MITSUBISHI

MITSUBISHI ELECTRIC HOISTS CATALOGUE

MITSUBISHI ELECTRIC
HOIST CORPORATION

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

■Hoist Type (Shapes)

Suspended Type

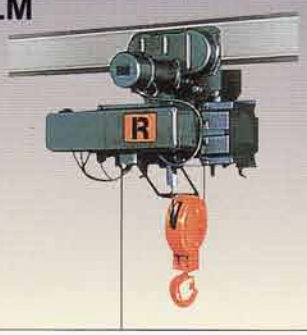
This hoist is fixed at the ceiling and used only for lifting and lowering cargo.

E-1/4

Monorail 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)

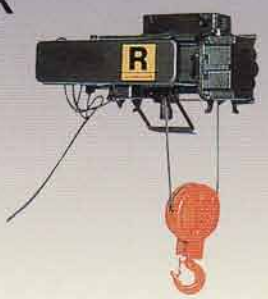
R-2-LM



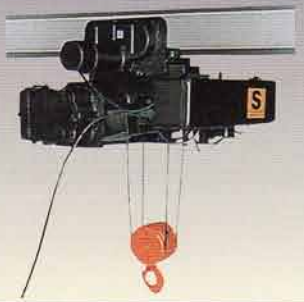
Low-head Type

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 Regular Type.(Therefore, this type is very useful for use in a place with a small height of ceiling)

R-2-LK



S-2-LD



Frame mounted type

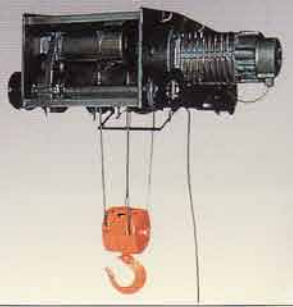
This hoist is fixed on the pedestal and used only for lifting and lowering cargo. (This hoist is usually used for the same application as suspended type as well as the substitution for a winch.

S-2.8-HS

Double rail Type

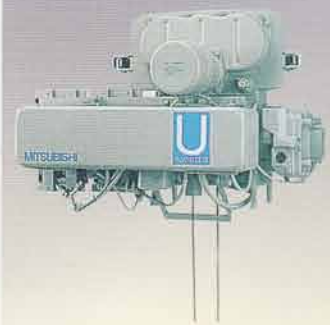
Motor Operated Traversing Hoist
This hoist travels on the 2 rails of the hoist type overhead crane in the traverse direction.(Since its stability is extremely high, in particular, this type is often used for a large capacity.)

S-2.8-LR



■Introduction of Products

Hoists

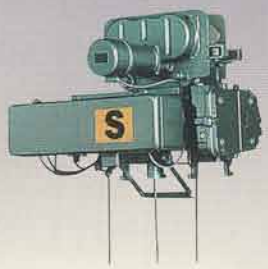


U,HU Type
(1/2-60t)

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.

UR Type
(1-2.8t)

This hoist is produced by utilizing the power electronics technology accumulated by MITSUBISHI ELECTRIC, and has new variable speed type.
This type is popular for excellent oparation.

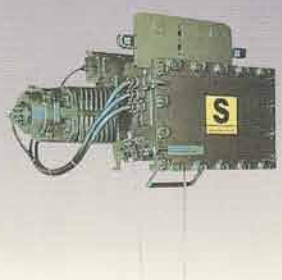


S Type
(1/2-60t)

For high frequency use
S type series is heavy-duty type hoists for applications involving high frequency operations. Its winding speed and the duty class is the highest available. For more safety, a microprocessor control circuit which automatically prevents overloading is installed.

R Type
(1-2.8t)

For Medium frequency use
This hoist is structurally simple and economical with real capability.
This hoist is provided with onerank higher capability and both power and worthy of its real capability and economical efficiency.



U-X · S-X Type
(1/2-30t) (1/2-60t)

Inverter explosion-proof type (U-X Type)
U-X Type is the first inverter explosion-proof type in the industry.
Explosion-Proof Type (S-X Type)
Hoists used in places where explosive gas or steam exist must pass the Explosion-Protection Examination.
Explosive grade d2 and Ignition degree 4 grade are available.

E Type
(150kg-490kg)

For low frequency use
This series consists of easy-to-use, and light-duty models that are suitable for a variety of uses. A full range of attachaments is available for every application. Double wire rope has been used to ensure absolute safety.

Crane related equipment

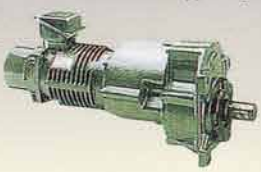
Saddle for crane(~20t×27m)

<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
<<SC-A>> Soft starter
<<LCM>> Over load detection device
(Detection of load)
<<LCV-B>> Over load detection device
(Detection of current)

Table of Contents

Mitsubishi Electric Hoist Catalogue

THE MITSUBISHI ELECTRIC HOIST APPLICATIONS AND SELECTION DIAGRAM

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

The hoist type selection diagram

Rate of loading	Total operating hour h	Average operating hour per day h: 0.25 and under	Over 0.25 to 0.5 incl.	Over 0.5 to 1 incl.	Over 1 to 2 incl.	Over 2 to 4 incl.	Over 4 to 8 incl.	Over 8 to 16 incl.	16 and over
		400 and under	Over 400 to 800 incl.	Over 800 to 1600 incl.	Over 1600 to 3200 incl.	Over 3200 to 6300 incl.	Over 6300 to 12500 incl.	Over 12500 to 25000 incl.	25000 and over
Light	Mechanisms are used normally under about 1/3 of the rated load, very rarely under the rated load.	—	M1	M2	M3	M4	M5	M6	M7
Moderate	Mechanisms are used normally under about 1/3 to 2/3 of the rated load, fairly frequently under the rated load.	M1	M2	M3	M4	M5	M6	M7	M8
Heavy	Mechanisms are used normally under about 2/3 of the rated load, frequently under the rated load.	M2	M3	M4	M5	M6	M7	M8	—
Very heavy	Mechanisms are used almost under the rated load or a load close to the above.	M3	M4	M5	M6	M7	M8	—	—
		E Type		R Type	HU・U S Type	**HU・U S Type (special)**	Crab Crane		

Remark: The grade symbols are identical to those of ISO 4301(Cranes and lifting appliances-Classification).

■Percentage of duty cycle and number of starts per Hr.

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

・Starting frequencies represent the number of starts during one hour at the busiest rate of operation.

・Special designs are required for applications involving load/time rations in excess of 40% or starting frequencies in excess of 400/hour, Consult your dealer.

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

・The term "traverse" refers to linear motion.

■FUNCTION CODE

(EXAMPLE) S 2 L M

Type: R.S.UR

Lifting Capacity.:1/2~60t

Load-lifting height: L···Low load-lifting height
H···High load-lifting height

Revision Code

Suspended type·····K
Frame mounted type·····S
Mono-rail with mortor-driven Trolly(Regular type) ·····M
Low-headroom with motor-driven trolley·····D
Double-rail with motor-driven Trolly ·····R

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

Inverter Hoist	Code
With hoisting Inverter	H
With hoisting · traversing Inverter	S

■Product Overview

⟨S⟩Type

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

⟨R⟩⟨UR⟩ Type

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

SUPERB MECHANICAL FEATURES BASED ON

1. Traverse Brakes with Adjustable Torque

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

2. Control Box with Overload Prevention System.

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

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

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

4. Hoist Motor

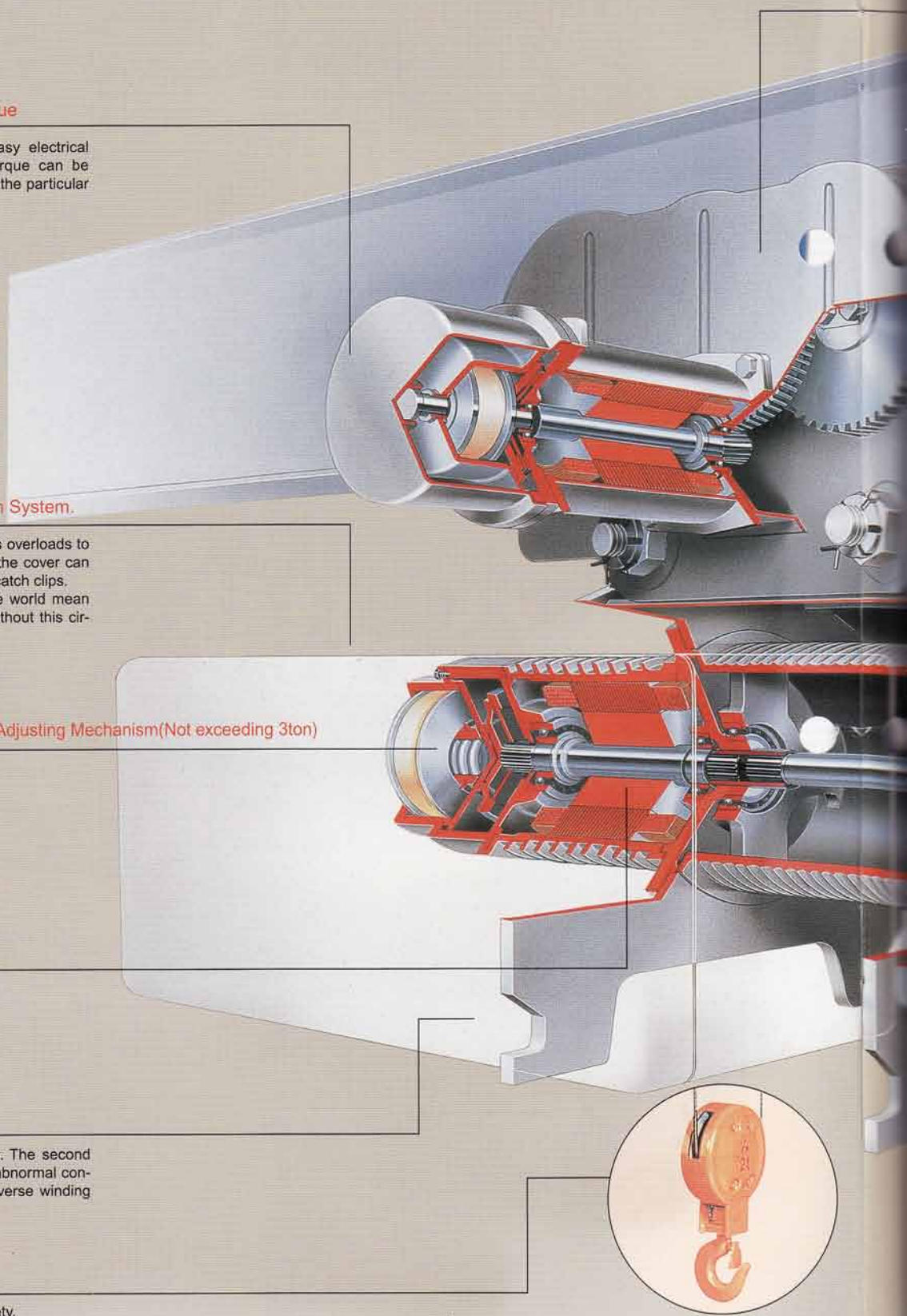
This high-resistance die-cast motor combines a low starting current with a high starting torque. There is on initial buidup of heatand inching operations are easy.

5. 2-Step Hoist-Limiting Switch

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

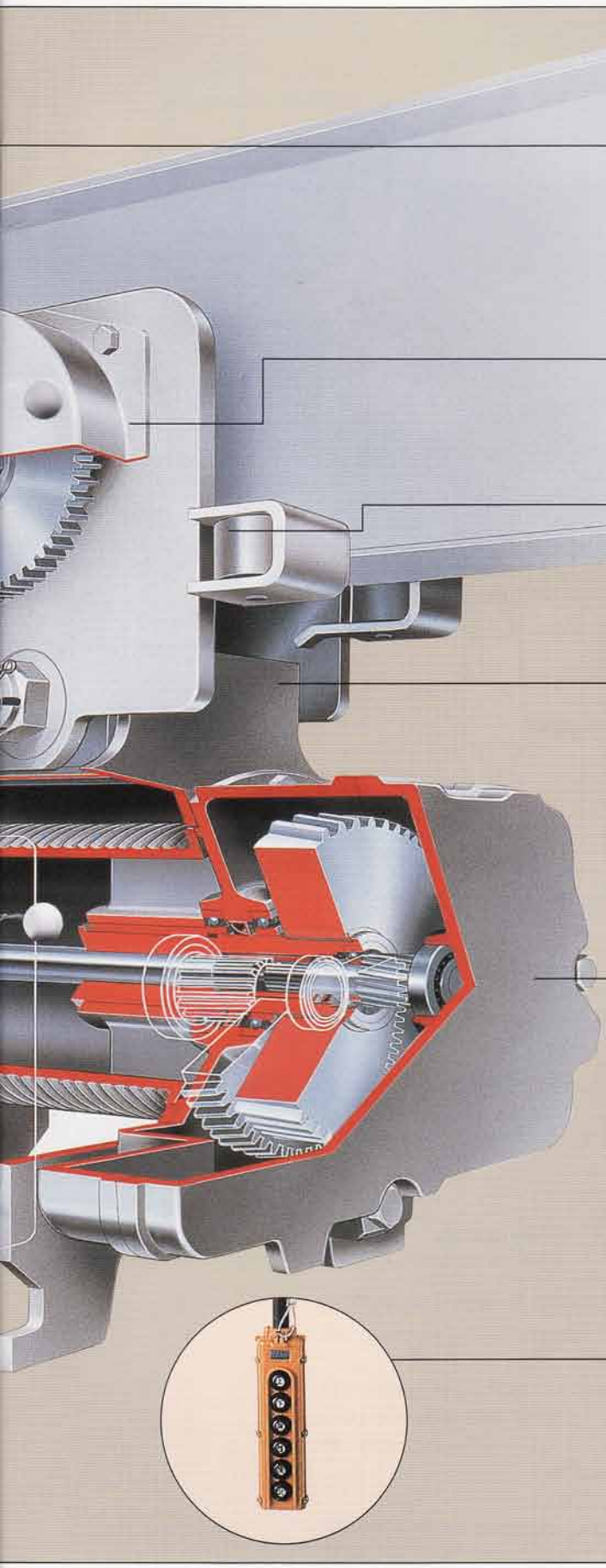
6. Hook Block with Safety Cover

The entire assembly is enclosed for added safety.



A TRADITION OF ADVANCED TECHNOLOGY.

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



7. Totally Enclosed Traverse Gear Assembly

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

8. Side Plate for Traverse

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

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

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

10. Steel Frame

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

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

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

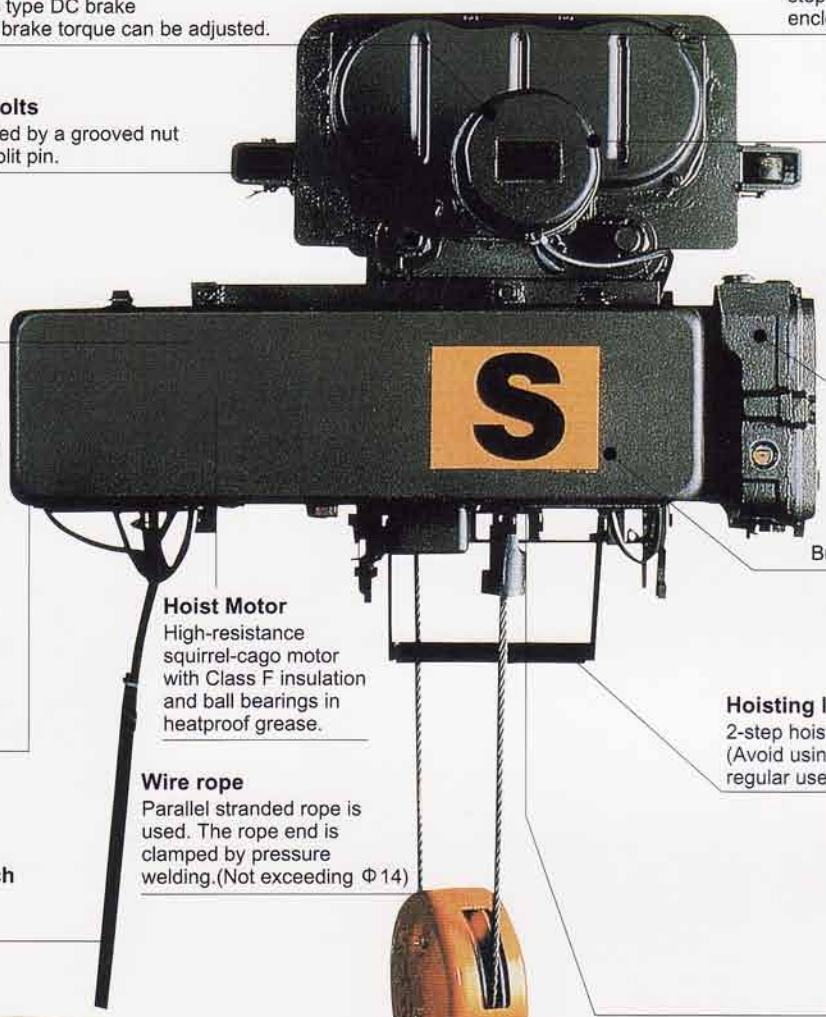
12. Protective Construction for Drip-proof

13. Drip-proof Push-Button Switches

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

S Type Series

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



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

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

Traverse Motor
Squirrel-cago type with Class B insulation.

Tie Bolts
Secured by a grooved nut and split pin.

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.

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

Electromagnet
Not exceedeing 3t: AC electromagnet. More than 5t: DC electromagnet.

Drum Casing
Built of rugged steel plate.

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

Electromagnetic brake
Not exceeding 3t: Disc brakd with auto-adjustment device.
More than 5t: Disc brake that allows to adjust a gap easily.

