side of hoisting deceleration section.

Model	S-7.5		S-10		S-15		S-20-HK	
	LK	HK	LK	HK	LK	HK		
Cap.(t)	7.5		10		15		20	
Lift(m)	8	12	8	12	8	12	12	
Dimensions(mm)	A	669	794	719	844	799	949	999
	B	1004	1129	959	1084	1085	1235	1235
	C	458		493		558		583
	E	300		320		620		800
	F	55		60		80		100
	G	252		252		225		225
	H	255		290		365		410
	I	120		120		178		217
	J	77		132		167		237
	K	215		245		295		320
	L	796	1046	786	1036	831	1131	1131
	M	440		460		—		—
	N	1165		1380		1680		1800
	O	47		53		78		103
P	8000	12000	8000	12000	8000	12000	12000	
R	600		660		845		935	
X	188		218		275		308	
Y	152		220		220		220	
Weight(kg)	650	720	1000	1100	1400	1550	1900	
Hook block weight(kg)	80		100		190		280	

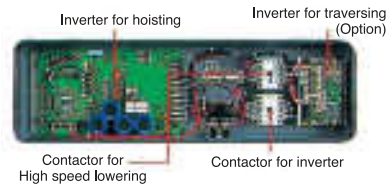
UR Type Series Inverter hoist 1t~2.8t

Inverter technology and creep speed technology are combined to make a variable speed hoist for twenty-first century.

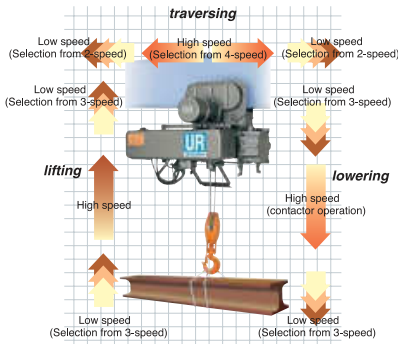


400V class debut

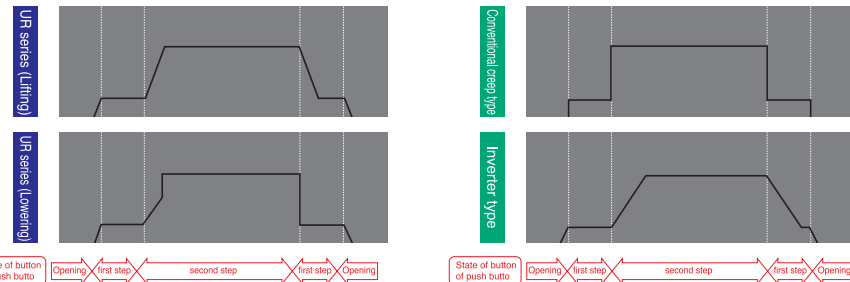
The inside of Control box



Operation image of inverter hoist



Moving pattern by push button operation



Excellent Operativeness

The new control system which combines Inverter operation and contactor operation for the first time in the industry realises smooth operativeness and quick response of stop and speed reduction. In addition, low hoisting speed can be selected from 3 speed types. In the case of hoist with traversing inverter, high speed can be selected from 4 speed types and low speed can be selected from 2 speed types. In comparison with the conventional creep type, the setting range is wider.

Improvement of maintenance

Since its structure part is the same as general purpose hoist, the number of parts decreased significantly compared with the conventional creep type. And the maintenance is easy as its control parts are made into one board.

Effect of conservation of energy

As UR type does not use a regenerative resistor, it is more power saving compared to U type. The durability of its brake disk becomes about double in comparison with that of the conventional creep type.

Excellent cost performance

Features(comparison with the U series, conventional creep type hoist)			
Item	UR series	Conventional creep type	U series
Control system (Lifting/Lowering)	Inverter and contactor operation Lifting(both low and high speed): Inverter control Lowering at low speed:Inverter control Lowering at high speed:contactor operation	contactor operation Change two motors with clutch	Inverter
Control system(Traversing)	Inverter	Pole change or two motors	Inverter
Speed setting (Lifting/Lowering)	High speed: Fixed(Normal speed) Low speed: select from 1/10, 1/6, 1/4 of high speed	High speed:Fixed(Normal speed) Low speed: Fixed (1/10 of Normal speed)	Setting is possible at arbitrary speed with high speed, the low speed between 1/10 of normal speed - normal speed
Speed setting(Traversing)	High speed: select from 25, 20, 15, 10m/min Low speed: select from 2.5, 5/m	High speed: Fixed Low speed: Fixed *Speed ratio 1:1/4 or 1:1/5	Setting is possible at arbitrary speed with high speed, the low speed between 1/10 of normal speed - normal speed
Responds for the operation	Slow start, Sudden stop*	Sudden start, Sudden stop	Slow start, Slow stop
Operative cost	Medium	High	Low
Power consumption	Low	Low	Medium
Number of parts	Small	Large	Medium

*At lifting, it stops as the cushion working, and At lowering, it stops by sudden deceleration.

