

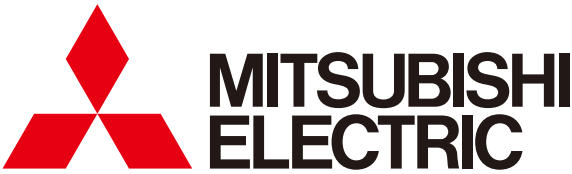


caution

Please read "Product Manual" ahead of the use to use the product correctly and safely.
Though our product is manufactured under a strict quality control, Please set up the safety device before application to equipment to which the occurrence of a serious accident and the loss is forecast due to the breakdown of product etc.

MITSUBISHI ELECTRIC FA INDUSTRIAL PRODUCTS CORPORATION
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AVAILABLE FROM



Hoists General Catalog

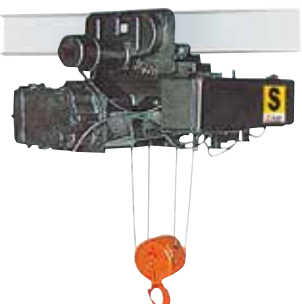
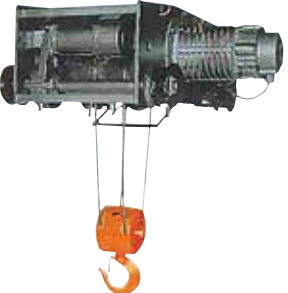
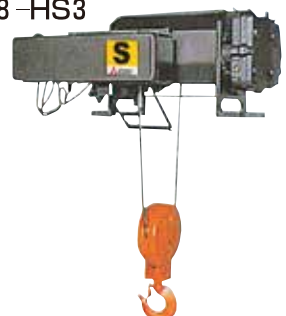


MITSUBISHI ELECTRIC
FA INDUSTRIAL PRODUCTS CORPORATION

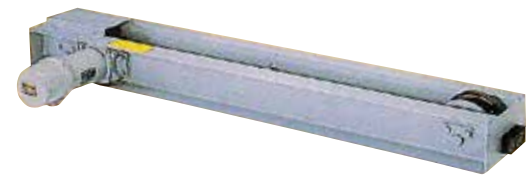


By the utilization of state-of-the-art technology, we realize highly developed safety and improved operation of our loading system.

Hoist Type (Shapes)

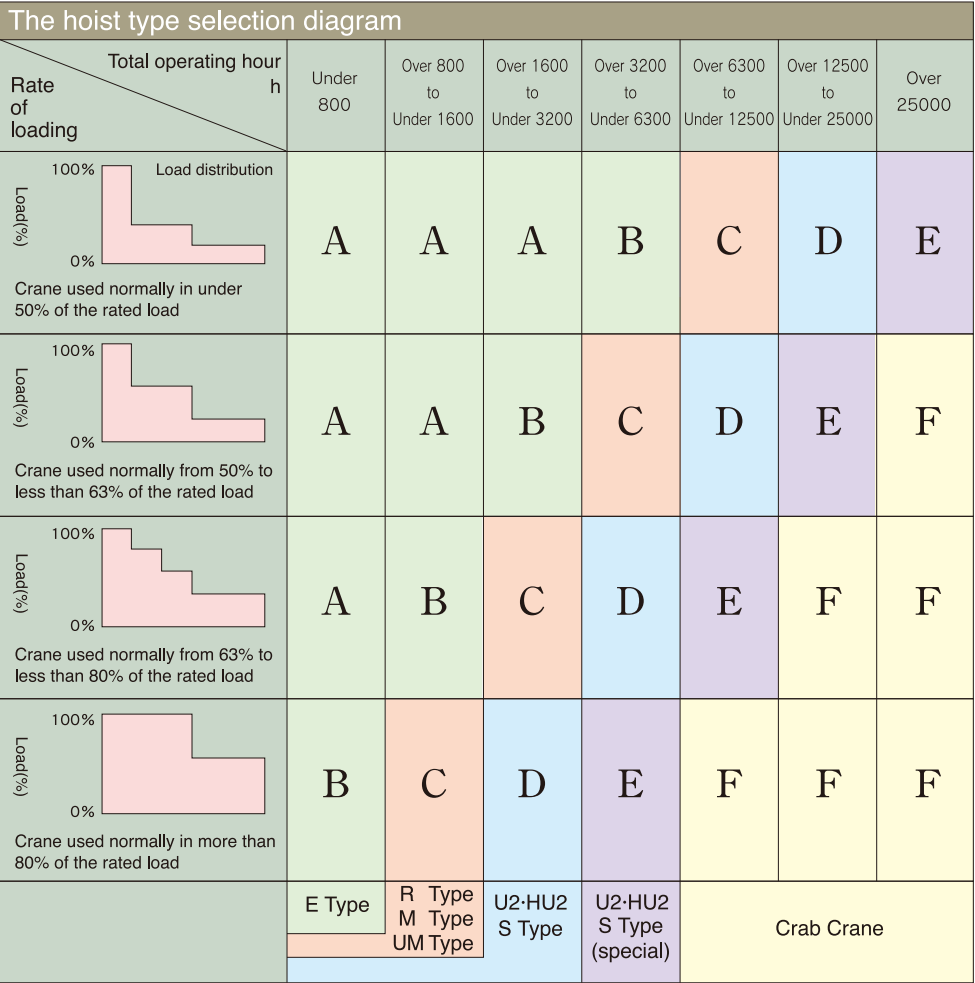
Monorail Type	Low-head Type	Double rail Type
Motor Operated Traversing Hoist This hoist travels in parallel to the traverse rail by motor driven trolley.(This type of hoist is the most widely used)	Motor Operated Traversing Hoist When this type of hoist performs hoisting to the upper limit,the distance 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 
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.	
R-2-LK3 	S-2.8-HS3 	

Introduction of Products

Hoists	
 UM Type (5t・10t) New For medium frequency use UM Type series has Mitsubishi original inverter specially developed for hoist. Overload prevention function,Electronic limit switches,Light load high speed operation function,Operation history function are standard. UM Type series has wide box type rail and flat wheels,convenient for replacement from other brands.	
 S Type (1/2-60t) For high frequency use S type series is heavy-duty type hoists for applications involving high frequency operations. Its hoisting speed and the duty class is the highest available. For more safety, a microprocessor control circuit which automatically prevents overloading is installed.	 U2,HU2 Type (1/2-60t) 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.
 M Type (5t・10t) For medium frequency use M Type series has been developed based on the next generation concept. It has been designed for optimizing price and performance.	 UR Type (1-2.8(3)t) UR Type series is produced by utilizing the power electronics technology accumulated by MITSUBISHI ELECTRIC, and has new variable speed type. It is popular for excellent operation.
 R Type (1-2.8(3)t) For medium frequency use R Type series is structurally simple and economical with real capability. It is provided with one class higher capability and both power and worthy of its real capability and economical efficiency.	 U-X・S-X Type (1/2-60t) Inverter Explosion-Proof Type (U-X Type) ※Only 200V class is available U-X Type series 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.
Crane Related Equipment	
	Saddle for Crane(～20t×27m) <ST-D・MT>Top-Running Crane Saddle and <SP-D・MP>Suspension Crane Saddle are available. A traveling device that adopts Channel frame makes the installation to the main beam easy. (ST-D, SP-D)
Gear Motor for Crane Saddle(SGM) (0.4kw-3.7kw) <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. 	Other Related Equipments  <TIB> Inverter control box for saddle motor <LCV-B> Over load detection device (Electric) <LCM> Over load detection device (Mechanical)  ※ A LCM is sold with a hoist. A LCM is not sold as single item. 

THE MITSUBISHI ELECTRIC HOIST APPLI-CATIONS AND SELECTION DIAGRAM

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



① Signs such as A or B grade stand for the application group of the crane structure standard. (Japan Ministry of Labor)
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.				
Intermittent duty		R	UR	S	U2 HU2
		M	UM		
Lifting	Percentage of duty cycle(%)ED	25	40	40	40
	Number of starts Per Hr(S/Hr)	250	400	400	240
Traversing	Percentage of duty cycle(%)ED	25			25
	Number of starts Per Hr(S/Hr)	250			150

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

※In the case of dual speed, it is assumed that the ratio between low speed and high speed of the load time is 1:2, and the ratio between low speed and high speed of the maximum number of starts per Hr is 2:1.

※Continuous operating time limit at maximum allowable frequency of use is below

Load condition	Light (50% of the rated load)	Medium (63% of the rated load)	Heavy (80% of the rated load)
Continuous operating time	Less than 8 hours	Less than 4 hours	Less than 2 hours

※Please contact us if it exceeds above continuous operating time.

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

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

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

※M,UM Type has only 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)

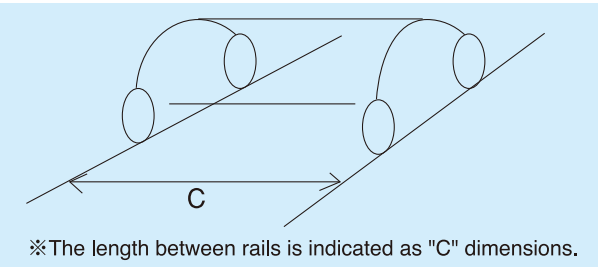
⑦ Minimum head room

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.

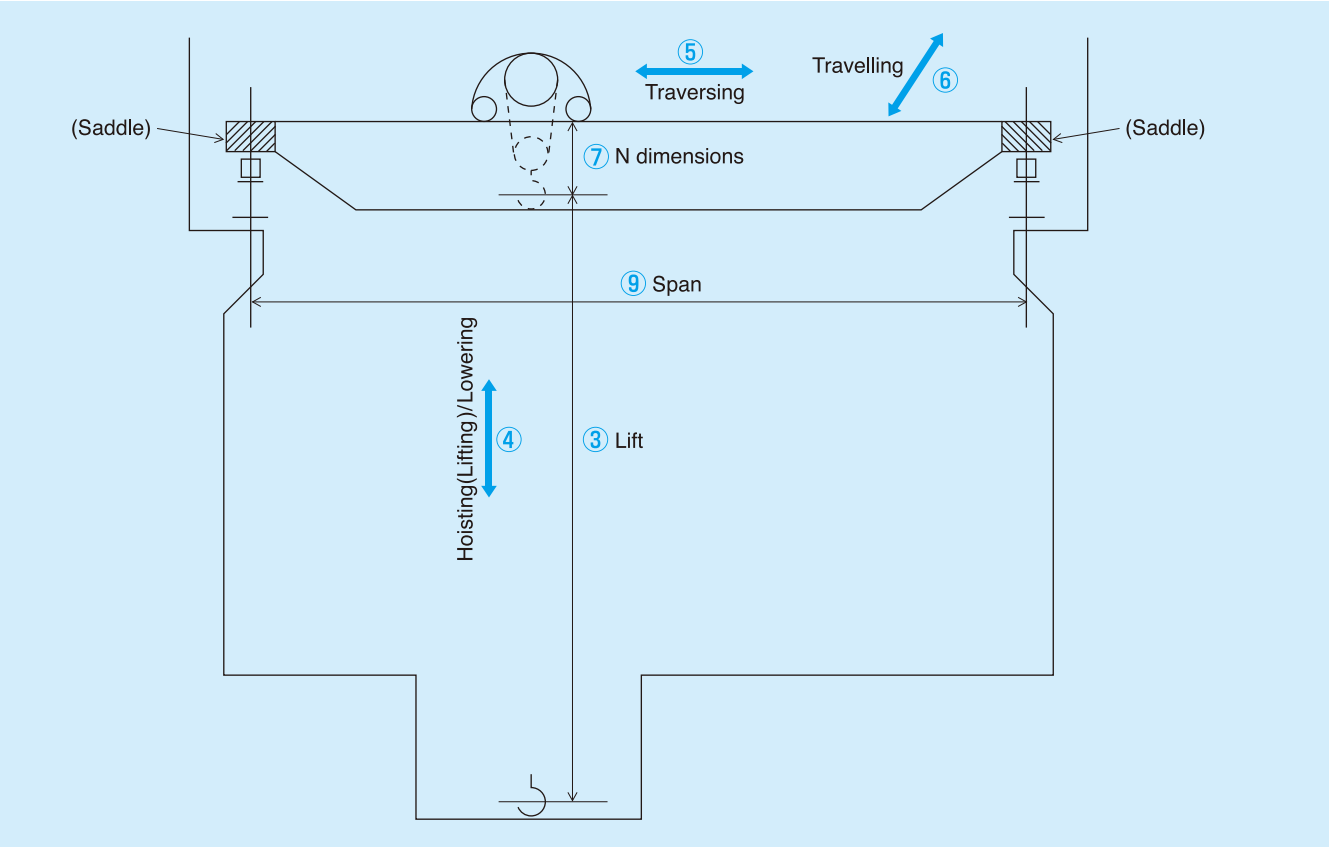
⑨ Span

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.

①Allowable 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 seledtion diagram of P3.)

②Capacity

S series, U2 series: 1/2-60t, HU2 series: 10t - 60t R series, UR series: 1t - 2.8(3)t , M series , UM series : 5t and 10t

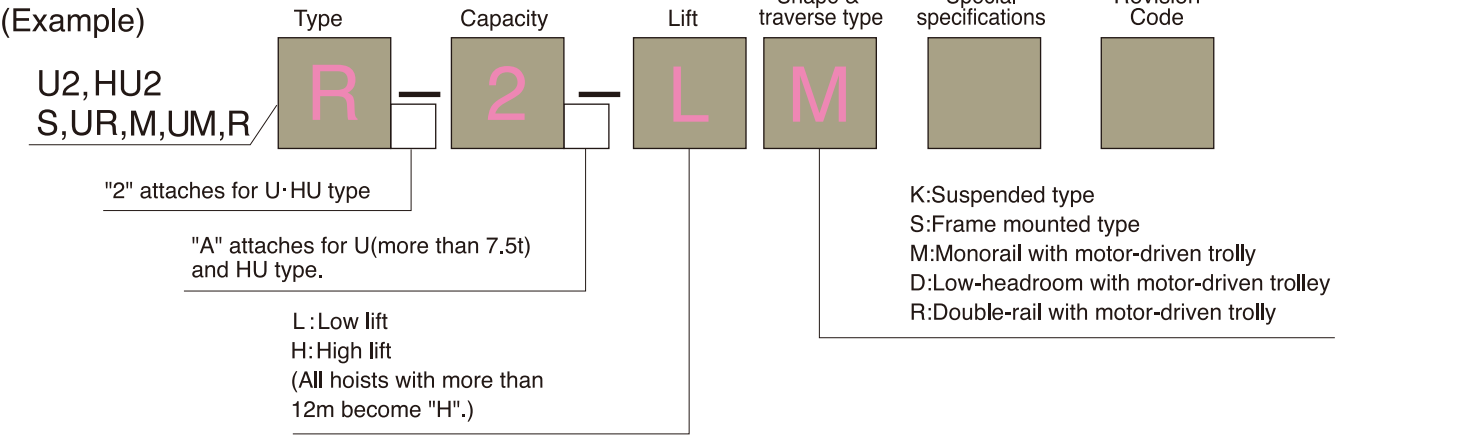
③Lift

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.
※ M, UM Type has only 12M.

④Shape

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



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 gear type limit swich	G
With hoisting and traversing inverter	S	With electric limit swich	E
With traversing inverter(S type, R type)	T	With emergency brake	B
With hoisting creep speed(S type)	VT	Explosion-proof type	X
With hoisting and traversing creep speed(S type)	VS		

The viewpoint of the catalog

①MITSUBISHI 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.

②Production Overview Table

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

③Specifications

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.

④Outline 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-Bean 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	2.8(3)	5	7.5	10	15	20	30	45	60
Variable speed type	U2	High	○		○	○	○	○	○	○	○	○	○	○	○	○
	UR	Medium	○			○	○	○								
	UM	Medium	○						○		○					
Fixed speed type	S	High		○	○	○	○	○	○	○	○	○	○	○	○	○
	R	Medium		○		○	○	○								
	M	Medium		○					○		○					

Production Overview Table

〈U2〉〈S〉〈S-VT,VS〉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		
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(3)	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		
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

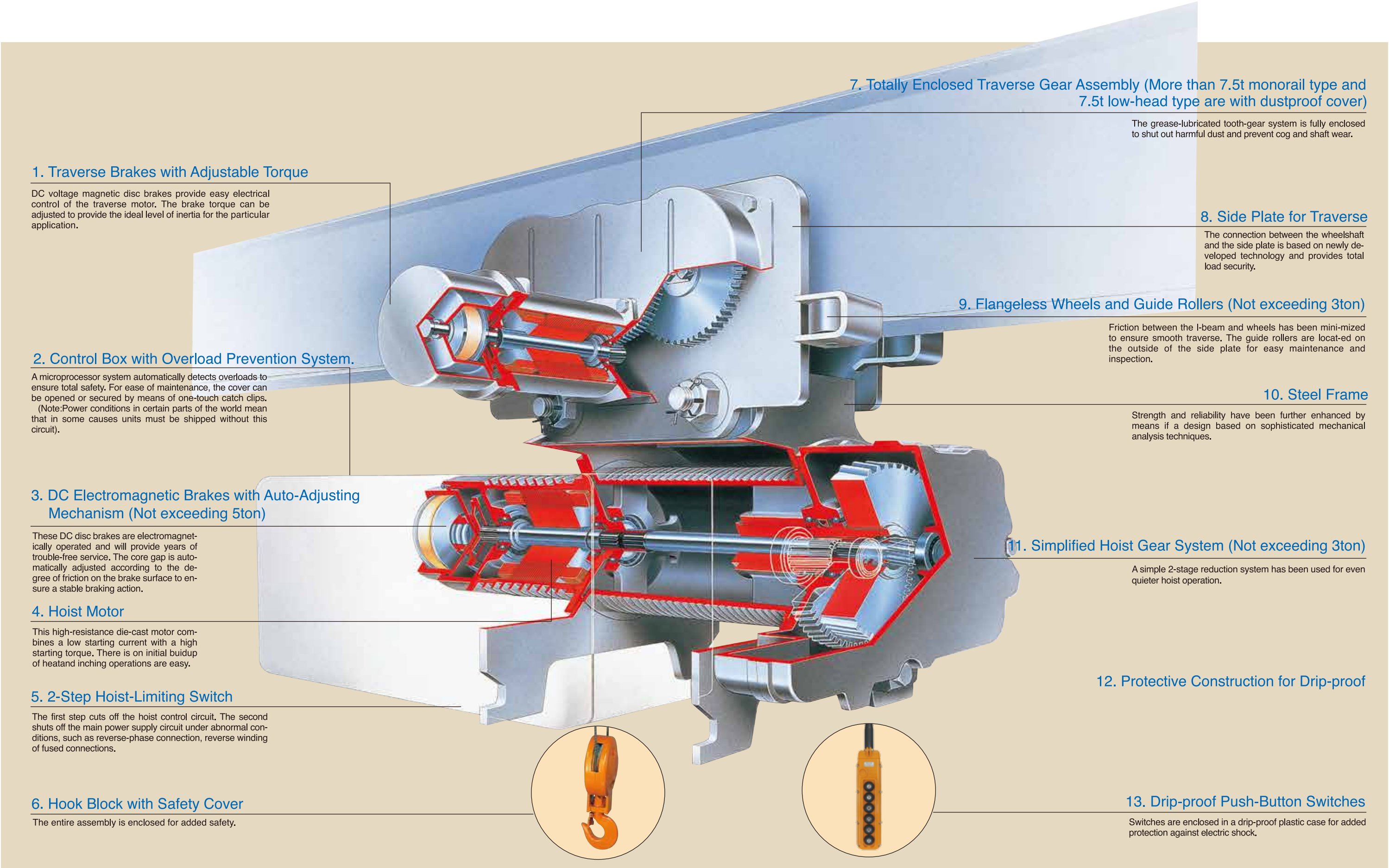
Capacity(t)	Motor Operated Traversing			Suspended Type
	Monorail Type	Low-head Type	Double Rail Type	
	LM/HM	LD/HD	LR/HR	
1	6m/12m	6m	—	6m/12m
2	6m/12m	6m	—	6m/12m
2.8(3)	6m/12m	6m	6m	6m/12m

〈M〉〈UM〉Type

Capacity(t)	Motor Operated Traversing		Suspended Type	Frame mounted Type
	Monorail Type	Double Rail Type		
	HM	HR		
5	12m	12m	12m	12m
10	12m	12m	12m	12m

SUPERB MECHANICAL FEATURES BASED ON A TRADITION OF ADVANCED TECHNOLOGY.

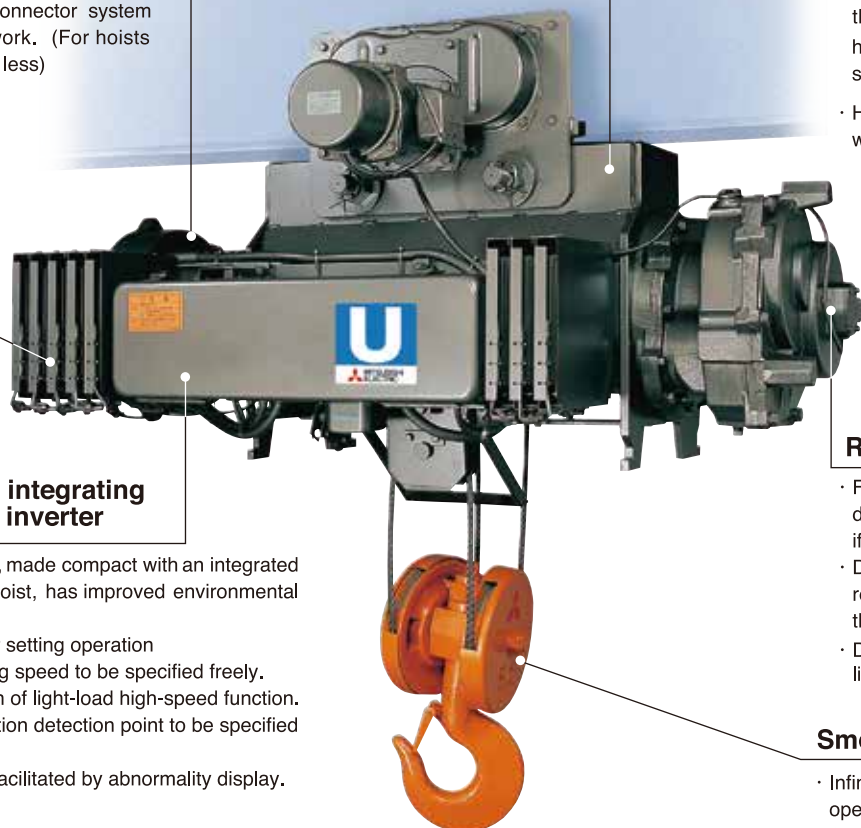
Control Box, traversing motor and oil gauge are arranged on the same side for ease of maintenance.



Included over load prevention function as standard equipment

- 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.

- 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)



- 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.

- Heat-generation and wear are small under severe inching operations accompanied by braking operations at low motor-speeds in the inverter-driven power train. Abatement heat-generation and wear contribute to long-span operation.
- Hoists rated for 7.5 ton or more are equipped with an emergency brake.

- 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.

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

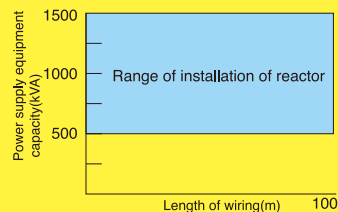
- 45 kW hoisting motor has further improved machine speed

Type	Capacity (t)	Hoisting speed m/min	Hoisting Motor	
			Capacity(kW)	Poles(P)
UA	15	1.3/13	45	4
	20	1.1/11		
	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.

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

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.

[illegible]

※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 1t 2falls is 6×Fi(29)

●Power supply...3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V
(400Vclass 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

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

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

●Rating...Hosting (less than 5t) 40%ED(63% of load rating). 400S/Hr
(More than 7.5t) 25%ED(63% of load rating). 150S/Hr JIS C 9620

Traversing 30min(JIS C 9620)

●Power supply system...Cable feeding, trolley feeding(only double trolley)

● Ambient air humidity... 00% or less (Non condensing)

●Enclosure...Simplified out door type(-JIS C 0920 eq)

● 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:Munsell7.5YR7/14

Pushbutton: Equivalent to Munsell 7.5YR 7/13

●Power supply:…3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V
(400Vclass 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	1/2I~45I
Frame mounted type	4 Points
Motor operated traversing hoist	ON OFF U D
	8 Points
	ON OFF U D E W S N

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

●Rating:…Hosting (less than 5I) 40%ED(63% of load rating), 400S/Hr
(More than 7.5I) 25%ED(63% of load rating), 150S/Hr JIS C 9620
Traversing 30min(JIS C 9620)

●Power supply system:…Cable feeding, trolley feeding(only double trolley)

●Ambient air temperature:…-10℃ to 40℃(Non congelation)

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

●Enclosure:…Simplified out door type(JIS C 9290, equivalent to IP-44)

●Please prepare the shelter plate 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

— 10 —

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 Overload prevention function is included as standard.

Mitsubishi inverter hoists have an overload prevention function as standard, which stops hoisting when an overload is detected.
The overload judgment value is adjustable within a range from 100 to 125 percent of the rated load.
The overload detection signal is out put by terminal [OUT3].
It can be set to stop the hoisting operation when an overload is detected.
(The factory setting is that the hoisting is not stopped even if an overload is detected.)

2 Reduction of shock at starting and stopping

Mitsubishi inverter hoists can reduce the shock and shaking of the hoisting load considerably. Therefore, they are very useful for delicate load positioning and the load position can be controlled as you like.

3 Adjustable hoisting speed

Hoisting speed can be adjusted freely in a range from minimum speed to standard speed. This allows operators to select the most suitable speed for their jobs.
Switching between high and low speed is facilitated by a two stage push button operation.

4 Highly controllable inching operation

Mitsubishi inverter hoists enable highly controllable inching operation, enabling delicate load positioning with ease. The traversing inverter allows sharp speed reduction by pushing the opposite direction button.

5 Low wearing brake and machine parts

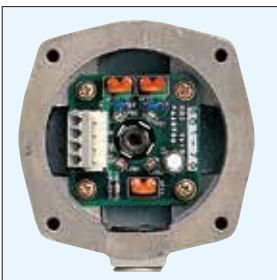
Mitsubishi inverter hoists can improve durability of brake discs, wire ropes, gears and sheaves because Mitsubishi inverter hoists drastically reduce load shock. (However, frequent use of light load, high speed mode may increase brake disc wear.)
Unlike conventional hoists(non inverter hoists), it is not necessary to replace the electromagnetic contacts. Simplified design has reduced the number of parts, contributing to reduced failure risk and extended life span of many parts. Brake disc wear can be checked easily through a window on the brake box.
(The pressure plate and brake disc have wear limit indications. The window allows you to check whether the adjustment ring has dropped.)

6 Electronic limit switches (for upper and lower limits)

Electronic limit switches can decelerate and stop the hook automatically by detecting the hook position. All position settings (deceleration and stop positions) can be controlled at the same time, allowing you to replace the wire rope with ease.
Unnecessary position settings can be canceled. For example, only the setting of the lower limit stop position is required when other positions are not used.

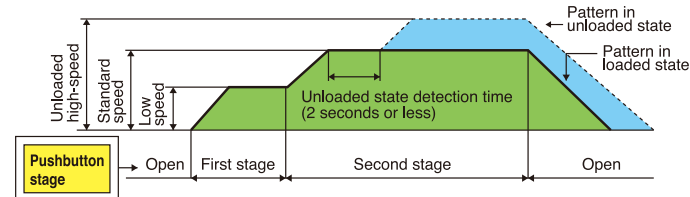
Encoder The encoder monitors U2 type functions.

The 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.

7 Light load, high speed operation function (Automatic speed change function)

This function detects the load and changes the hoisting speed automatically when the load is between 0% and 25% of the rated load. If hoist is less than 7.5 tons, hoisting speeds are changed automatically to 1.5x faster than standard speeds. And if over 10 ton hoists, they are changed to 2x faster than standard speeds. The judgment value is changeable in the range of 25% to 50% (in use) of the rated load for users who use a load handling device. This function can be used even under combined hoisting operation.
It can be set to output "R" phase voltage from the "OUT 3" terminal when the load value is judged. It can prevent the case where only one side of the hoist changes to high speed automatically if each hoist's "OUT 3" is connected to the other side of terminal "IN 4".
The operation frequency of the light load, high speed operation function can be changed.
(It is possible that hoists with special long lifts can not equip the light load, high speed operation function.)

8 Numerous output signals

Signals are output from OUT1 at the upper limit stop point, and from OUT 2 at the lower limit. Signals are output from OUT3 when overload evaluation is carried out, and from OUT4 during operation. Settings can be changed to get signals from OUT3 when light loading evaluation is done.