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 Φ14)

Cable for push button switch
Vibration-proof cable
(with a built-in protective wire)

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

Push button switch
Plastic case

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

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

Specifications

Type	Lifting Capacty(t)	Loadlifting height(m)		Wire rope			Hoisting					Travelling									
												Mono-rail Low-hearoom					Double-rail				
							Speed (m/min)		Motor			Speed (m/min)		Motor			Speed (m/min)		Motor		
									Outpur (kW)		Poles			Outpur (kW)		Poles			Outpur (kW)		Poles
		Low	High	2falls(stationary)	4falls(Double-rail Low-headroom)	Rope specification	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	φ 6.3	φ 4	6×W(19)B class JIS G 3525	11	13	1.0	1.2	4	21	25	0.22	0.26	4	–	–	–	–	
	1	6	12	φ8	φ 6.3				2.0	2.4							–	–	–	–	
	2	6	12	φ10	φ8	6×Fi(29) B class JIS G 3525	8.4	10	2.9	3.5				0.5	0.6		–	–	–	–	
	2.8	6	12	φ 12.5	φ9				4.1	4.9							21	25	0.5	0.6	4
	3	6	12	φ 12.5	φ9				4.4	5.3											
	5	8	12	–	φ 11.2		6.7	8	6.2	7.5				0.85	1.0						
	7.5	8	12	–	φ14		5.8	7	8.3	10		12	15				15	18	0.85	1.0	
	10	8	12	–	φ16		5	6	10	12				1.5	1.8				0.85	1.0	
	15	8	12	–	φ20				17	20	6			0.85 × 2	1.0 × 2				1.5	1.8	
	20	–	12	–	φ 22.4		4.2	5						1.5 × 2	1.8 × 2						
	30	–	12	–	φ25	IWRC 6×Fi(29) B class JISG3525	2.8	3.3											1.5 × 2	1.8 × 2	
	40	6.5	–	–	φ22.4 (8falls) ※1	6×Fi(29) B class JISG3525	2.1	2.5				–	–	–	–	–			0.85 × 4	1.0 × 4	
		–	11.5																		
	45	–	12.5	–	φ25 (6falls) ※1	IWRC 6×Fi(29) B class JISG3525	1.8	2.2													
		–	19																		

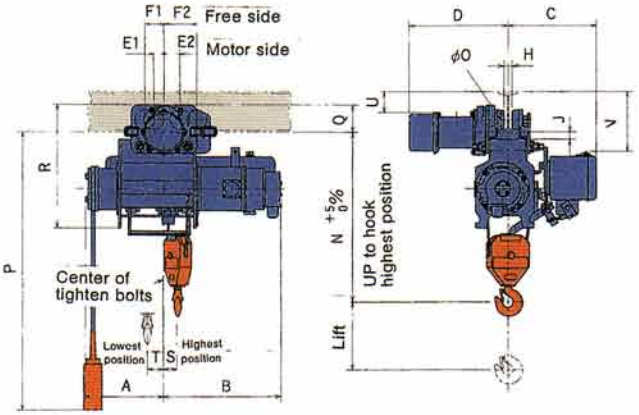
※1 40t has 8falls and 45t has 6falls.(Regarding 60t,please specially)

Standard Specifications

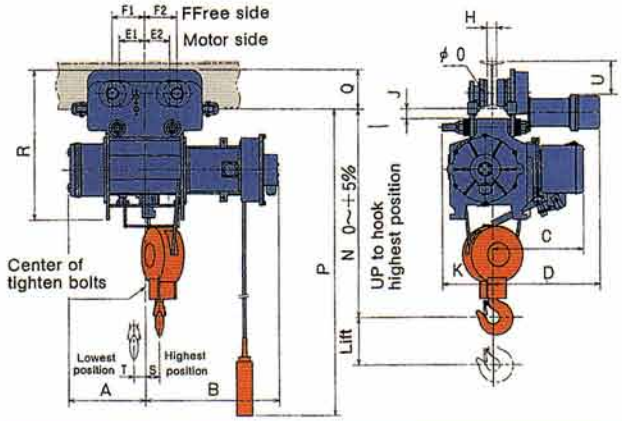
- **Power supply**……3-phase 200V 50/60Hz(220V 60Hz is available.)
- **Operating method**……Push button switch operations
  For Suspended and Frame mounted type(Not exceeding 3t): 2points(U and D)
  For Suspended and Frame mounted type(More than 5t): 4points(On, Off, U and D)
  For Regular type(Not exceeding 3t): 6points(U, D, E, W, S and N)
  For Regular type(More than 5t): 8points(On, Off, U, D, E, W, S and 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**……Conforming to JIS C 4004 drip-proof type(simplified outdoor type)
- **Applicable standard**……JIS C 9620 electric hoist/crane structure standard
- **Color coating**……Main body : Metallic gray(Equivalent to Munsell N4.0)
  Hook block : Munsell7.5YR7/14
  Pushbutton : Equivalent to Munsell 7.5YR7/13
- **Ambient air temperature**……-5℃(23°F)to 40℃ (104°F) (Non congelation)
- **Ambient air humidity**……90% or less(Non condensing)

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

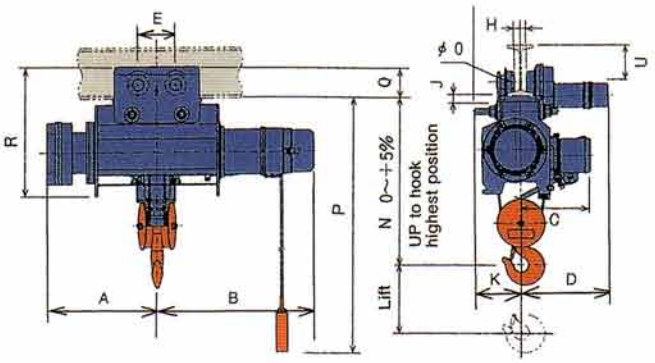
S-1/2



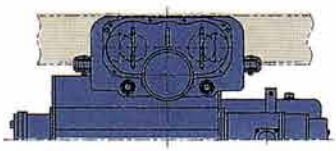
S-1·2·2.8·3



S-5



(Shape of S-1/2-HM)



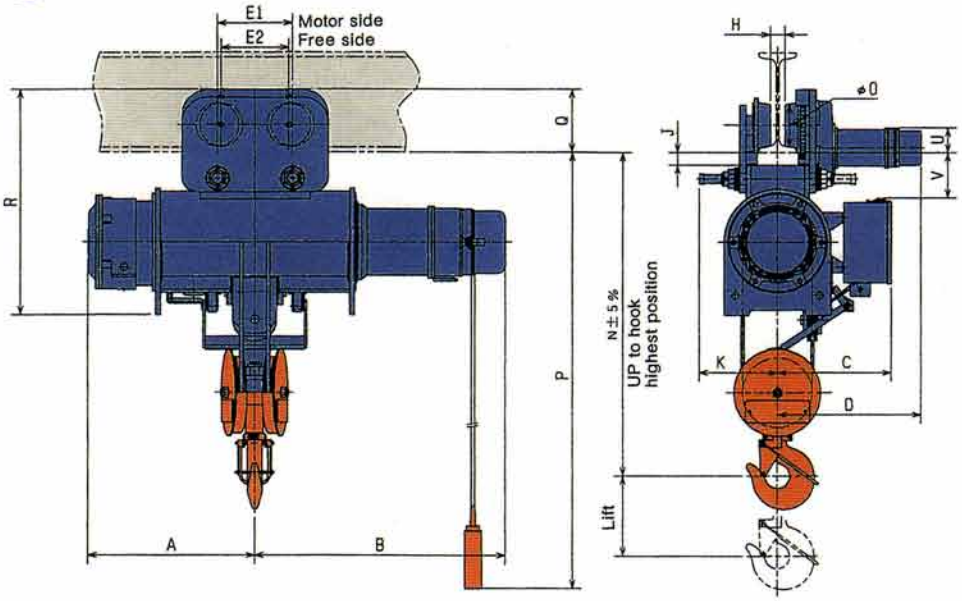
Note : In the case of trolley electric supply type, balance weight is required.

Model		S-1/2												S-1					S-2					S-2.8(3)					S-5				
		LM2						HM2						LM2					HM2					LM2					HM2				
Cap.(t)		1/2												1					2					2.8(3)					5				
Lift(m)		6						12						6					12					6					12				
Dimensions(mm)	A	287						457						287					474					322					479				
	B	433						473						518					551					563					593				
	C	324												345						383					408					410				
	E1	38						100						100						105					105					110				
	E2	58						100						100						105					105					110				
	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					2.5				
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	D	H	J	Q	U
Applicable I-Beam(mm)	150×75×5.5	364	30	27	100	75	222	360	24	33	140	105	233	360	24	33	140	105		–						–						–				
	200×100×7	376	54	26	101	125	271	372	48	33	140	155	283	372	48	33	140	155		453	40	41	167	140		–						–				
	250×125×7.5	–						385	74	31	142	203	331	385	74	31	142	203		465	64	39	169	188	465	64	34	169	188		–					
	300×150×8	–						–						–						478	90	38	170	237	478	90	33	170	237		–					
	300×150×11.5	–						–						–						478	90	29	179	288	478	90	24	179	228	512	72	31	189	219	
	450×175×13	–						–						–						–					–						524	96	27	193	365	

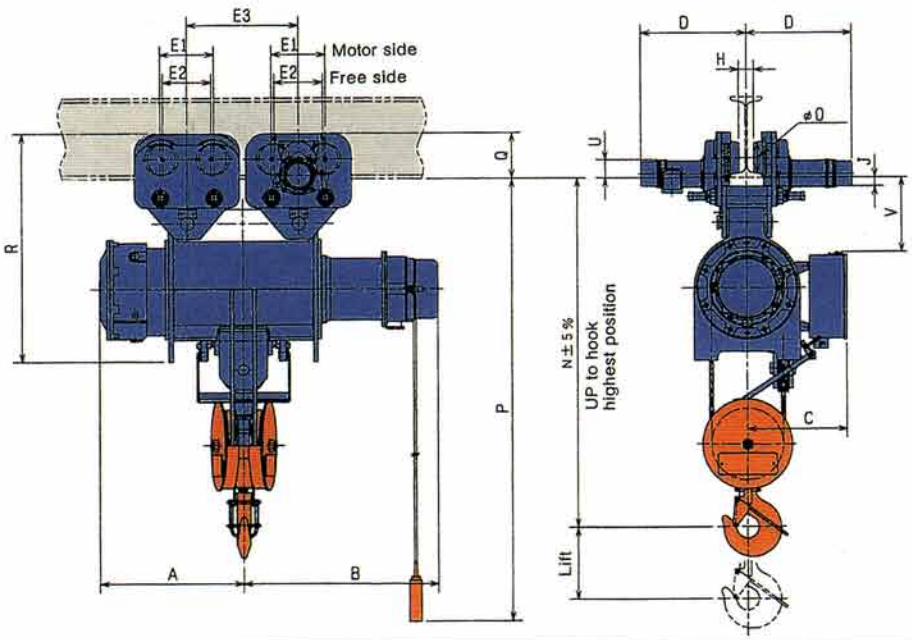
Note.rad.cur( )at I-Beam S-1/2···150×75×5.5 S-1···150×75×5.5 S-2···200×100×7 Note Applicable I-Beam = Standard

Monorail Type S (7.5t·10t·15t·20t)

S-7.5 · 10



S-15 · 20



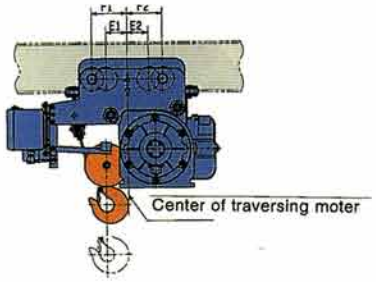
Model		S-7.5						S-10						S-15						S-20					
		LM			HM			LM			HM			LM			HM			HM					
Cap.(t)		7.5						10						15						20					
Lift(m)		8			12			8			12			8			12			12					
Dimensions(mm)	A	669			794			719			844			799			949			999					
	B	1004			1129			959			1084			1085			1235			1235					
	C	458						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			8000			12000			8000			12000			12000					
	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	58	49	254	117	181	604	54	49	279	141	241	–						–					
	450×175×13	590	82	49	254	117	181	616	78	49	279	141	241	590	82	49	254	117	416	616	78	49	279	141	521
	600×190×13	598	98	50	253	116	182	624	94	50	278	140	242	598	98	50	253	116	417	624	94	50	278	140	522

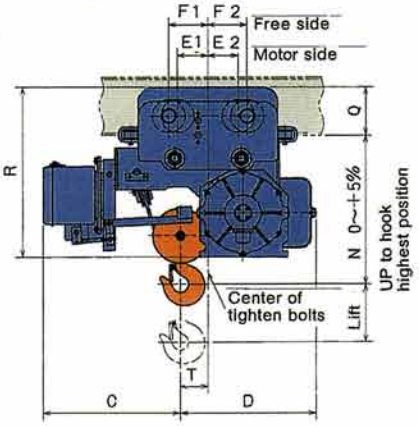
Note Applicable I-Beam ▭ = Standard

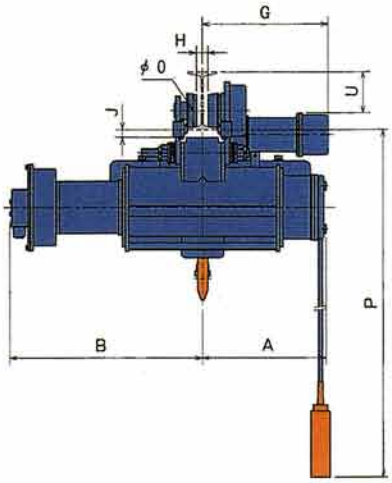
Low-head Type S (1/2t·1t·2t·2.8t·3t·5t)

S-1/2 · 1 · 2 · 2.8 · 3

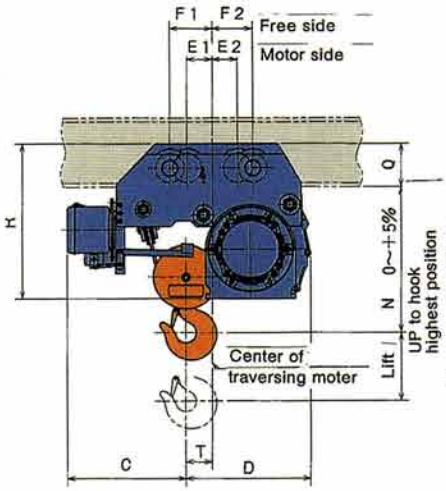
(Shapes of S-2.8t and 3t)

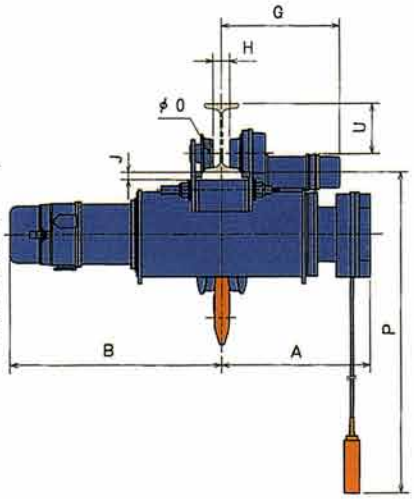






S-5



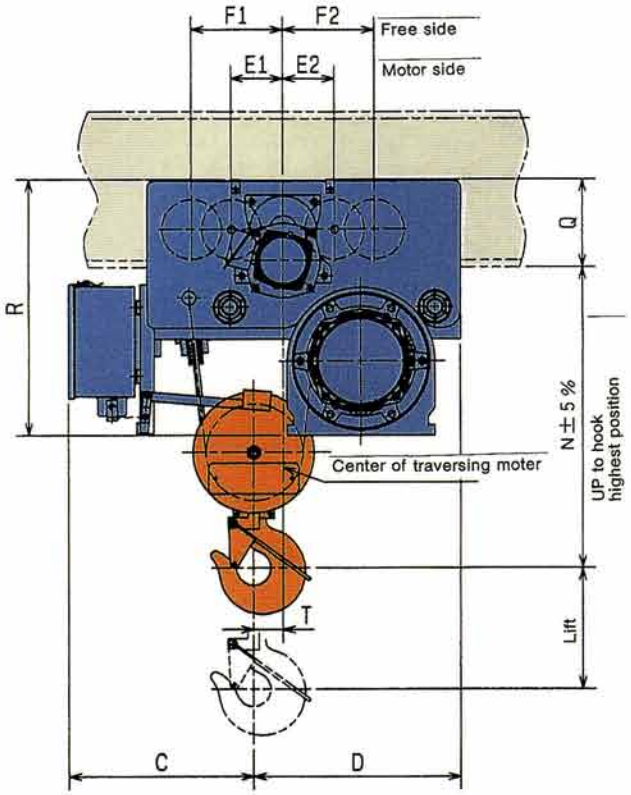


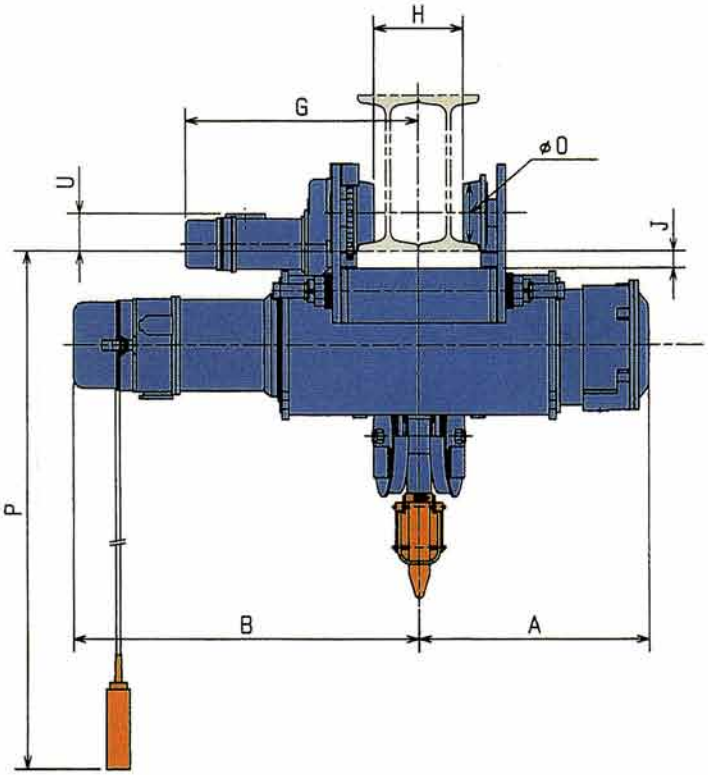
Model		S-1/2-LD2	S-1		S-2		S-2.8(3)		S-5	
			LD2	HD2	LD2	HD2	LD3	HD3	LD2	HD2
Cap.(t)		1/2	1		2		2.8(3)		5	
Lift(m)		6	6	12	6	12	6	12	8	12
Dimensions(mm)	A	407	429	597	427	605	440	590	646	771
	B	528	616	784	668	847	711	861	920	1045
	C	371	423		473		490		518	
	S	272	356		467		558		542	
	E1	58	100		105		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		5.0	
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)	150×75×5.5	364	30	19	101	75	360	24	21	140	105	–					–					–				
	200×100×7	376	54	20	101	125	372	48	21	140	155	453	40	26	167	140	–					–				
	250×125×7.5	–					385	74	19	142	203	465	64	24	169	188	465	64	26	169	188	–				
	300×150×8	–					–					478	90	23	170	237	478	90	25	170	237	–				
	300×150×11.5	–					–					478	90	14	179	228	478	90	16	170	228	512	72	31	189	219
	450×175×13	–					–					–					–					524	96	27	193	365