Specifications																	
Type	Capacity(t)	Lift(m)		Wire rope			Hoisting				Traversing						
				Monorail type	Low head type 4 falls	Double rail type 4 falls	Rope specification	Hoisting speed (m/min)	Output (kW)	Poles	Speed (m/min)		Motor		Poles		
											50Hz	INV operation	Output (kW)	Output (kW)			
UR	1	6	12	φ8 ※2	φ6.3	—	6×W(19) B class JIS-G3525	※1 0.8 1.3 2	8 (6.7)	1.4	4	21	※1 2.5 5	※2 20 15 10	0.22	0.26	4
	2			φ10	φ8	—	6×F(29) B class JIS-G3525	※1 0.72 1.1 1.8	7.2 (6)	2.6			50Hz	60Hz (INV)	0.5	0.6	
	3			φ12.5	φ9	φ9	—	—	—	3.8			—	—	—	—	

※1. Selectable from the speed types
() = Lowering speed at 50Hz

※2. Rope specification of 1t 2falls is 6×F(29)

Note 1: The values in the table are referential values.
Note 2: In the case of 400V class (Including 380V), there may be differences in outline dimension. Please contact us.

Standard specifications

- Power supply: 3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available) 3-phase 400V 50/60Hz control 200V, 440V 60Hz control 220V 3-phase 380V 50Hz control 48V(100V and 24V are also available)
- Operating method: Push button switch operations.

Suspended type	1/2~3t
	2 Points
Frame mounted type	U D
	6 Points
Motor operated traversing hoist	U D E W S N

※ Above push buttons are all 2 step push buttons excluding "ON" and "OFF"

- Applicable standard: JISC9620 Electric Hoist, Crane structure standard
- Rating: Hoisting: 25% ED(63% of rating load), 150S/Hr JISC9620, Travelling: 30 min. JISC9620
- Power supply system: Cable feeding, Trolley feeding (limited to Double trolley type)
- Ambient air temperature: -10°C~40°C (Non congelation)
- Ambient relative humidity: Less than 90% RH (Non condensing)
- Enclosure: Simplified outdoor type(JISC 0920, Equivalent to IP44)
(Rainproof cover is required, when it is used in the open air.)
- Color coating: Main body: Metallic gray (Equivalent to Munsell N4.0)
Hook block: Munsell 7.5YR7/14
Pushbutton: Equivalent to Munsell 7.5YR7/13

Note: These hoists can not be used for lift (elevator for passengers.)

Remarks

- High lowering is contactor operation, speed is 6m/min in 1t and 6.7m/min in 2t~2.8t for the power supply of 50Hz.
- Lifting low speed is set to 1/10 of high-speed at shipment.
- High speed traversing/low speed traversing is set to 25/2.5m/min at shipment.