9 Speed coordination function

This function is to restrict the load slope attributed to combined hoisting operation. The low hoisting speed and low lowering speed are within $\pm 20\%$ (within JIS stipulated range). This function also enables very stable hoisting and lowering speed (within $\pm 1\%$).

10 Environmental considerations

Efforts to remove environmental toxins from our products continued.
(Solders for printed-circuit boards, alloys for wire rope ends, and coating materials were modified to be lead-free. Hexavalent chrome plating was changed to trivalent chrome plating.)
Brake discs and packing do not contain asbestos.
Mitsubishi hoisting motors save energy by designing to restrict motor temperature rises during inching operation.

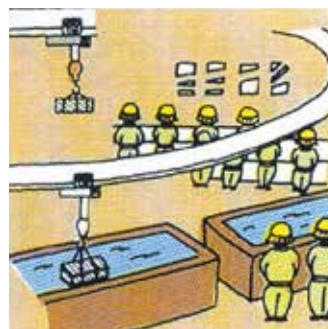
11 Protection function

This function is to stop the hoist temporarily for safety when the hoist detects power failure, abnormal power supply voltage and over current, etc.
Error canceling can be stopped by pushing the button excluding some error mode.
(When a stop mode is required to reset the power, checking the hoist is recommended.)

U2 TYPE application examples



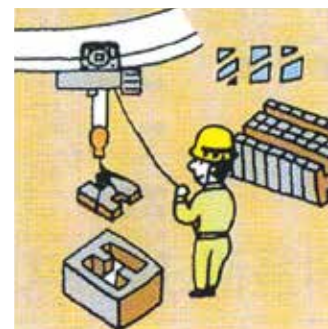
Factory building with an office on the upper level(The building does not shake.)



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.



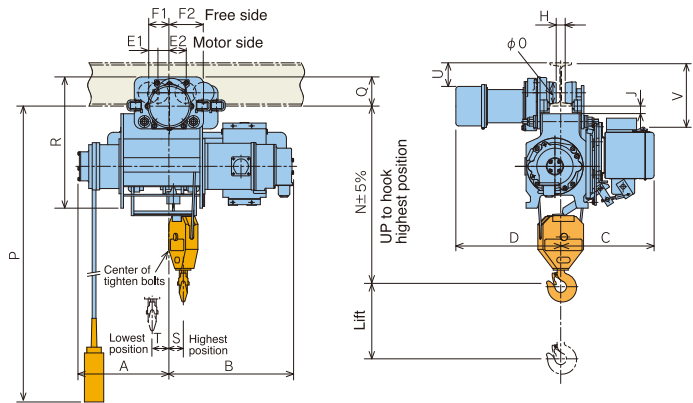
Attention in use

- 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 longevity 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.

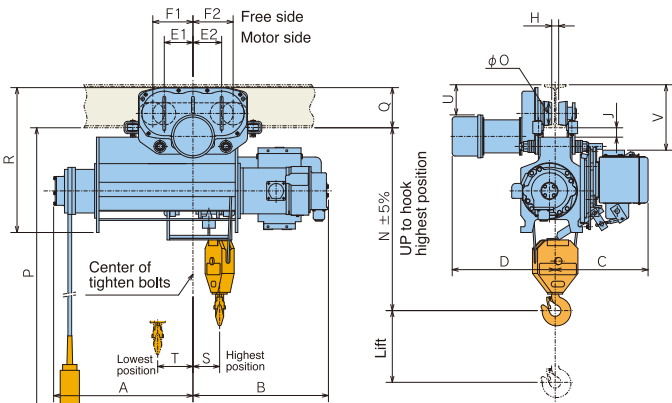
Monorail Type **U2** (1/2t·1t·2.8t·3t·5t)

※Contact us for 400V class outline

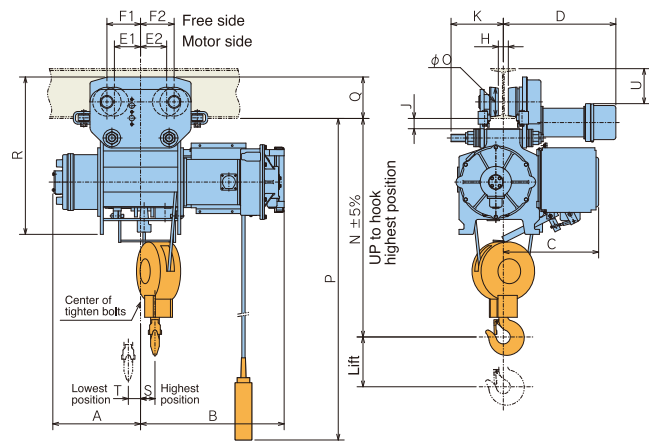
U2-1/2-LMH2



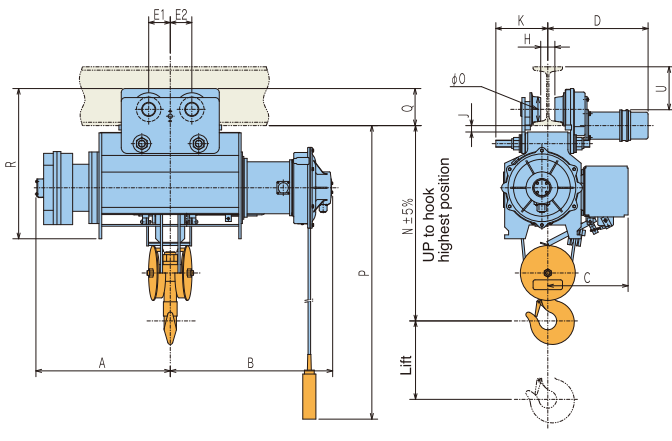
U2-1/2-HMH2



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)		6				12				6		12		6		12		6		12		8		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				408				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	D	H	J	Q	U	D	H	J	Q	U								
Applicable I-Beam(mm)	200×100×7※1	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	228	512	72	31	189	219		
	450×175×13	—																														524	96	27	193	365
600×190×13	—						—						—																							

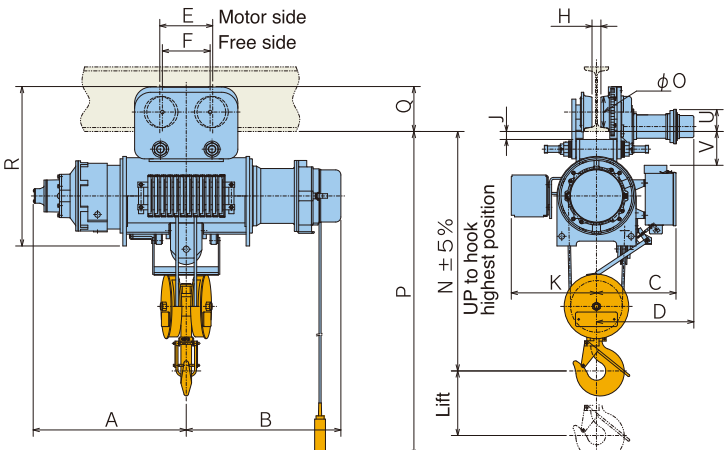
Note.rad.cur() at I-Beam U2-1/2, 1···150×75×5.5 U2-2···200×100×7 Note Applicable I-Beam =Standard =required special attachment

※1 150×75×5.5 is applicable

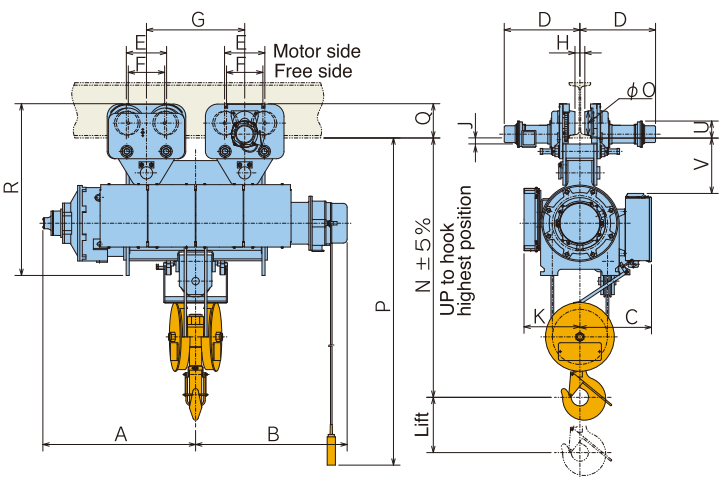
Monorail Type **U2** (7.5t·10t·15t·20t)

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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	HMH6		HMS6									
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				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		9000		13000		9000		13000		13000											
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

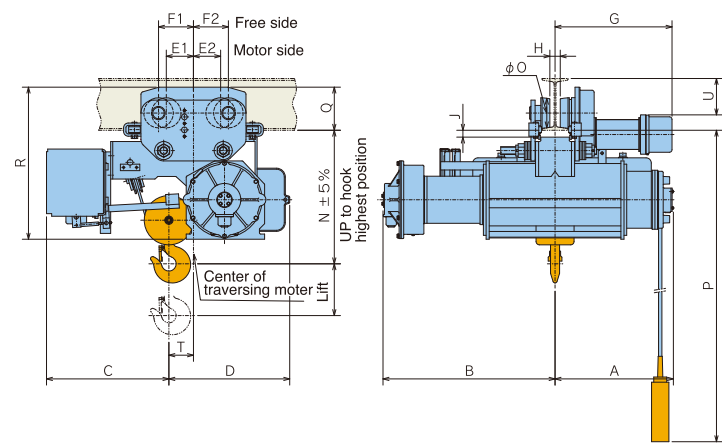
Low-head Type

U2

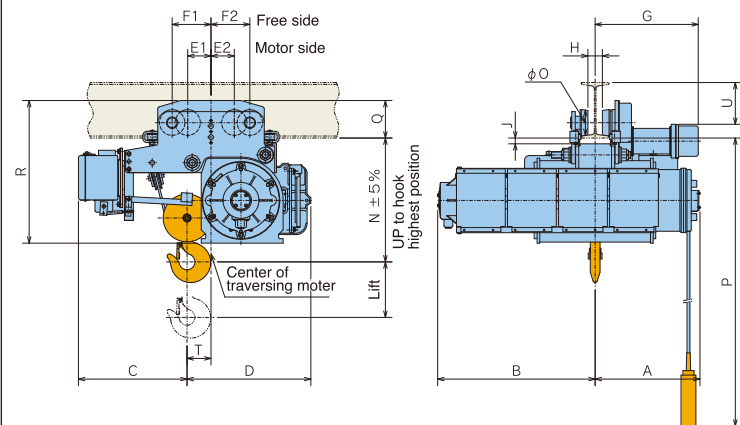
(1/2t·1t·2t·2.8t·3t·5t)

※Contact us for 400V class outline

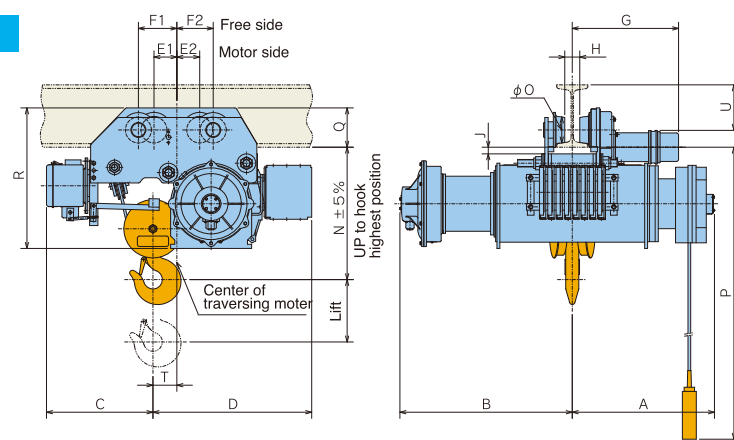
U2-1/2・1・2



U2-2.8・3



U2-5



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									
Cap.(t)		1/2				1				2				2.8 (3)				5												
Lift(m)		6				6		12		6		12		6		12		8		12										
Dimensions(mm)	A	433				444		611		457		635		472		622		685		810										
	B	528				616		784		668		847		711		861		830		955										
	C	371				423				473				490				513												
	D	272				356				467				558				764												
	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	410				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)		150		150		200		215		305		340		405		440		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									
Applicable I-Beam(mm)	200×100×7 ^{※1}	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
※1 150×75×5.5 is applicable

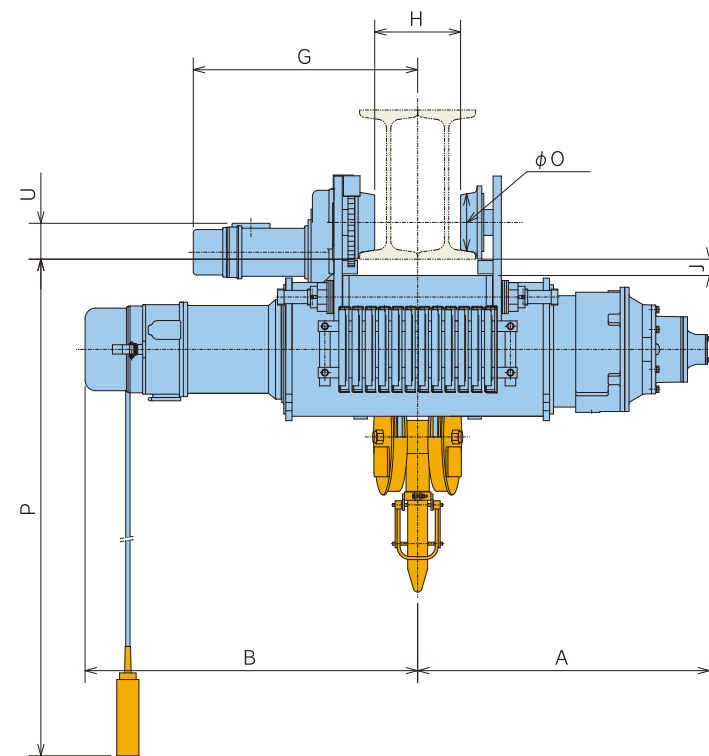
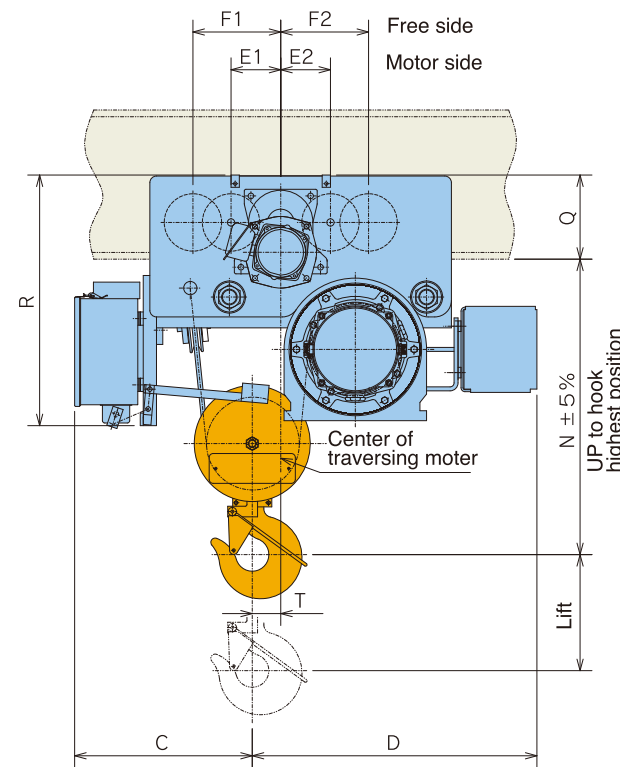
Low-head Type

U2

(7.5t·10t)

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U2-7.5・10



Model		U2-7.5A					U2-10A				
		LDH6	LDS6	HDH6	HDS6		LDH6	LDS6	HDH6	HDS6	
Cap.(t)		7.5					10				
Lift(m)		8		12			8		12		
Dimensions(mm)	A	881		1006			949		1074		
	B	1004		1129			959		1084		
	C			536					619		
	D			859					946		
	E1			150					604		
	E2			150					164		
	F1			265					528		
	F2			265					162		
	N			880					990		
	O			173					193		
	P	8000		12000			8000		12000		
	R			756					873		
	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
Applicable I-Beam(mm)	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

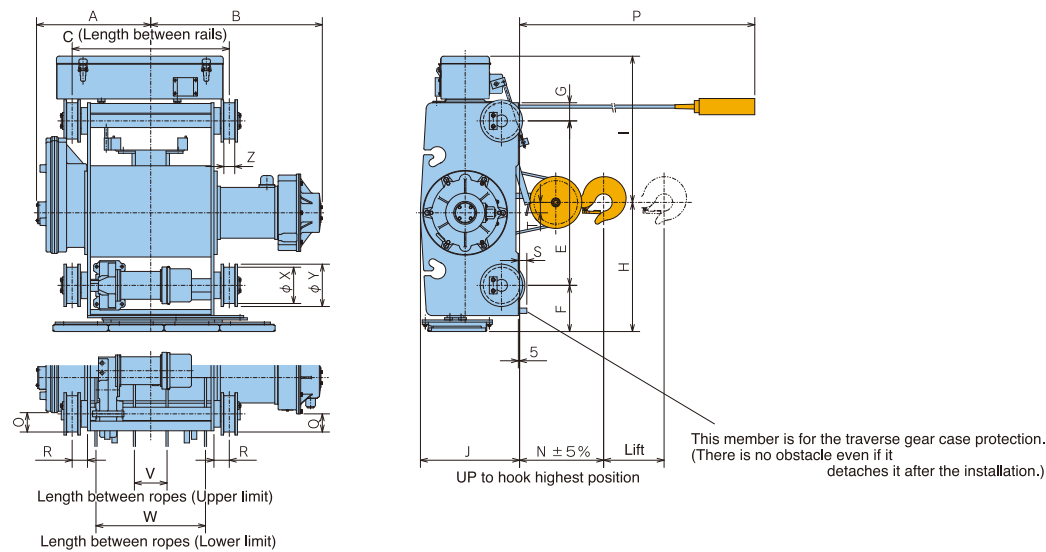
Double rail Type

U2

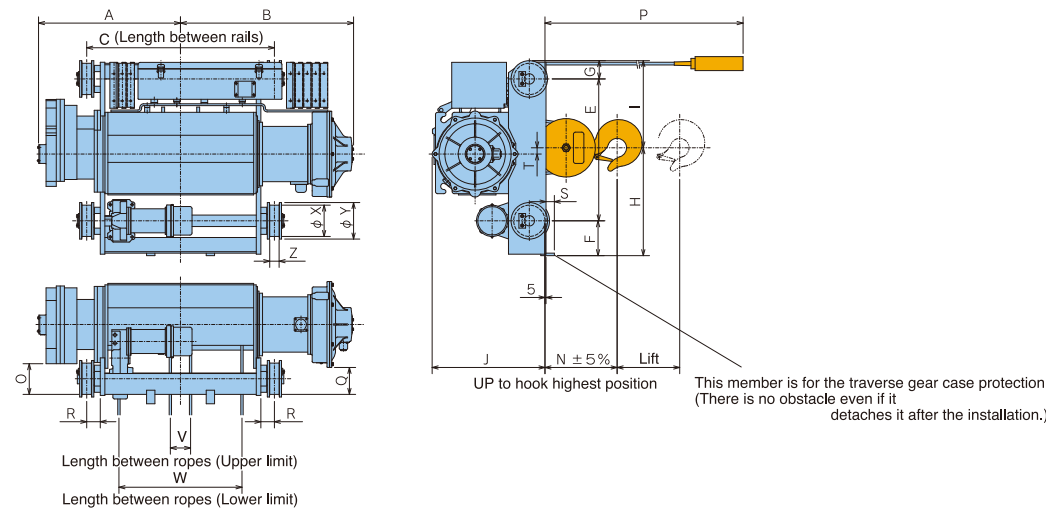
(2.8t·3t·5t)

※Contact us for 400V class outline

U2-2.8・3



U2-5



Model		U2-2.8 (3)				U2-5			
		LRH3A	LRS3A	HRH3A	HRS3A	LRH3A	LRS3A	HRH3A	HRS3A
Cap.(t)		2.8 (3)				5			
Lift(m)		6		12		8		12	
Dimensions(mm)	A	472		622		685		810	
	B	711		861		830		955	
	C	650		950		900		1150	
	E	680				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	113		105		97		100	
	W	433		733		590		840	
	X	150				150			
	Y	175				175			
Z	45				45				
Weight(kg)		440		490		690		770	
Hook block weight(kg)		25				42			
Applicable Rail		12kg rails or 38mm steel square bars							

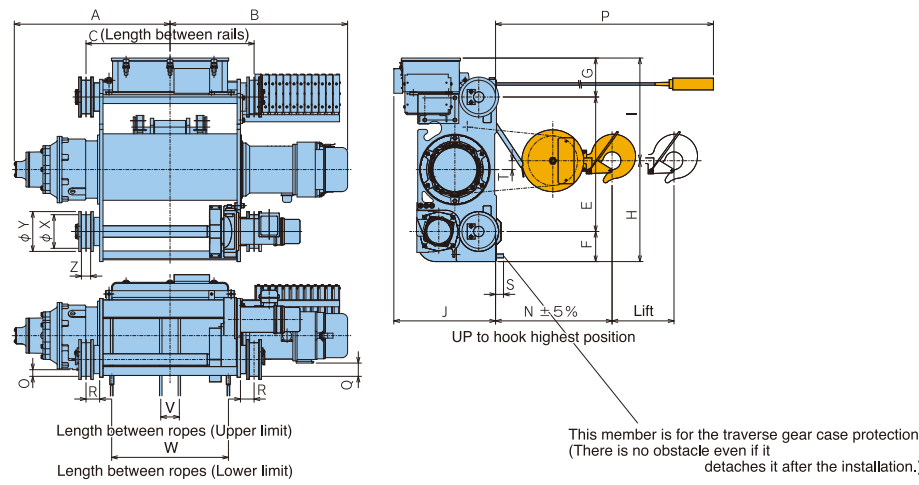
Double rail Type

U2

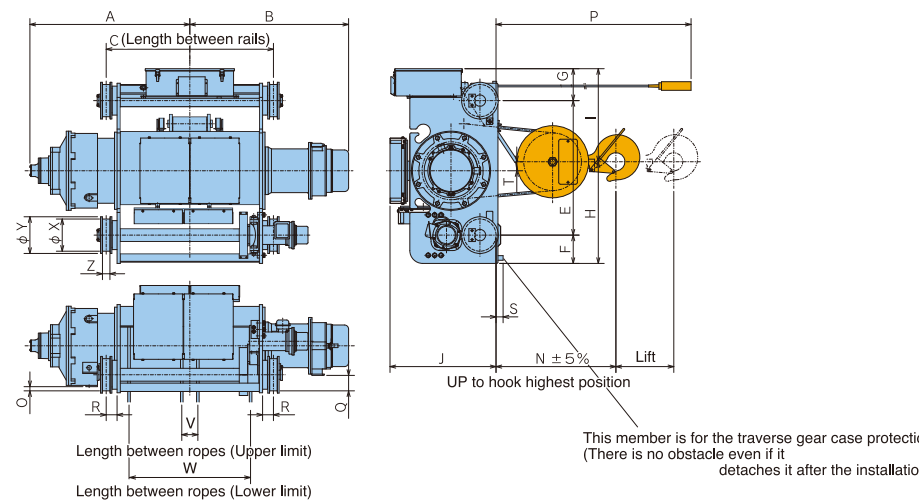
(7.5t·10t·15t·20t·30t)

※Contact us for 400V class outline

U2-7.5A・10A



U2-15A・20A・30A



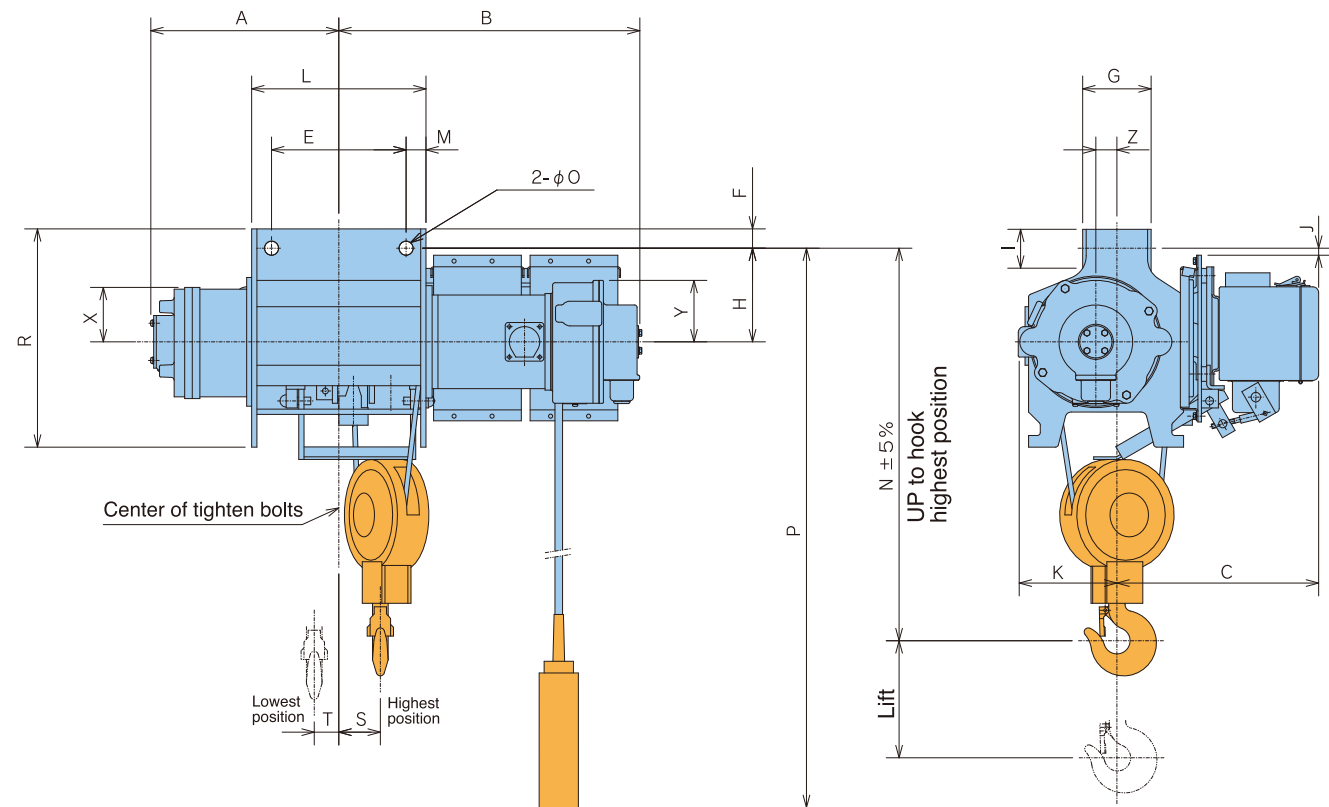
Model		U2-7.5A				U2-10A				U2-15A				U2-20A		U2-30A			
		LRH6	LRS6	HRH6	HRS6	LRH6	LRS6	HRH6	HRS6	LRH6	LRS6	HRH6	HRS6	HRH6	HRS6	HRH6	HRS6		
Cap.(t)		7.5				10				15				20		30			
Lift(m)		8		12		8		12		8		12		12		12			
Dimensions(mm)	A	881		1006		949		1074		1045		1195		1243		1456			
	B	1004		1129		959		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 Rail		15kg rails or 44mm steel square bars								22kg rails or 50mm steel square bars								37kg rails or 65mm steel square bars	

Suspended Type **U2** (1/2t・1t・2t・2.8t・3t)

※Contact us for 400V class outline

U2-1/2・1・2・2.8・3

＜LKH2, LKH3,
HKH2, HKH3＞



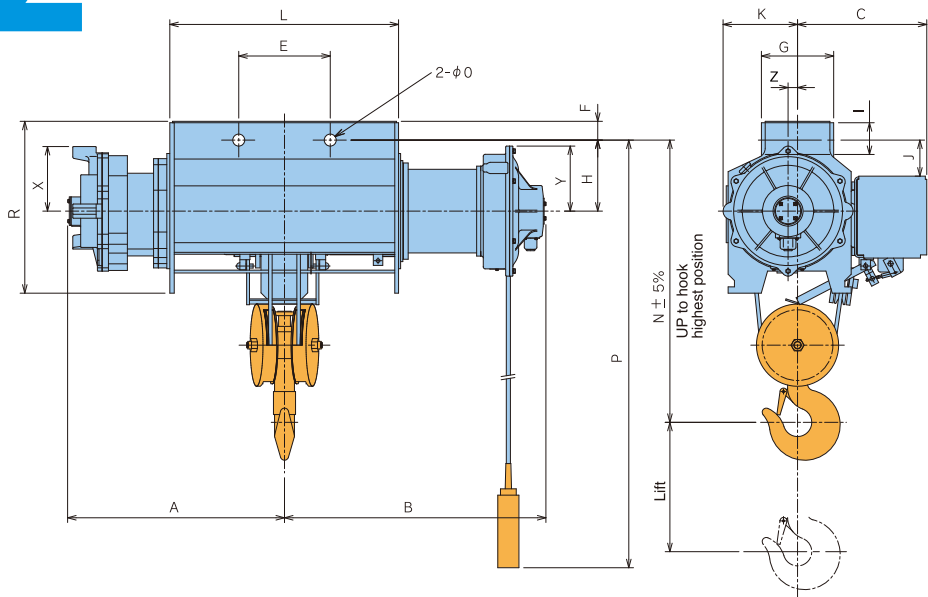
Remarks:Clamping bolts are available for 1/2t~2.8t models separately.