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

Low-head Type S (7.5t·10t)





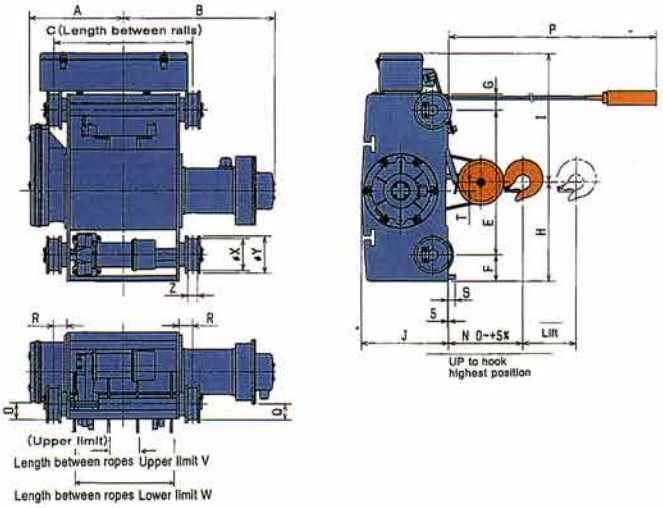
Model		S-7.5		S-10	
		LD	HD	LD	HD
Cap.(t)		7.5		10	
Lift(m)		8	12	8	12
Dimensions(mm)	A	669	794	719	844
	B	1004	1129	959	1084
	C	536		619	
	D	601		689	
	E1/E2	150/150		604/164	
	F1/F2	265/265		528/162	
	N	880		990	
	O	173		193	
	P	8000	12000	8000	12000
	R	741		873	
	T	86		363	
Min.rad.curvature(m)		Straight 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

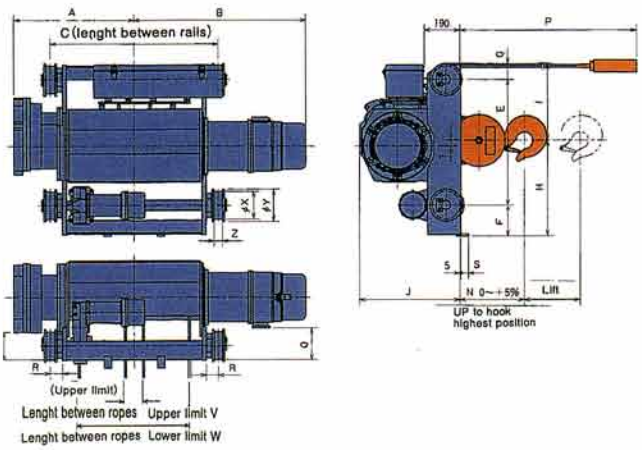
Note Applicable I-Beam ▭ = Standard

Double rail Type S (2.8t·3t·5t)

S-2.8 · 3



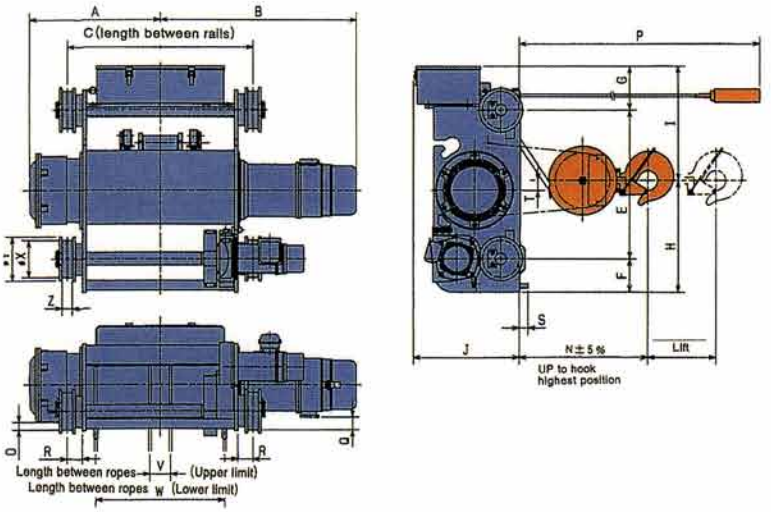
S-5



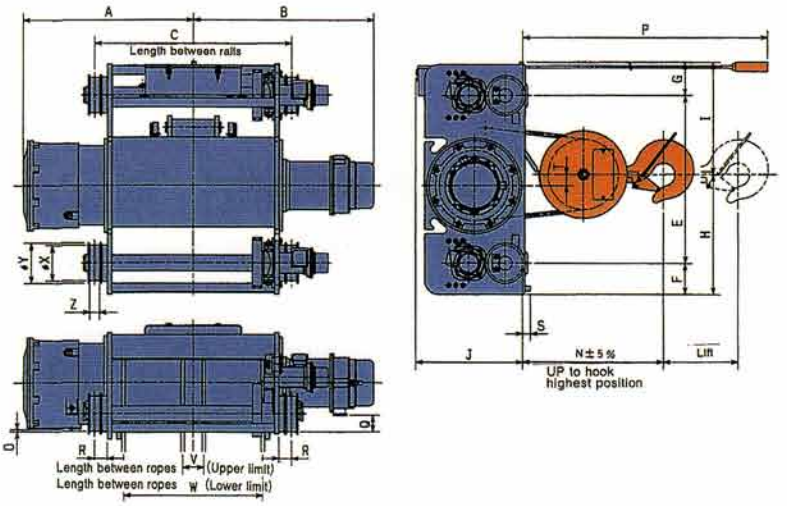
Model		s-2.8(3)		S-5	
		LR3A	HR3A	LR2A	HR2A
Cap.(t)		2.8(3)		5	
Lift(m)		6	12	8	12
Dimensions(mm)	A	440	590	646	771
	B	711	861	920	1045
	C	650	950	900	1150
	E	680		680	
	F	125		167	
	G	75		88	
	H	468		517	
	I	605		418	
	J	410		540	
	N	345		346	
	O	52		125	
	P	6000	12000	8000	12000
	Q	75		170	
	R	63		65	
	S	35		40	
	T	43		30	
	V	135	130	97	100
	W	453	753	590	840
	X	150		150	
	Y	175		175	
	Z	45		45	
Weight(kg)		425	475	660	740
Hook block weight(kg)		25		42	
Applicable I-Beam(mm)		12kg rails or 38mm steel square bars			

Double rail Type S (7.5t·10t·15t·20t·30t)

S-7.5 · 10 · 15 · 20



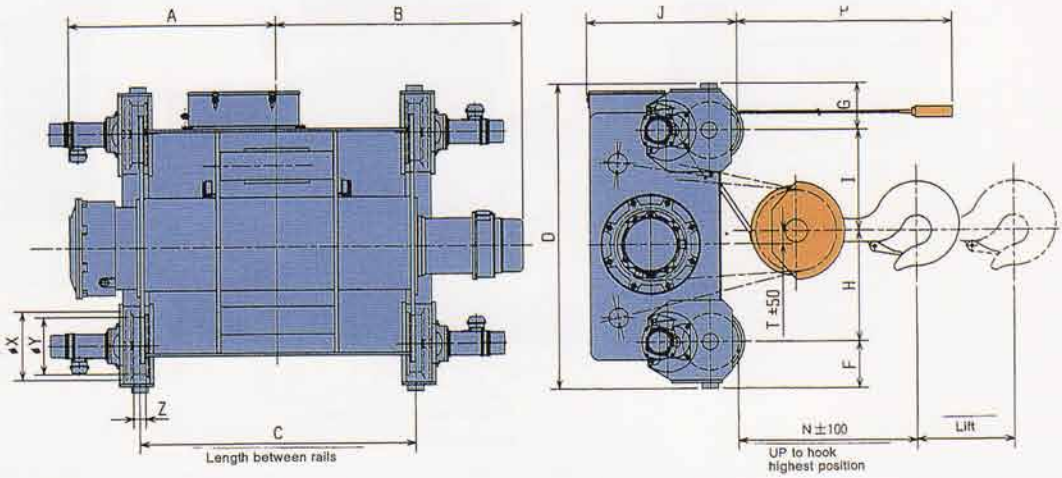
S-30



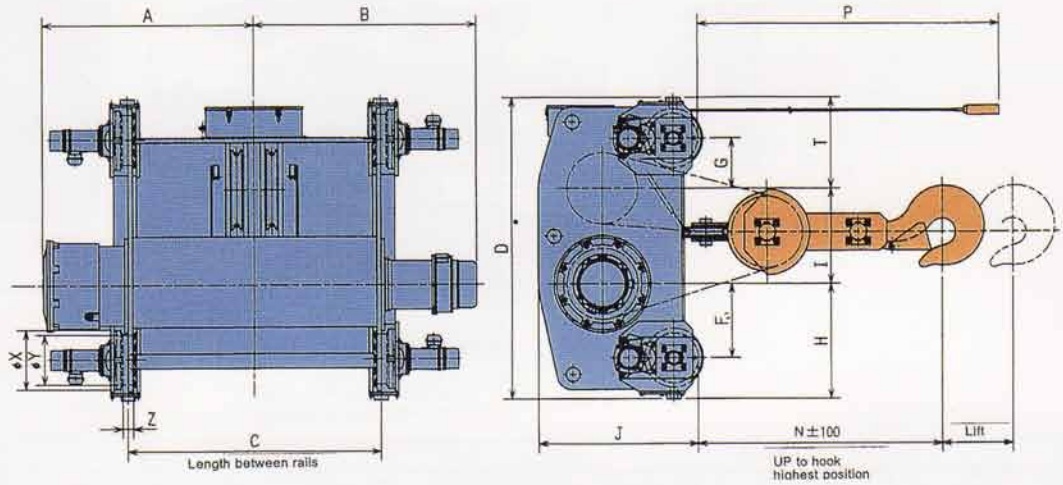
Model		S-7.5		S-10		S-15		S-20-HR	S-30-HR
		LR	HR	LR	HR	LR	HR		
Cap.(t)		7.5		10		15		20	30
Lift(m)		8	12	8	12	8	12	12	12
Dimensions(mm)	A	669	794	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	950	1200	950	1200	1000	1300	1300	1400
	E	760		840		1000		1045	1190
	F	170		170		220		220	220
	G	223		233		243		248	242
	H	570		613		760		790	850
	I	583		630		703		723	802
	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	55
	T	50		53		70		70	80
	V	105	80	100	100	110	135	125	150
	W	660	910	620	870	660	960	945	990
	X	190		190		250		250	250
	Y	225		225		285		285	285
	Z	52		52		58		58	73
Weight(kg)		900	980	1250	1360	1900	2100	2500	3600
Hook block weight(kg)		80		100		190		280	380
Applicable I-Beam(mm)		15kg rails or 44mm steel sruare bars				22kg rails or 50mm steel square bars			37kg rails or 65mm steel square bars

Double rail Type S (40t·45t)

S-40

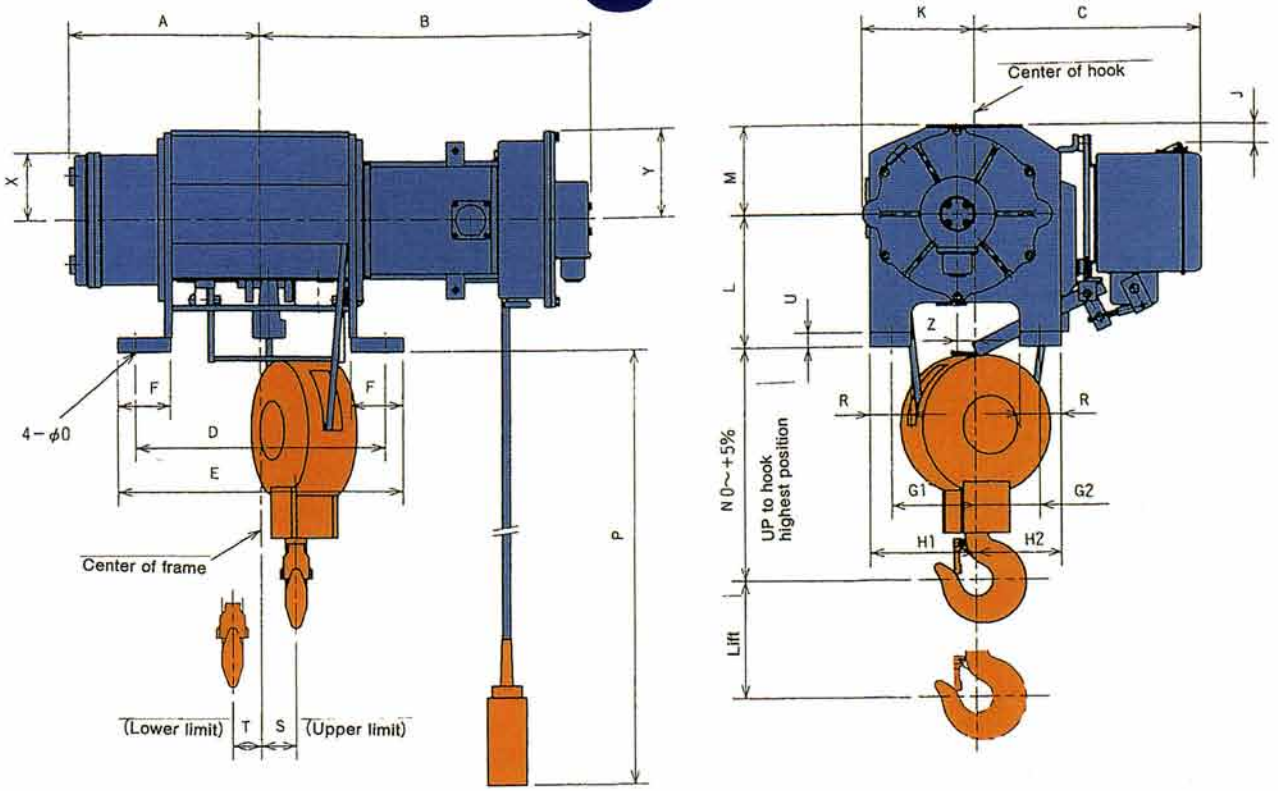


S-45

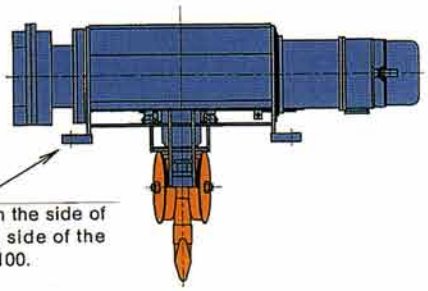


Model		S-40		S-45	
		LR	HR	HR	HR
Cap.(t)		40		45	
Lift(m)		6.5	11.5	12.5	19.0
Dimensions(mm)	A	1399	1749	1490	1840
	B	1515	1865	1565	1915
	C	1700	2400	1780	2480
	D	1874		2114	
	F	287		520	
	G	287		350	
	H	681		807	
	I	619		670	
	J	930		1125	
	N	1110		1720	
	P	7500	12500	11000	16000
	T	81		637	
	X	419		419	
	Y	350		350	
	Z	75		75	
Weight(kg)		4800	5300	6000	6500
Hook block weight(kg)		750		730	
Applicable I-Beam(mm)		37kg rails or 65mm steel square bars		37kg rails oe 65mm steel square bars	

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



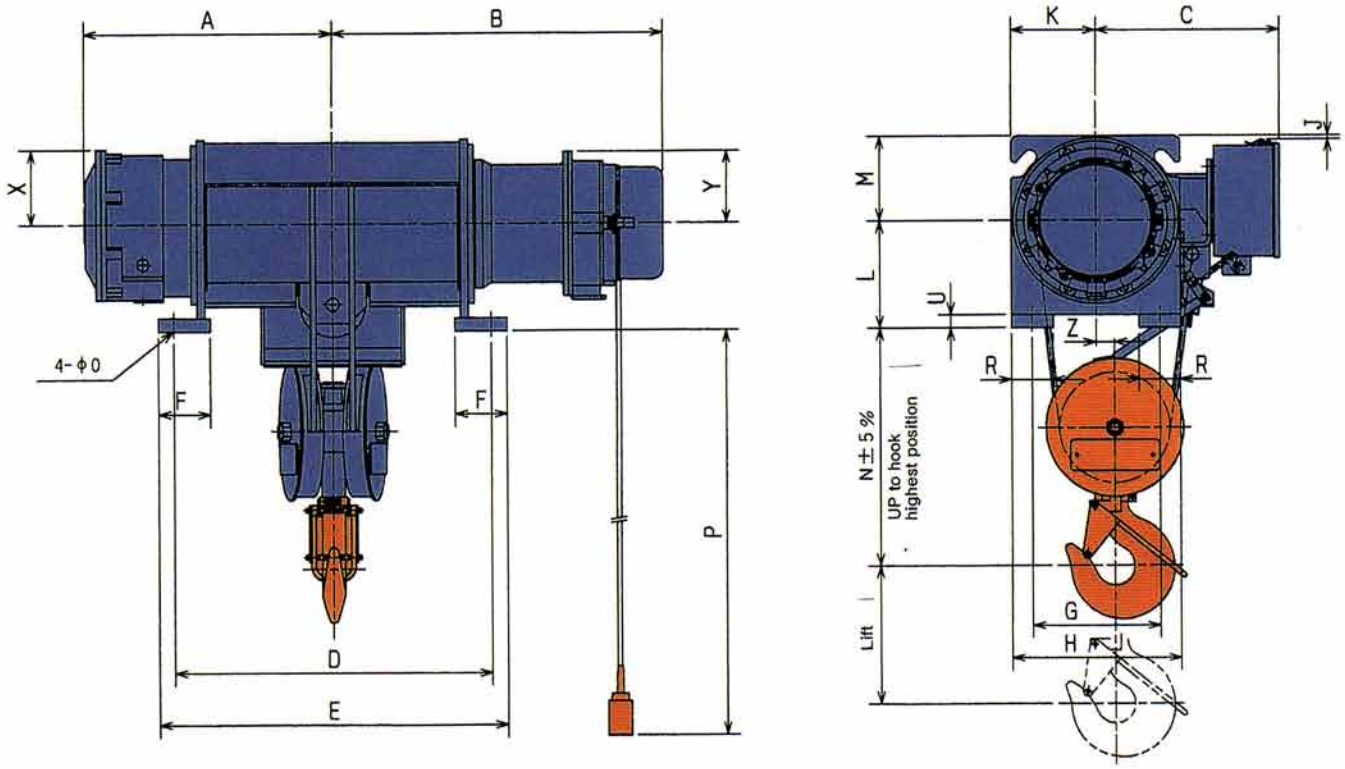
(Shape of 5t)



The range of length for bolts(on the side of hoisting gearbox)used on the side of the case must be from M24-70 to 100.