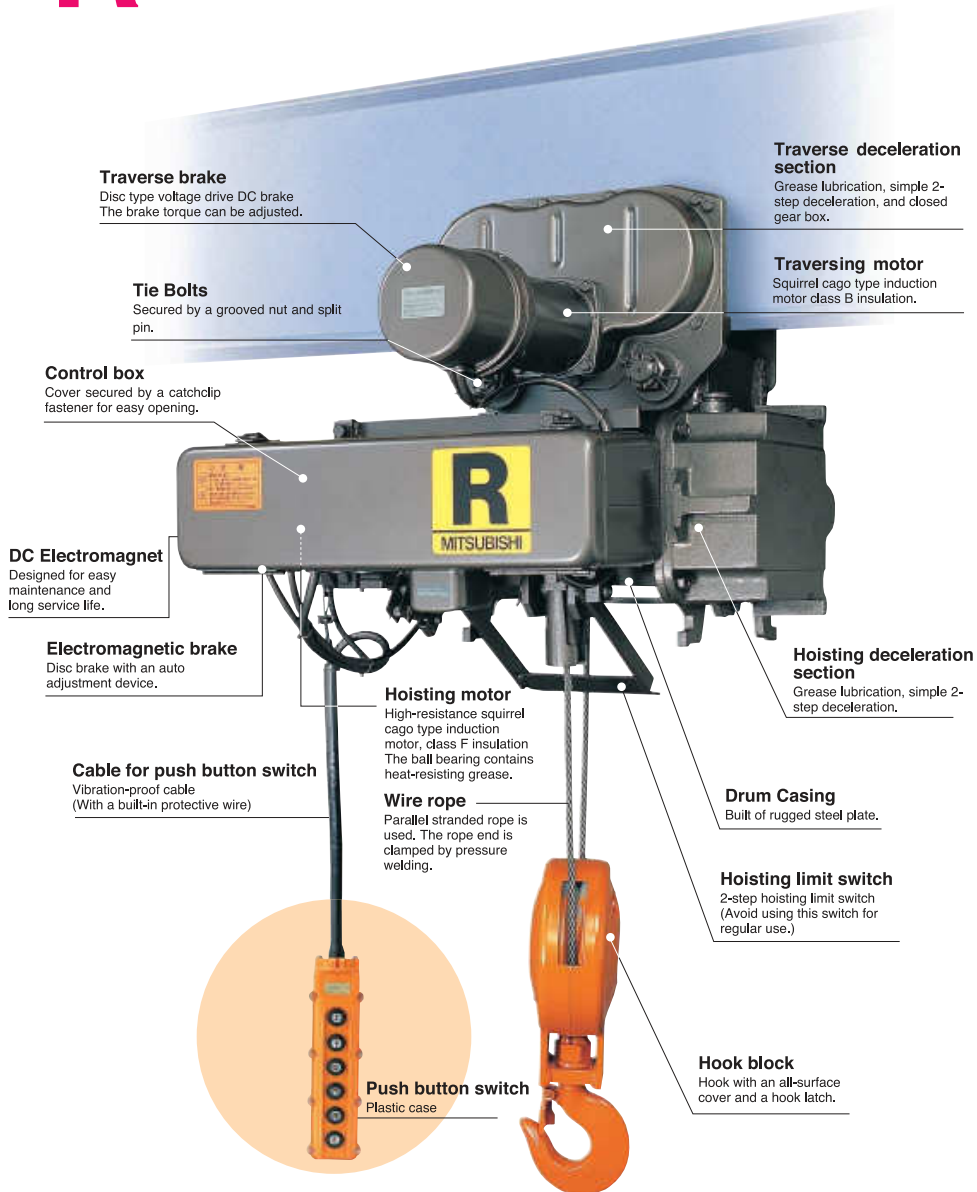
caution

- UR Series are not possible to use for the lift.
- When the winding creep is done, it is not possible to operate smoothly by the traversing resistance. Please contact us.
- We recommend the installation of the noise filter because it might mis-operate in the point where a lot of power supply noises exist.
- Please contact us when you use the product in a lot of places such as the causticity gas and dust that are.
- Speed range of lifting and lowering in low speed is ±40% of the display value in the ratings load. The speed difference between much load and no load grows at the time of a low speed operating, too.

R Type Series

Regular type Utilitarian type

1t~2.8t



R type copes with both one-class higher capability and economical efficiency.

Specifications		Type	Capacity(t)	Lift(m)		Wire rope		Rope specification		Hoisting				Traversing							
										Speed (m/min)		Motor		Mono-rail · Low hearoom				Double-rail			
														Speed (m/min)		Motor		Speed (m/min)		Motor	
		Low	High	2 falls	4 falls	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz				
R	1			φ 8 ※1	φ 6.3	6×W(19) B class JIS-G3525	6.7	8	1.2	1.4			0.22	0.26	—	—	—	—			
	2	6	12	φ 10	φ 8	6×F(29) B class JIS-G3525	6	7.2	2.2	2.6	4	21	25	0.5	0.6	—	—	—	—		
	2.8			φ 12.5	φ 9				3	3.6											21

※1 Rope specification of 1t 2falls is 6×F(29)
Note 1: High lift models (Low-head type1~2.8t, Double rail type2.8t) are not available.

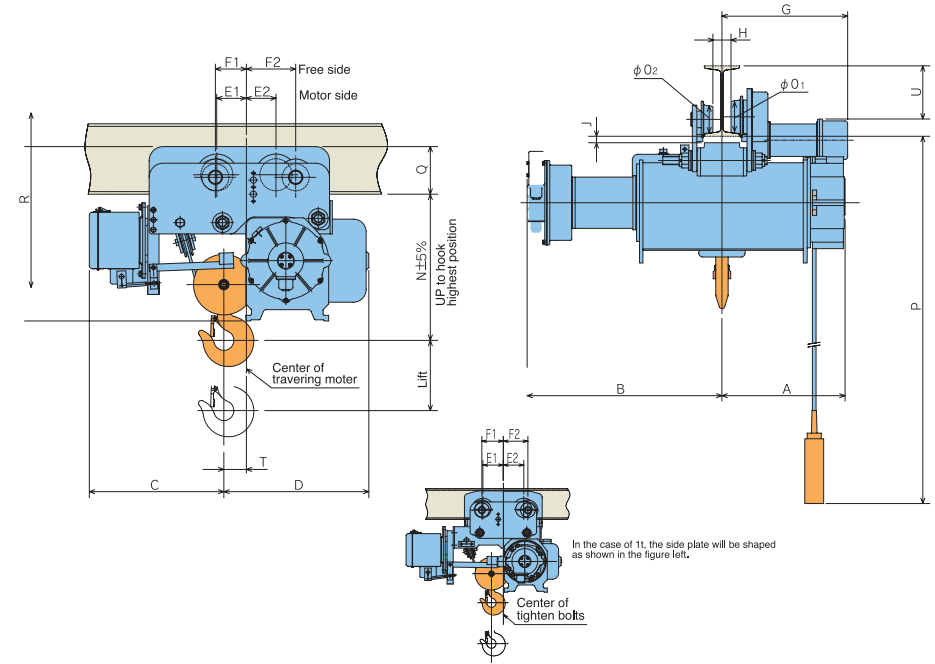
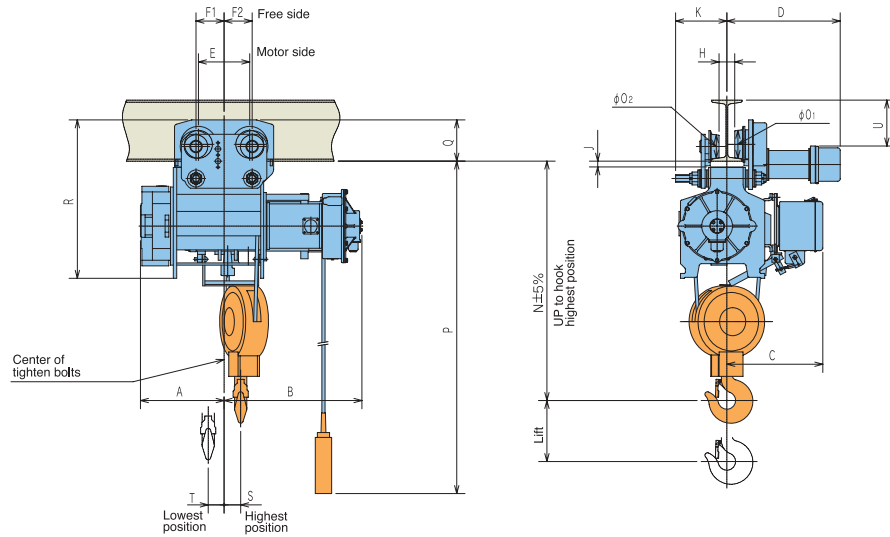
- Standard specifications**
- Power supply...3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available) ...3-Phase 400V 50/60Hz control 200V, 440V 60Hz control 220V 3-Phase 380V 50Hz control 48V (100V and 24V are also available)
 - Operating method...Push button switch operations.
- | | |
|---------------------------------|-------------|
| Suspended type | 1/2~3t |
| | 2 Points |
| Frame mounted type | U D |
| Motor operated traversing hoist | 6 Points |
| | U D E W S N |
- Rating...30 min. (JIS C 9620)
 - Power supply system...Both trolley feeding and cable feeding are available. However, neither trolley nor cable is attached.
 - Enclosure...Simplified outdoor type(JISC 0920, Equivalent to IP44) (Rainproof cover is required, when it is used in the open air.)
 - Applicable standard...JIS C 9620 electric hoist/crane structure standard
 - Color coating...Main body: Metallic gray (Equivalent to MunsellN4.0) Hook block: Munsell 7.5YR7/14 Pushbutton: Equivalent to Munsell 7.5YR7/14
 - Ambient air temperature...-10°C to 40°C (Non congelation)
 - Ambient relative humidity...90% or less (Non condensing)
- Note: These hoists cannot be used for lift (elevator for passengers.)