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

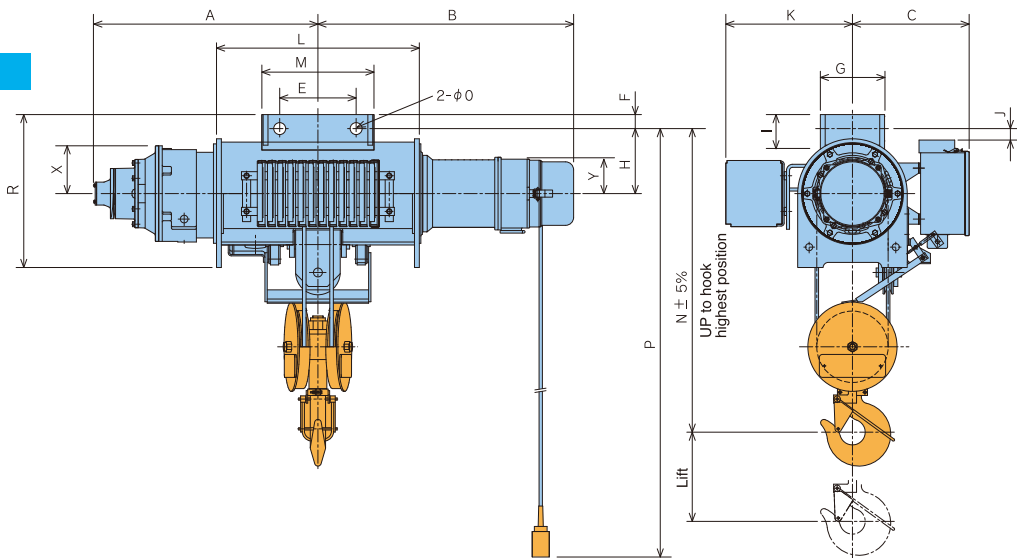
The pushbutton position of U2-1/2 is positioned on the side of hoisting deceleration part.

Suspended Type **U2** (5t・7.5t・10t)

U2-5



U2-7.5A・10A



Model	U2-5		U2-7.5A		U2-10A	
	LKH3	HKH3	LKH6	HKH6	LKH6	HKH6
Cap.(t)	5		7.5		10	
Lift(m)	8	12	8	12	8	12
Dimensions(mm)	A	685	810	881	1006	1074
	B	830	955	1004	1129	1084
	C	410		458		493
	E	290		300		320
	F	60	61	55		60
	G	229		252		252
	H	225		255		290
	I	105	106	120		120
	J	114		45		100
	K	236		497		528
	L	725	975	796	1046	1036
	M	—		440		460
	N	905		1165		1380
	O	38		47		53
	P	8000	12000	8000	12000	12000
	R	546		600		660
	X	205		188		218
	Y	206		152		220
	Z	30		—		—
Weight(kg)	580	650	700	770	1050	1150
Applicable I-Beam(mm)	42		80		100	

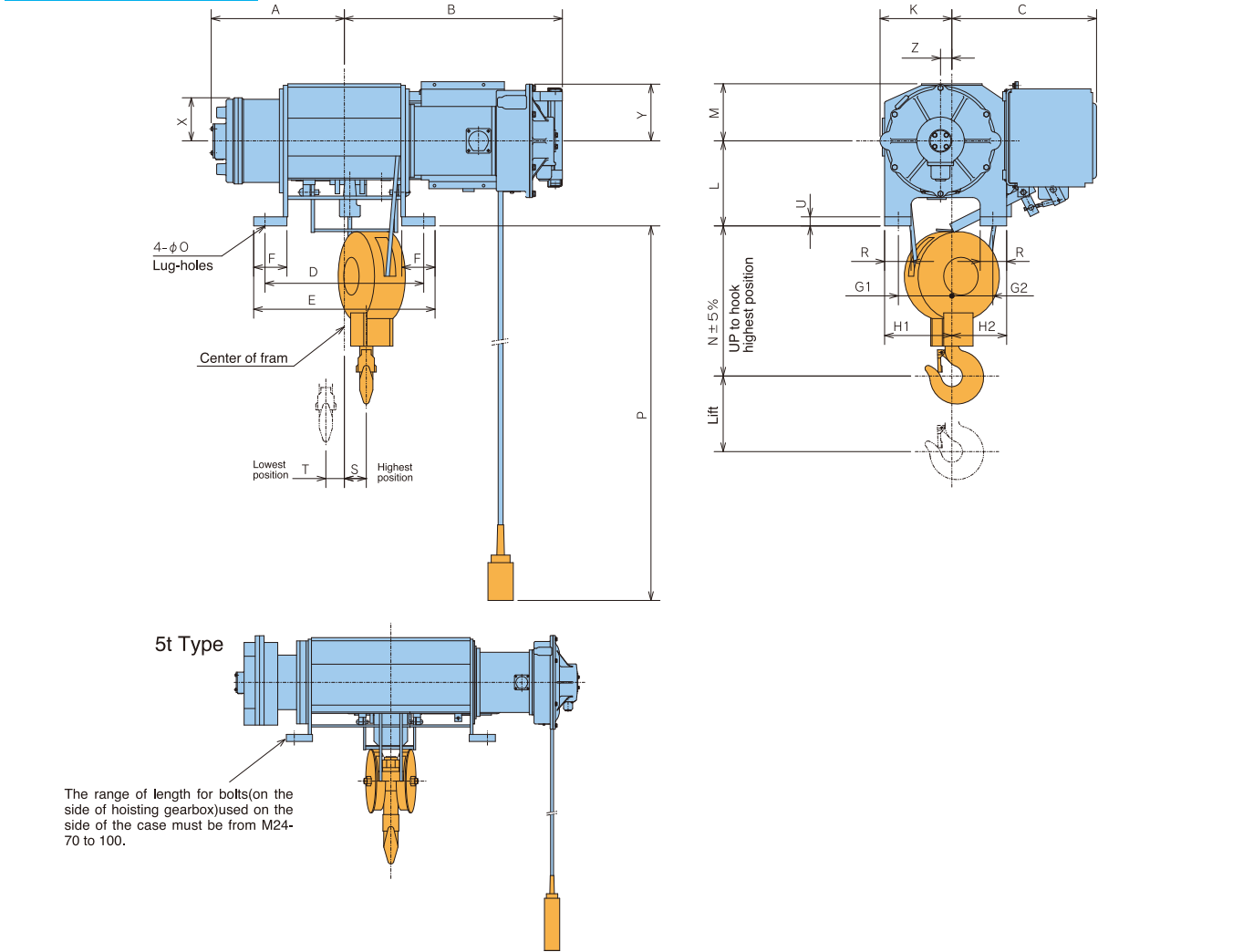
Frame mounted Type

U2

(1t・2t・2.8t・3t・5t)

※Contact us for 400V class outline

U2-1・2・2.8・3・5



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)		6	12	6	12	6	12	8	12
Dimensions(mm)	A	321	431	352	445	373	473	685	810
	B	518	628	577	670	658	758	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	
	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	

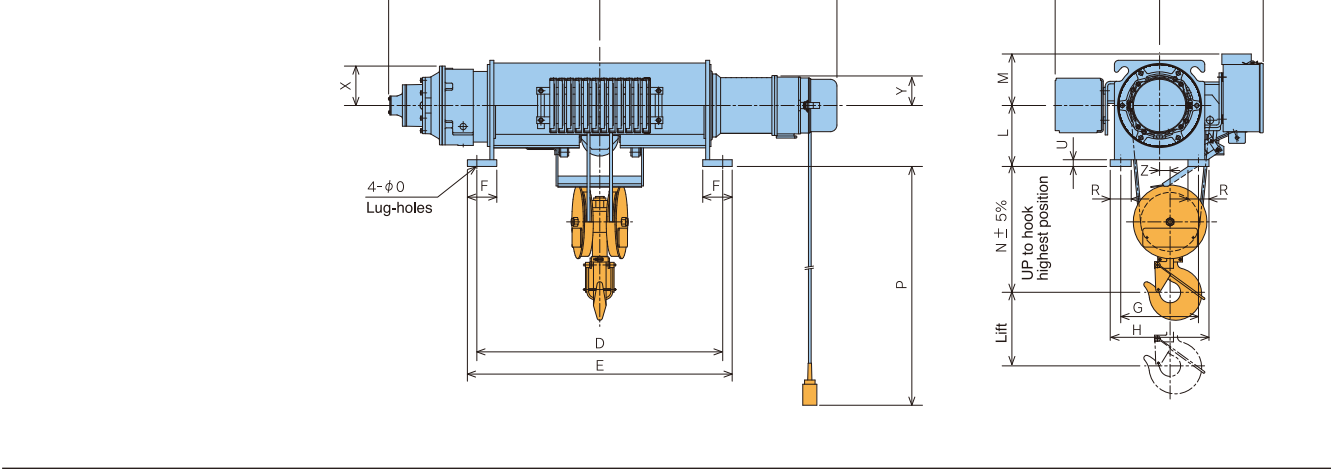
Frame mounted Type

U2

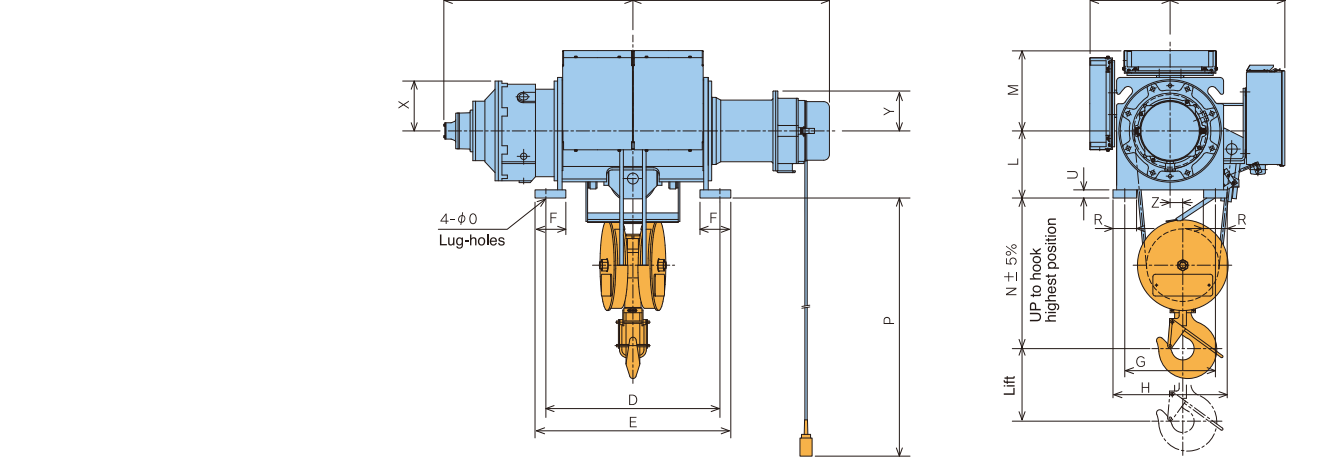
(7.5t・10t・15t・20t・30t)

※Contact us for 400V class outline

U2-7.5A・10A



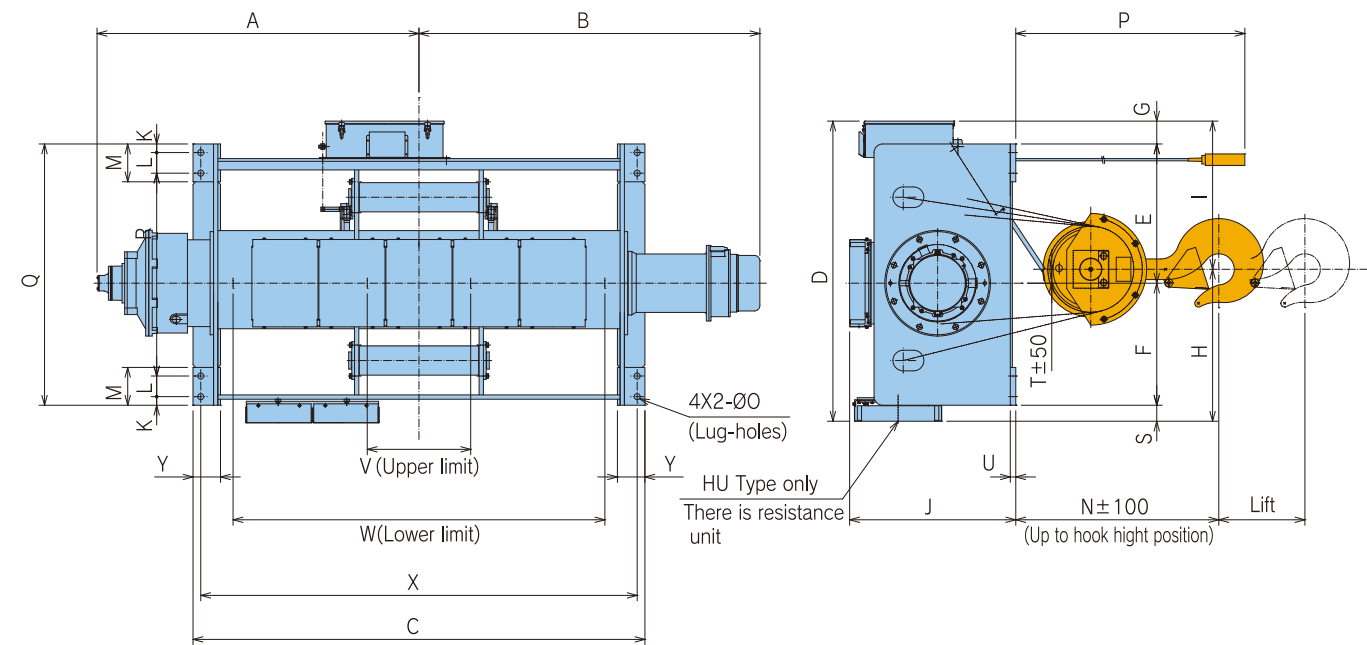
U2-15A・20A・30A



Model		U2-7.5A		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)		8	12	8	12	8	12	12	12
Dimensions(mm)	A	881	1006	949	1074	1045	1195	1243	1456
	B	1004	1129	959	1084	1085	1235	1235	1284
	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
	K	497		500		458		470	457
	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

Frame mounted Type **U2•HU2** (40t)

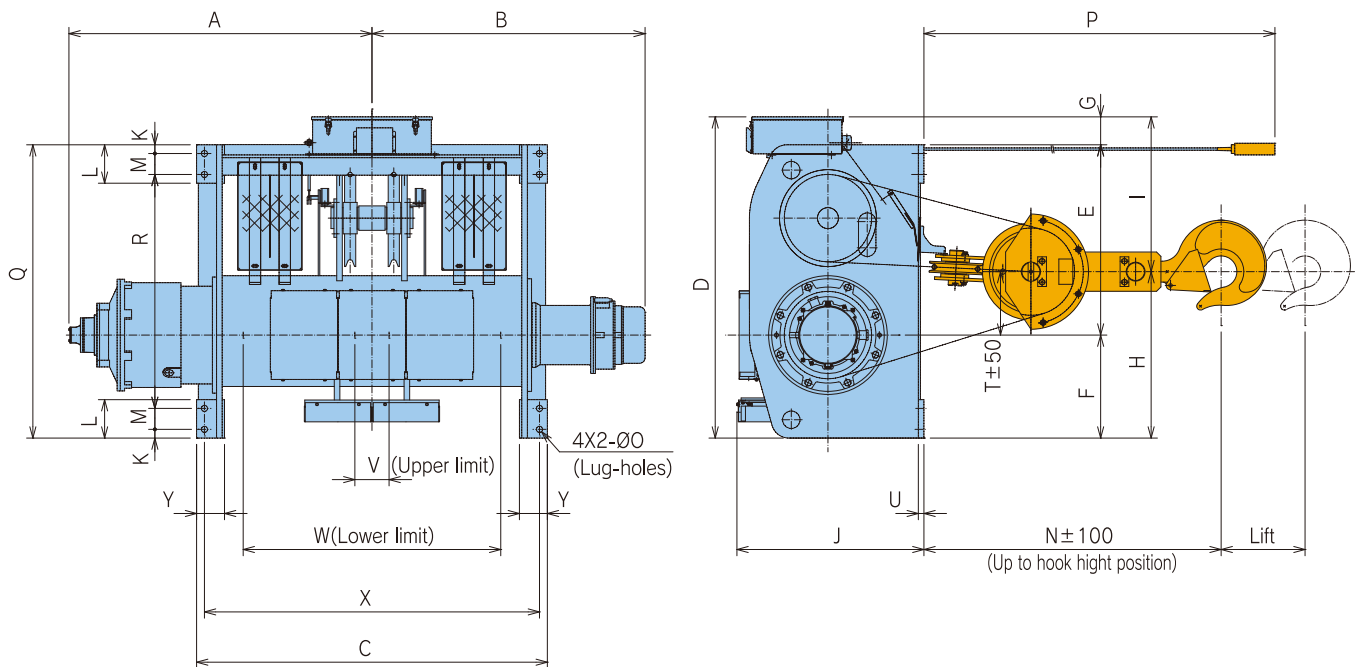
U2-40A、HU2-40A



Model		U2-40A		HU2-40A	
		LSH6	HSH6	LSH6	HSH6
Cap.(t)		40		40	
Lift(m)		6.5		11.5	
Dimensions(mm)	A	1525	1875	1525	1875
	B	1515	1865	1635	1985
	C	1930	2630	1930	2630
	D	1653		1746	
	E	810		810	
	F	710		710	
	G	133		133	
	H	791		884	
	I	862		862	
	J	967		967	
	K	50		50	
	L	120		120	
	M	220		220	
	N	1190		1190	
	O	35		35	
	P	7500	12500	7500	12500
	Q	1520		1520	
	R	1180		1180	
	S	—		93	
	T	81		81	
	U	32		32	
	V	602		602	
	W	1485	2164	1485	2164
	X	1840	2540	1840	2540
	Y	160		160	
Weight(kg)		4400	4900	4500	5000
Hook block weight(kg)		640		640	

Frame mounted Type **U2•HU2** (45t)

U2-45A、HU2-45A



Model		U2-45A		HU2-45A	
		HSH6	HSH6	HSH6	HSH6
Cap.(t)		45		45	
Lift(m)		12.5		19	
Dimensions(mm)	A	1740	2090	1740	2090
	B	1565	1915	1685	2035
	C	2010	2710	2010	2710
	D	1840		1840	
	E	1090		1090	
	F	590		590	
	G	160		160	
	H	953		953	
	I	887		887	
	J	1072		1072	
	K	50		50	
	L	120		120	
	M	220		220	
	N	1725		1725	
	O	35		35	
	P	14000	20500	14000	20500
	Q	1680		1680	
	R	1340		1340	
	T	363		363	
	U	32		32	
	V	196		196	
	W	1476	2141	1476	2141
	X	1920	2620	1920	2620
	Y	160		160	
Weight(kg)		5600	6100	5700	6200
Hook block weight(kg)		590		590	

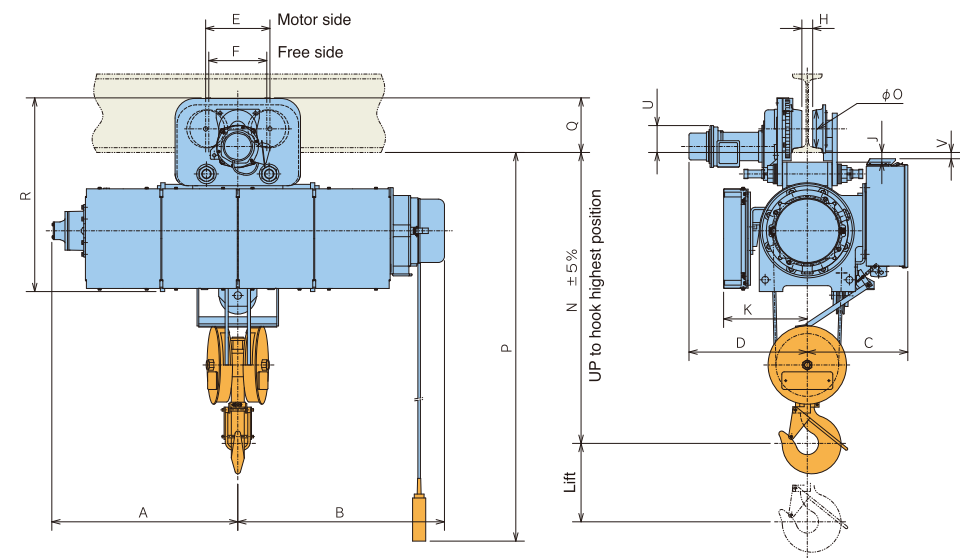
Monorail Type (High speed type)

HU2

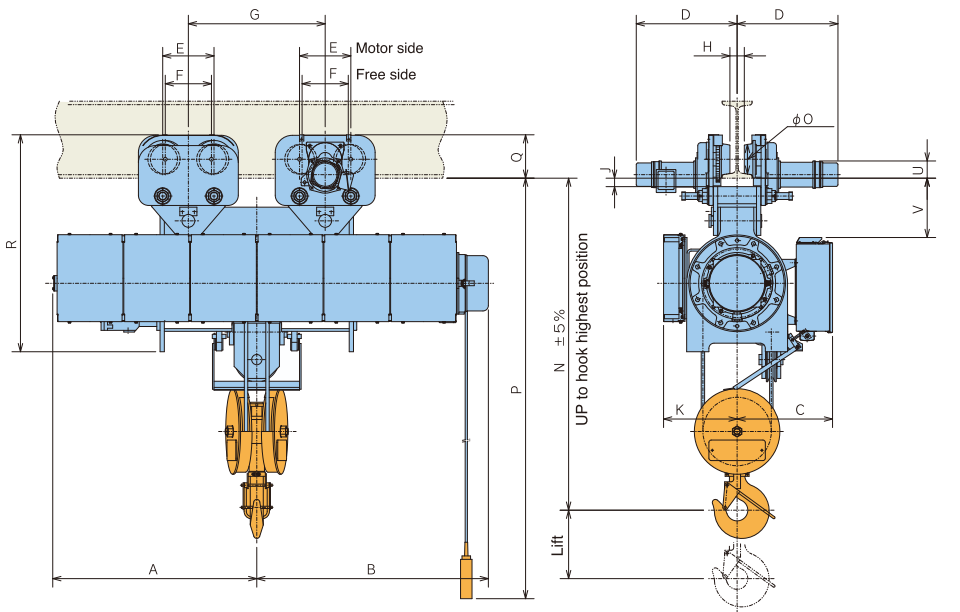
(10t·15t·20t)

※Contact us for 400V class outline

HU2-10A



HU2-15A · 20A



Model		HU2-10A						HU2-15A						HU2-20A							
		LMH6		LMS6		HMH6		HMS6		LMH6		LMS6		HMH6		HMS6		HMH6			HMS6
Cap.(t)		10						15						20							
Lift(m)		8				12		8				12		12							
Dimensions(mm)	A	949				1074		1045				1195		1243							
	B	1055				1180		1205				1355		1355							
	C	513						558						583							
	E	328						300						328							
	F	296						270						296							
	G							620				800		800							
	K	427						443						455							
	N	1450						1930						2090							
	O	193						173						193							
	P	9000				13000		9000				13000		13000							
R	988						1268						1398								
Min.rad.curvature(m)		5.0		12.5		5.0		12.5		Straight line						Straight line					
Weight(kg)		1400				1500		2400				2550		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

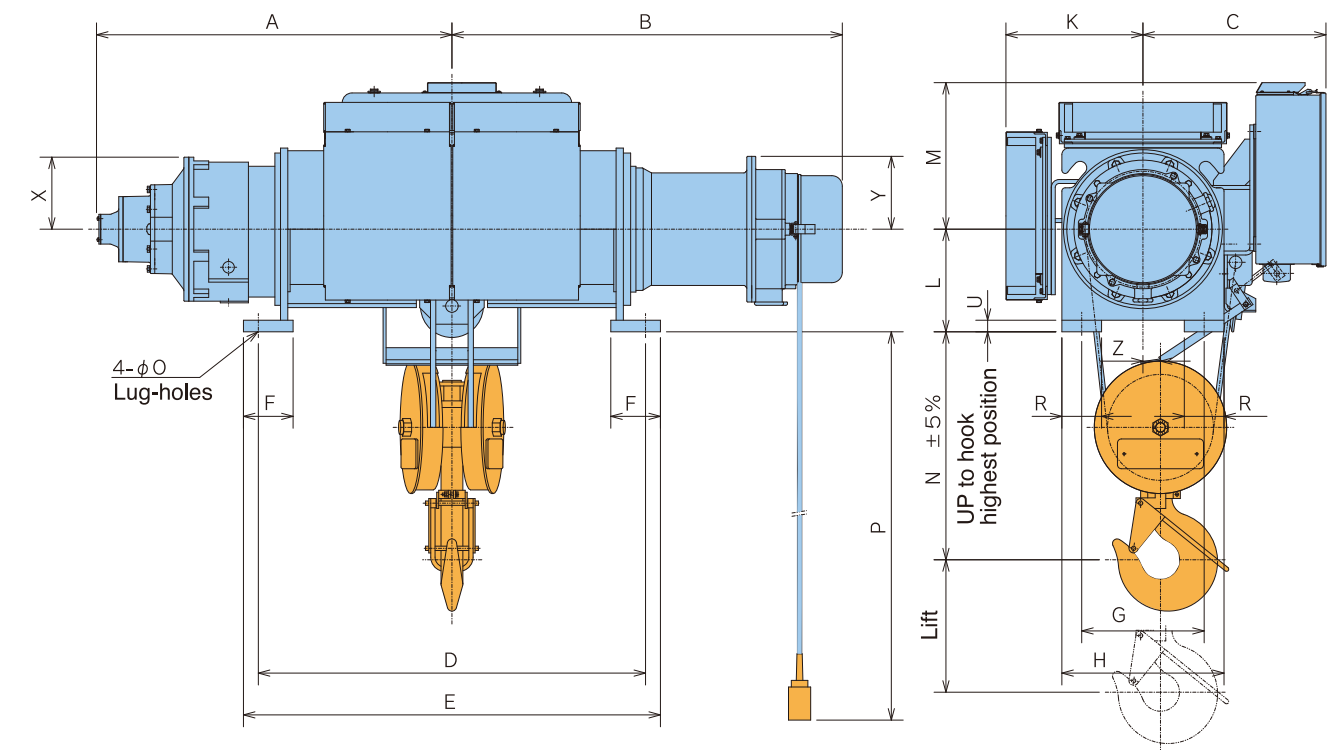
Frame mounted (High speed type)

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
	LSH6	HSH6	LSH6	HSH6	HSH6	HSH6
Cap.(t)	10		15		20	30
Lift(m)	8		12		12	12
Dimensions(mm)	A	949	1074	1045	1195	1243
	B	1055	1180	1205	1355	1355
	C	553		633		663
	D	920	1170	960	1260	1260
	E	1010	1260	1080	1380	1380
	F	150		170		170
	G	370		500		500
	H	490		630		640
	K	414		458		470
	L	310		370		395
	M	443		443		468
	N	670		810		870
	O	35		47		47
	P	8000	12000	8000	12000	12000
	R	120		130		140
	U	35		41		41
	X	302 (to resister)	218	275		308
	Y	220		220		220
	Z	53		70		70
	Weight(kg)	1200	1300	1700	1850	2200
Hook block weight(kg)		100		190		280