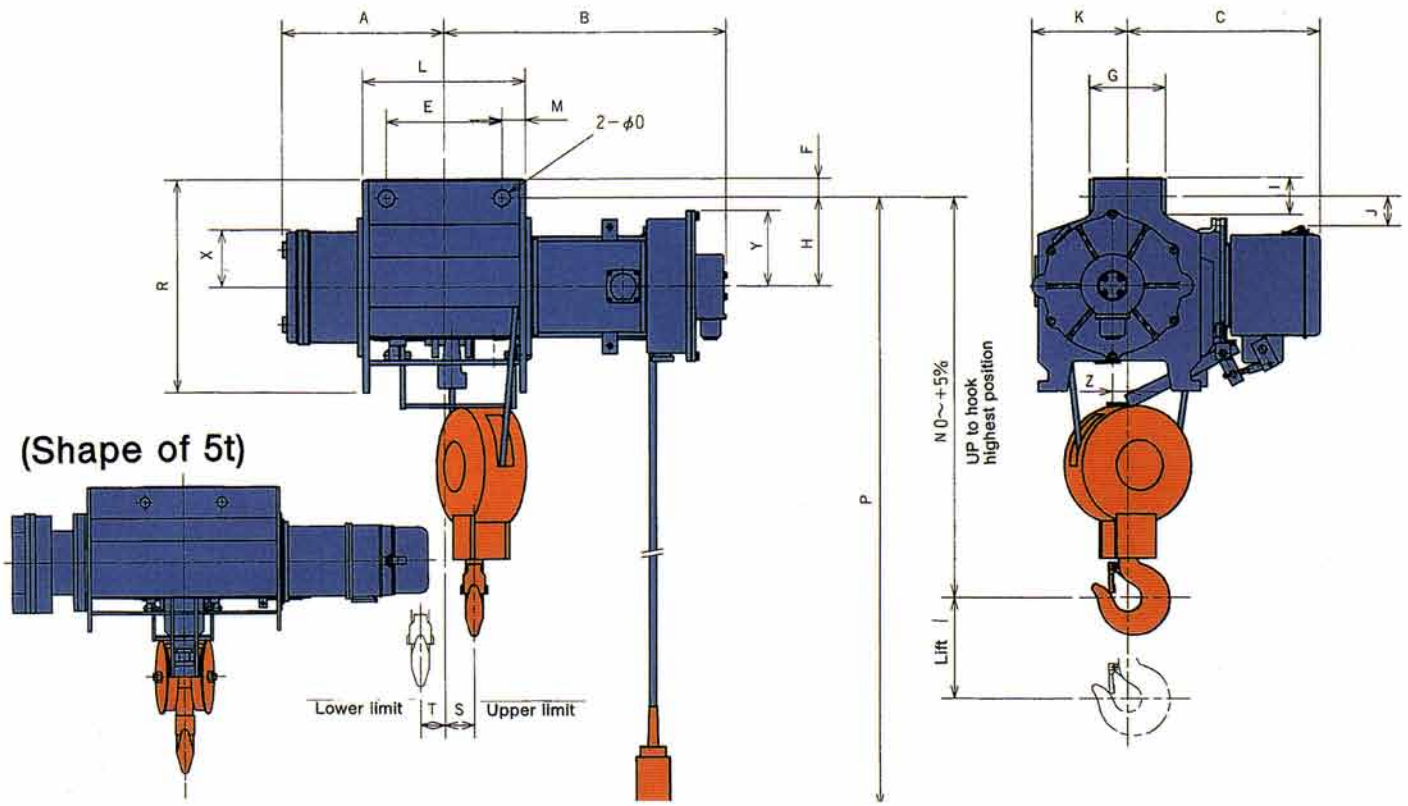
Model		S-1		S-2		S-2.8(3)		S-5	
		LS2	HS2	LS2	HS2	LS3	HS3	LS2	HS2
Cap.(t)		1		2		2.8(3)		5	
Lift(m)		6	12	6	12	6	12	8	12
Dimensions(mm)	A	287	397	322	415	341	441	646	771
	B	518	628	563	657	610	710	920	1045
	C	345		383		408		410	
	D	385	605	420	605	430	630	850	1100
	E	435	655	480	665	500	700	920	1170
	F	75		80		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		226	
	L	180		225		275		260	
	M	136		151		181		205	
	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		143	
	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		533		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		209	209
	Z	50		53		70		70	80
Weight(kg)		650	720	1000	1100	1400	1550	1900	3200
Hook block weight(kg)		80		100		190		280	380

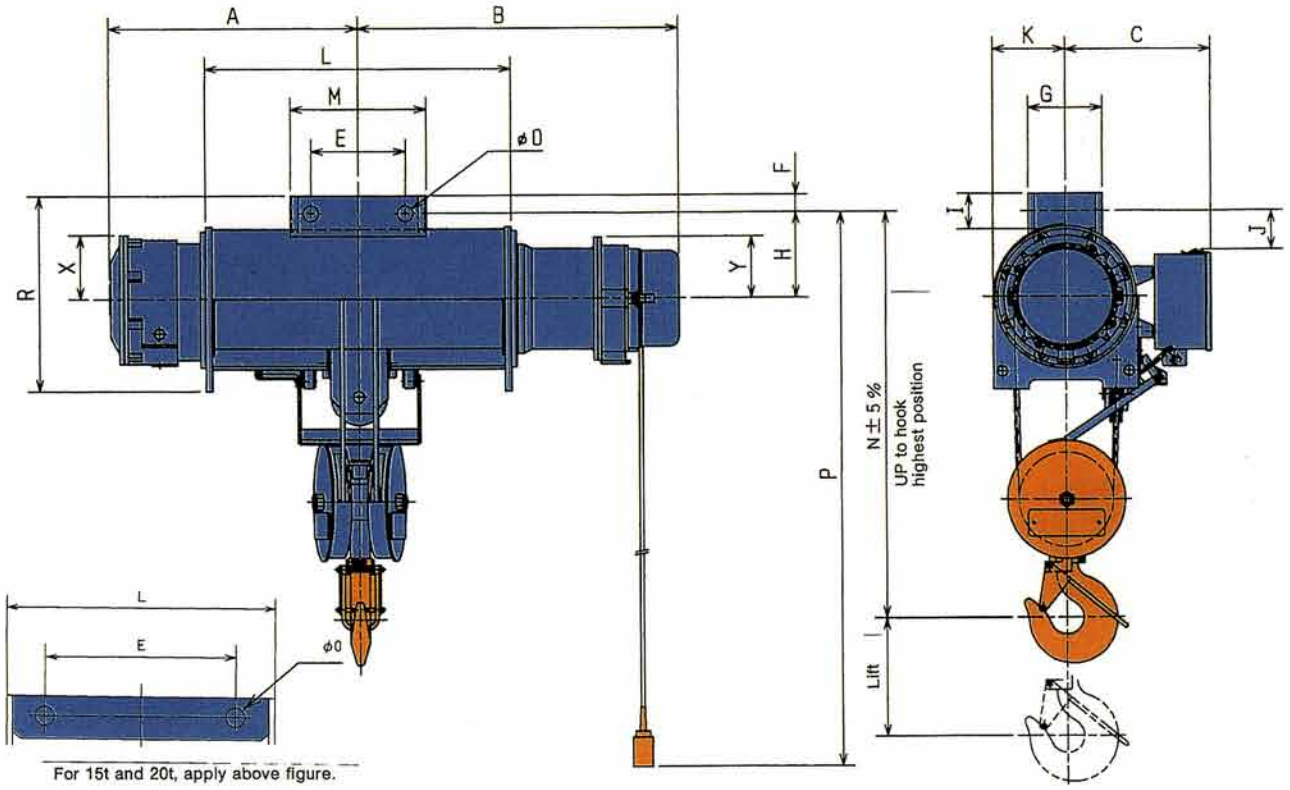
Suspended Type S (1/2t·1t·2t·2.8t·3t·5t)



Model		S-1/2		S-1		S-2		S-2.8(3)		S-5	
		LK2	HK2	LK2	HK2	LK2	HK2	LK3	HK3	LK2	HK2
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	920	1045
	C	324		345		383		408		410	
	E	170	230	230	230	230	230	230	230	290	
	F	28	33	33		38		43		60	61
	G	140	117	117		151		176		229	
	H	155		160		177		215		225	
	I	75	78	63		67		80		105	106
	J	18		47		59		127		145	
	K	151		167		190		216		226	
	L	283	493	298	518	323	508	323	523	725	975
	M	32	42	34	67	47	75	46	77	217	342
	N	570		670		800		965		905	
	O	20	24	24		33		33		38	
	P	6000	12000	6000	12000	6000	12000	6000	12000	8000	12000
	R	328	333	373		425		518		546	
	S	50	93	71	105	58	101	60	97	–	
	T	58	123	42	119	49	113	47	115	–	
	X	87		107		140		172		200	
	Y	85		105		150		150		143	
	Z	20		36		30		30		30	
Weight(kg)		90	105	135	150	220	245	310	345	510	580
Hook block weight(kg)		4.5		7.5		15		27		42	

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

Suspended Type S (7.5t·10t·15t·20t)



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

Hoists for special uses

HIgh speed hoisting type · low speed hoisting type

Various hoisting speed types, which are different from standard hoisting speed type, are available on request.

Capacity(t)		1/2	1	2	2.8	5	7.5	10,15	20	30
High speed type	50HZ	22	16.7	12.5	11.2	10	8.3	5.6	-	-
	60HZ	26	20	15	13.5	12	10	6.7	-	-
Low speed type	50HZ	5.5	5.5	4.2	4.2	3.3	2.9	2.5	2.1	1.4
	60HZ	6.5	6.5	5	5	4	3.5	3	2.5	1.6

Hoists with special voltage type

Special voltage type hoists
(Excluding 200V and 220V)

Hoists with high load-lifiting height

Hoists whose load-lifting height exceed 12m, and manufacturing of load-lifting height of 70～80m may be possible (depends on their rated capacity). Please contact us.

Hoists with special protective construction

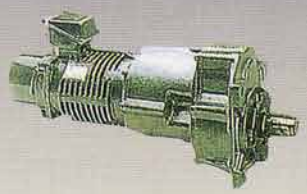
Standard hoists conform to simplified outdoor type. (JIS C 4004 drip-proof type)
Following special protective construction are available to hoists used in special environment.

1. Spray-proof type
   For hoists mainly used outdoor. (Housing them in indoor during a halt is recommended)
2. Corrosion-proof type
   For hoists used in the environment that hoists are exposed to acid and alkali. (Corrosion-natured substances) Please inform us of the kind of substance and its amount.
3. Explosive-proof type
   For hoists used in places where explosion or burning can be caused by flammability gas.

■Standard specifications

Power supply	3-phase 200V · 50/60Hz (400V class is also available on request.)
Operating method	Push button switch operations For Suspended, Frame mounted, Plane trolley, Geared trolly type ……2 points (Indication/U · D) For Regular type (Except Duble-rail type) ……4 points (Indication/U · D · R · L) For Doble-rail type ……6 points (indication/U · D · E · W · S · N)
The allowable Percentage of duty cycle and Number of starts per Hr	Percentage of duty cycle (%) ED……25 Number of starts Per Hr (S/Hr)……250
Power supply system	Cable feeding (Cable is not attached)
Protective construction	Explosion-Proof type……d2G4 (Indoor type)

Geer motor for crane saddle



〈SGM〉 (0.4～3.7kw)
SGM specially developed for crane saddle is tough and easy handling gear motor.

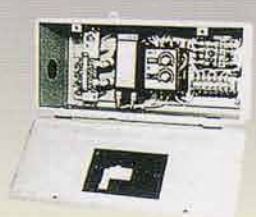
There are two speed types of output axis rotation. (Low speed and high speed) Mechanical cushion starter (Silicon cup ring)built-in series is also avaiable.

Soft starter

〈SC-A〉 (～4.4kw)
For the starting shock restraint of crane and the restrain of swing of load. Easy installation to the traveling motor (less than 4.4kw)

Over load detection device

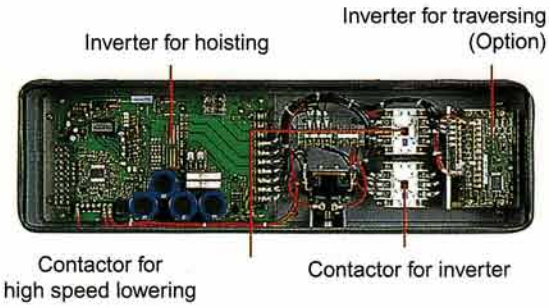
Weight checker〈LCV-B〉(1～30t)
It prevents overloads and ensuures safety by detecting the value of electric current of hoisting motor.



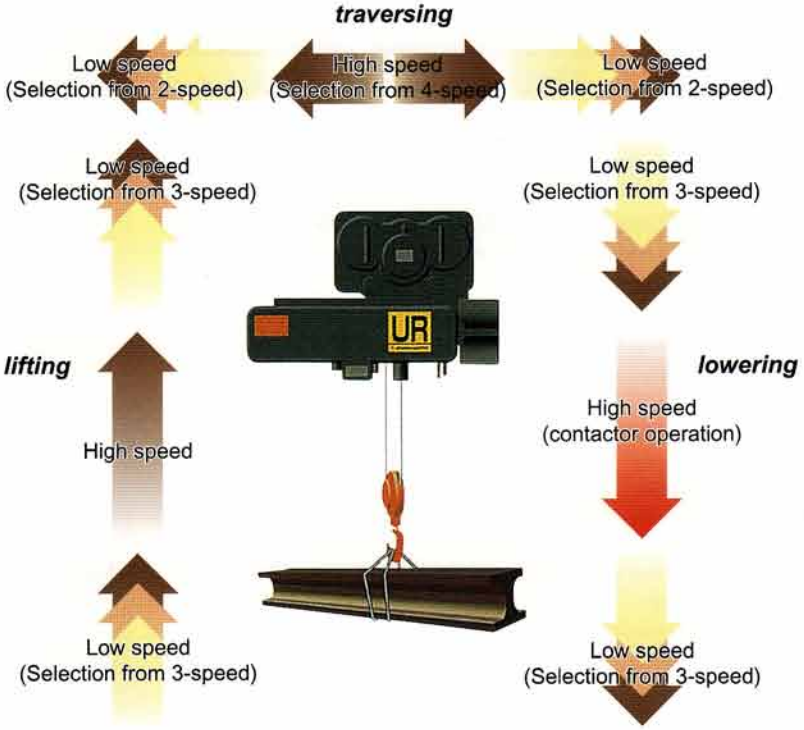
Weight limiter〈LCM〉(1～30t)
It also prevents overloads and ensure safety by detecting load.
(It is installed in body)

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

■The inside of Control box



■Operation image of inverter hoist



●Excellent operativeness

The new control system which combines Invertor 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.

●Exellent cost performance

Specifications

Type	Lifting capacity (t)	Load-lifting height (m)		Wire rope				Hoisting				Traversing					
										Motor		Speed (m/min)			Motor		
				Monorail type	Low head type	Double rail type	Rope specification	Hoisting speed (m/min)		Output (kW)	Poles	Contactor operation	INV opration		Output (kW)	Output (kW)	Poles
		Low	High	2 falls	4 falls	4 falls		Low speed	High speed			50Hz	Low speed	High speed	50Hz	60Hz (INV)	
UR	1	6	12	φ8	φ 6.3	–	6×W (19) B class JIS-G3525	※1 0.8 1.3 2	8 (6.7)	1.4	4	21	※1 2.5 5	※1 25 20 15 10	0.22	0.26	4
	2			φ 10	φ8	–	6×Fi (29) B class JIS-G3525	※1 0.72 1.1 1.8	7.2 (6)	2.6					0.5	0.6	
	3			φ 12.5	φ9	φ9				3.8							

※1. Selectable from the speed types

( ) = Lowering speed at 50Hz

Note 1 : The values in the table are referential values.