Monorail Type UR • R (1t·2t·2.8t)

※UR type...Contact us for 400V class outline

Low-head Type UR • R (1t·2t·2.8t)

※UR type...Contact us for 400V class outline



Model	UR-1-LMH3 UR-1-LMS3 R-1-LM3					UR-1-HMH3 UR-1-HMS3 R-1-HM3					UR-2-LMH3 UR-2-LMS3 R-2-LM3					UR-2-HMH3 UR-2-HMS3 R-2-HM3					UR-2.8-LMH2 UR-2.8-LMS2 R-2.8-LM2					UR-2.8-HMH2 UR-2.8-HMS2 R-2.8-HM2					
	1					2					2.8																				
Cap.(t)	6					12					6					12					6					12					
Lift(m)	6					12					6					12					6					12					
Dimensions(mm)	A	283					489					284					485					343					558				
	B	468					507					532					566					565					610				
	C	347					368					393					393					393									
	E	200					210					210					210					210									
	F1	105					170					115					205					115					205				
	F2	120					170					115					165					115					165				
	K	182					210					210					210					210									
	N	730					840					980					980					980									
	O ₁ /O ₂	80/72					114/96					114/96					114/96					114/96									
	P	6000					12000					6000					12000					6000					12000				
	R	535					585					649					649					649									
	S	76					117					73					108					68					115				
	T	49					132					47					130					65					150				
Min.rad.curvature(m)	1.8 (3.0)/(4.5)					3.0/(7.5)					2.5/(6)					3.5/(8.5)					2.5/(6)					3.5/(8.5)					
Weight(kg)	150					170					230					260					320					360					
Hook block weight(kg)	7.5					15					15					27					27										
I-Beam related dimensions	D	H	J	Q	U	D	H	J	Q	U	D	H	J	Q	U	D	H	J	Q	U	D	H	J	Q	U						
Applicable I-Beam(mm)	150×75×5.5	360	24	33	140	105	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	200×100×7	372	48	33	140	155	453	40	31	167	140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	250×125×7.5	385	74	31	142	203	465	64	29	169	188	465	64	24	169	188	465	64	24	169	188	465	64	23	169	188					
	300×150×11.5	—	—	—	—	—	478	90	19	179	228	478	90	14	179	228	478	90	14	179	228	478	90	13	179	228					
	450×175×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
600×190×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						

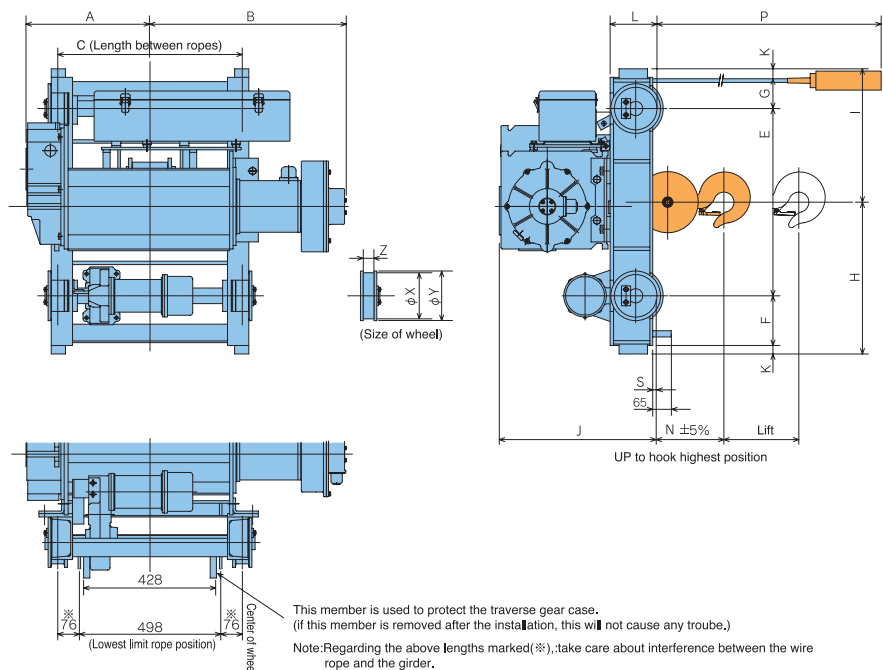
Note.1. Min.rad.cur() denotes the case of using below I beam. 2. Applicable I-Beam [] = Standard 3. Min.rad.cur [] UR Type with traversing inverter R-1, UR-1...150×75×5.5 4. [] = required special attachment