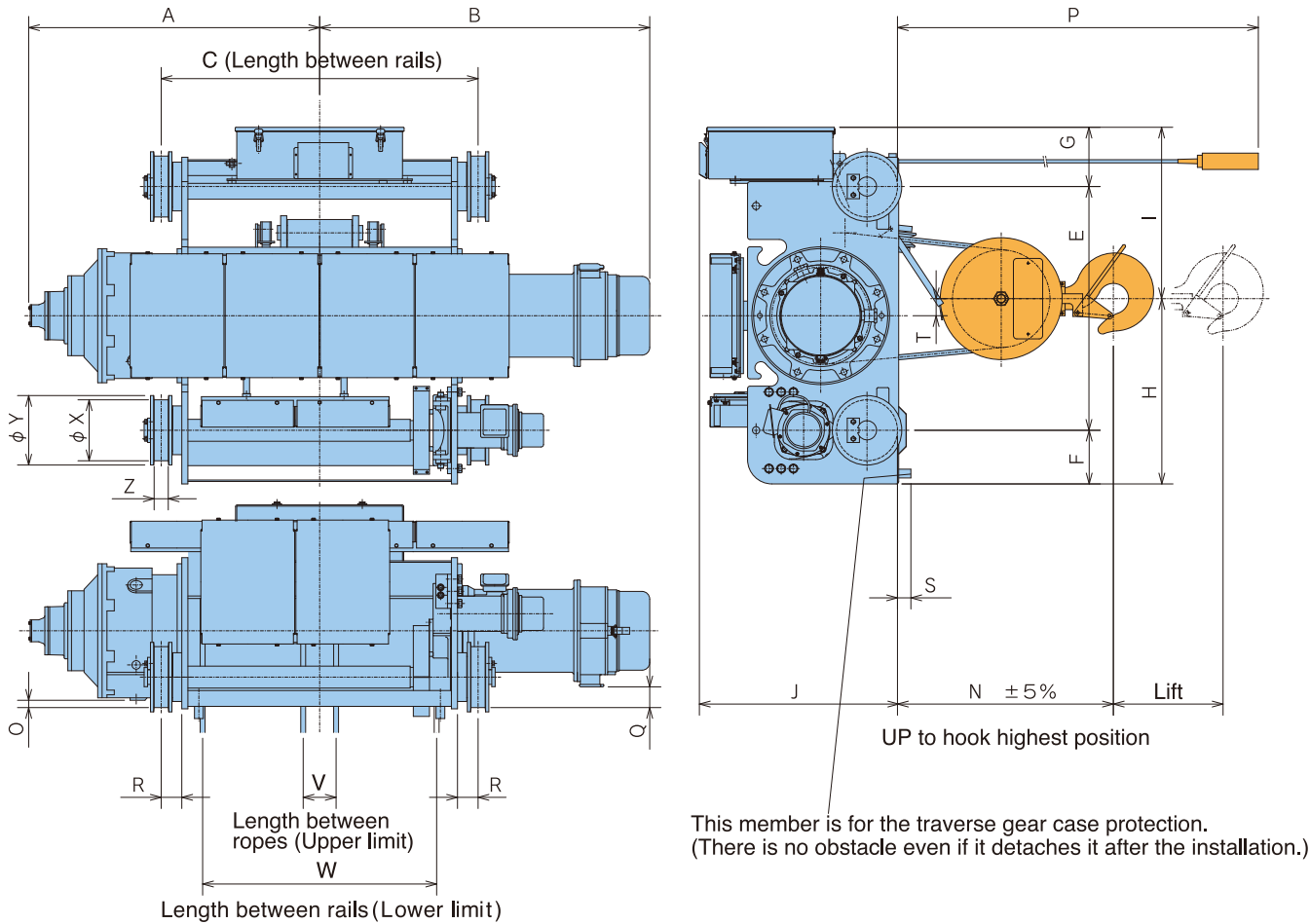
Double rail Type(High speed type)

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				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				2200	2400			2800		3900	
Hook block weight(kg)	100				190				280		380	
Applicable Rail	15kg rails or 44mm steel square bars				22kg rails or 50mm steel square bars				37kg rails or 65mm steel square bars			

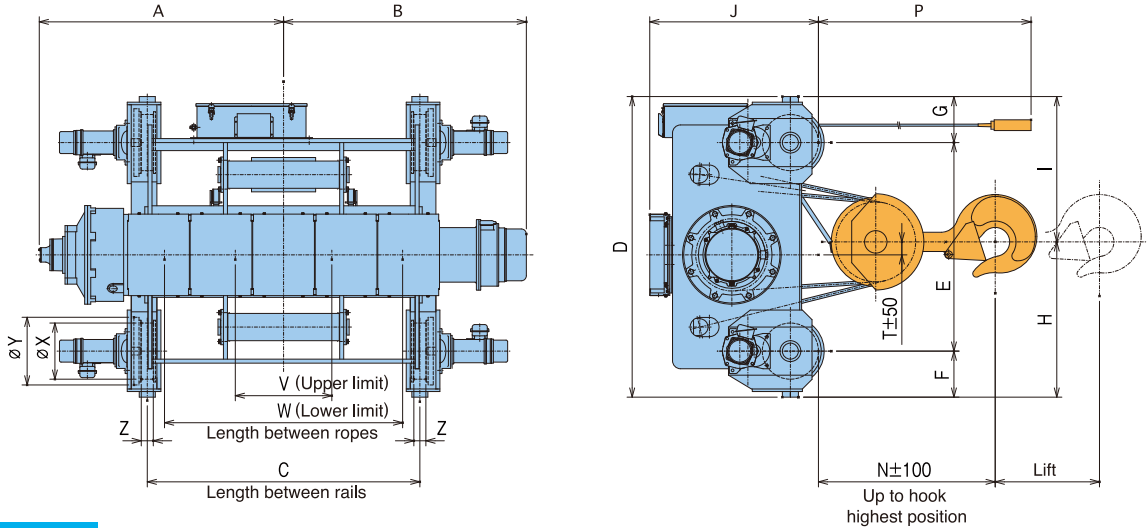
Double rail Type(High speed type)

U2・HU2

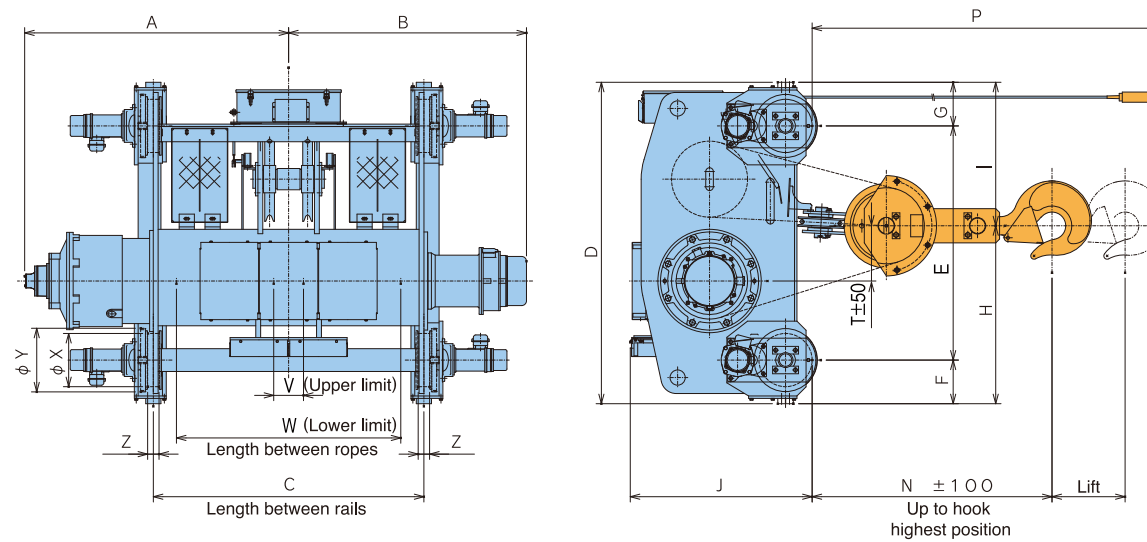
(40t・45t)

※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	
	E	1300		1300		1540		1540	
	F	287		287		287		287	
	G	287		287		287		287	
	H	968		968		1170		1170	
	I	906		906		944		944	
	J	1055		1055		1200		1200	
	N	1110		1110		1600		1600	
	P	7500	12500	7500	12500	14000	20500	14000	20500
	T	81		81		363		363	
	V	602		602		196		196	
	W	1485	2164	1485	2164	1476	2141	1476	2141
	X	350		350		350		350	
	Y	419		419		419		419	
	Z	75		75		75		75	
Weight(kg)		5000	5500	5100	5600	6200	6700	6300	6800
Hook block weight(kg)		640		640		590		590	
Applicable Rail		37kg rails or 65mm steel square bars							

S Type Series

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

Traverse brake

Disc type DC brake
The brake torque can be adjusted.

Tie Bolts

Secured by a grooved nut and split pin.

Electromagnetic brake

Not exceeding 5t: Disc braked with auto-adjustment device.
More than 7.5t: Disc brake that allows to adjust a gap easily.

Control box

The cover can be opened and closed by one-touch operation.

●Safety monitor(OLM PCB)

- OLM PCB has safety functions which are overload alarm function etc.
- 7-segment LED indicator ease various settings and history check.
(Please refer 「safety function」section about other functions.)



Cable for push button switch

Vibration-proof cable
(With a built-in protective wire)

Hoist Motor

High-resistance squirrel-cage motor with Class F insulation and ball bearings in heatproof grease.

Push button switch

Plastic case

Traverse deceleration section

Grease lubrication, simple 2-step deceleration, and totally enclosed structure.

Traverse Motor

Squirrel-cage type with Class B insulation.

Hoisting deceleration section

Oil lubrication
1/2t~3t: simple 2-step deceleration.
5t: Simple 3-step deceleration.
7.5t or more: Planet 2-step deceleration.

Drum Casing

Built of rugged steel plate.

Hoisting limit switch

2-step hoisting limit switch
(Avoid using this switch for regular use.)

Wire rope

Parallel stranded rope is used. The rope end is clamped by pressure welding. (Not exceeding ϕ 14)

Hook block

Hook with an all-surface cover and a hook latch

Safety devices

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

Safety Function

●Overload monitor system(O.L.M)

- Overload is electrically detected.(at only hoisting operation)
- The buzzer is factory-set to activate at a 125% load.
※However,the buzzer activate at 100% or lower loads in certain environments,based on the power voltage etc.It is not trouble, please make the adjustment to turn the volume.

●Number of starts •Operating hours display

- Checking the suage conditions which are from the point of purchase. Having erasable operating hours and number of starts counter. The time to change the consumptive parts is visivle,and contribute to preventive maintenance.

●Failure history display

- Checking a monitor if a hoist stops operation,it contribute to identify the reason for the failure.

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

Specifications																																																																																							
Type	Capacity(t)	Lift(m)		Wire rope				Hoisting								Traversing																																																																							
																Mono-rail・Low-head								Double-rail																																																															
				Monorail type		Lowhead type		Double railtype		Rope specification		Speed m/s (m/min)		Motor				Speed m/s (m/min)		Motor				Speed m/s (m/min)		Motor				Poles																																																									
		Output (kW)	Rated Current (A)																													Poles	Output (kW)	Rated Current (A)	Poles	Output (kW)	Rated Current (A)	Poles																																																	
		Low	High	2falls	4falls	2falls	4falls		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz																																																											
S	1/2	6	12	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																																																											
	1																												φ6.3	—	φ4	—	6×W (19)	0.183 (11)	0.217 (13)	1.0	1.2	6.9	6.5	0.35 (21)	0.417 (25)	4	0.22	0.26	1.6	1.5	—	—	—	—	—	—	—	—	—																																
	2																												φ8※3	—	φ6.3	—	B class JISG3525			2.0	2.4	12.6	12.4																	0.5	0.6	3.2	3.1	—	—	—	—	—	—	—	—	—	—	—	—																
	2.8																												φ10	—	φ8	—	6×Fi (29)	0.14 (8.4)	0.167 (10)	2.9	3.5	17.5	18.5																																	0.85	1.0	4.8	4.7	0.35 (21)	0.417 (25)	0.5	0.6	3.2	3.1	—	—	—	—	—	—
	3																												φ12.5	—	φ9	φ9				6.2	7.5	31	35.5																																																
	5	—																											φ11.2	φ11.2	φ11.2	0.112 (6.7)	0.133 (8)	8.3	10	37	44	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	0.85	1.0	4.8	4.7	—	—	—	—	—	—	—																																	
	7.5	—																											φ14	φ14	φ14	0.0967 (5.8)	0.117 (7)	10	12	51	55																		1.5	1.8	8.5	8.1	0.25 (15)	0.3 (18)	0.85	1.0	4.8	4.7	—	—	—	—	—	—	—																
	10	—																											φ16	φ16	φ16	0.0833 (5)	0.1 (6)	17	20	71	75	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—	—	—	—	—																		—															
	15	—																											φ20	—	φ20	0.07 (4.2)	0.0833 (5)			75	83																		77	84	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—	—	—		—	—	—												
	20	—																											φ22.4	—	φ22.4			0.0467 (2.8)	0.055 (3.3)			75	83	77	84	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—																		—				—	—	—	—								
	30	—																											—	—	φ25	IWRC 6×Fi (29) B class JISG3525	0.035 (2.1)	0.0417 (2.5)	77	84	77																		84	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—	—	—	—		—	—													
	40	6.5																											—	—	—	φ22.4 (8falls) ※1	0.035 (2.1)	0.0417 (2.5)				77	84	77	84	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—																		—			—	—	—	—									
	45	—																											12.5	—	—	—	φ25 (6falls) ※1	0.03 (1.8)	0.0367 (2.2)	77	84																		77	84	0.85	1.0	4.8	4.7	0.25 (15)	0.3 (18)	1.5	1.8	8.5	8.1	—	—	—	—	—		—	—					—								
	60※2	—																											—	—	—	—	—	1.4	1.65			17	20	77	84	6	—	—	—	—	—	—	—	—	—	—	—	—																		—			—	—	—	—									

※1 40t has 8falls and 45t has 6falls.(Regarding 60t, please inquire separately)

※2 Please contact us for 60t separately

※3 Rope specification of 1t 2falls is 6×Fi(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

	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

- 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 out door type (JIS C0920, equivalent to IP44)

- Applicable standard·····JIS C 9620 electric hoist/crane structure standard

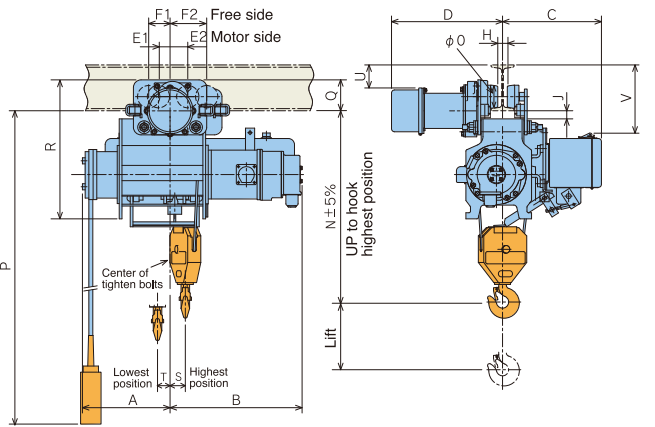
- Color coating·····Main body: Metallic gray(Equivalent to Munsell N4.0)
Hook block:Munsell7.5YR7/14
Pushbutton:Equivalent to Munsell7.5YR7/13

- Ambient air temperature·····10℃ to 40℃ (Non congelation)

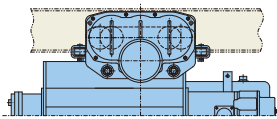
- Ambient air humidity·····90% or less(Non condensing)

Monorail Type S (1/2t·1t·2.8t·3t·5t)

S-1/2

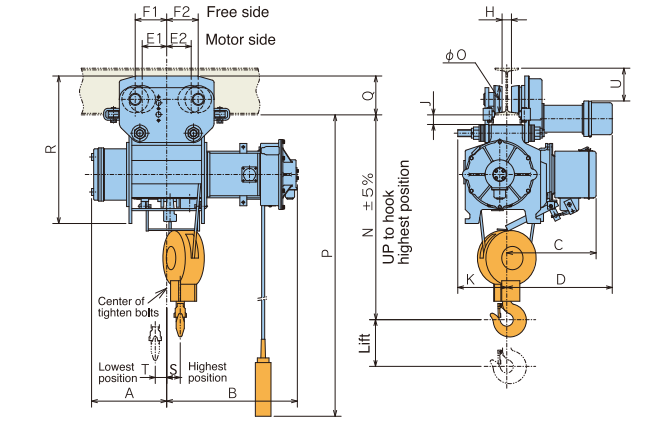


(Shape of S-1/2-HM)

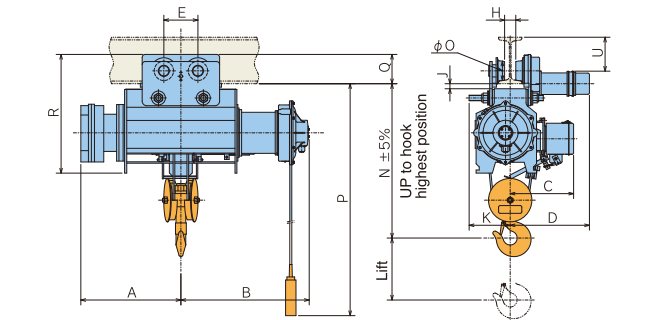


Note: In the case of trolley electric supply type, balance weight is required.

S-1·2·2.8·3



S-5



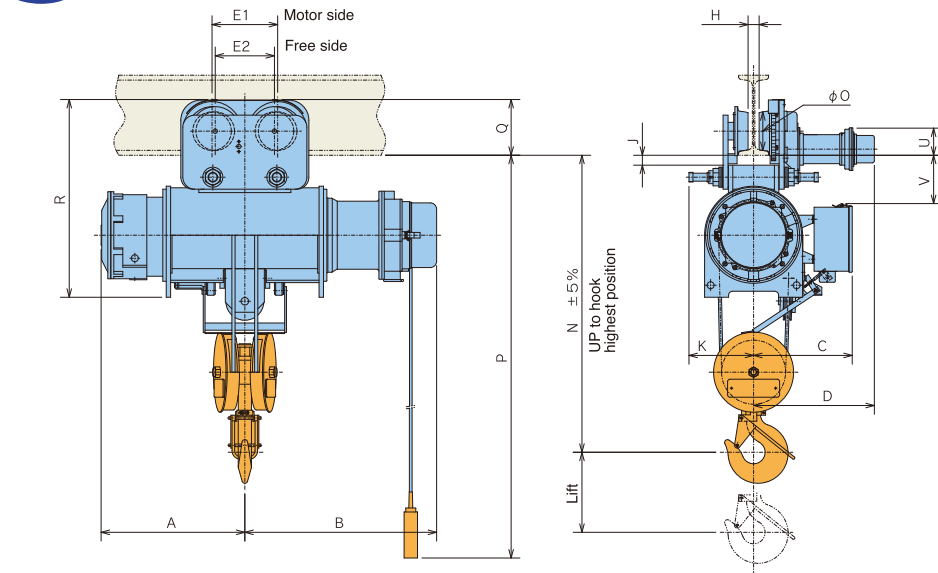
Model		S-1/2						S-1				S-2				S-2.8 (3)				S-5																
		LM2			HM2			LM2		HM2		LM2		HM2		LM3		HM3		LM3		HM3														
Cap.(t)		1/2						1				2				2.8 (3)				5																
Lift(m)		6			12			6		12		6		12		6		12		8		12														
Dimensions(mm)	A	287			457			287		474		322		479		341		510		646		771														
	B	433			473			518		551		563		593		610		641		830		955														
	C	324						345				383				408				410																
	E1	38			100			100				105				105				220																
	E2	58			100			100				105				105																				
	F1	70			140			140				135				135				—																
	F2	120			140			140				135				135				—																
	K	—						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																
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	D	H	J	Q	U	D	H	J	Q	U								
Applicable I-Beam(mm)	200X100X7 #1	376	54	26	101	125	271	372	48	33	140	155	283	372	48	33	140	155	453	40	41	167	140	—				—								
	250X125X7.5							385	74	31	142	203	331	385	74	31	142	203	465	64	39	169	188	465	64	34	169	188	—							
	300X150X8																			478	90	38	170	237	—				—							
	300X150X11.5	—																		478	90	29	179	228	478	90	24	179	228	512	72	31	189	219		
	450X175X13	—																														524	96	27	193	365
600X190X13	—						—						—																							

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

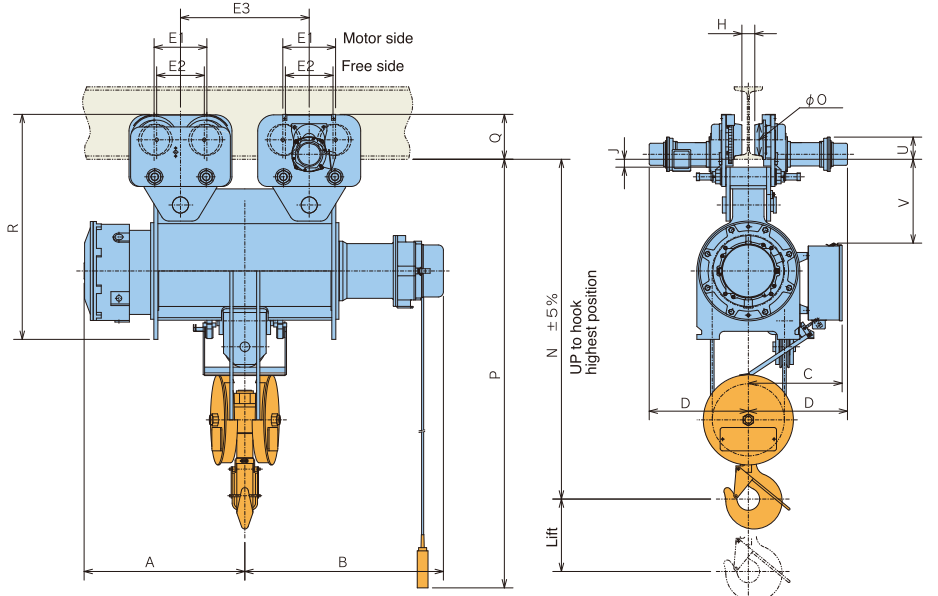
※1 150×75×5.5 is applicable

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			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					
	E1	300						328						300						328					
	E2	270						296						270						296					
	E3	—						—						620			800			800					
	K	314						323						—						—					
	N	1270						1450						1930						2090					
	O	173						193						173						193					
	P	8000			12000			9000			13000			9000			13000			13000					
R	903						988						1268						1398						
Min.rad.curvature(m)		5.0						5.0						Straight line						Straight line					
Weight(kg)		850			920			1200			1300			2100			2250			2600					
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	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	117	416	616	81	49	279	141	521
	600×190×13	598	100	50	253	116	182	624	94	50	278	140	242	598	100	50	253	116	417	624	96	50	278	140	522

Note Applicable I-Beam =Standard

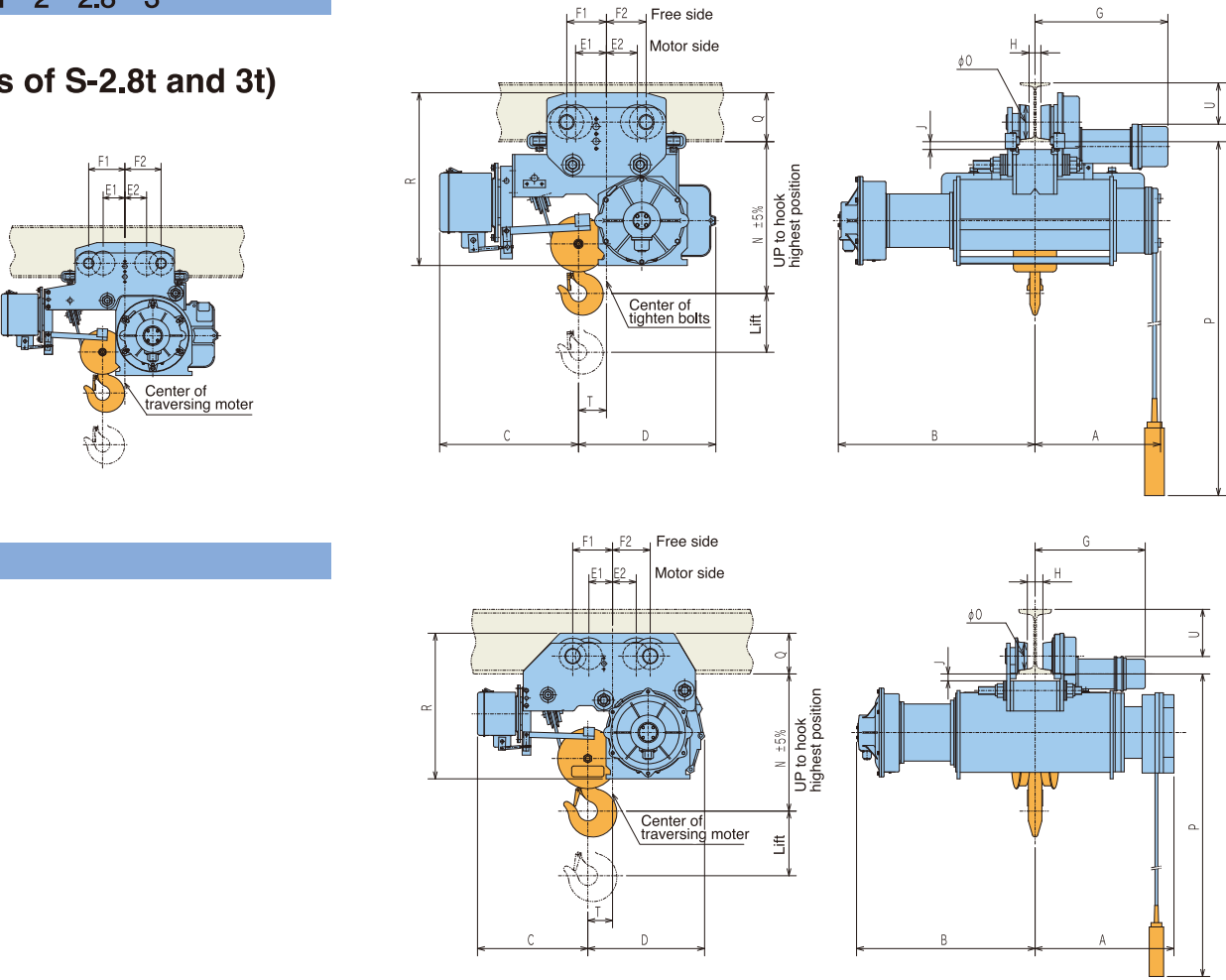
Low-head Type

S

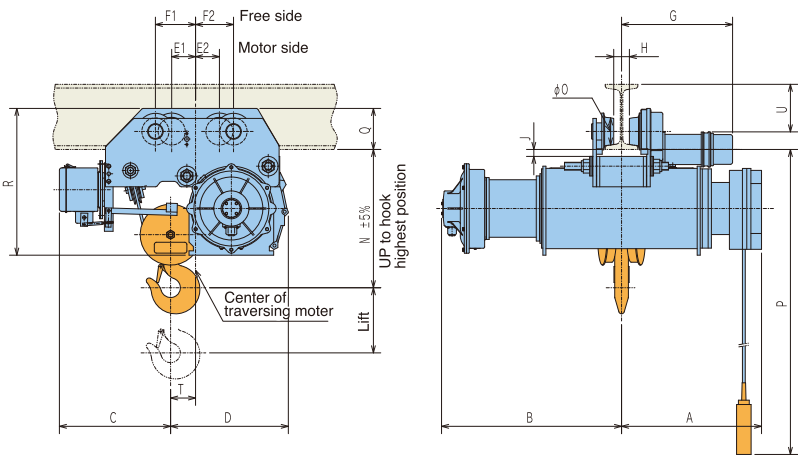
(1/2t·1t·2t·2.8t·3t·5t)

S-1/2 · 1 · 2 · 2.8 · 3

(Shapes of S-2.8t and 3t)



S-5



Model		S-1/2-LD2					S-1					S-2					S-2.8 (3)					S-5								
							LD2			HD2		LD2			HD2		LD3			HD3		LD3			HD3					
Cap.(t)		1/2					1					2					2.8 (3)					5								
Lift(m)		6					6			12		6			12		6			12		8			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	G	H	J	Q	U				
Applicable I-Beam(mm)	200X100X7※1	376	54	20	101	125	372	48	21	140	155	453	40	26	167	140	—					—								
	250X125X7.5						385	74	19	142	203	465	64	24	169	188	465	64	26	169	188	—								
	300X150X8											478	90	23	170	237						—								
	300X150X11.5	—										478	90	14	179	228	478	90	16	179	228	512	72	31	189	219				
	450X175X13	—																				524					96	27	193	365
600X190X13	—					—																								