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

Standard specifications

●**Power supply**···3-phase 200V 50/60Hz (220V/60Hz) ※380V/50Hz is also available as an non standard.

●**Operating method**···Push button switch operations Two-step push button for hoisting, one-step push button for traversing.
In the case of traverse with creep speed, traversing push button is also two-step push button.
Suspended type, Plane trolley type, Geared trolley type/2 points (U, D)
Regular type/6 points (U, D, E, W, S, N)

●**Applicable standard**···JISC9620 Electric Hoist, Crane structure standard

●**Rating**··· Hoisting : 25% ED(63% of rating load), 150S/Hr JISC9620, Traversing : 30 min. JISC9620

●**Power supply system**···Cable feeding, Trolley feeding (limited to Double trolley type)

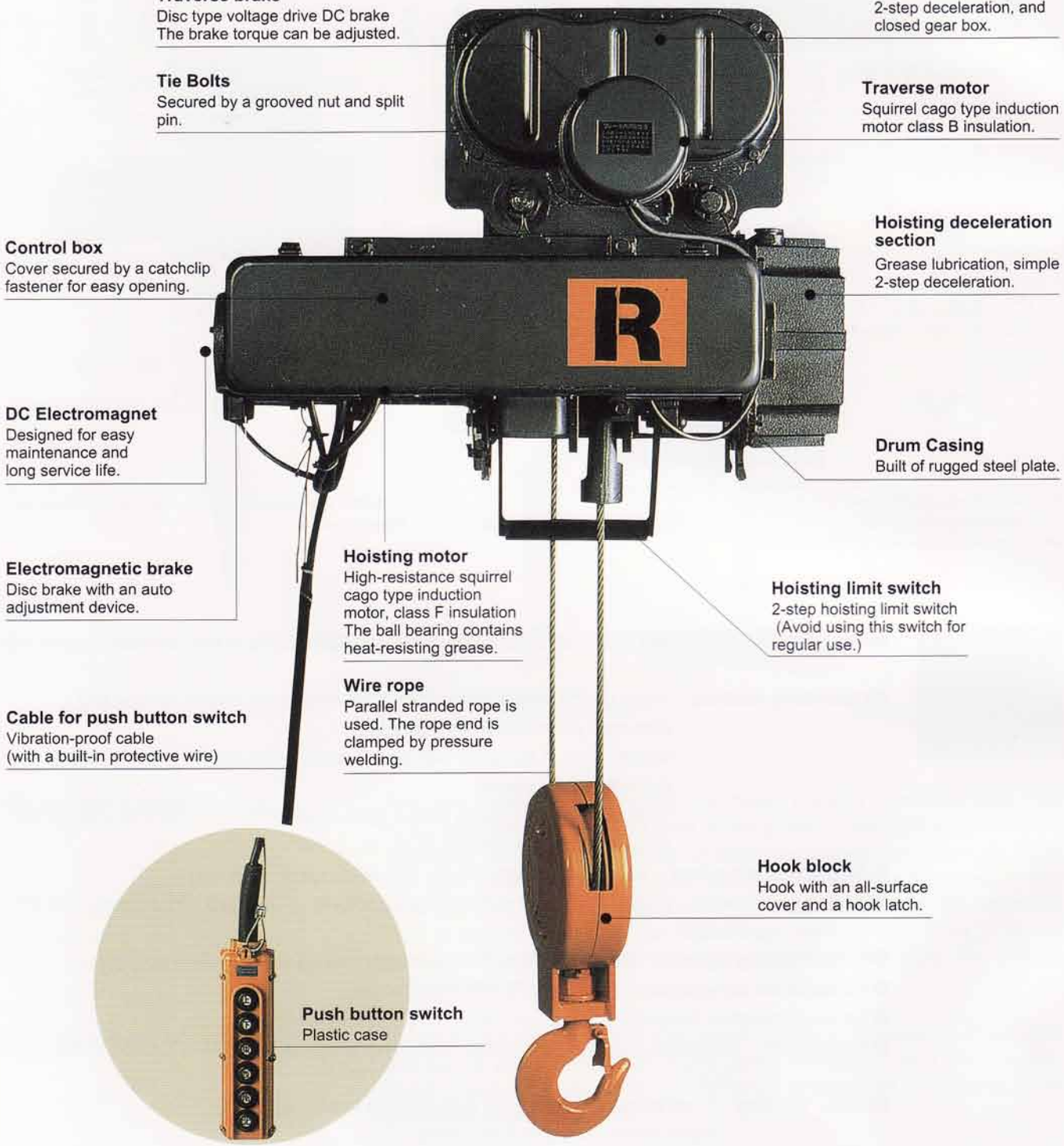
●**Ambient air temperature**···-5℃～40℃ (Non congelation)

●**Ambient relative humidity**···Less than 90% RH (Non condensing)

●**Enclosure**··· Simplified outdoor type (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.)


Traverse deceleration section
Grease lubrication, simple 2-step deceleration, and closed gear box.
Traverse brake
Disc type voltage drive DC brake
The brake torque can be adjusted.
Tie Bolts
Secured by a grooved nut and split pin.
Traverse motor
Squirrel cago type induction motor class B insulation.
Hoisting deceleration section
Grease lubrication, simple 2-step deceleration.
Control box
Cover secured by a catchclip fastener for easy opening.
R
DC Electromagnet
Designed for easy maintenance and long service life.
Drum Casing
Built of rugged steel plate.
Electromagnetic brake
Disc brake with an auto adjustment device.
Hoisting motor
High-resistance squirrel cago type induction motor, class F insulation
The ball bearing contains heat-resisting grease.
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.
Cable for push button switch
Vibration-proof cable
(with a built-in protective wire)
Hook block
Hook with an all-surface cover and a hook latch.
Push button switch
Plastic case

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

Specifications

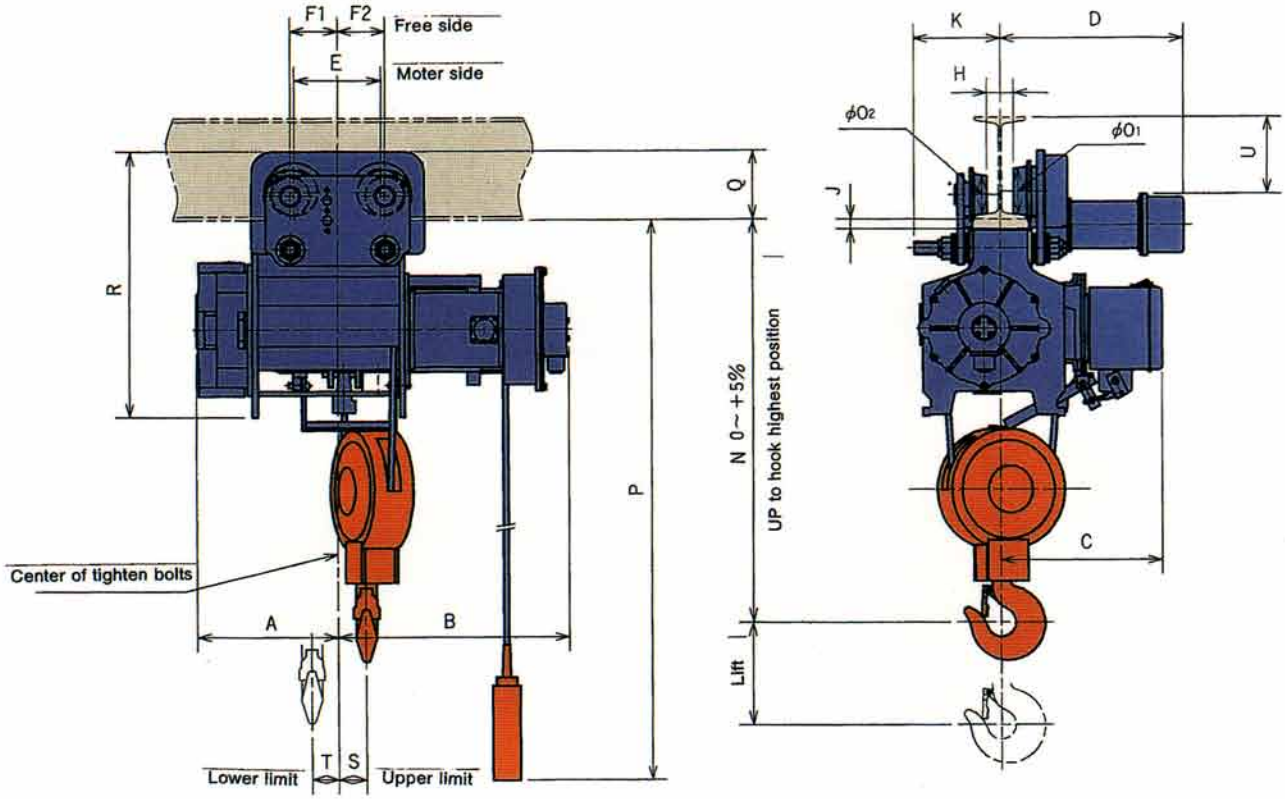
Type	Lifting Capacty(t)	Load-lifting height (m)		Wire rope			Hoisting					Travelling									
												Mono-rail-Low hearoom					Double-rail				
							Speed (m/min)		Motor			Speed (m/min)		Motor			Speed (m/min)		Motor		
									Outpur (kW)		Poles			Outpur (kW)		Poles			Outpur (kW)		Poles
		Low	High	2falls(stationary)	4falls(Double-rail Low-headroom)	rope specification	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	Φ 6.3	6×W(19) B class JIS G 3525	6.7	8	1.2	1.4	4	21	25	0.22	0.26	4	–	–	–	–	–
	2			Φ 10	Φ 8	6×Fi(29) B class JIS G 3525	6	7.2	2.2	2.6				0.5	0.6		–	–	–	–	–
	2.8			Φ 12.5	Φ 9				3	3.6							21	25	0.5	0.6	4

※High laod-lifting height (Low-head type1～2.8t, Double rail type2.8t)is not available.

Standard Specifications

Power supply……3-phase 200V 50/60Hz (220V 60Hz is available.)
Operating method……Push button switch operations
For Suspended type : 2points (U and D)
For Regular type : 6 points (U, D, E, W, S and 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……Conforming to the JIS C 4004 drip-proof type (simplified outdoor type)
Applicable standard……JIS C 9620 electric hoist/crane structure standard
Color coating……Main body : Metallic gray (Equivalent to MunsellN4.0)
Hook block : Munsell7.5YR7/14
Pushbutton : Equivalent to Munsell 7.5 YR 7/14
Ambient air temperature……-5℃(23° F)to 40℃(104° F)(Non congelation)
Ambient relative humidity…90%or less (Non condensing)
Note : These hoists cannot be used for lift (elevator for passengers.)

Monorail Type UR・R (1t・2t・2.8t)



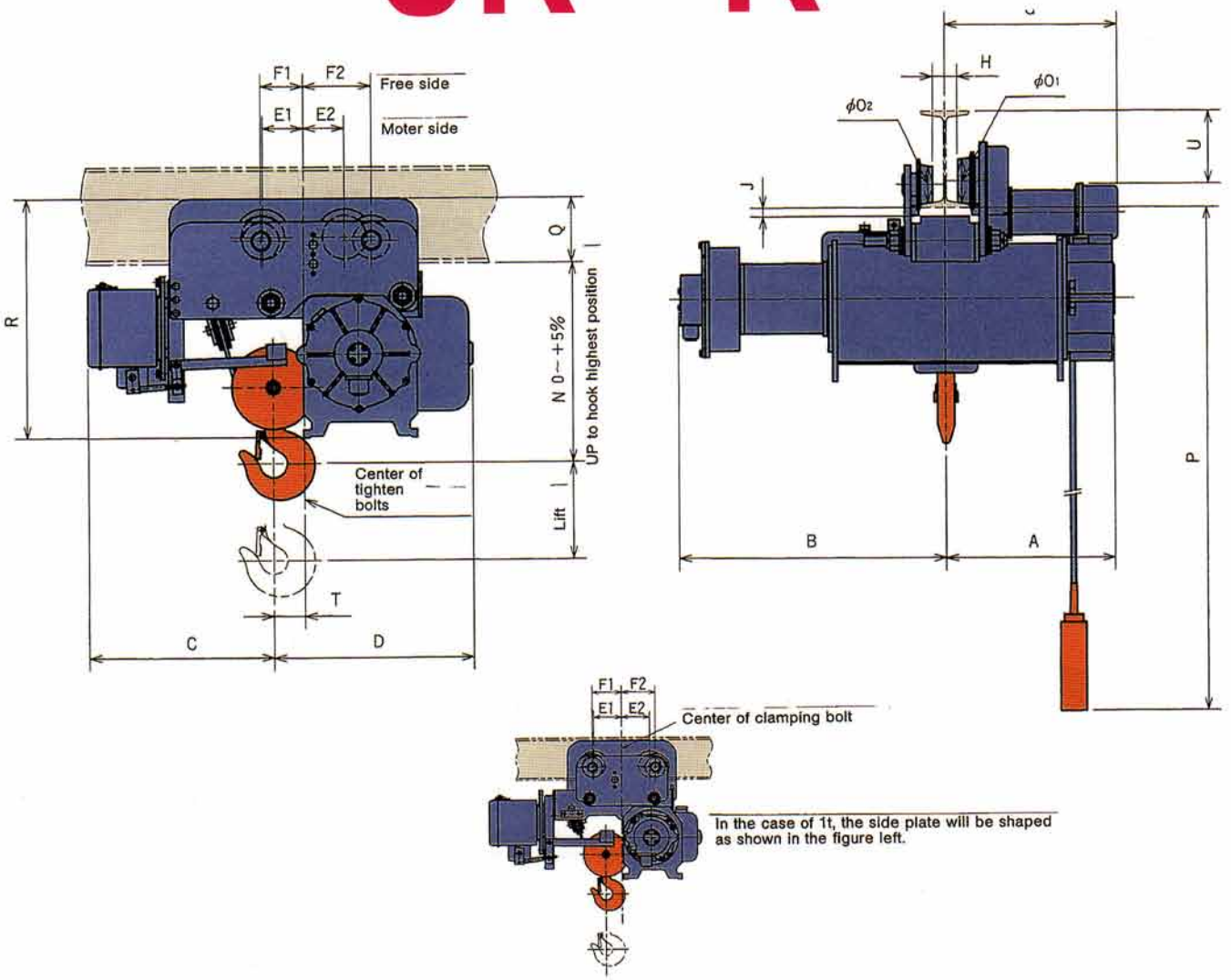
Model		UR-1-LMH3 UR-1-LMS3 R-1-LM3	UR-1-HMH3 UR-1-HMS3 R-1-HM3	UR-2-LMH3 UR-2-LMS3 R-2-LM3	UR-2-HMH3 UR-2-HMS3 R-2-HM3	UR-2.8-LMH2 UR-2.8-LMS2 R-2.8-LM2	UR-2.8-HMH2 UR-2.8-HMS2 R-2.8-HM2
Cap.(t)		1		2		2.8	
Lift(m)		6	12	6	12	6	12
Dimensions(mm)	A	283	489	284	485	343	558
	B	468	507	532	566	565	606
	C	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	
	O1/O2	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) 150×75×5.5	360	24	33	140	105	–	–	–	–	–	–	–	–	–	–
200×100×7	372	48	33	140	155	453	40	31	167	140	–	–	–	–	–
250×125×7.5	385	74	31	142	203	465	64	29	169	188	465	64	24	169	188
300×150×8	–	–	–	–	–	478	90	28	170	237	478	90	23	170	237

Note.1.Min.rad.cur( )at I-Beam 2.Applicable I-Beam ▭ = Standard 3.Min.rad.cur[ ] UR Type with traversing inverter

※In the case of 400V class (Including 380V), there may be differences in outline dimension. Please contact us. R-1,UR-1…150×75×5.5

Low-head Type UR・R (1t・2t・2.8t)