Model	UR-1-LDH3 UR-1-LDS3 R-1-LD3					UR-2-LDH3 UR-2-LDS3 R-2-LD3					UR-2.8-LDH2 UR-2.8-LDS2 R-2.8-LD2					
	1					2					2.8					
Cap.(t)	6					6					6					
Lift(m)	6					6					6					
Dimensions(mm)	A	426					415					437				
	B	583					656					695				
	C	418					465					478				
	D	343					455					515				
	E1	100					105					105				
	E2	100					105					105				
	F1	105					110					110				
	F2	120					175					175				
	N	405					485					515				
	O ₁ /O ₂	80/72					114/96					114/96				
	P	6000					6000					6000				
	R	495					572					619				
	T	58					77					80				
Min.rad.curvature(m)	2.0 (3.5)/(5)					3.0/(7.5)					3.0/(7.5)					
Weight(kg)	170					260					350					
Hook block weight(kg)	8					15					25					
I-Beam related dimensions	G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U	
Applicable I-Beam(mm)	150×75×5.5	360	24	19	140	105	—	—	—	—	—	—	—	—	—	
	200×100×7	372	48	19	140	155	453	40	23	167	140	—	—	—	—	
	250×125×7.5	385	74	17	142	203	465	64	21	169	188	465	64	23	169	
	300×150×11.5	—	—	—	—	—	478	90	11	179	228	478	90	13	179	
	450×175×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
600×190×13	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

Note.1. Min.rad.cur() denotes the case of using below I beam. 2. Applicable I-Beam [] = Standard 3. Min.rad.cur [] UR Type with traversing inverter R-1, UR-1...150×75×5.5 4. [] = required special attachment

Double rail Type UR • R (2.8t)

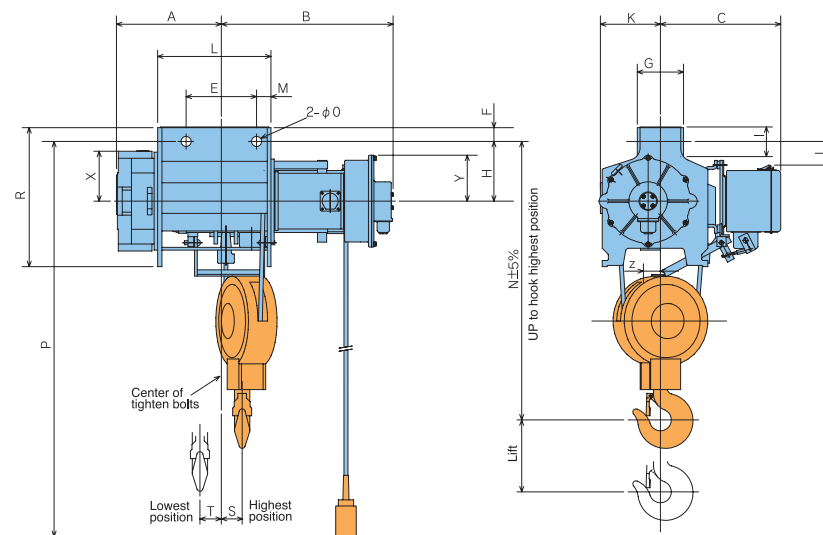
※UR type...Contact us for 400V class outline



Model	UR-2.8-LRH2A UR-2.8-LRS2A R-2.8-LR2A			
Cap.(t)	2.8			
Lift(m)	6			
Dimensions(mm)	A	437	K	30
	B	695	L	165
	C	650	N	233
	E	660	P	6000
	F	175	S	15
	G	110	T	15
	H	535	X	150
	I	470	Y	175
	J	556	Z	45
	Weight(kg)	435		
Hook block weight(kg)	25			
Applicable I-Beam(mm)	12kg rails or 38mm steel square bars			

Suspended Type UR • R (1t·2t·2.8t)