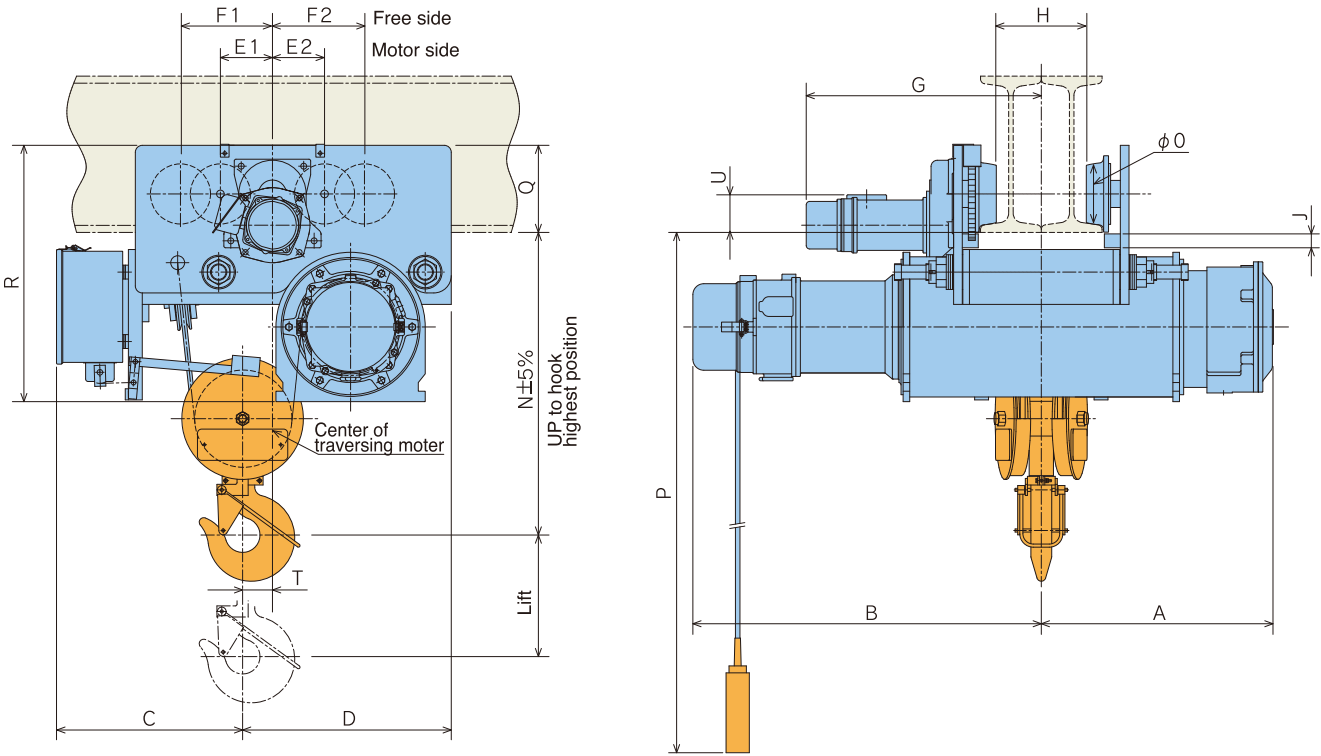
Note,rad.cur() at I-Beam ●S-1/2,S-1…150×75×5.5 ●S-2…200×100×7 Note Applicable I-Beam =Standard =required special attachment
※1 150×75×5.5 is applicable

Low-head Type

S

(7.5t·10t)

S-7.5 · 10



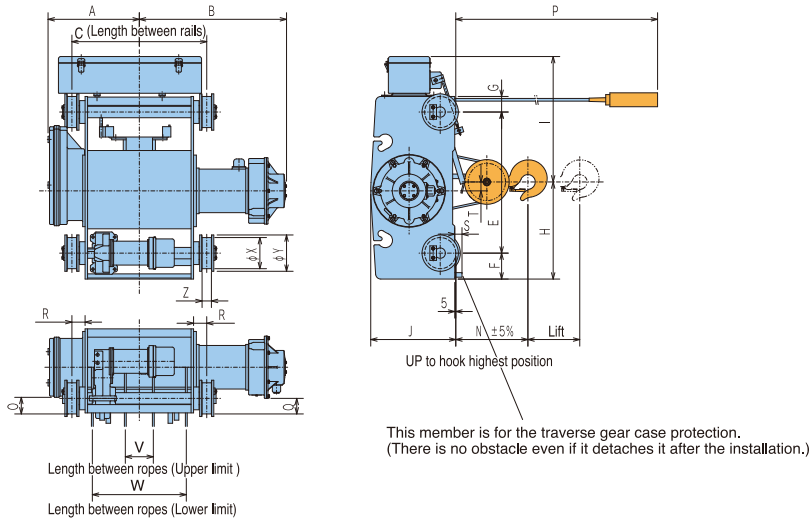
Model		S-7.5					S-10				
		LD		HD			LD		HD		
Cap.(t)		7.5					10				
Lift(m)		8		12			8		12		
Dimensions(mm)	A	669		794			719		844		
	B	1004		1129			959		1084		
	C	536					619				
	D	601					689				
	E1	150					528				
	E2	150					162				
	F1	265					604				
	F2	265					164				
	N	880					990				
	O	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				
I-Beam related dimensions		G	H	J	Q	U	G	H	J	Q	U
Applicable I-Beam(mm)	450×175×13 2rails	678	257	49	254	109	711	253	49	279	141
	600×190×13 2rails	693	288	50	253	108	726	284	50	278	140

Note Applicable I-Beam =Standard

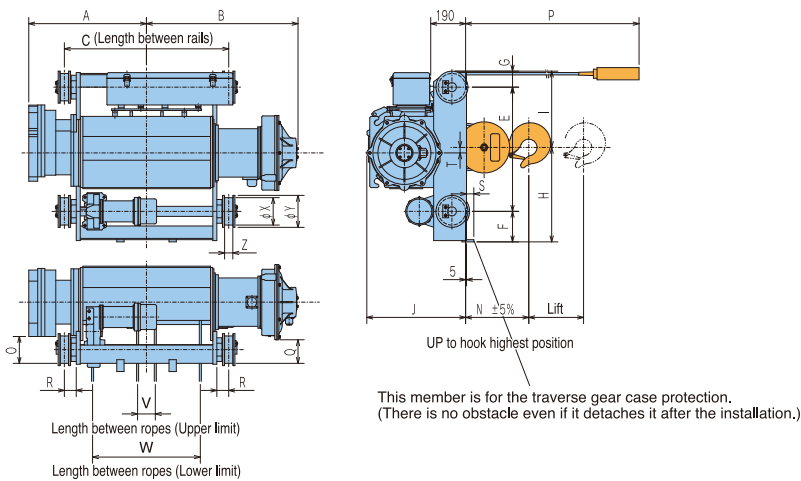
Double rail Type

S(2.8t·3t·5t)

S-2.8・3



S-5

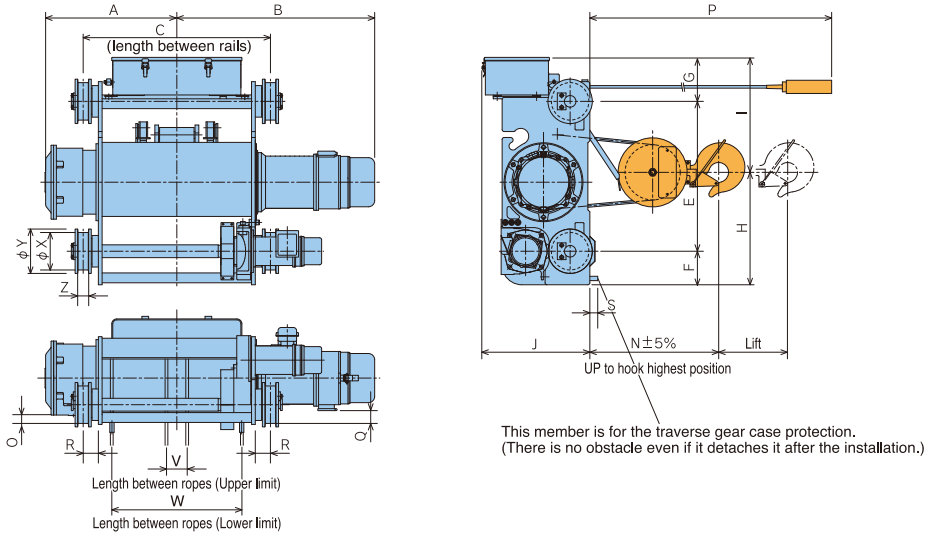


Model		S-2.8 (3)		S-5	
		LR3A	HR3A	LR3A	HR3A
Cap.(t)		2.8 (3)		5	
Lift(m)		6	12	8	12
Dimensions(mm)	A	440	590	646	771
	B	711	861	830	955
	C	650	950	900	1150
	E	680		680	
	F	125		167	
	G	75		88	
	H	468		517	
	I	605		418	
	J	410		541	
	N	345		346	
	O	52		125	
	P	6000	12000	8000	12000
	Q	75		129	
	R	63		65	
	S	35		40	
	T	43		30	
	V	113	105	97	100
	W	433	733	590	840
	X	150		150	
	Y	175		175	
	Z	45		45	
Weight(kg)		425	475	660	740
Hook block weight(kg)		25		42	
Applicable Rail		12kg rails or 38mm steel square bars			

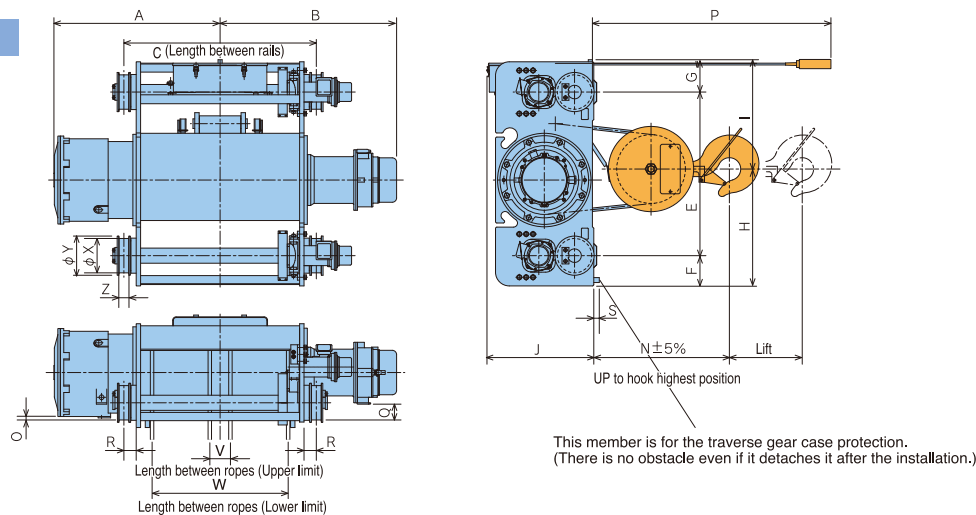
Double rail Type

S(7.5t·10t·15t·20t·30t)

S-7.5・10・15・20



S-30

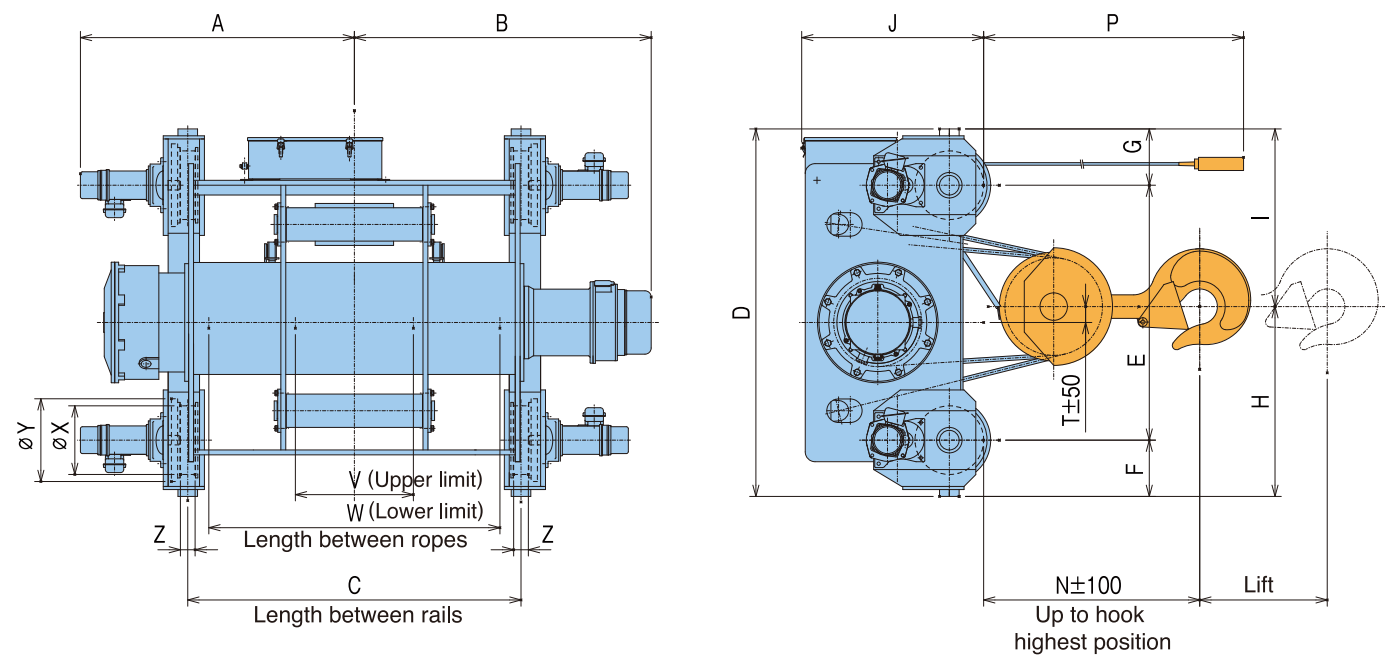


Model		S-7.5		S-10		S-15		S-20-HR	S-30-HR
		LR	HR	LR	HR	LR	HR		
Cap.(t)		7.5		10		15		20	30
Lift(m)		8	12	8	12	8	12	12	12
Dimensions(mm)	A	669	794	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	950	1200	950	1200	1000	1300	1300	1400
	E	760		840		1000		1045	1190
	F	170		170		220		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 Rail		15kg rails or 44mm steel square bars				22kg rails or 50mm steel square bars			37kg rails or 65mm steel square bars

Double rail Type

S(40t)

S-40

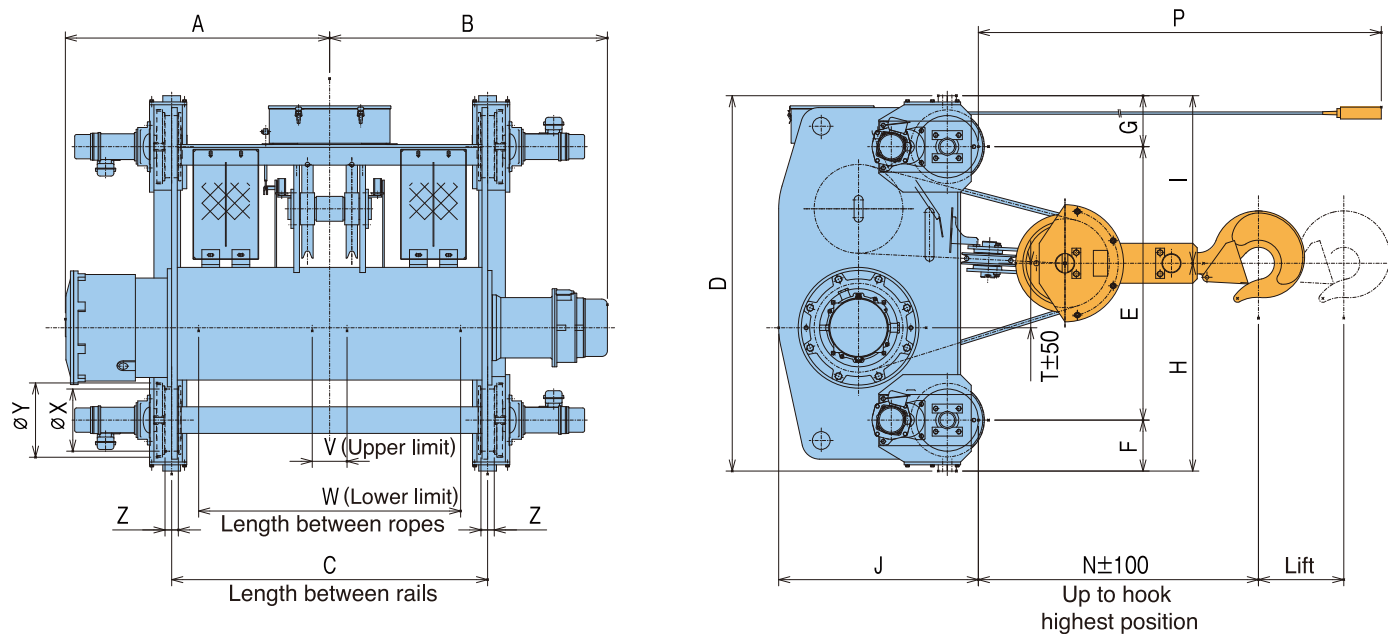


Model		S-40	
		LR	HR
Cap.(t)		40	
Lift(m)		6.5	11.5
Dimensions(mm)	A	1399	1749
	B	1515	1865
	C	1700	2400
	D	1874	
	E	1300	
	F	287	
	G	287	
	H	968	
	I	906	
	J	930	
	N	1110	
	P	7500	12500
	T	81	
	V	602	
	W	1485	2164
	X	350	
	Y	419	
	Z	75	
Weight(kg)		4800	5300
Hook block weight(kg)		640	
Applicable Rail		37kg rails or 65mm steel square bars	

Double rail Type

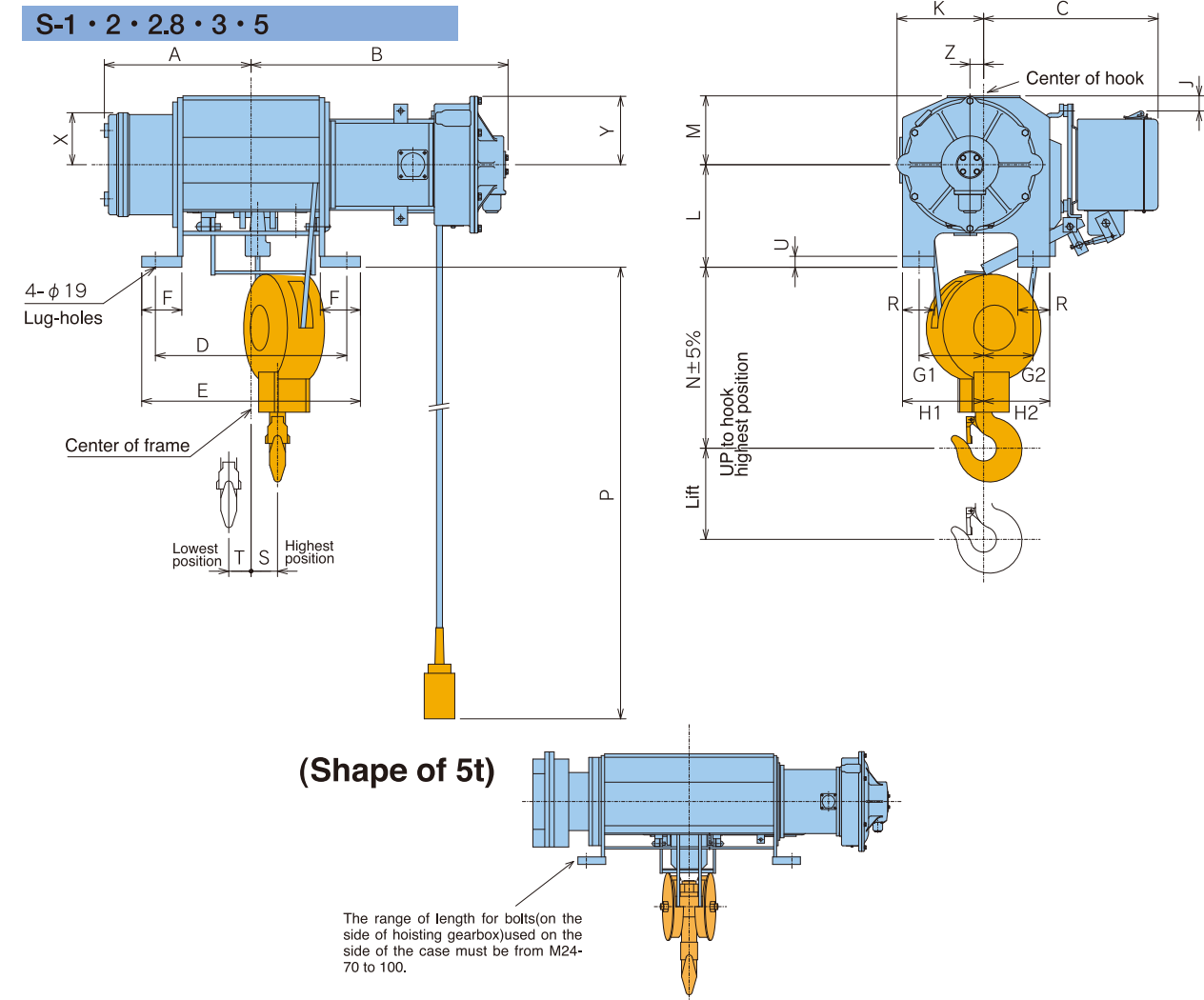
S(45t)

S-45



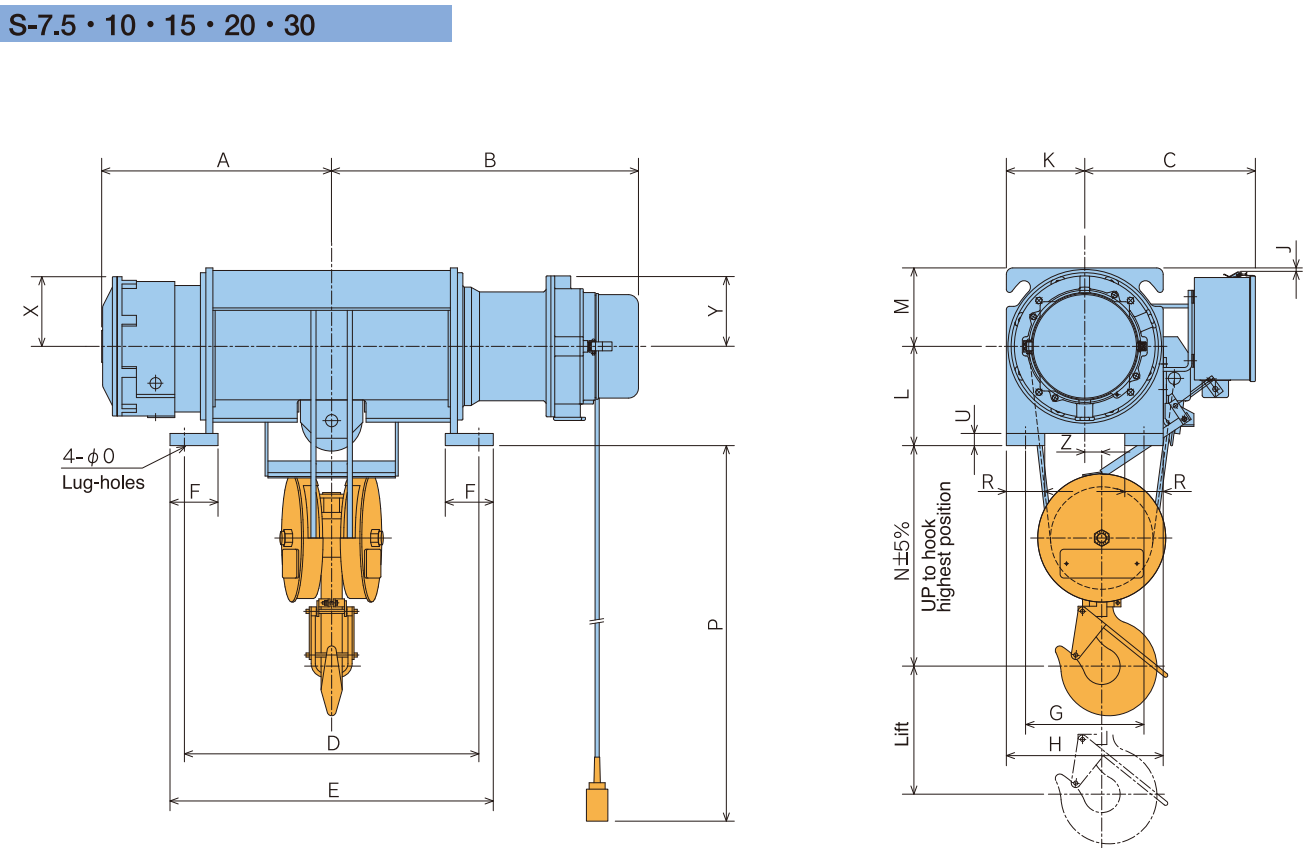
Model		S-45	
		HR	HR
Cap.(t)		45	
Lift(m)		12.5	19.0
Dimensions(mm)	A	1490	1840
	B	1565	1915
	C	1780	2480
	D	2114	
	E	1540	
	F	520	
	G	350	
	H	807	
	I	670	
	J	1125	
	N	1600	
	P	14000	20500
	T	637	
	V	196	
	W	1476	2141
	X	350	
	Y	419	
	Z	75	
Weight(kg)		6000	6500
Hook block weight(kg)		590	
Applicable Rail		37kg rails or 65mm steel square bars	

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



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	

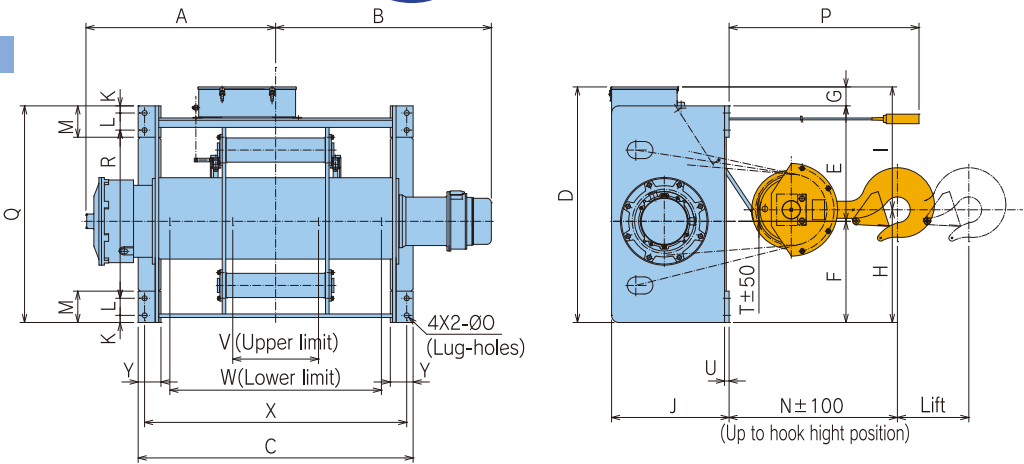
Frame mounted Type S (7.5t·10t·15t·20t·30t)



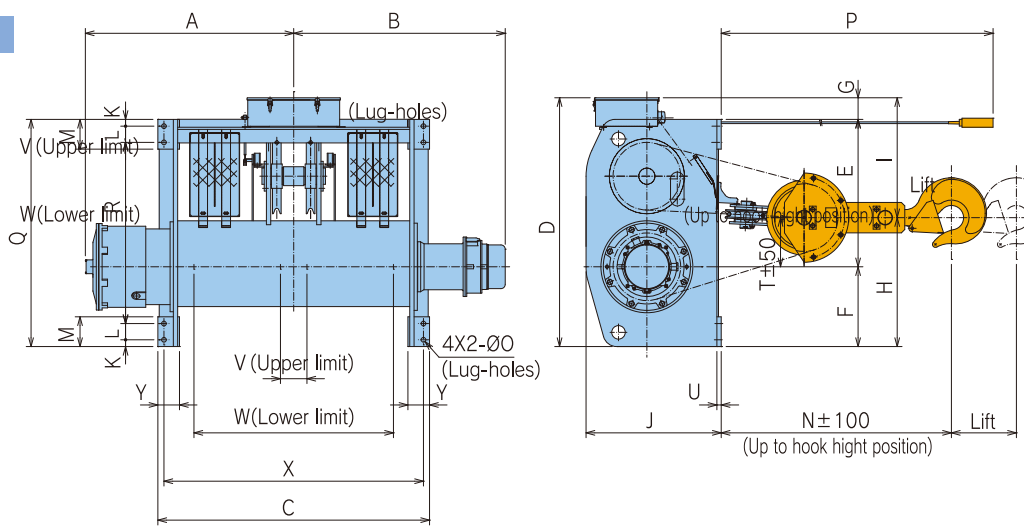
Model		S-7.5		S-10		S-15		S-20-HS	S-30-HS
		LS	HS	LS	HS	LS	HS		
Cap.(t)		7.5		10		15		20	30
Lift(m)		8	12	8	12	8	12	12	12
Dimensions(mm)	A	669	794	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	493		531		633		663	713
	D	920	1170	920	1170	960	1260	1260	1380
	E	1010	1260	1010	1260	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