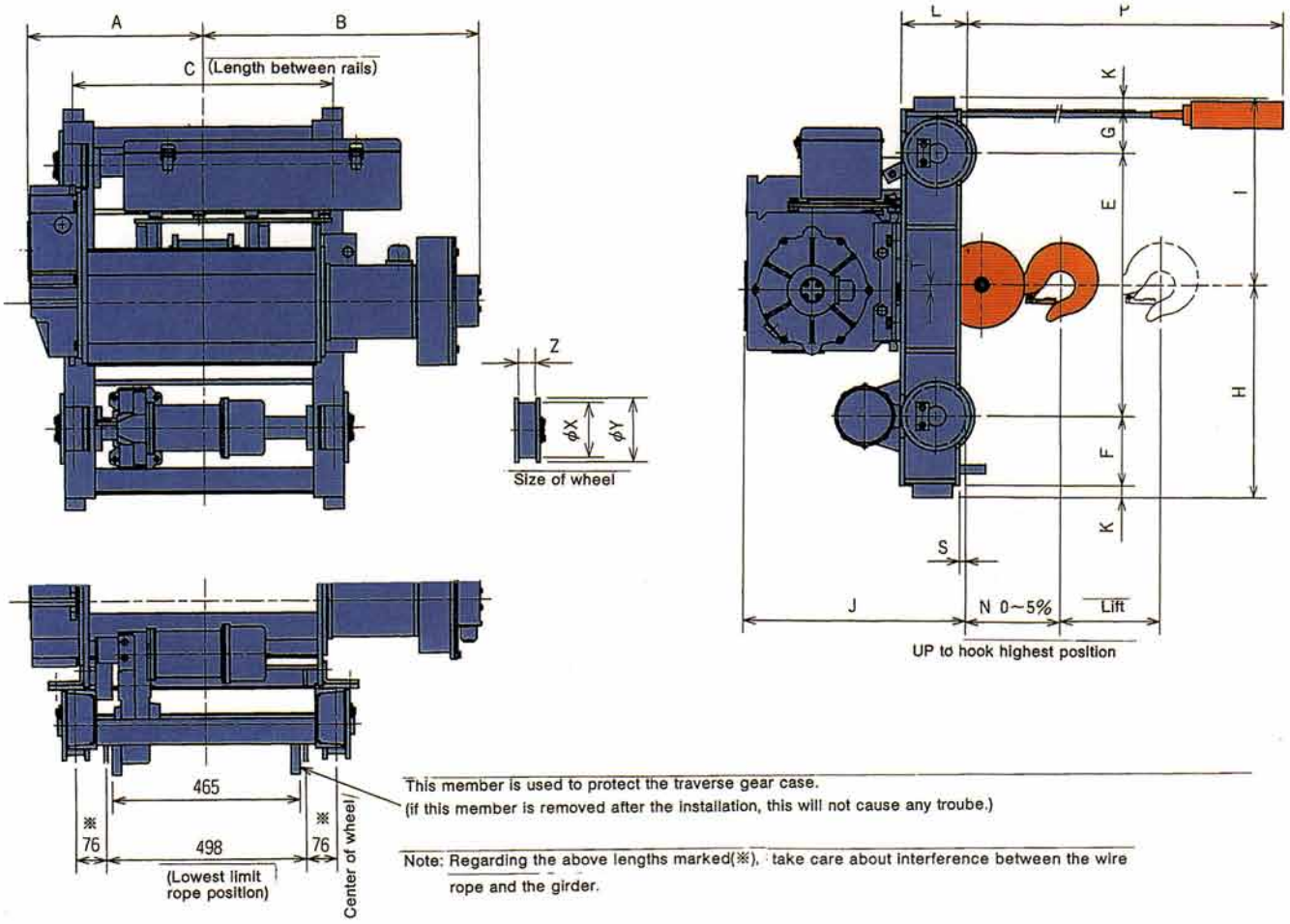


Model		UR-1-LDH3 UR-1-LDS3 R-1-LD3					UR-2-LDH3 UR-2-LDS3 R-2-LD3					UR-2.8-LDH2 UR-2.8-LDS2 R-2.8-LD2				
Cap.(t)		1					2					2.8				
Lift(m)		6					6					6				
Dimensions(mm)	A	426					415					437				
	B	583					656					695				
	C	418					465					478				
	D	343					455					515				
	E1	100					105					105				
	E2	100					105					105				
	F1	105					110					110				
	F2	120					175					175				
	N	405					485					515				
	O1/O2	80/72					114/96					114/96				
	P	6000					6000					6000				
	R	495					572					619				
	T	58					77					80				
Min.rad.curvature(m)		2.0(3.5)/[5]					3.0/[7.5]					3.0/[7.5]				
Weight(kg)		170					260					350				
Hook block weight(kg)		8					15					25				
I-Beam related dimensions		G	H	J	Q	U	G	H	J	Q	U	G	H	J	Q	U
Applicable I-Beam(mm)	150×75×5.5	360	24	19	140	105	–	–	–	–	–	–	–	–	–	–
	200×100×7	372	48	19	140	155	453	40	23	167	140	–	–	–	–	–
	250×125×7.5	385	74	17	142	203	465	64	21	169	188	465	64	23	169	188
	300×150×8	–	–	–	–	–	478	90	20	170	237	478	90	22	170	237

Note.1.Min.rad.cur( )at I-Beam 2.Applicable I-Beam = Standard 3.Min.rad.cur[ ] UR Type with traversing inverter

※In the case of 400V class (Including 380V), there may be differences in outline dimension. Please contact us. R-1,UR-1…150×75×5.5

Double rail Type UR・R (2.8t)

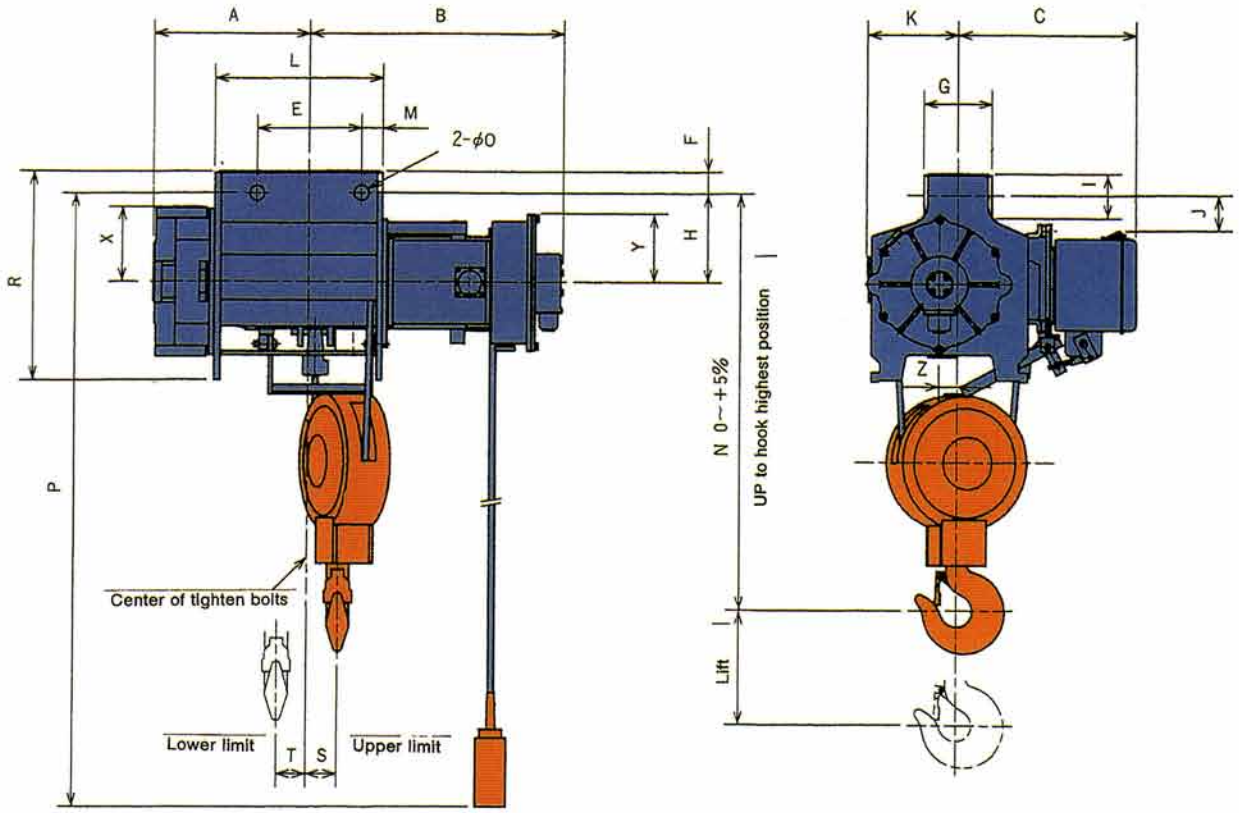


Note: Regarding the above lengths marked(※), take care about interference between the wire rope and the girder.

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

※In the case of 400V class (Including 380V), there may be differences in outline dimension. Please contact us.

Suspended Type UR・R (1t・2t・2.8t)



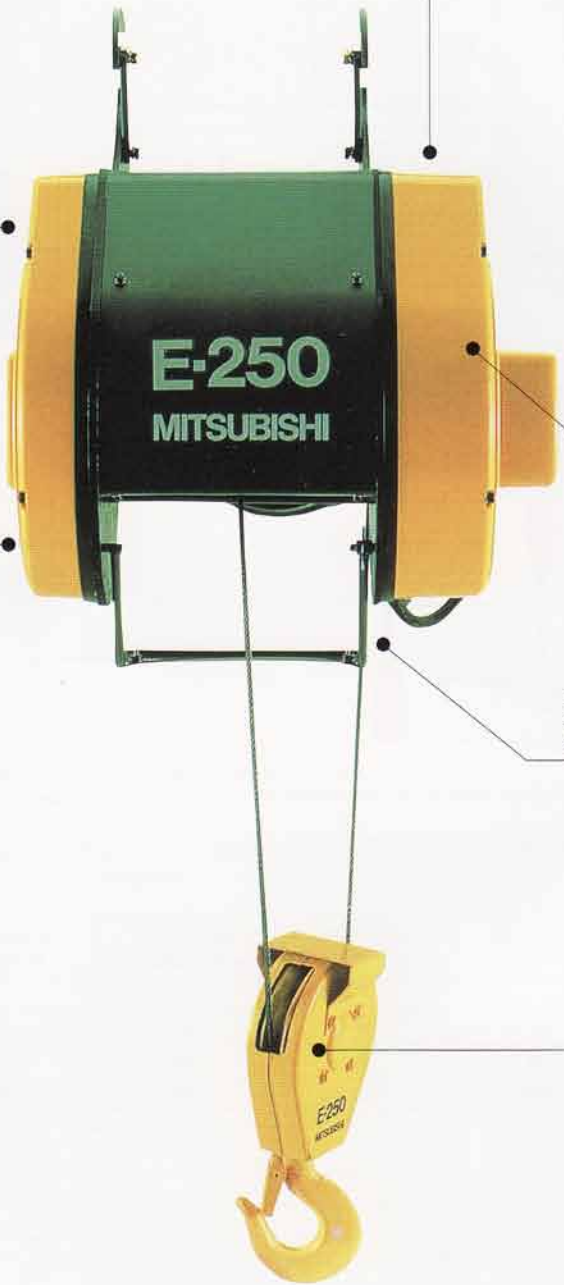
Model		UR-1-LKH3 R-1-LK3	UR-1-HKH3 R-1-HK3	UR-2-LKH3 R-2-LK3	UR-2-HKH3 R-2-HK3	UR-2.8-LKH2 R-2.8-LK2	UR-2.8-HKH2 R-2.8-HK2
Cap.(t)		1		2		2.8	
Lift(m)		6	12	6	12	6	12
Dimensions(mm)	A	283	489	284	485	343	558
	B	468	507	532	566	565	606
	C	347		368		393	
	E	230		230		230	
	F	33		43		48	
	G	117		151		151	
	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	

※In the case of 400V class (Including 380V), there may be differences in outline dimension. Please contact us.

E Type Series WIRE ACE Power saving type 150kg～490kg

Adoption of plastic cover
Using strong ABS plastic contributes to its light weight and sufficient durability.
The fresh design of E type brightens up the workplace.

Simple hoisting deceleration
The adoption of simple deceleration type attains the low noise.



Adoption of long durability contactor
The long durability contactor is adopted for the control of hoisting motor, and it contributes to the enhancement of reliability.
Compact power relay board is adopted for the control of traversing. It contributes to neat inside wiring and ease of maintenance.

Strong limit switch mechanism
E type's reliability is enhanced by the adoption of limit switch lever supported by 2 points.

Hook block with safety cover
Hook with an all-surface cover.

FUNCTION CODE

E — 1/2 — H — M

- **Type**: •E
- **Capacity**: •1/7.1/4.1/2
- **Load-lifting height**: •Non-indicator···Low load-lifting height (6m) •H···High load-lifting height (12m)
- **Hoist type and traversing type**: •Non-indicator ···Suspended type •M···Monorail type •P···Plane trolly type

E Type (WIRE ACE)

Specifications

Type	Lifting Capacity (kg)	Load-Lifting height (m)	Wire rope		Hoisting			Traversing		
			Rope specification	Diameter (mm)	Speed (m/min)	Motor		Speed (m/min)	Motor	
						Output (kW)	Poles		Output (kW)	Poles
					50Hz	50Hz		50Hz	50Hz	
E-1/7	150	6	6×W(19) B CLASS JIS G3525 Double winding 2 falls	ϕ4	10	0.25	4	–	–	–
E-1/7M								21	0.12	4
E-1/7P								–	–	–
E-1/7H		12						–	–	–
E-1/7HM								21	0.12	4
E-1/4	250	6		ϕ4	8.3	0.35		–	–	–
E-1/4M								21	0.12	4
E-1/4P								–	–	–
E-1/4H		12						–	–	–
E-1/4HM								21	0.12	4
E-1/2	490	6		ϕ5	6	0.5		–	–	–
E-1/2M								21	0.12	4
E-1/2P								–	–	–
E-1/2H		12						–	–	–
E-1/2HM								21	0.12	4

※Traversing rail : Both I-Beam rail and H-Beam rail are usable.

Note : The values in the table are referential values.

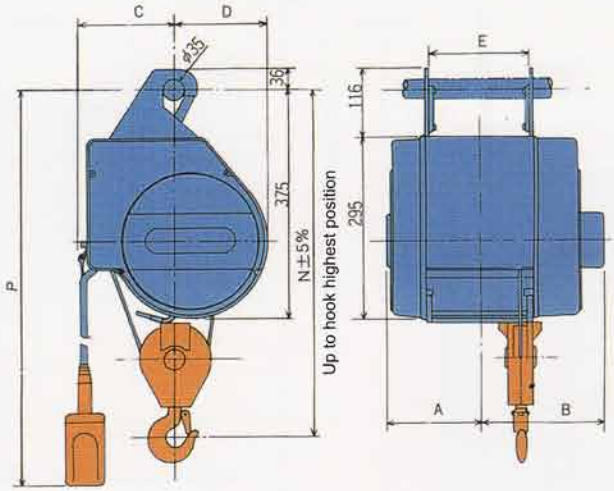
Standard specifications

- **Power supply**……3-phase 200V 50/60Hz (220V/60Hz)※380V/50Hz is also available as an non standard.
- **Operating method**……Push button switch operations - For Suspended type,
  Plane trolley type : 2 points (U, D)
  For Regular type : 4 points (U, D, R, L)
- **Rating**……30 min, JISC9620 (Hoisting : 25% ED, 150S/Hr, Traversing : 25% ED, 250S/Hr)
- **Power supply system**……Cable feeding
- **Protective construction**……Simplified outdoor type (Rainproof cover is required, when it is used in the open air.)
- **Color coating**……Main body : Munsell 10Y3/1
  Prastic cover・Hook block : Munsell 2.5Y8/12
  Pushbutton : Equivalent to Munsell 7.5Y6/14
- **Ambient temperature**……-5℃～40℃ (Non congelation)
- **Ambient humidity**……Less than 90% RH (Non condensing)

E Type

Suspended type (150kg・250kg・490kg)

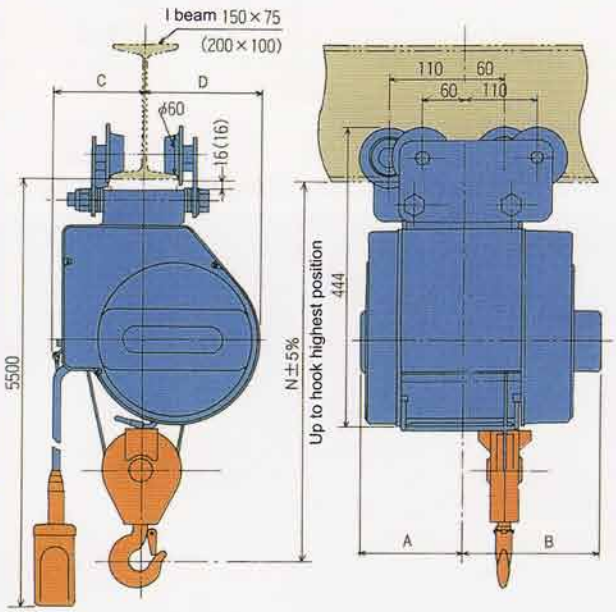
Low load-lifting height・High load-lifting height



Type	A		B		C	D	E		N	P		Weight (kg)		Hook block weight (kg)
	Low load-lifting height	High load-lifting height	Low load-lifting height	High load-lifting height			Low load-lifting height	High load-lifting height		Low load-lifting height	High load-lifting height	Low load-lifting height	High load-lifting height	
E-1/7	149	204	205	260	139	174	166	276	572	5500	11500	26	30	4.5
E-1/4	149	204	205	260	139	174								
E-1/2	152	207	207	260	160	153			585			33	38	

Plane trolly type

Low load-lifting height

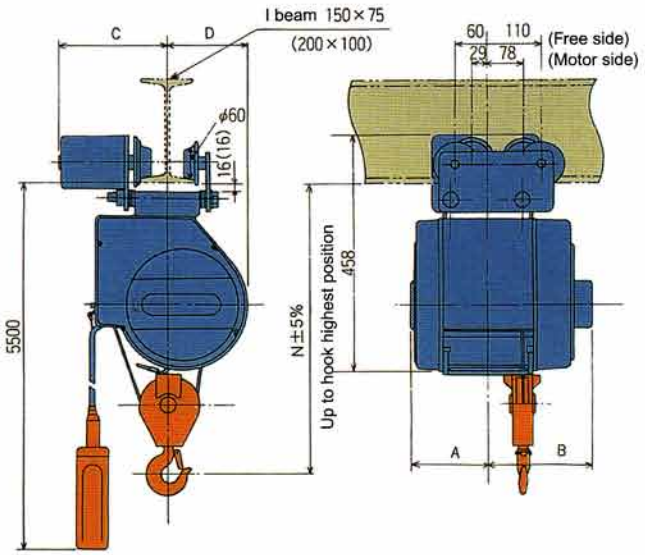


Type	A	B	C	D	N	Weight (kg)	Hook Block weight (kg)
E-1/7P	149	205	139	174	564	30	4.5
E-1/4P							
E-1/2P	152	207	160	153		38	

※Traversing rail : Both I-Beam rail and H-Beam rail are usable.