※UR type...Contact us for 400V class outline



Model	UR-1-LKH3 R-1-LK3	UR-1-HKH3 R-1-HK3	UR-2-LKH3 R-2-LK3	UR-2-HKH3 R-2-HK3	UR-2.8-LKH2 R-2.8-LK2	UR-2.8-HKH2 R-2.8-HK2	
Cap.(t)	1		2		2.8		
Lift(m)	6		12		6		
Dimensions(mm)	A	283	489	284	485	343	
	B	468	507	532	566	565	
	C	347		368		393	
	E	230		230		230	
	F	33		43		48	
	G	117		151		151	
	H	160		170		195	
	I	71		83		94	
	J	47		57		77	
	K	182		174		200	
	L	323	568	326	561	370	630
	M	37	76	48	82	47	92
	N	665		765		910	
	O	24		33		33	
	P	6000	12000	6000	12000	6000	12000
	R	363		388		457	
	S	76	117	73	108	68	115
T	49	132	47	130	65	150	
X	109		141		165		
Y	85		105		150		
Z	46		41		40		
Weight(kg)	120	135	170	200	260	300	
Hook block weight(kg)	7.5		15		27		

TIB Inverter control box for saddle motor

Feature

1. Reduction of starting & stopping shock.

- The swing of load and building is reduced by the smooth inverter performance which restrains the shock of starting and stopping.

2. Settable traveling speed for efficient operation

- The optimal operation speed (High and Low speed) can be set in the range from 1/10 to standard speed.
- Inching and plugging operations are possible.

3. Small body and easy installation.

- TIB is equipped with a regenerative resistor unit as a standard equipment, and it can be installed directly to a crane girder with ease.

4. Improved ease of maintenance

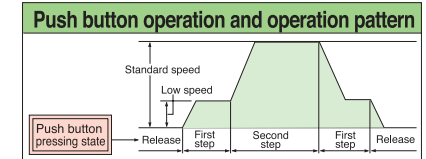
- In case a defect occurs, the function that displays failure mode facilitates the judgment of locating fault.
- The main circuit (noncontact) enhances reliability and improves ease of maintenance.

5. Enhanced safety functions

- In addition to the conventional functions (over load, the protection of regenerative over voltage), the function of detecting input circuit fault is equipped as a standard.

6. Shared protection board function (TIB-S)

- Circuit breaker box and contactors for on and off (electric power supply) are standard equipment. The box can combine with shared protection board for crane.
- Screw holes are provided for the contactors of light, buzzer and etc.

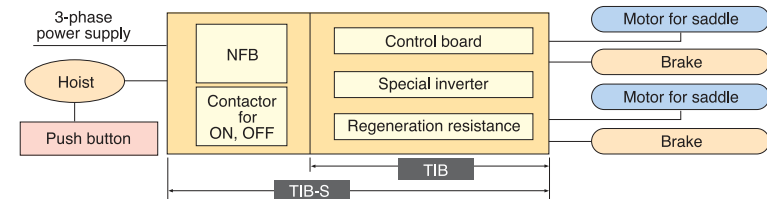


TIB-S TYPE

Type	NFB for main power	Contactor for main power	Space for Light, Buzzer and contactor
TIB-0.8S	NF50-CP(50A) ※NF50-CW(30A)	S-N35 ※S-N21	Screw holes are provided for a couple of S-N11 or S-N21.
TIB-2.2S	NF60-SP(60A) ※NF50-CW(30A)	S-N50 ※S-N35	
TIB-4.4S	NF225-SP(125A) ※NF100-CW(75A)	S-N80 ※S-N50	
TIB-7.4S	NF255-SP(175A) ※NF100-CW(100A)	S-N125 ※S-N65	

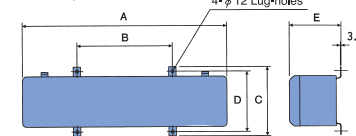
※=400V

Function diagram

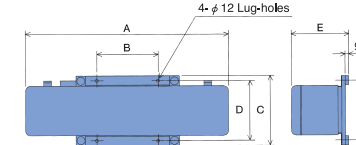


Outline drawing

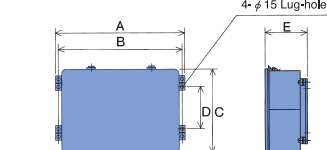
<TIB-0.8, TIB-0.8S>



<TIB-2.2~7.4>



<TIB-2.2~7.4S>



※400V class series (TIB-H(HS)) are also available
Contact us for 400V class outline

Outline dimension table (mm)

Type	A	B	C	D	E	Approx. weight
TIB-0.8	620	320	226	196	183	14kg
TIB-2.2	620	220	228	196	204	17kg
TIB-4.4	690	220	268	236	211	25kg
TIB-7.4						

Outline dimension table (mm)

Type	A	B	C	D	E	Approx. weight
TIB-0.8S	690	314	268	236	190	16kg
TIB-2.2S	730	690	333	120	226	20kg
TIB-4.4S	760	720	473	250	246	45kg
TIB-7.4S						

※ In the case of 400V, the outline dimension of TIB-0.8 and 0.8S are different from above values. Please contact us.