Frame mounted Type **S2** (40t·45t)

S2-40



S2-45

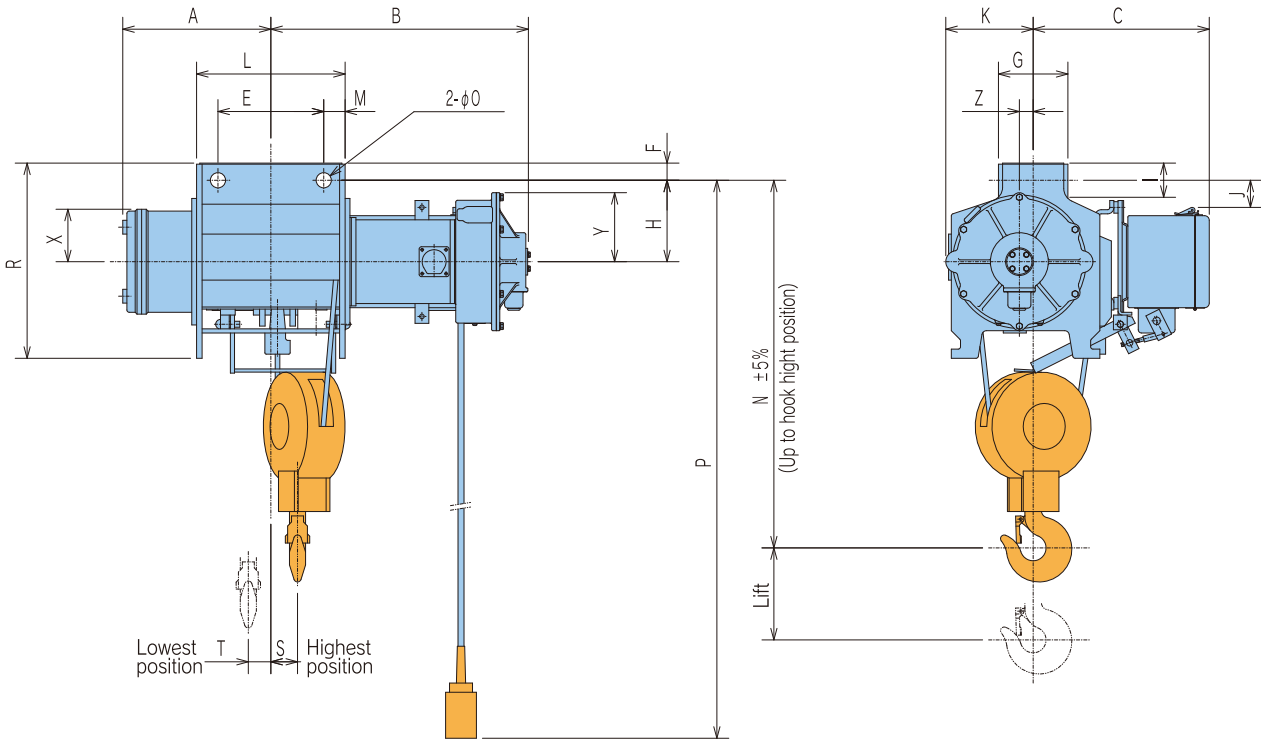


Model	S2-40		S2-45	
	LS	HS	HS	HS
Cap.(t)	40		45	
Lift(m)	6.5	11.5	12.5	19
Dimensions(mm)	A	1333	1683	1543
	B	1515	1865	1565
	C	1930	2630	2010
	D	1653		1840
	E	810		1090
	F	710		590
	G	133		160
	H	791		953
	I	862		887
	J	845		1000
	K	50		50
	L	120		120
	M	220		220
	N	1190		1725
	O	35		35
	P	7500	12500	14000
	Q	1520		1680
	R	1180		1340
	T	81		363
	U	32		32
	V	602		196
	W	1485	2164	1476
	X	1840	2540	1920
	Y	160		160
Weight(kg)	4200	4700	5400	5900
Hook block weight(kg)	640		590	

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

S-1/2 · 1 · 2 · 2.8 · 3

〈LK2, HK2, LK3, HK3〉



Remarks:Clamping bolts are available for 1/2t~2.8t models separately.

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

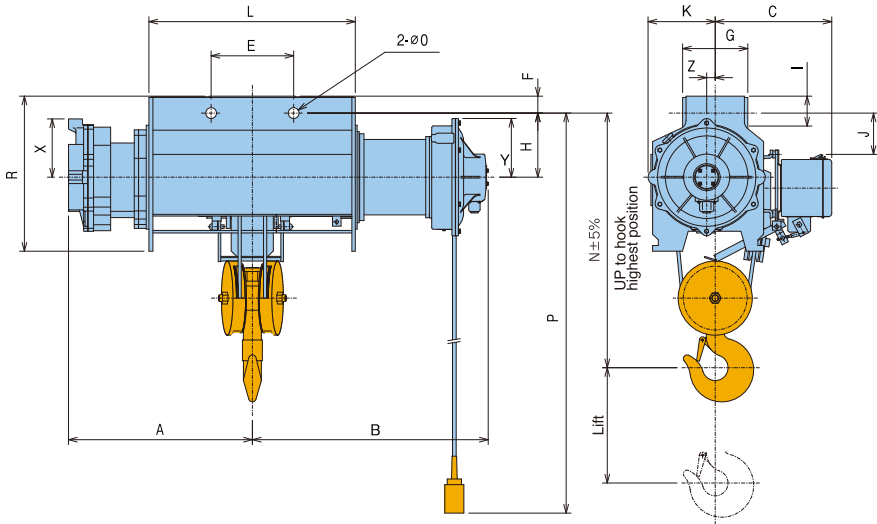
Note:In the case of S-1/2, the position of pendent push button is on the side of hoisting deceleration section.

Suspended Type

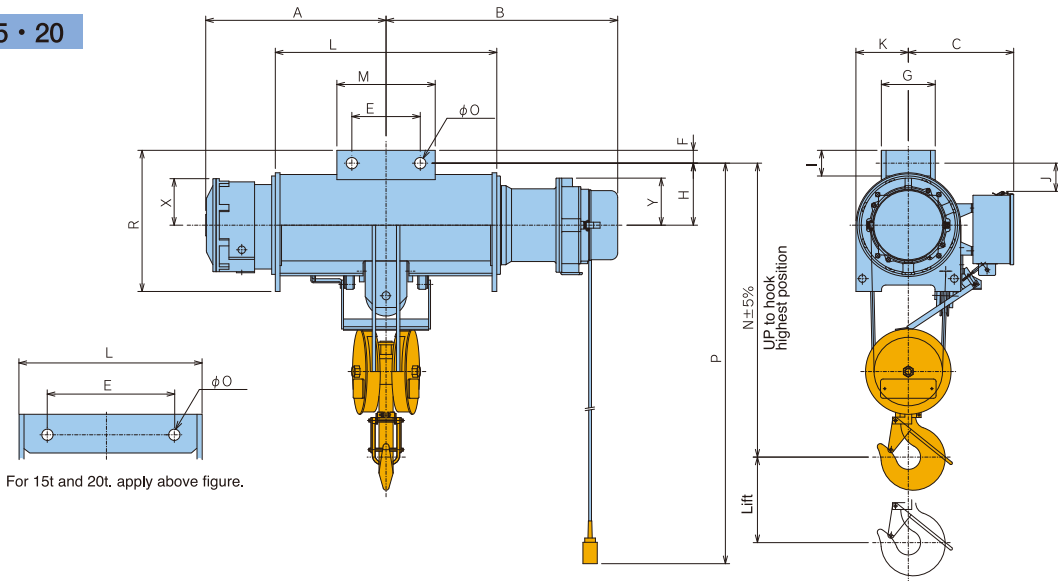
S

(5t·7.5t·10t·15t·20t)

S-5



S-7.5 · 10 · 15 · 20

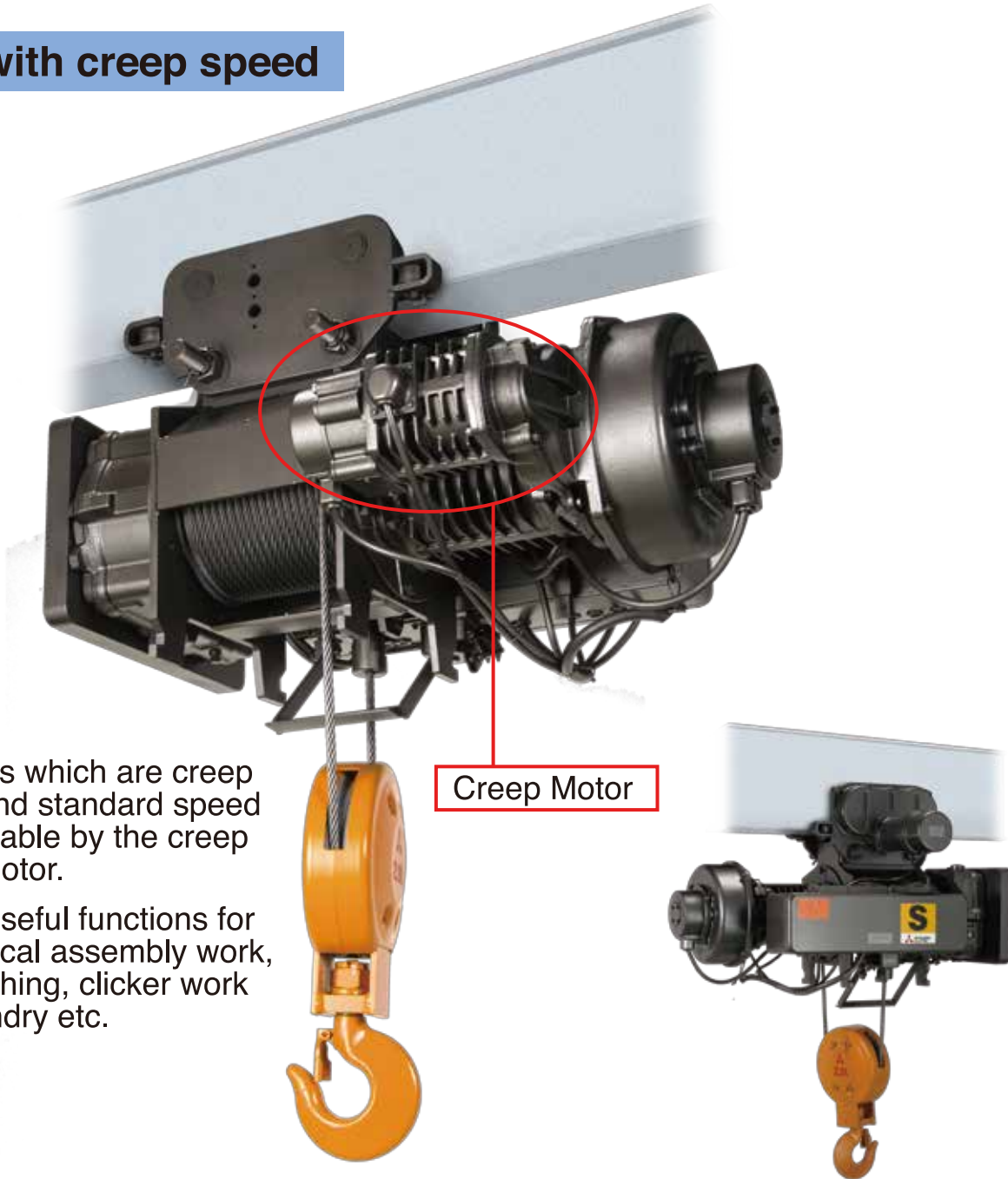


Model	S-5		S-7.5		S-10		S-15		S-20-HK
	LK3	HK3	LK	HK	LK	HK	LK	HK	
Cap.(t)	5		7.5		10		15		20
Lift(m)	8	12	8	12	8	12	8	12	12
Dimensions(mm)	A	646	771	669	719	844	799	949	999
	B	830	955	1004	959	1084	1085	1235	1235
	C	410		458		493		558	
	E	290		300		320		620	
	F	60	61	55	60	60	80	100	100
	G	229		252		252		225	
	H	225		255		290		365	
	I	105	106	120	120	120	178	217	217
	J	145		77		132		167	
	K	236		215		245		295	
	L	725	975	796	1046	786	1036	831	1131
	M	—		440		460		—	
	N	905		1165		1380		1680	
	O	38		47		53		78	
	P	8000	12000	8000	12000	8000	12000	8000	12000
	R	546		600		660		845	
	X	205		188		218		275	
	Y	206		152		220		220	
	Z	30		—		—		—	
Weight(kg)	510	580	650	720	1000	1100	1400	1550	1900
Hook block weight(kg)	42		80		100		190		280

S Series

with creep speed

Hoist with creep speed



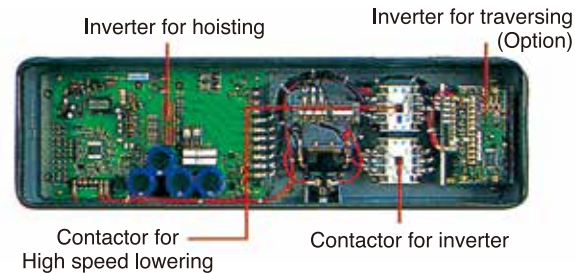
- 2 Speeds which are creep speed and standard speed are available by the creep speed motor.
- having useful functions for mechanical assembly work, die matching, clicker work at a foundry etc.

Cap. (t)	Hoisting speed m/sec (m/min)		With hoisting creep speed m/sec(m/min)									
			With hoisting creep speed(VT)				With hoisting and traversing creep speed(VS)					
			Monorail-Low-head type		Double rail type		Monorail-Low-head type		Double rail type			
	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		
1	0.0183/0.183 (1.1/11)	0.0217/0.217 (1.3/13)	0.35 (21)	0.417 (25)	—	—	0.0875/0.35 (5.2/21)	0.104/0.417 (6.2/25)	—	—		
2	0.014/0.14 (0.84/8.4)	0.0167/0.167 (1.0/10)			0.35 (21)	0.417 (25)			0.0875/0.35 (5.2/21)	0.104/0.417 (6.2/25)	0.0875/0.35 (5.2/21)	0.104/0.417 (6.2/25)
2.8												
5	0.0112/0.112 (0.67/6.7)	0.0133/0.133 (0.8/8)										
7.5	0.00967/0.0967 (0.58/5.8)	0.0117/0.117 (0.7/7)	0.2 (12)	0.25 (15)	0.25 (15)	0.3 (18)	0.04/0.2 (2.4/12)	0.05/0.25 (3/15)	0.05/0.25 (3/15)	0.06/0.3 (3.6/18)		
10	0.00833/0.0833 (0.25/5)	0.01/0.1 (0.6/6)										
15												
20	0.007/0.07 (0.42/4.2)	0.00833/0.0833 (0.5/5)										
30	0.00467/0.0467 (0.28/2.8)	0.0055/0.055 (0.33/3.3)	—	—								

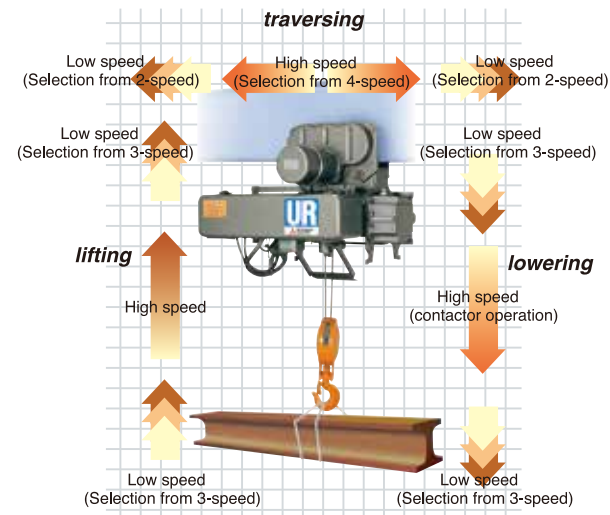
UR Type Series Inverter hoist 1t~2.8(3)t



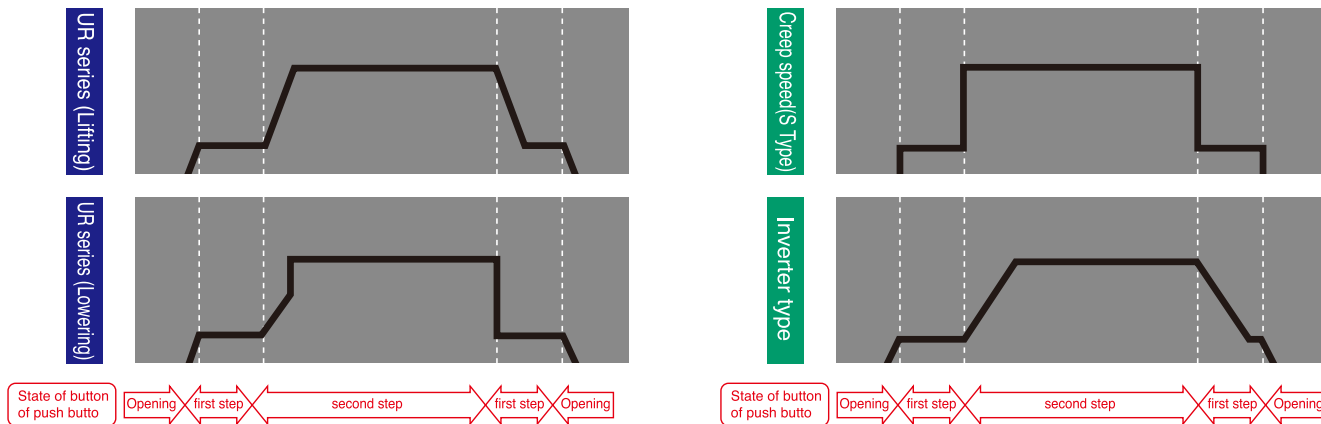
■The inside of Control box



■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

The UR series is variable speed hoist very high in cost performance.

Features(comparison with the U series, conventional creep type hoist)

Item	UR series	Creep speed(S Type)	U2 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/min	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
Respons 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 lowring,it stops by sudden deceleration.

Specifications																						
Type	Capacity(t)	Lift(m)		Wire rope			Hoisting				Traversing											
				Monorail type	Low head type	Double rail type	Rope specification	Hoisting speed m/s (m/min)	Output (kW)	Rated Current(A)	Poles	Hoisting speed m/s (m/min)				Motor				Poles		
		Contactor operation										INV opration		Output (kW)		Rated Current (A)						
		Low	High					2 falls	4 falls	4 falls	Low speed	High speed	50 Hz	60 Hz	Low speed	High speed	50 Hz	60 Hz	50 Hz		60 Hz	
UR	1	6	12	φ 8 ※ 1	φ 6.3	—	6×W(19) B class JIS-G3525	0.0133 (0.8)	0.133 (8)	1.4	10	4	0.35 (21)	0.417 (25)	0.0417 (2.5)	0.417 (25)	0.22	0.26	1.6	1.5	4	
	2			φ 10	φ 8	—		6×Fi(29) B class JIS-G3525	0.012 (0.72)	0.12 (7.2)	2.6						16	0.5	0.6	3.2		3.1
	2.8 (3)			φ 12 5	φ 9	φ 9					3.6 (3.8)						23					

※1. Rope specification of 1t 2falls is 6 × Fi(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.

- Power supply...3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available)...
- Operating method...Push button switch operations.

	1/2~3t
Suspended type	4 Points
Frame mounted type	ON OFF U D
Motor operated traversing hoist	8 Points
	ON OFF UDEWSN

※ 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℃~40℃ (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 (Equevalent 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

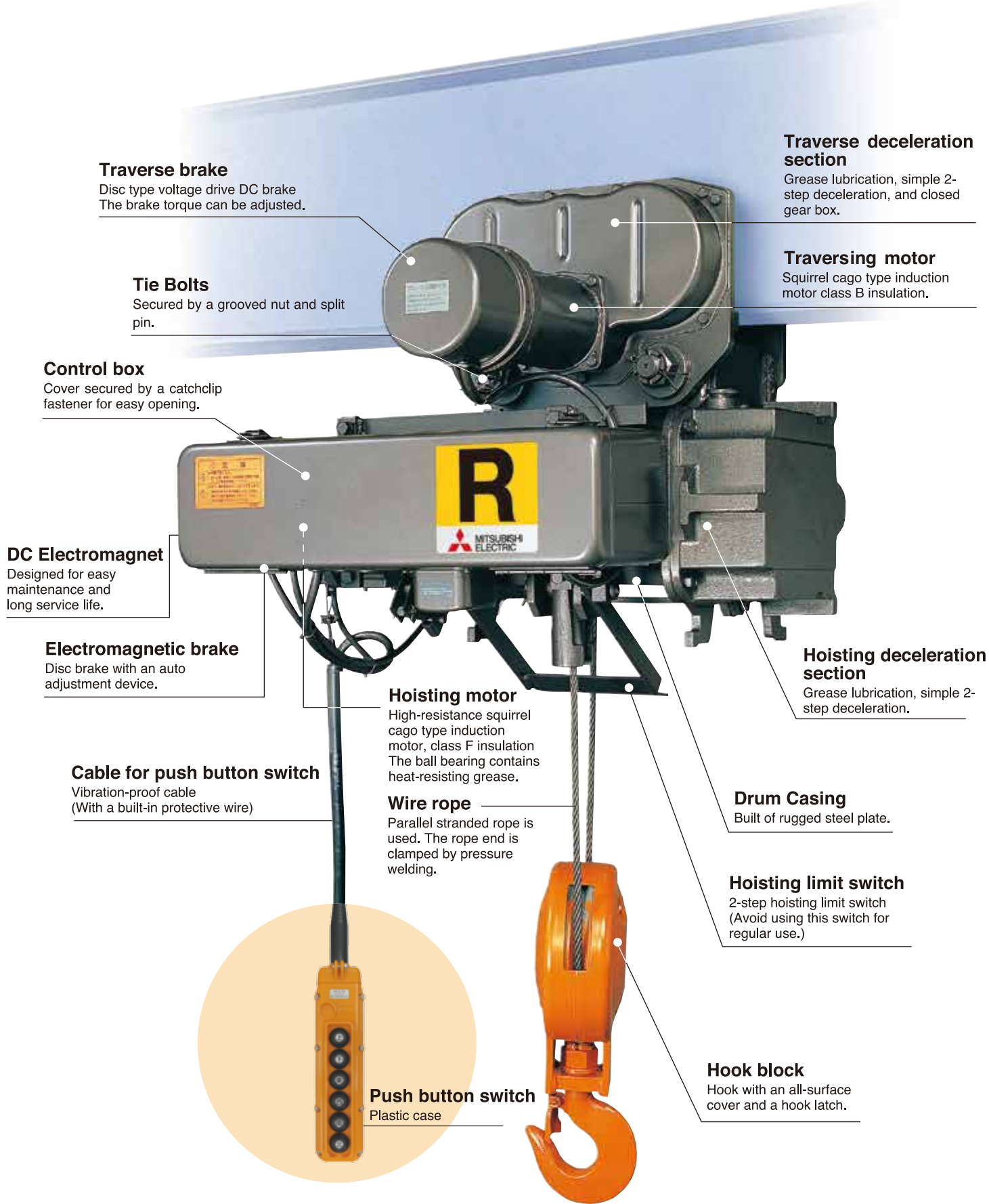
- High lowering is contactor operation, speed is 6m/min in 1t and 6.7m/min in 2t~2.8t for the power supply of 50Hz.
- Lifting low speed is set to 1/10 of high-speed at shipment.
- High speed traversing/low speed traversing is set to 25/2.5m/min at shipment.