Monorail type (150kg・250kg・490kg)

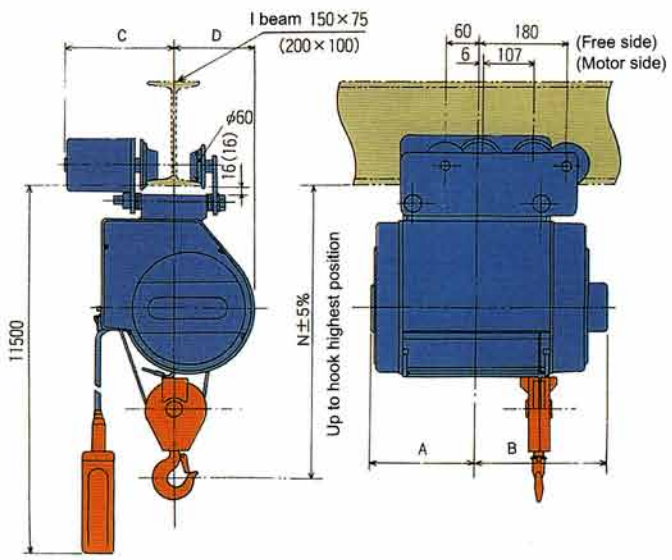
Low load-lifting height



Type	A	B	D	N	I beam※	C	Weight (kg)	Min. rad. Curvature	Hook block weight (kg)
E-1/7M	149	205	174	564	150×75×5.5	203	40	1.5m	4.5
					200×100×7	215			
E-1/4M					150×75×5.5	203			
					200×100×7	215			
E-1/2M	152	207	153		150×75×5.5	203	49		
					200×100×7	215			

※Traversing rail : Both I-Beam rail and H-Beam rail are usable.

High load-lifting height



Type	A	B	D	N	I beam※	C	Weight (kg)	Min. rad. Curvature	Hook block weight (kg)
E-1/7HM	204	260	174	564	150×75×5.5	203	46	3.5m	4.5
					200×100×7	215			
E-1/4HM					150×75×5.5	203			
					200×100×7	215			
E-1/2HM	207	262	153		150×75×5.5	203	56		
					200×100×7	215			

※Traversing rail : Both I-Beam rail and H-Beam rail are usable.

TIB Type 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 travelling speed for efficient operation

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

3. Small body and easy installation.

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

4. Improved ease of maintenance

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

5. Enhanced 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.

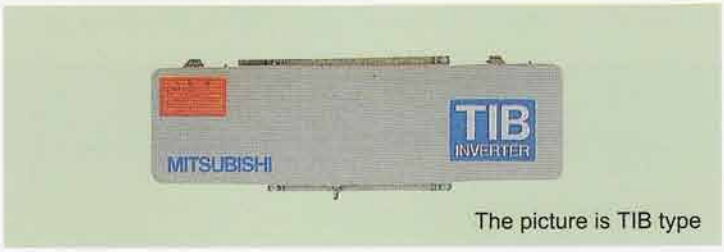
Type name and applicable models

Type	Applicable Mistsubishi models			
	Crane saddle		Gear motor for crane sadle	
	ST, SP series	MT, MP series		
TIB-0.8(S)	Output of travelling motor Less than 0.4kW×2		SGM-0.4A-LK2×2 SGM-0.4A-LKC2×2	SGM-0.4A-HK2×2 SGM-0.4A-HKC2×2
TIB-2.2(S)	Output of travelling motor Less than 0.75kW×2		SGM-0.75A-LK2×2 SGM-0.75A-LKC2×2	SGM-0.75A-HK2×2 SGM-0.75A-HKC2×2
TIB-4.4(S)	Output of travelling motor Less than 2.2kW×2		SGM-1.5A-LK2×2 SGM-1.5A-LKC2×2	SGM-1.5A-HK2×2 SGM-1.5A-HKC2×2
			SGM-2.2A-LK×2 SGM-2.2A-LKC×2	SGM-2.2A-HK×2 SGM-2.2A-HKC×2
TIB-7.4(S)	Output of travelling motor Less than 3.7kW×2		SGM-3.7A-LK2×2 SGM-3.7A-HKC2×2	SGM-3.7A-LKC2×2

Standard specifications

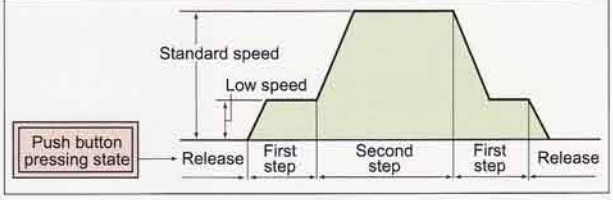
Power supply		3-phase 200V 50/60Hz, 220V 60Hz ※1
Control system		Inverter control
Speed ratio		The range of settable speed 1/10 ～ standard speed
Operating method		Push button
Operating functions		Inching & plugging operations are possible
Percentage of duty cycle and number of starts per Hr (Allowable frequency of usage)		ED percent 25% ED
		Number of starts per hour 250S/Hr
Service condition	Air tempture	-5℃ to 40℃ (No congelation)
	Relative humidity	Ambient humidity 90% or less (Non condensation)
	Atmosphere	Non corrosive gas environment, non considerable dust environment
Enclosure		Indoor type (JP20)
Protective functions		Over load, over voltage in regenerative (braking)
Power supply system		Cable feeding
Color coating		Munsell 4.7GY6.06/0.48

※1 400V Series (TIB-H(HS)) is available and 380V/50Hz can be also manufactured. Please contact us.



The picture is TIB type

Push button operation and operation pattern

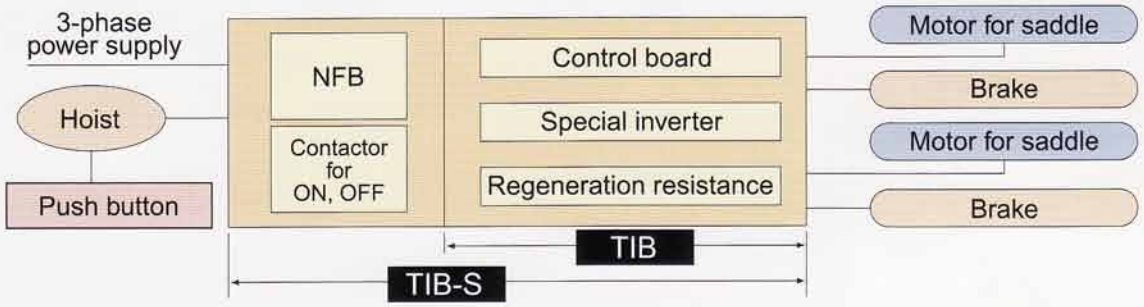


TIB-S TYPE

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

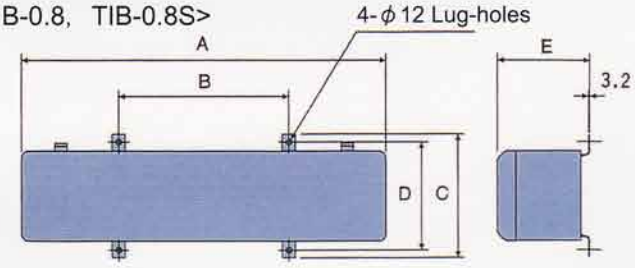
※ = 400V

Function diagram

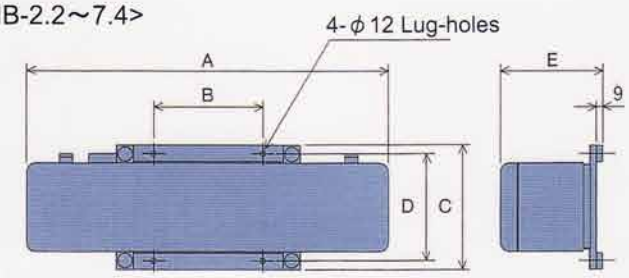


Outline drawing

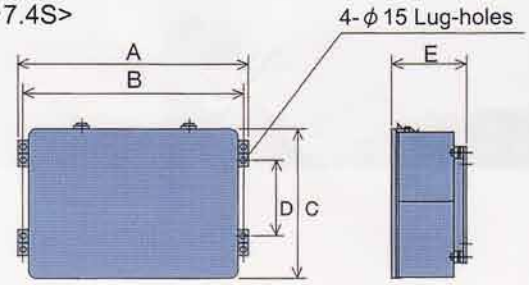
<TIB-0.8, TIB-0.8S>



<TIB-2.2~7.4>



<TIB-2.2S~7.4S>



Outline dimension table (mm)

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

Outline dimension table (mm)

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

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

MITSUBISHI ELECTRIC

Changes for the Better

MITSUBISHI ELECTRIC HOIST CORPORATION

R Type HOIST

UNBELIEVABLE PERFORMANCE FOR IN THIS CLASS.... REAL POWER AND ECONOMY FOR THOSE WHO MEAN BUSINESS.

ISO 14001 Certified

ISO 9001 Certified

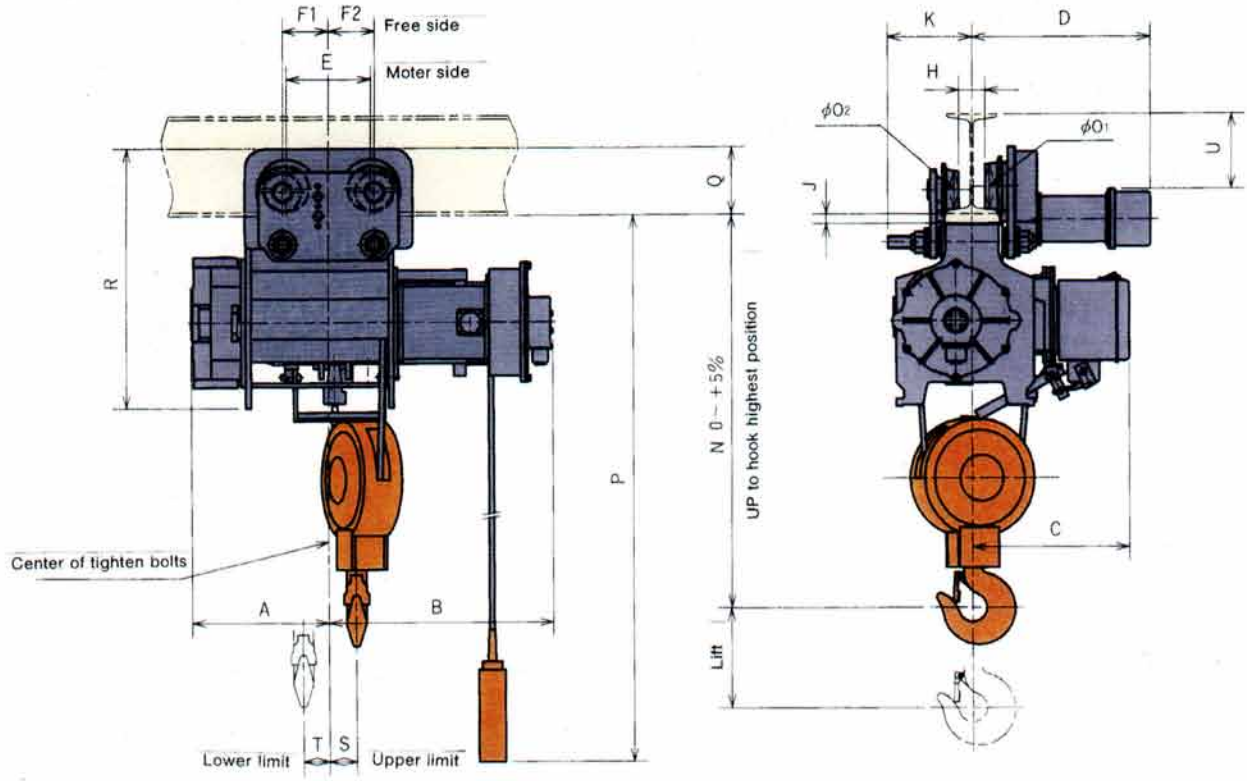
Standard Specifications

- Power Source — 3-Phase 380 V 50 Hz
- Operating method — Push button switch operation
  For Suspended Type : 2 Points (U And D)
  For Regular Type : 6 Points
  (U, D, E, W, S And N)
- Rating — 30 Min. (JIS C 9620)

Note : These hoists cannot be used for lift (elevator for passengers)

Type	Lifting Capacity (t)	Lifting Height (m)		Wire rope			Hoisting				Travelling							
											Mono-rail, Low-headroom				Double-rail			
							Speed (m/min)	Motor			Speed (m/min)	Motor			Speed (m/min)	Motor		
		Low	High	2 falls	4 falls (Double-rail) Low-headroom	rope specification		Output (kW)	Current at 380 V (A)	Poles		Output (kW)	Current at 380 V (A)	Poles		Output (kW)	Current at 380 V (A)	Poles
							50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz	
R	1	6	12	ø8	ø 6.3	6 x W(19) B Class JIS G 3525	6.7	1.2	3.6	4	21	0.22	0.75	4	-	-	-	-
	2			ø10	ø8	6 x Fi(29) B Class JIS G 3525	6	2.2	6.4			0.5	1.5		-	-	-	-
	3			ø 12.5	ø9			3.2	9.3						21	0.5	1.5	4

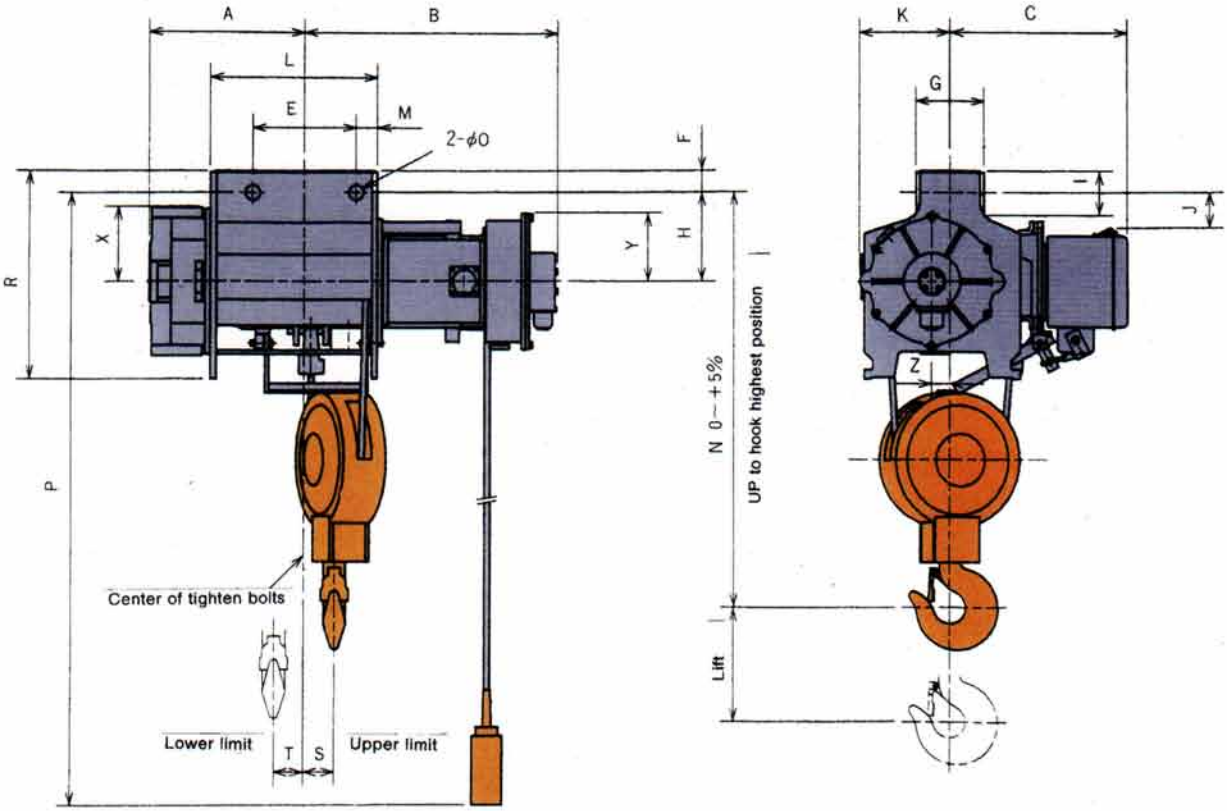
Regular Type R (1t / 2t / 3t)



Model		R-1-LM3		R-1-HM3			R-2-LM3			R-2-HM3			R-3-LM-2			R-3-HM-2	
Cap. (t)		1					2						3				
Lift (m)		6		12			6			12			6			12	
Dimensions (mm)	A	283		489			284			485			343			558	
	B	468		507			532			566			565			606	
	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				
	O1/O2	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)		3.0			2.5			3.5			2.5			3.5	
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)	150x75x5.5	360	24	33	140	105	-	-	-	-	-	-	-	-	-	-	
	200x100x7	372	48	33	140	155	453	40	31	167	140	-	-	-	-	-	
	250x125x7.5	385	74	33	142	203	465	64	29	169	188	465	64	24	169	188	
	300x150x8	-	-	-	-	-	478	90	28	170	237	478	90	23	170	237	