Type name and applicable models

Type	Applicable Mitsubishi models	
	Crane saddle	Gear motor for crane saddle
	ST, SP series	MT, MP series
TIB-0.8(s)	Output of traveling motor Less than 0.4kW×2	SGM-0.4A-LK2×2 SGM-0.4A-HK2×2
TIB-2.2(s)	Output of traveling motor Less than 0.75kW×2	SGM-0.75A-LK2×2 SGM-0.75A-HK2×2
TIB-4.4(s)	Output of traveling motor Less than 2.2kW×2	SGM-1.5A-LK2×2 SGM-1.5A-HK2×2
		SGM-2.2A-LK×2 SGM-2.2A-HK×2
TIB-7.4(s)	Output of traveling motor Less than 3.7kW×2	SGM-3.7A-LK2×2 SGM-3.7A-LK2×2

Standard specifications

Power supply	3-phase 200V 50/60Hz, 220V 60Hz ^{※1}	
Control system	Inverter control	
Speed ratio	The range of settable speed 1/10 ~ standard speed	
Operating method	Push button	
Operating functions	Inching & plugging operations are possible	
Percentage of duty cycle and number of starts per Hr (Allowable frequency of usage)	ED percent 25% ED	
	Number of starts per hour 250S/Hr	
Service condition	Air temperature	-10°C to 40°C (No congealation)
	Relative humidity	Ambient humidity 90% or less (Non condensation)
	Atmosphere	Non corrosive gas environment, non considerable dust environment
Enclosure	Indoor type (JP20)	
Protective functions	Over load, over voltage in regenerative (braking)	
Power supply system	Cable feeding	
Color coating	Munsell 4.7GY6.06/0.48	

※1 . 400V class series(TIB-H(HS)) are also available. Please contact us for further information.

Geared motor for crane saddle SGM-A

Standard specifications

Power supply : 3-phase 200V 50/60Hz(220V 60Hz is available.)

With brake

Enclosure : indoor type

Ambient air temperature : -10°C to 40°C(Non congeration)

Ambient air humidity : 90% or less (Non condensing)

Color coating : Metallic gray

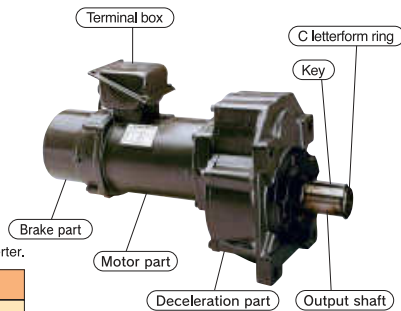
note:(1)SGM-3.7A-HK2 are Made-to-order product.

(2)Inertia Moment of permissible load :

Standard type Ten times Inertia Moment of motor

(3)Start accumulator such as inverters is necessary for HK type.

Assume the brake circuit to be another power supply when you use inverter.



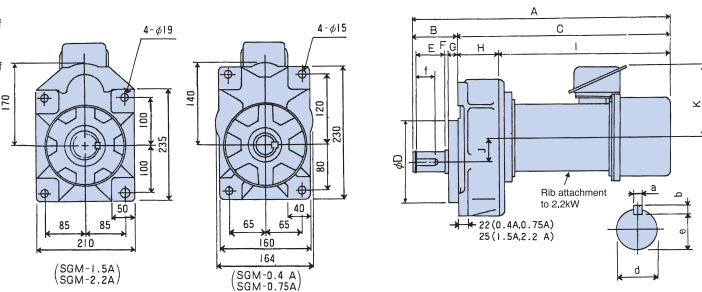
Line up and ratings

		low speed type	high speed type
		LK type(standard type)	HK type(standard type)
Output shaft revolving(r/min)	50Hz	75	125
	60Hz	90	150
Energizing rate		25%ED	
Capacity	Number of poles	Current(A)50/60Hz	Inertia Moment of motor(kg·m ²)
0.4 KW	4P	3.0/2.4	0.0015
0.75KW		4.5/3.8	0.0025
1.5 KW		8.5/7.0	0.0038
2.2 KW		9.7/9.1	0.0062
3.7 KW		15.8/15.0	0.0159

※contact us for further information about B type.

0.4~2.2kW Standard type(Low speed type, High speed type)

note
 ※1.Allowance of fixing match of φd is m6→Recommended allowance of object is F7
 2.Allowance of fixing match of φD is F7→Recommended allowance of object is F7



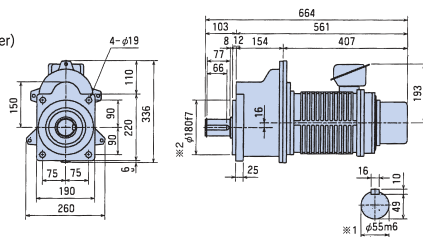
type	Output (kW)	Poles	Key size (mm)	Dimensions													Weight (kg)			
				a	b	d※1	e	f	A	B	C	D※2	E	F	G	H		I	J	K
SGM-0.4A-LK2, HK2	0.4	4	10×8	10	8	35	30.0	36	466	75	391	140	50	5	15	70	321	39	129	28
SGM-0.75A-LK2, HK2	0.75		10×8	10	8	35	30.0	36	486	75	411	140	50	5	15	70	341	39	135	34
SGM-1.5A-LK2, HK2	1.5		14×9	14	9	50	44.5	56	615.5	100	515.5	160	70	5	20	107.5	408	46	163	63
SGM-2.2A-LK, HK	2.2		14×9	14	9	50	44.5	56	609	100	509	160	70	5	20	107.5	401.5	46	172	67

3.7kW Standard Low speed type (Weight:95kg)

SGM-3.7A-LK2

SGM-3.7A-HK2(Made by order)

note
 Recommended allowance of ※1 is F7
 Recommended allowance of ※2 is F7(JIS-B0401)



Model selection list

1.Setting of crane saddle : box type, Steel thickness 6mm

2.Inertia Moment of permissible load :