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~2.8(3)t



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

Specifications																															
Type	Capacity(t)	Lift(m)		Wire rope			Hoisting						Traversing																		
													Mono-rail・Low hearoom						Double-rail												
				Monorail type	Double rail type Low head type	Rope specification	Speed m/s (m/min)		Motor				Speed m/s (m/min)	Motor				Speed m/s (m/min)	Motor												
									Output (kW)	Rated Current (A)	Poles	Output (kW)		Rated Current (A)	Poles	Output (kW)	Rated Current (A)		Poles												
							50 Hz	60 Hz												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	6	12	φ ₈ ※1	φ _{6.3}	6×W(19) B class JIS-G3525	0.112 (6.7)	0.133 (8)	1.2	1.4	7.4	7.9	4	0.35 (21)	0.417 (25)	4	—	—	—	—	—	—									
	2			φ ₁₀	φ ₈	6×Fi(29) B class JIS-G3525	0.1 (6)	0.12 (7.2)	2.2	2.6	13.1	13.2											0.5	0.6	3.2	3.1	—	—	—	—	—
	2.8			φ _{12.5}	φ ₉				3	3.6	19	19.4																			
	3			φ _{12.5}	φ ₉				3.2	3.8																					

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

Standard specifications

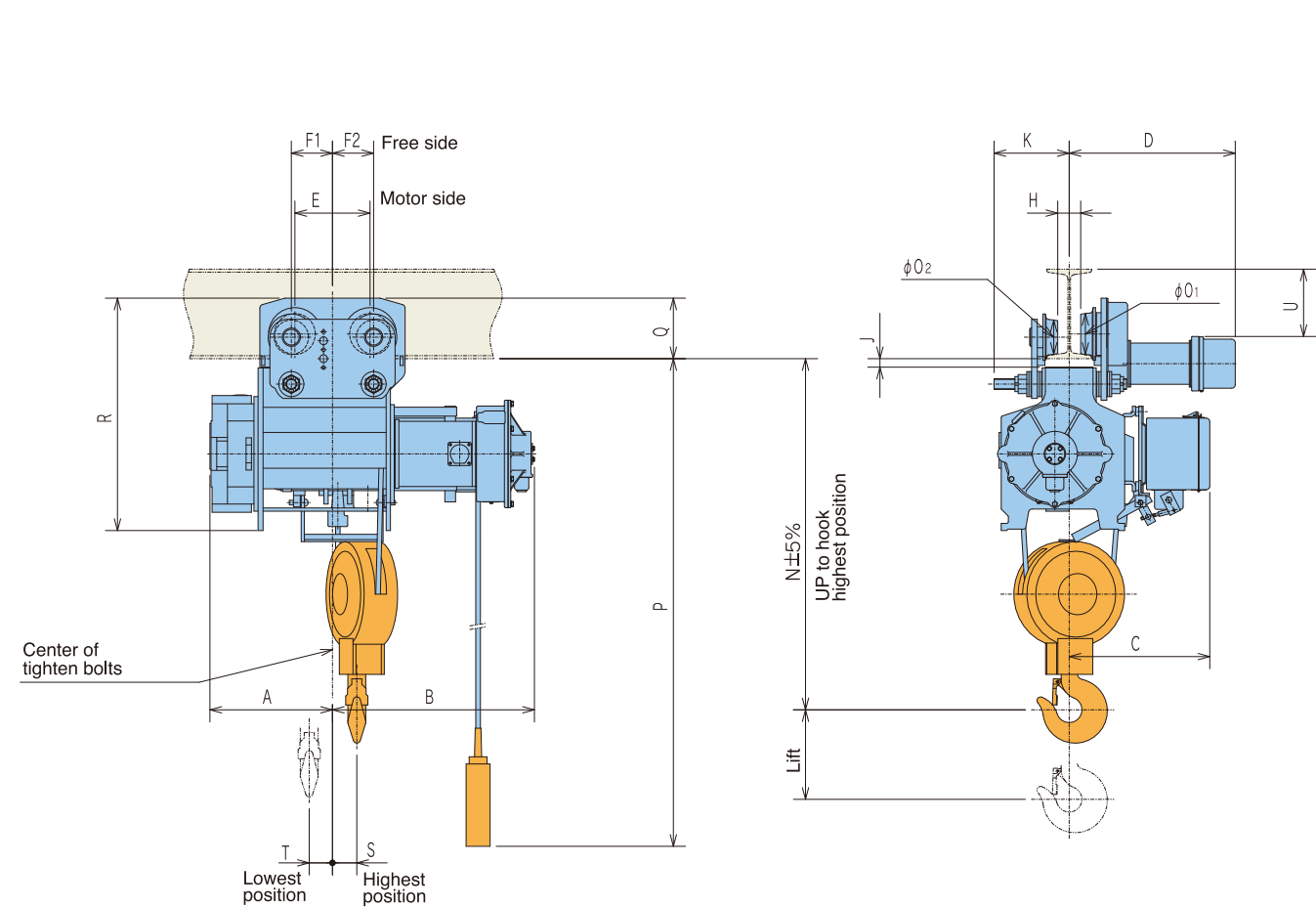
- Power supply...3-phase 200V 50/60Hz control 200V, 220V 60Hz control 220V (400V class is also available)...3-Phase 400V 50/60Hz control 200V, 440V 60Hz control 220V 3-Phase 380V 50Hz control 48V (100V and 24V are also available)
 - Operating method...Push button switch operations.
- | | |
|---------------------------------|-------------|
| 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. Howeve, 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℃ to 40℃ (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·2.8(3)t)

※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(3)-LMH2 UR-2.8(3)-LMS2 R-2.8(3)-LM2		UR-2.8(3)-HMH2 UR-2.8(3)-HMS2 R-2.8(3)-HM2				
Cap.(t)		1				2				2.8						
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						
	E	200				210				210						
	F1	105		170		115		205		115		205				
	F2	120		170		115		165		115		165				
	K	182				210				210						
	N	730				840				980						
	O ₁ /O ₂	80/72				114/96				114/96						
	P	6000		12000		6000		12000		6000		12000				
R	535				585				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				27						
I-Beam related dimensions		D	H	J	Q	U	D	H	J	Q	U	D	H	J	Q	U
Applicable I-Beam(mm)	200×100×7 ^{※1}	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
	300×150×11.5						478	90	19	179	228	478	90	14	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

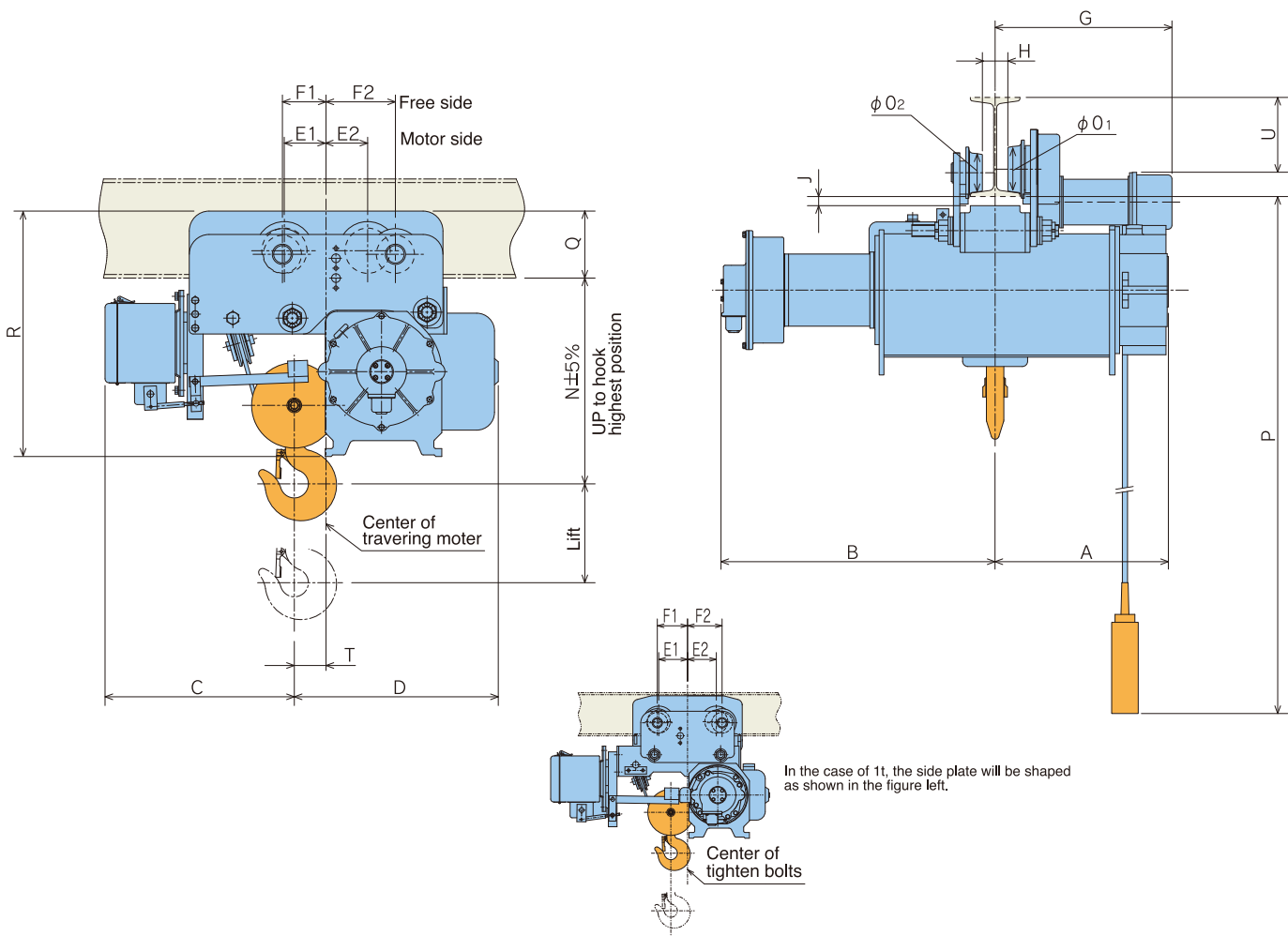
※1 150×75×5.5 is applicable

Low-head Type

UR•R

(1t·2t·2.8(3)t)

※UR type…Contact us for 400V class outline



Model		UR-1-LDH3 UR-1-LDS3 R-1-LD3					UR-2-LDH3 UR-2-LDS3 R-2-LD3					UR-2.8(3)-LDH2 UR-2.8(3)-LDS2 R-2.8(3)-LD2				
Cap.(t)		1					2					2.8				
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)	200×100×7 ^{※1}	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	188
	300×150×11.5						478	90	11	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

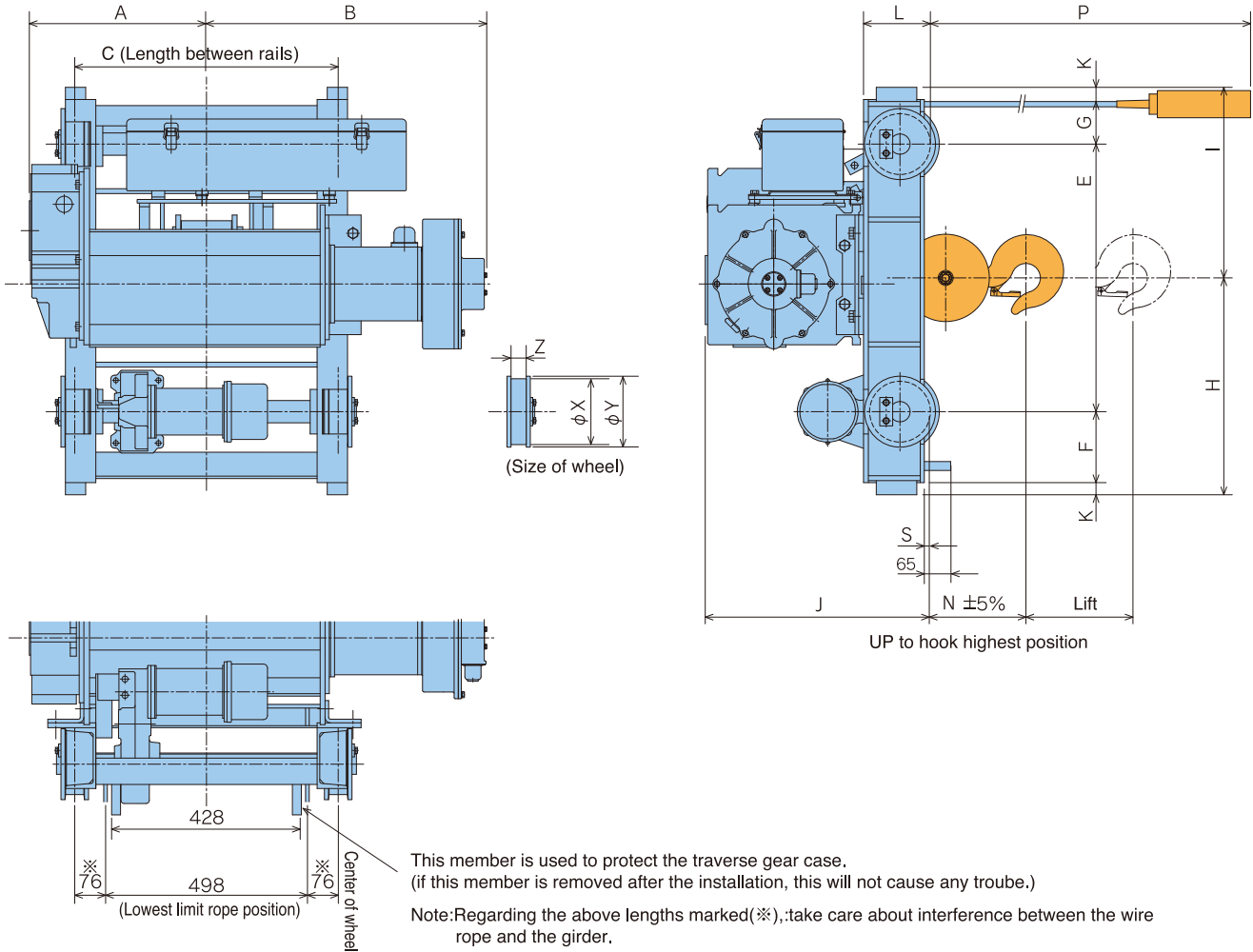
※1 150×75×5.5 is applicable

Double rail Type

UR•R

(2.8(3)t)

※UR type…Contact us for
400V class outline



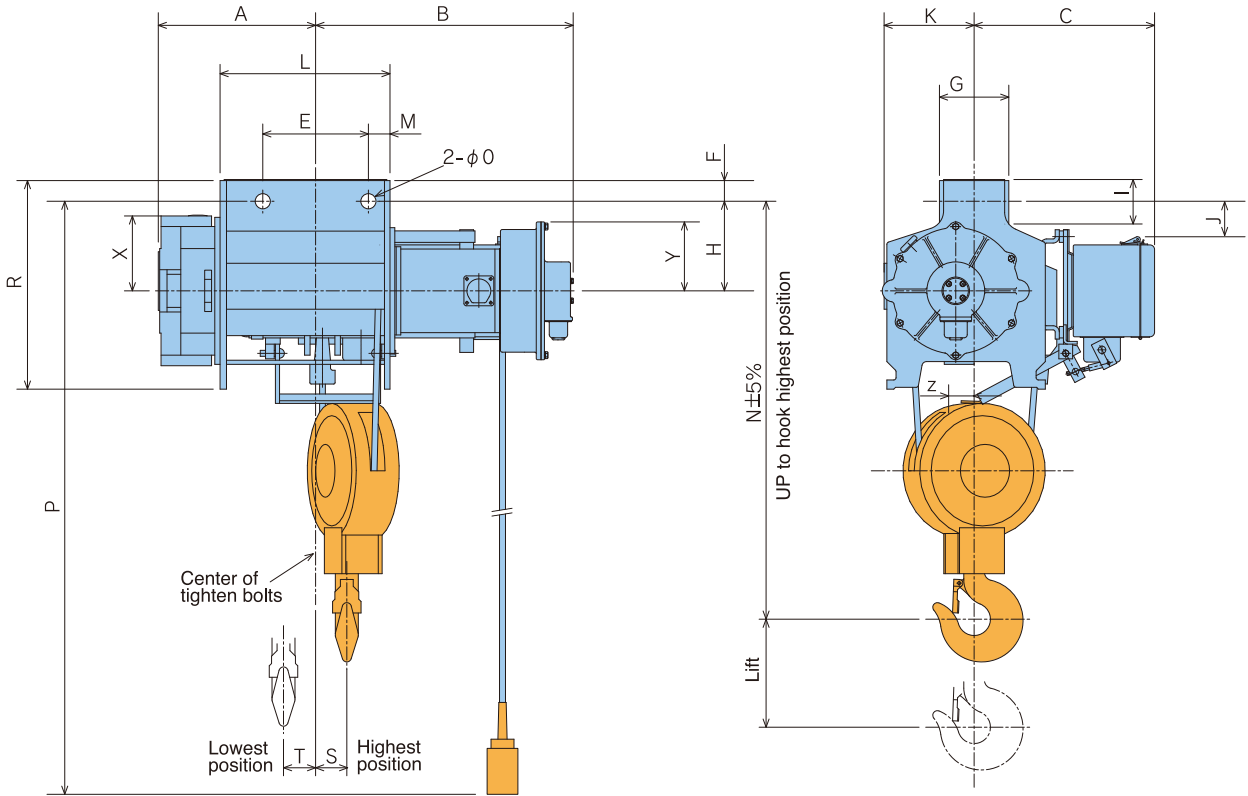
Model		UR-2.8(3)-LRH2A UR-2.8(3)-LRS2A R-2.8(3)-LR2A		
Cap.(t)		2.8		
Lift(m)		6		
Dimensions(mm)	A	437	K	30
	B	695	L	165
	C	650	N	233
	E	660	P	6000
	F	175	S	15
	G	110	T	15
	H	535	X	150
	I	470	Y	175
	J	556	Z	45
Weight(kg)		435		
Hook block weight(kg)		25		
Applicable Rail		12kg rails or 38mm steel square bars		

Suspended Type

UR•R

(1t·2t·2.8(3)t)

※UR type…Contact us for
400V class outline

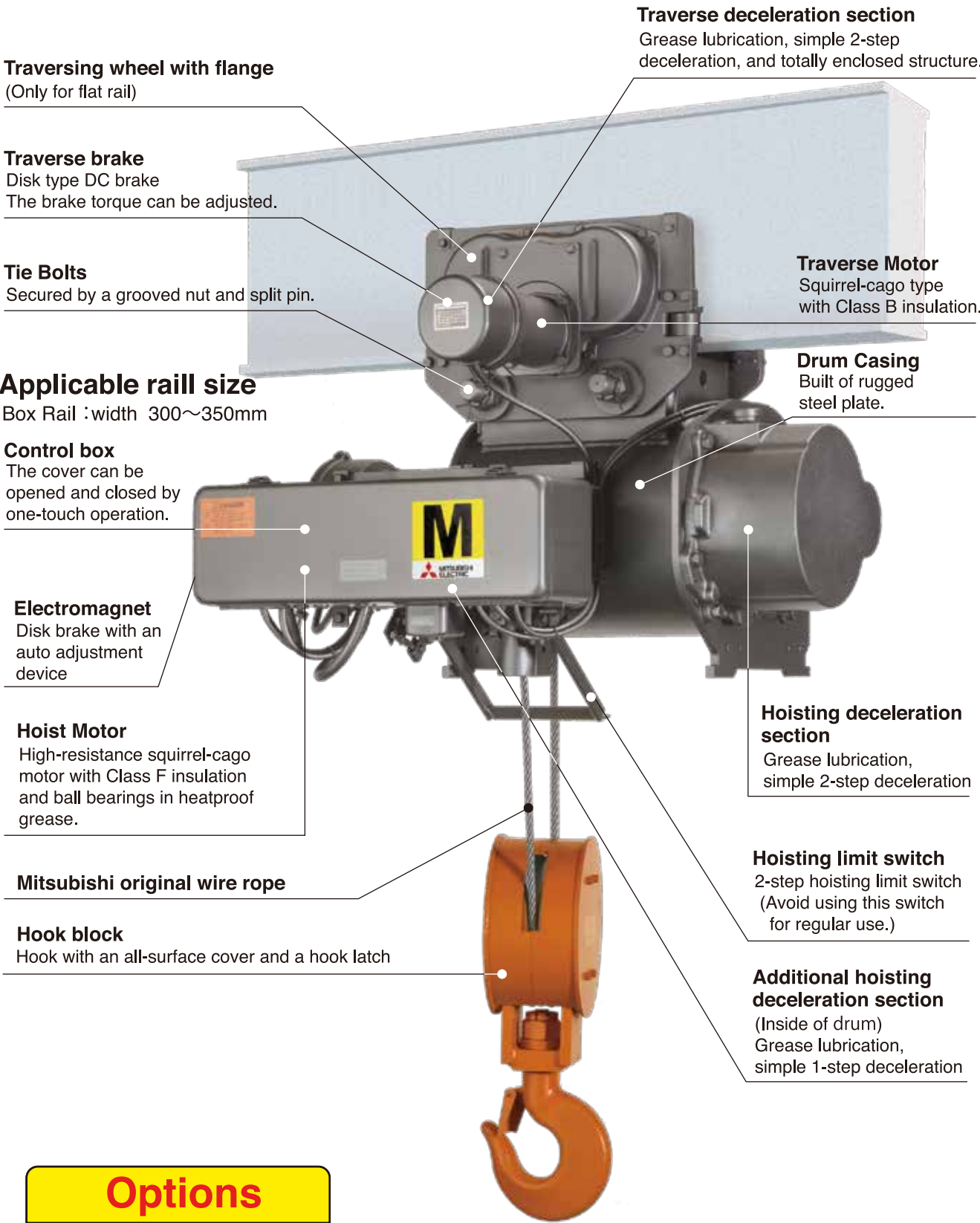


Remarks:Clamping bolts are available separately.

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(3)-LKH2 R-2.8(3)-LK2	UR-2.8(3)-HKH2 R-2.8(3)-HK2
Cap.(t)		1		2		2.8	
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	
	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	

M Type Series

5t・10t



- Options
- Over loading monitor
Guide roller
Traversing limit switch

※ Photo is an optional wearing product. Please refer for the optional details separately.

M Type has been designed for optimizing price and performance.

Specifications																		
Type	Capacity(t)	Lift(m)		Wire rope			Hoisting				Traversing							
											Mono-rail				Double-rail			
				Monorail type	Double rail type	Rope specification	Speed m/s (m/min)	Motor			Speed m/s (m/min)	Motor			Speed m/s (m/min)	Motor		
		Output (kW)	Rated Current (A)					Poles	Output (kW)	Rated Current (A)		Poles	Output (kW)	Rated Current (A)		Poles		
		Low	High	2 falls(2/1)	4 falls(4/1)		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz	
M	5	1※1	12	12.5	—	Mitsubishi original wire rope ※2	5	5.0	12.5	4	21	0.5	1.5	4	21	0.5	1.5	4
	10			—	12.5		2.5	5.0	12.5		12	0.85	2.2		21	0.85	2.2	

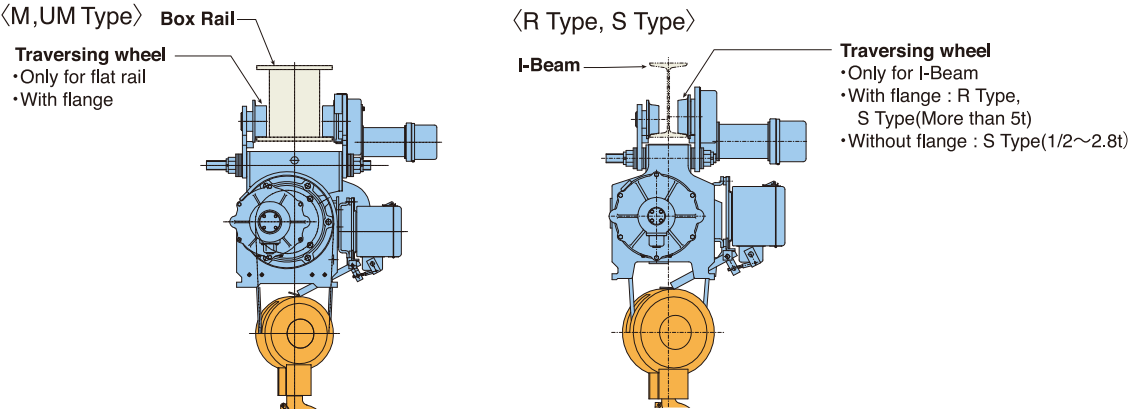
※ 1 Low lift models are not available
※ 2 Using non genuine wire ropes causes low safety factor has an increased risk of short product cycle

Standard specifications

- Power supply…3-phase 380V 50Hz control 48V(24V is also available)
- Operating method…Push button switch operations.

	5t・10t
Suspended type	4 Points
Frame mounted type	ON OFF U D
Motor operated traversing hoist	8 Points
	ON OFF U D E W S N
- Rating…Hoisting : 40%ED(100% of load rating), 240S/Hr (FEM 9.683),※only 50Hz
Traversing : 25%ED (100% of load rating), 150S/Hr ※only 50Hz
- Power supply system…Cable feeding, trolley feeding
- Enclosure… Simplified out door type(JIS C 9620 Equivalent to IP-44)
- Applicable standard … JIS C 9620 electric hoist/crane structure standard, FEM 9.683
- Hoist class(ISO 4301-1) … M5
- Color coating… Main body : Metallic gray (Equivarent to Munsell N4.0)
Hook block : Munsell 7.5YR 7/14
Push button : Equivarent to Munsell 7.5YR 7/13
- Ambient air temperature… -10℃~40℃ (Non condensing)
- Ambient air humidity…90% or less (Non condensing)

Traversing wheel and Applicable rail

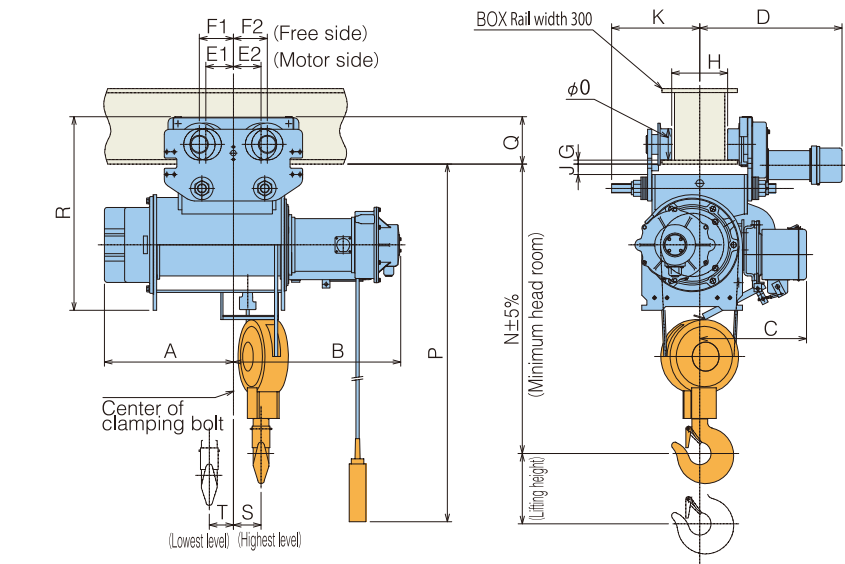


Monorail Type

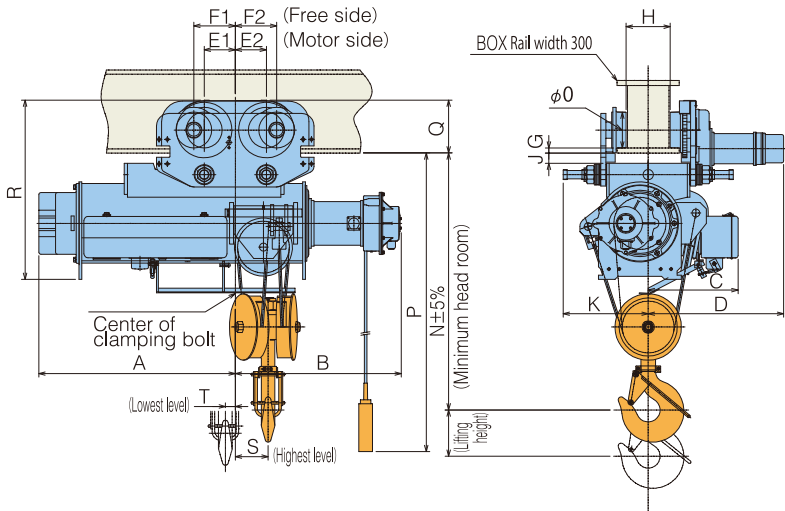
M

(5t·10t)

M-5-HM



M-10-HM

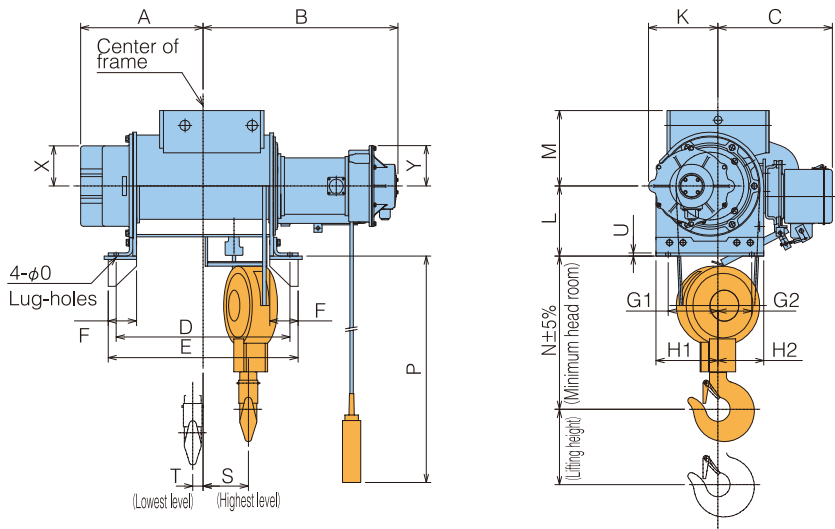


Frame mounted Type

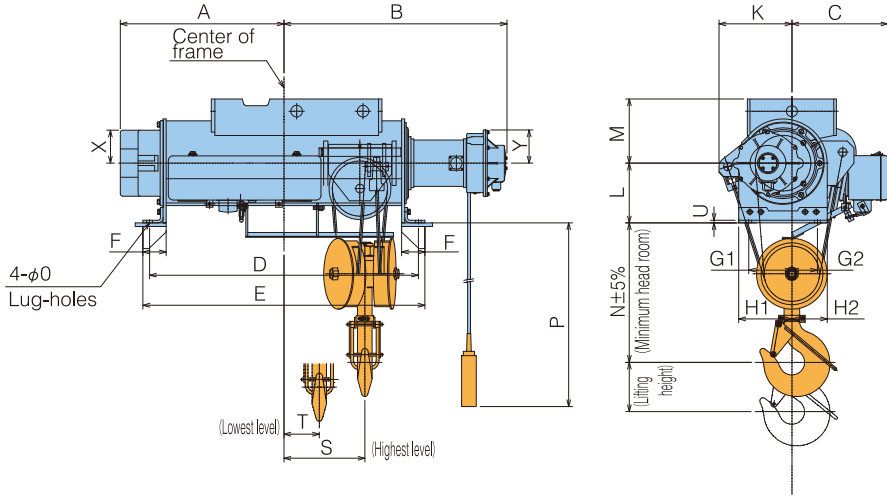
M

(5t·10t)

M-5-HS



M-10-HS



Model		M-5-HM	M-10-HM
Cap.(t)		5	10
Lift(m)		12	12
Dimensions(mm)	A	515	947
	B	665	801
	C	425	433
	D	566(591)	654(679)
	E1	110	150
	E2	110	150
	F1	135	200
	F2	135	200
	G	※1 16	※1 24
	H	222(272)	212(262)
	J	※1 31	※1 49
	K	350	411(436)
	N	1145	1245
	O	125	173
	P	12000	12000
	Q	189	255
	R	770	865
	S	110	158
	T	96	48
Min.rad.curvature(m)		Only straight line	Only straight line
Weight(kg)		540	875
Hook block weight(kg)		50	85
Applicable Box Rail Width(mm)		300(350)	300(350)

※G and J are reference levels.(Because of no rail standard)

Model		M-5-HS	M-10-HS
Cap.(t)		5	10
Lift(m)		12	12
Dimensions(mm)	A	455	740
	B	724	1009
	C	425	433
	D	645	1215
	E	705	1275
	F	105	105
	G1	185	195
	G2	125	115
	H1	230	240
	H2	170	160
	K	258	330
	L	260	270
	M	280	290
	N	570	630
	O	18	26
	P	12000	12000
	S	168	366
	T	39	160
	X	150	150
	Y	150	150
Weight(kg)		440	645
Hook block weight(kg)		50	85

M (5t·10t)

[illegible]

Technical drawing of the H1000 crane showing front and side views with dimensions.