Standard type Ten times Inertia Moment of motor
 With silicon coupling Seven times Inertia Moment of motor

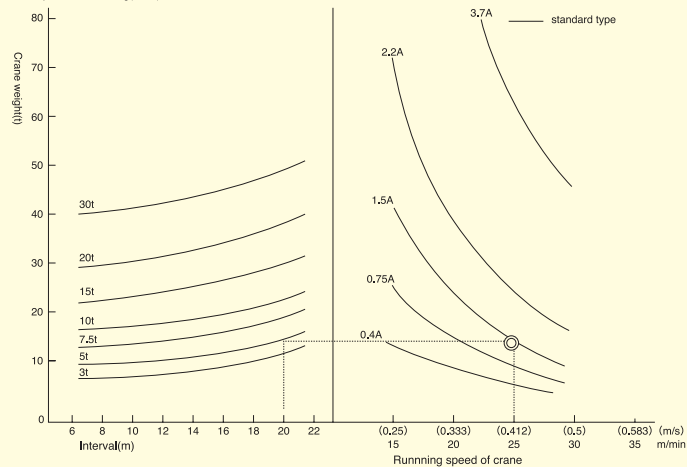
3.Do not exceed 25m/min at the running speed when using standard type without start accumulator such as inverters.

4.Selection example

SGM-1.5A type(standard type) corresponds for 5t, 20m interval, 25m/min running speed, and to ◎sign in a lower graph.

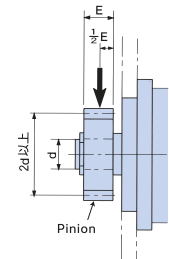
$$\text{Inertia Moment of } = \frac{W \times V^2}{4(\pi \times N^2)} \text{ (kg} \cdot \text{m}^2)$$

W:weight of crane V:Running speed(m/min)
 N:Output shaft revolving(r/min)



(1)Avoid the collision of the saddle to the stopper as much as possible, and install the buffer in the saddle.
 (2)Contact us for further information about use excluding general factory like explosion-proof environment etc.

Adjustment with crane saddle



(1)Diameter of pinion...
 Diameter of pinion pitch=2×Diameter of output shaft
 (2)Point of gaining weight...
 Center of width of pinion
 (3)Permissible overhang...Load P(kg)

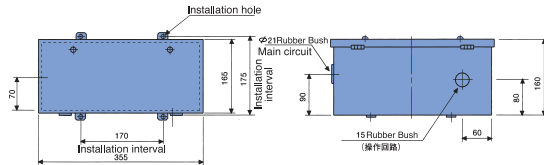
type	LK	HK
SGM-0.4A	150	90
SGM-0.75A	290	160
SGM-1.5A	400	230
SGM-2.2A	580	340
SGM-3.7A	900	540

Over load detection device LCV-B

"Weight Checker"(detection of current)



It prevent and secure safety of the hoist overload work.
And it can raise an alarm in case of the overload, stop hoisting motor by detecting the current value of motor.



Type	LCV-20B					LCV-30B				
Corresponded hoist(t) (S Type)	1/2	1	2	2.8	5	7.5	10	15	20	30
Hoisting motor (kW)	50Hz	1.0	2.0	2.9	4.1	6.2	8.3	10	17	17
	60Hz	1.2	2.9	3.5	4.9	7.5	10	12	20	20

User	Crane manufacturer	Dealer	Agency	Branch office	Factory Acceptance	
()	()	()	()	()		
Agency(Person in charge:) Mitsubishi(Person in charge:) Approval:)						
Mitsubishi hoist Procurement specification (Sub-No) Creation date:Year Month date						
1	Type/Number of unit/ Request delivery date	-	-	/	Unit / Year / Month / Date	
2	Date of building construction work /Reasons	Year	Month	Date /	Reason	
3	Type of traverse & installation	Suspended		Frame mounted	Motor operated	
4	Power voltage	3 phase	V	Hz		
5	Control voltage	Control	V	<with control transformer • without control transformer (external supply)>		
6	Rated capacity					t
7	Base body capacity	t	-	m	Base body(It is indispensable when the base body changes)	
8	Max Load Lifting height					m
9	Hoisting speed	Base body standard	specified	m/min (For Inv hoist : unload high speed with without)		
10	Traversing speed	Base body standard	specified	m/min		
11	Traversing rail	Monorail Lowhead type	Straight	Curve	R = mm	
		Standard (I-beam)	Size		With taper wheel	
		Non-standard (Box girder)	Size		With flat wheel	
		Double rail type	Length between rail	Standard	Special spec	C = mm
		Standard	Special rail	kg rail		
12	Push button	Standard (Push button)	Unnecesssary			
13	Number of push button & indication	Standard	Request	Points	Detail ()	
14	Length of push button cable	Standard	Special spec	m (Select from 6 / 8 / 12 / 18 / 20 / 24 / 30m)		
15	Protective construction	Standard	Rain proof(Cover type)	Corrosion proof	Explosion proofd2G4	
16	Color coating	Body : Standard	Special spec ()	Hook	Standard Special spec ()	
17	Submission of documents	Specifications, Outline drawing, Wiring diagram (Japanese English) / Test report (With Without)				
		Mill sheel : Without With (Wire rope Hook)				
< Special instruction >						
		DATE	Sub-turn	Revision column		
		Quotation No				
		Factory Order No				