Front View Dimensions:

- A:** Total width of the crane body.
- B:** Total width including the hook assembly.
- L:** Distance from the left edge to the center of the clamping bolt.
- E:** Distance from the center of the clamping bolt to the center of the hook.
- M:** Distance from the center of the hook to the right edge.
- 2- $\phi 0$:** Two holes of diameter $\phi 0$ in the upper plate.
- X:** Height of the upper body.
- R:** Total height of the crane.
- F:** Height of the hook assembly.
- Y:** Height of the hook.
- H:** Height of the hook from the base.
- P:** Total height of the crane.
- N $\pm 5\%$:** Minimum head room.
- Lifting height:** Height of the hook from the base.
- Center of clamping bolt:** Indicated by a crosshair.
- T:** Height of the hook from the base.
- S:** Height of the hook from the base.
- (Lowest level):** Indicated by a dashed line.
- (Highest level):** Indicated by a solid line.

Side View Dimensions:

- K:** Total width of the crane body.
- C:** Total width including the hook assembly.
- G:** Distance from the left edge to the center of the hook.
- I:** Distance from the center of the hook to the right edge.

— 57 —

M (5t·10t)

Technical drawings of the 3000 Series Hydraulic Excavator showing side, front, and top views with dimensions A through S.

Side View (Left): Shows the excavator's profile with dimensions C (Length between rails), Z (Ground clearance), OX, OY, and Q.

Front View (Right): Shows the excavator from the front with dimensions A, B, L, J, K, and N ± 5% (Minimum head room). It also indicates the Lifting height and the rotation angle of the boom.

Top View (Bottom): Shows the excavator from above with dimensions O, F, E, G, L, D, P, S, T, and (Lowest level) / (Highest level). It also shows the rotation angle of the boom.

—58—

UM

Type Series

5t・10t

Traversing wheel with flange
(Only for flat rail)

Traverse Motor
Squirrel-cage type
with Class B insulation.

Tie Bolts
Secured by a grooved nut and split pin.

Applicable rail size
Box Rail :width 300~350mm
Control box
The cover can be
opened and closed by
one-touch operation.

Electromagnet
Disk brake with an
auto adjustment
device

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)

Hoist Motor
High-resistance squirrel-cage motor with
Class F insulation and ball bearings in
heatproof grease.

Hook block
Hook with an all-surface cover
and a hook latch.

Traverse deceleration section
Grease lubrication, simple 2-step
deceleration, and totally enclosed structure.

Traverse brake
Disk type DC brake
The brake torque can be adjusted.

Drum Casing
Built of rugged
steel plate.

Hoisting deceleration
section
Grease lubrication,
simple 2-step deceleration

Additional hoisting
deceleration section
(Inside of drum)
Grease lubrication,
simple 1-step deceleration

Hoisting limit switch
2-step hoisting limit switch
(Avoid using this switch
for regular use.)

Mitsubishi original
wire rope

- Options
- Over loading monitor
- Guide roller
- Traversing limit switch

※ Photo is an optional wearing product. Please refer for the optional details separately.

UM Type has been designed for optimizing price and performance.

Specifications																		
Type	Capacity(t)	Lift(m)		Wire rope			Hoisting				Traversing							
											Mono-rail				Double-rail			
				Monorail type	Double rail type	Rope specification	Speed m/s (m/min)	Motor			Speed m/s (m/min)	Motor			Speed m/s (m/min)	Motor		
		Output (kW)	Rated Current (A)					Poles	Output (kW)	Rated Current (A)		Poles	Output (kW)	Rated Current (A)		Poles		
		Low	High	2 falls(2/1)	4 falls(4/1)		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz	
UM	5	1※1	12	12.5	—	Mitsubishi original wire rope ※2	0.6/6(9)	6.0	15	4	21	0.5	1.5	4	21	0.5	1.5	4
	10			—			12.5	0.3/3(4.5)	6.0		15	12	0.85		2.2	15	0.85	

※1 Low lift models are not available
※2 Using non genuine wire ropes causes low safety factor has an increased risk of short product cycle

Standard specifications

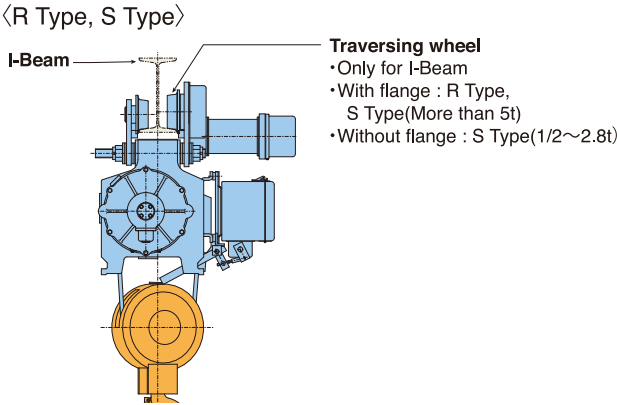
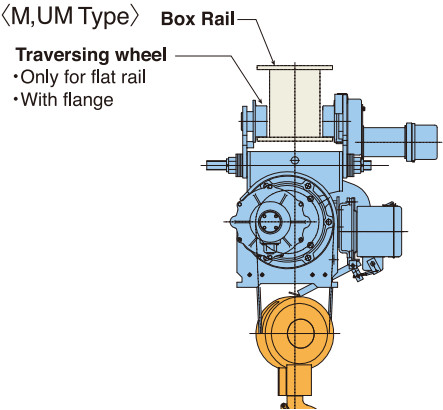
- Power supply…3-phase 380V 50Hz control 48V(24V is also available)
- Operating method…Push button switch operations.

Suspended type Frame mounted type	5t・10t
	4 Points
Motor operated traversing hoist	ON OFF U D※3
	8 Points
	ON OFF U D E W S N

※3 "U" and "D" are 2 step push button.

- Rating…Hoisting : 40%ED(100% of load rating), 240S/Hr (FEM 9.683),※only 50Hz
Traversing : 25%ED (100% of load rating), 150S/Hr ※only 50Hz
- Power supply system…Cable feeding, trolley feeding
- Enclosure…Simplified out door type(JIS C 9620 Equivalent to IP-44)
- Applicable standard … JIS C 9620 electric hoist/crane structure standard, FEM 9.683
- Hoist class(ISO 4301-1) … M5
- Color coating… Main body : Metallic gray (Equivarent to Munsell N4.0)
Hook block : Munsell 7.5YR 7/14
Push button : Equivarent to Munsell 7.5YR 7/13
- Ambient air temperature… -10°C~40°C (Non condensing)
- Ambient air humidity…90% or less (Non condensing)

Traversing wheel and Applicable rail



Monorail Type

UM

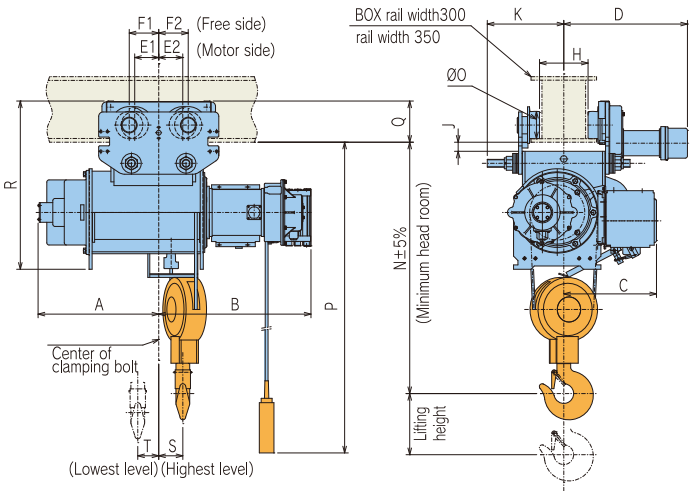
(5t・10t)

Double rail Type

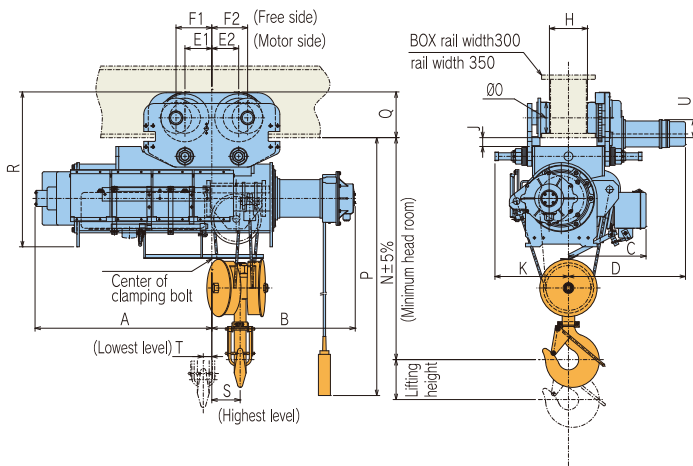
UM

(5t・10t)

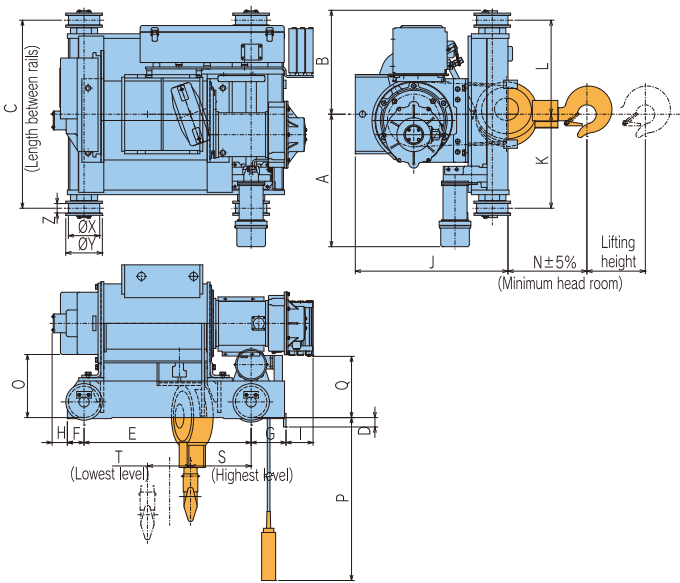
UM-5-HMH



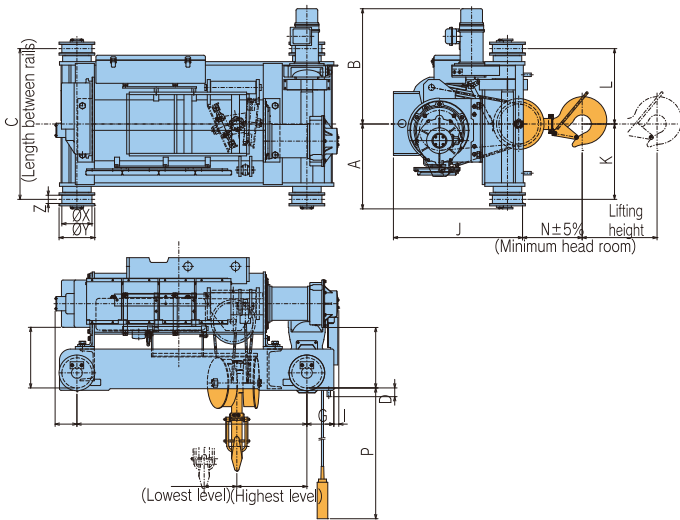
UM-10-HMH



UM-5-HRH



UM-10-HRH



Model	UM-5-HMH	UM-10-HMH
Cap.(t)	5	10
Lift(m)	12	12
Dimensions(mm)	A	552
	B	697
	C	425
	D	566(591)
	E1	110
	E2	110
	F1	135
	F2	135
	H	222(272)
	J	—
	K	350
	N	1145
	O	125
	P	12000
	Q	—
	R	770
	S	110
	T	96
	U	—
Min.rad.curvature(m)	Only straight line	
Weight(kg)	555	890
Hook block weight(kg)	50	85
Applicable Box Rail Width(mm)	300(350)	300(350)

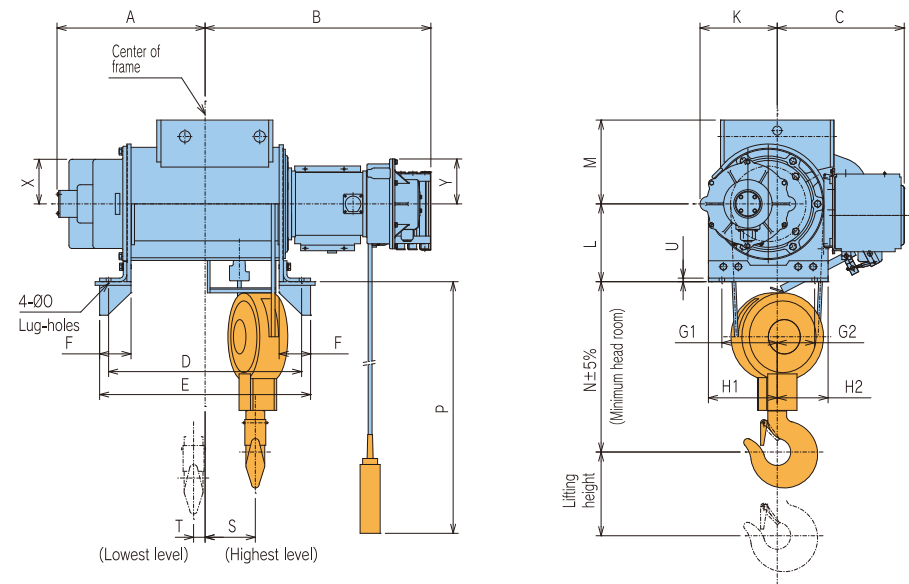
Model	UM-5-HRH	UM-10-HRH
Cap.(t)	5	10
Lift(m)	12	12
Dimensions(mm)	A	634
	B	498
	C	900
	D	45
	E	800
	F	80
	G	167
	H	73
	I	129
	J	791
	K	450
	L	450
	N	375
	O	302
	P	12000
	Q	290
	S	290
	T	206
	X	150
	Y	175
	Z	45
Weight(kg)	615	915
Hook block weight(kg)	50	85
Applicable Rail	12kg rails or 38mm steel square bars	15kg rails or 44mm steel square bars

Frame mounted Type

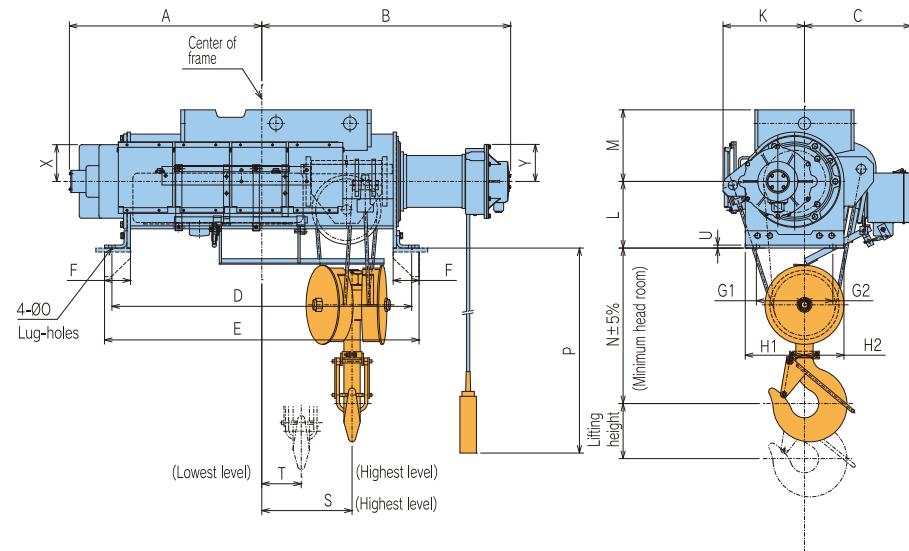
UM

(5t·10t)

UM-5-HSH



UM-10-HSH



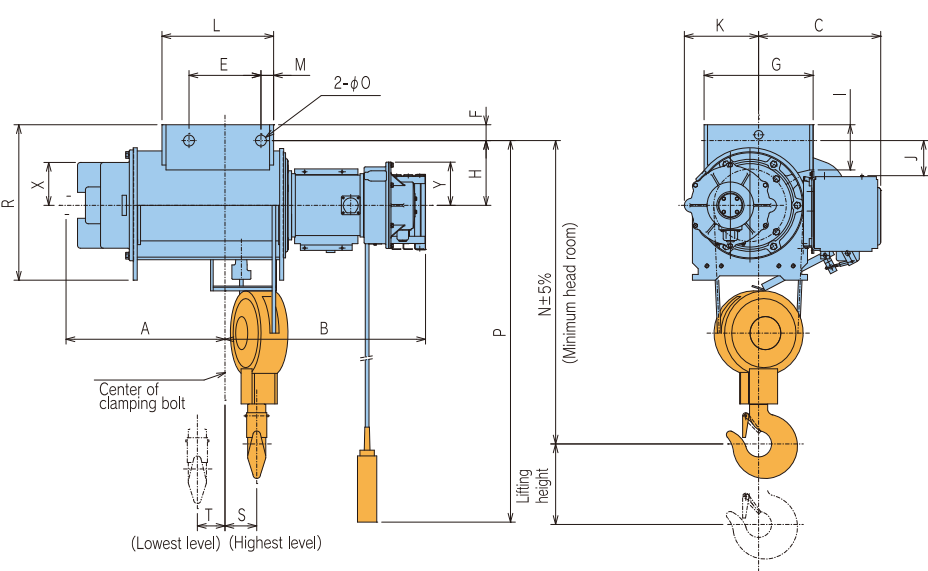
Model		UM-5-HSH	UM-10-HSH
Cap.(t)		5	10
Lift(m)		12	12
Dimensions(mm)	A	495	740
	B	754	1009
	C	425	433
	D	645	1215
	E	705	1275
	F	105	105
	G1	185	195
	G2	125	115
	H1	230	240
	H2	170	160
	K	258	330
	L	260	270
	M	280	290
	N	570	630
	O	18	26
	P	12000	12000
	S	168	366
	T	39	160
	X	150	150
	Y	150	150
Weight(kg)		455	660
Hook block weight(kg)		50	85

Suspended mounted Type

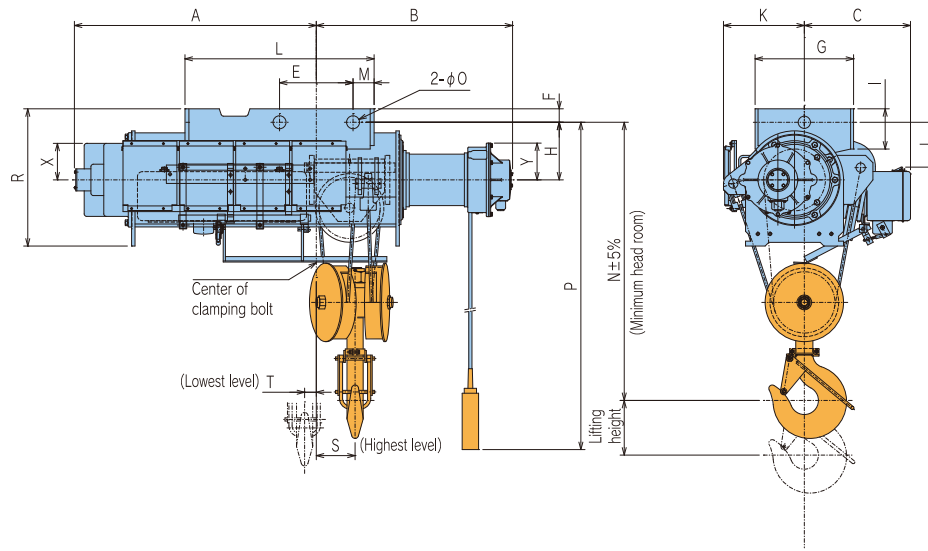
UM

(5t·10t)

UM-5-HKH



UM-10-HKH



Model		UM-5-HKH	UM-10-HKH
Cap.(t)		5	10
Lift(m)		12	12
Dimensions(mm)	A	552	947
	B	697	801
	C	425	433
	E	250	300
	F	55	55
	G	379	402
	H	225	235
	I	157	164
	J	120	183
	K	258	330
	L	388	772
	M	44	86
	N	1055	1135
	O	38	53
	P	12000	12000
	R	540	560
	S	110	158
	T	96	48
	X	150	150
	Y	150	150
Weight(kg)		455	660
Hook block weight(kg)		50	85

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. Ehhanced safty 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.

Type name and applicable models				
Type	Rated Current (A)	Applicable Mistsubishi models		
		Crane saddle		Gear motor for crane sadle
		ST, SP series	MT, MP series	
TIB-0.8(s)	5	Output of traveling motor Less than 0.4kW×2		SGM-0.4A-LK3×2 SGM-0.4A-HK3×2
TIB-2.2(s)	11	Output of traveling motor Less than 0.75kW×2		SGM-0.75A-LK3×2 SGM-0.75A-HK3×2
TIB-4.4(s)	22	Output of traveling motor Less than 2.2kW×2		SGM-1.5A-LK3×2 SGM-1.5A-HK3×2
				SGM-2.2A-LK2×2 SGM-2.2A-HK2×2
TIB-7.4(s)	33	Output of traveling motor Less than 3.7kW×2		SGM-3.7A-LK3×2 SGM-3.7A-HK3×2
TIB-11	46	Out of general purpose motor Less than 5.5kW×2		
TIB-15	61	Out of general purpose motor Less than 7.5kW×2		
TIB-22	90	Out of general purpose motor Less than 11kW×2		
TIB-30	115	Out of general purpose motor Less than 15kW×2		

※ To use with the ST, SP and SGM series produced in 1987 and before, a special model compatible with a current brake is required. Please contact us for further information.

※ For types TIB-11 to TIB-30, a model equipped with a shared protection board function (S model) cannot be produced.

※ Please contact us for dimensional details.

Standard specifications		
Power supply		3-phase 200V 50/60Hz, 220V 60Hz
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℃ to 40℃ (No congelation)
	Relative humidity	Ambient humidity 90% or less (Non condensation)
	Atmosphere	Non corrosive gas environment, non considerable dust environment
Enclosure		Equivalent to IP-44 except regenerative resistor: Symplified outdoor type
Protective functions		Over load, over voltage in regenerative (braking)
Power supply system		Cable feeding
Color coating		Metallic gray (Equivalent to Munsell N4.0)

※ Noises and other abnormalities may occur when installed on crane saddles or gear motors for crane saddle, which are produced by manufacturers other than us. Please contact us for further information.

※ Not equipped with a noise filter or an AC reactor. Install one as required.

※ The TIB-H (HS) 400V series is a special model. Please contact us for further information.

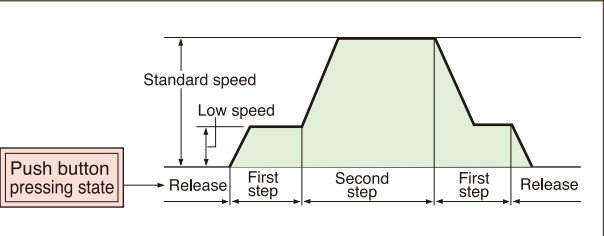
※ To use the product outdoors, install a rain-proof cover or prepare an equipment shelter.

※ Settings need to be changed according to acceleration/deceleration time calculated using the mass, rated load and travelling speed of the crane.



The picture is TIB-2.2

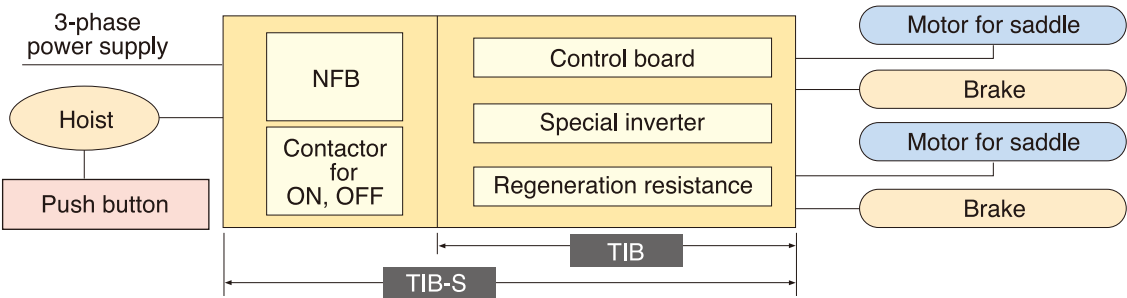
Push button operation and operation pattern



TIB-S TYPE

Type	NFB for main power	Contactor for main power	Space for Light, Buzzer and contactor
TIB-0.8S	50A	S-N35	Screw holes are provided for a couple of S-N11 or S-N21.
TIB-2.2S	60A	S-N50	
TIB-4.4S	125A	S-N80	
TIB-7.4S	175A	S-N125	

Function diagram



Standard Hoist Push Button List

Model	R	S		S-VT		S-VS		S-X	
Cap.	1～2.8t	1/2～3t	5～60t	1/2～3t	5～60t	1/2～3t	5～60t	1/2～3t	5～60t
Suspended Type	①	①	③	②	④	—	—	⑬	⑭
Frame mounted Type									
Monorail Type	⑤	⑤	⑨	⑥	⑩	⑦	⑪	⑭	⑭
Low-head Type								⑮	⑮
Double Rail Type									

Model	UR-H	UR-S	U-H	U-S	HU-H	HU-S	M	UM-H
Cap.	1～2.8t	1/2～2.8t	1/2～60t	1/2～45t	10～60t	10～45t	5t,10t	5t,10t
Suspended Type	④	—	④	—	④	—	③	③
Frame mounted Type								
Monorail Type	⑩	⑫	⑩	⑫	⑩	⑫	⑩	⑩
Low-head Type								
Double Rail Type								

	Points	No.	1	2	3	4	5	6	7	8	Applicable Models	Using Cable	Spare Lead
Standard Push button	2Points	①	U	D							R,S(1/2～3t)	VCT-CCH-0.75-3C	—
		②	U	D							S-VT(1/2～3t)	VCT-CCH-0.75-7C	1
	4Points	③	ON	OFF	U	D					S(5～60 t) ,M(5t,10t)	VCT-CCH-0.75-5C	—
		④	ON	OFF	U	D					U-H(1/2～60 t),UR-H	VCT-CCH-0.75-7C	1
	6Points	⑤	U	D	E	W	S	N			R,S(1/2～3t)	VCT-CCH-0.75-7C	—
		⑥	U	D	E	W	S	N			S-VT(1/2～3t)	VCT-CCH-0.75-12C	1
		⑦	U	D	E	W	S	N			S-VS(1/2～3t)	VCT-CCH-0.75-12C	—
		⑧	U	D	E	W	S	N			U-S(1/2～3 t)	VCT-CCH-0.75-12C	2
	8Points	⑨	ON	OFF	U	D					S(5～60 t) ,M(5t,10t)	VCT-CCH-0.75-12C	3
		⑩	ON	OFF	U	D	E	W	S	N	U-H(1/2～60 t),UR-H	VCT-CCH-0.75-12C	2
		⑪	ON	OFF	U	D	E	W	S	N	UM(5t,10t),S-VT(5～60t)	VCT-0.75-16C	3
		⑫	ON	OFF	U	D	E	W	S	N	S-VS(5～60t)	VCT-0.75-16C	2
Explosion-proof (S-X) Push button	2Points	⑬	U	D							S-X(1/2～60t)	3PNCT-2.0-4C	—
	4Points	⑭	U	D	R	L					S-X(1/2～60t)	3PNCT-2.0-6C	—
	6Points	⑮	U	D	E	W	S	N			S-X(2.8～Except Double Rail Type)	3PNCT-2.0-6C	—
											S-X(2.8～Double Rail Type)	3PNCT-2.0-4C	—

- Note
- 1

②=2step push button
- 2

VCT,VCT-CCH cable has push button hanging wire
- 3

Using 3PNCT cable is attached to with other hanging wire
- 4

Model

S-VT	With hoisting creep speed	UR-H	With hoisting inverter	U-H	With hoisting inverter
S-VS	With hoisting and traversing creep speed	UR-S	With hoisting and traversing inverter	U-S	With hoisting and traversing inverter
S-X	Explosion-proof	UM-H	With hoisting inverter	HU-H	<High speed>With hoisting inverter
				HU-S	<High speed>With hoisting and traversing inverter

Correspond to the RoHS

Please contact us about the hoists which are accepted the RoHS

MEMO