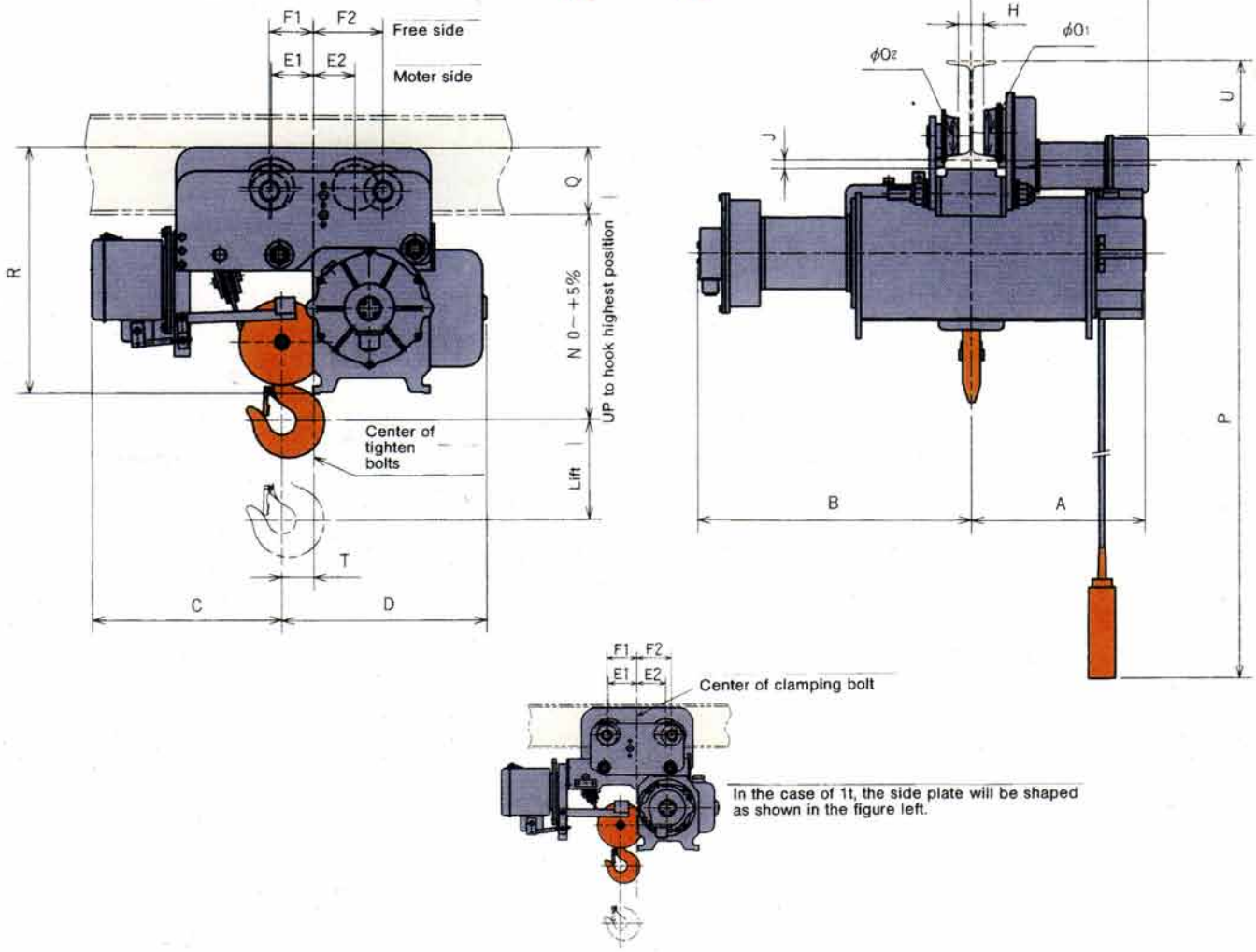
Note. rad. Cur ( ) at I-Beam Applicable I-Beam = Standard
R-1 ··· 150 x 75 x 5.5

Suspended Type R (1t/ 2t/ 3t)



Model		R-1-LK3	R-1-HK3	R-2-LK3	R-2-HK3	R-3-LK-2	R-3-HK-2
Cap. (t)		1		2		3	
Lift (m)		6	12	6	12	6	12
Dimensions (mm)	A	283	489	284	485	343	558
	B	468	507	532	566	565	606
	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	

Low-head Type R (1t/ 2t/ 3t)



Model		R-1-LD3					R-2-LD3					R-3-LD-2				
Cap. (t)		1					2					3				
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				
	O1/O2	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)					3.0					3.0				
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)	150x75x5.5	360	24	19	140	105	-	-	-	-	-	-	-	-	-	-
	200x100x7	372	48	19	140	155	453	40	23	167	140	-	-	-	-	-
	250x125x7.5	385	74	17	142	203	465	64	21	169	188	465	64	23	169	188
	300x150x8	-	-	-	-	-	478	90	20	170	237	478	90	22	170	237

Note. rad. Cur ( ) at I-Beam Applicable I-Beam = Standard
R-1 ··· 150 x 75 x 5.5

MITSUBISHI ELECTRIC

Changes for the Better

S Type HOIST

SPEED, POWER AND DURABILITY UNEQUALLED IN THIS CLASS..... FOR ADDED SAFETY IN HIGH-FREQUENCY OPERATIONS.....

Standard Specifications

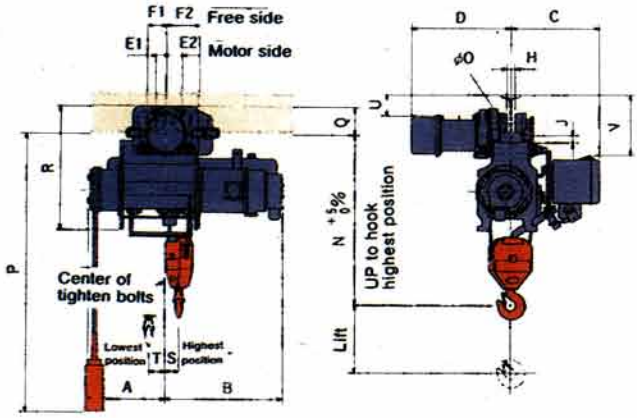
- Power Source — 3-phase 380V 50Hz
- Operating method — Push button switch operations
  For Suspended and Frame mounted type
  (Not exceeding 3t) : 2points (U and D)
  For Suspended and Frame mounted type
  (More than 5t) : 4 points (On, Off, U and D)
  For Regular type(Not exceeding 3t)
  : 6 points(U, D, E, W, S And N)
  For regular type(more than 5t)
  : 8 points(On, Off, U, D, E, W, S And N)
- Rating — 30 Min. (JIS C 9620)

Note : These hoists cannot be used for lift
(elevator for passengers)

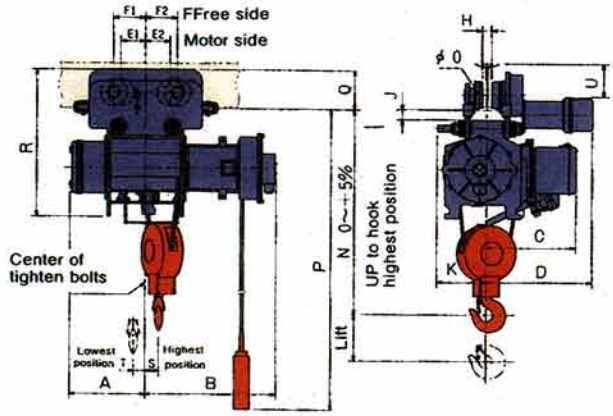
Type	Lifting Capacity (t)	Load-lifting Height (m)		Wire rope			Hoisting				Travelling							
											Mono-rail, Low-headroom				Double-rail			
								Motor				Motor				Motor		
		Low	High	2 falls (stationary)	4 falls (Double-rail) Low-headroom	rope specification	Speed (m/min)	Output (kW)	Current at 380 V (A)	Poles	Speed (m/min)	Output (kW)	Current at 380 V (A)	Poles	Speed (m/min)	Output (kW)	Current at 380 V (A)	Poles
							50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz		50 Hz	50 Hz	50 Hz	
S	1/2	6	12	Ø 6.3	Ø4	6 x W(19) B Class JIS G 3525	11	1.0	3.4	4	21	0.22	0.75	4	-	-	-	
	1	6	12	Ø8	Ø 6.3			2.0	5.9						-	-	-	
	2	6	12	Ø10	Ø8	6 x Fi(29) B Class JIS G 3525	8.4	2.9	7.9			0.5	1.5		-	-	-	
	3	6	12	Ø 12.5	Ø9			4.4	12.3						21	0.5	1.5	4
	5	8	12	-	Ø 11.2		6.7	6.2	15.7			0.85	2.2					
	7.5	8	12	-	Ø14		5.8	8.3	19.6		12				15	0.85	2.2	
	10	8	12	-	Ø16		5	10	25	6		1.5	3.9			0.85	2.2	
	15	8	12	-	Ø20			17	*36			0.85x2	2.2x 2			1.5	3.9	
	20	-	12	-	Ø 22.4		4.2		38			1.5 x2	3.9x 2					
	30	-	12	-	Ø25	IWRC 6 x Fi(29) B Class JISG3525	2.8		*39		-	-	-	-		1.5x2	3.9x2	
	40	6.5	-	-	Ø22.4 (8falls)	6 x Fi(29) B Class JISG3525	2.1		*38							0.75x4	2.2x4	
		-	11.5															
	45	-	12.5	-	Ø25 (6falls)	IWRC 6 x Fi(29) B Class JISG3525	1.8		*39									
		-	19															

Regular Type S (1/2t • 1t • 2t • 3t • 5t)

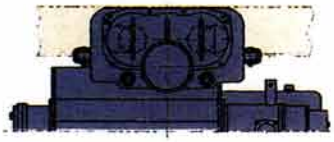
S-1/2



S-1 • 2 • 3

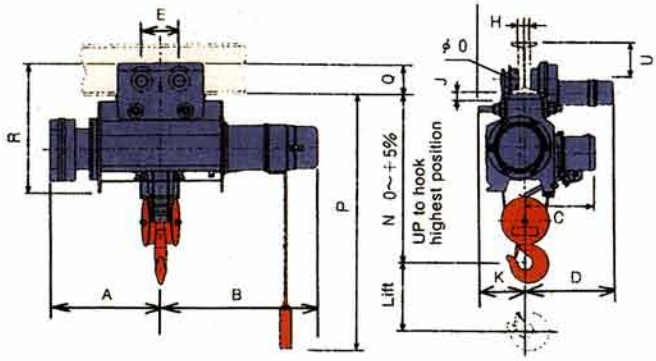


(Shape of S-1/2-HM)



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

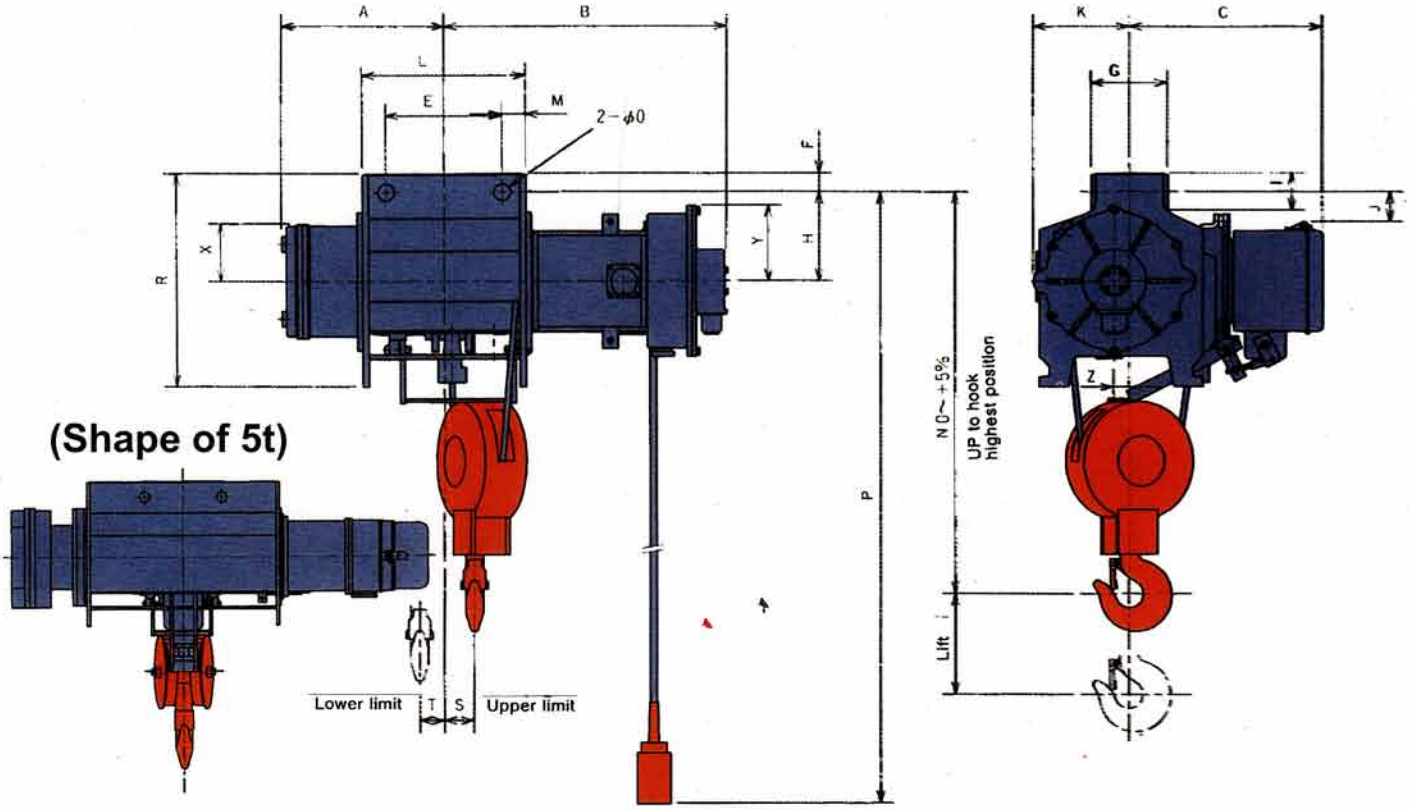
S-5



Model		S-1/2						S-1					S-2					S-3					S-5				
		LM2					HM2	LM2				HM2	LM2				HM2	LM2				HM2	LM2				HM2
Cap. (t)		1/2						1					2					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	920				1045
	C	342						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	-						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					2.5				
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	D	H	J	Q	U
Applicable I-Beam (mm)	150x75x5.5	364	30	27	100	75	222	360	24	33	140	105	233	360	24	33	140	105	-							-							-		
	200x100x7	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	478	90	33	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		

Note. rad. Cur ( ) at I-Beam S-1/2 ··· 150x75x5.5 S-1 ··· 150x75x5.5 S-2 ··· 200x100x7 Note Applicable I-Beam = Standard

Suspended Type S (1/2t • 1t • 2t • 3t • 5t)

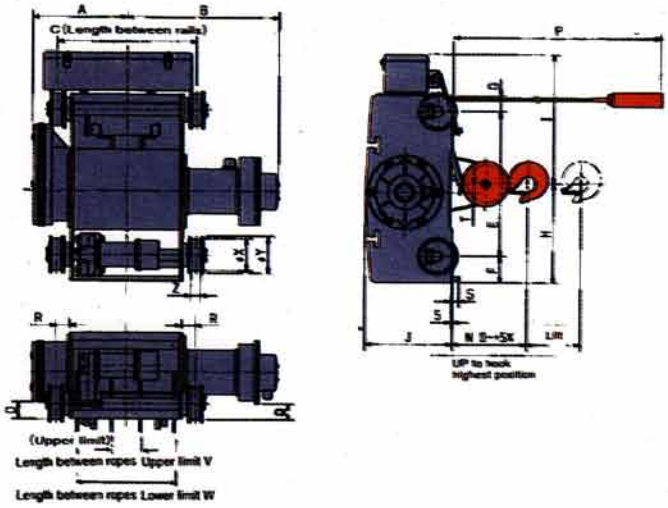


Model		S-1/2		S-1		S-2		S-3		S-5	
		LK2	HK2	LK2	HK2	LK2	HK2	LK3	HK3	LK2	HK2
Cap. (t)		1/2		1		2		3		5	
Lift (m)		6	12	6	12	6	12	6	12	8	12
Dimensions (mm)	A	287	457	287	474	322	479	341	510	646	771
	B	433	473	518	551	563	593	610	641	920	1045
	C	324		345		383		408		410	
	E	170	230	230	230	230	230	230	230	290	
	F	28	33	33		38		43		60	61
	G	140	117	117		151		176		229	
	H	155		160		177		215		225	
	I	75	78	63		67		80		105	106
	J	18		47		59		127		145	
	K	151		167		190		216		226	
	L	283	493	298	518	323	508	323	523	725	975
	M	32	42	34	67	47	75	46	77	217	342
	N	570		670		800		965		905	
	O	20	24	24		33		33		38	
	P	6000	12000	6000	12000	6000	12000	6000	12000	8000	12000
	R	328	333	373		425		518		546	
	S	50	93	71	105	58	101	60	97	-	
	T	58	123	42	119	49	113	47	115	-	
	X	87		107		140		172		200	
	Y	85		105		150		150		143	
	Z	20		36		30		30		30	
Weight (kg)		90	105	135	150	220	245	310	345	510	580
Hook block weight (kg)		4.5		75		15		27		42	

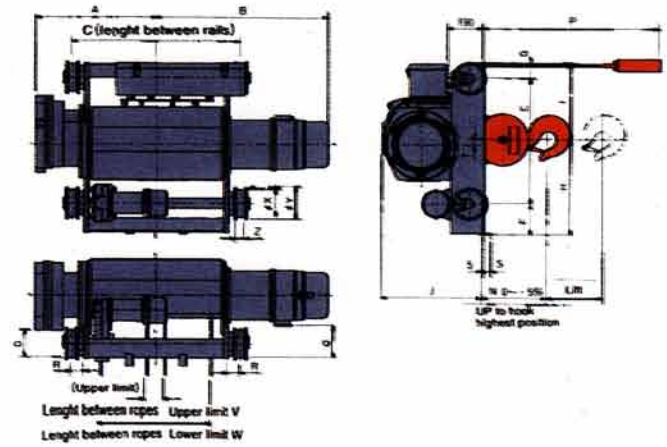
Note : In the case of S-1/2 , the position of pendent push button is on the side of hoisting deceleration section.

Double rail Type S (3t • 5t)

S-3



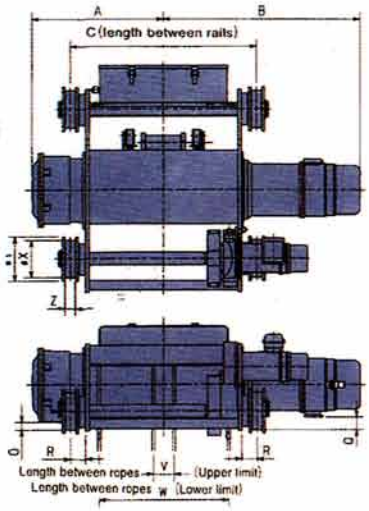
S-5

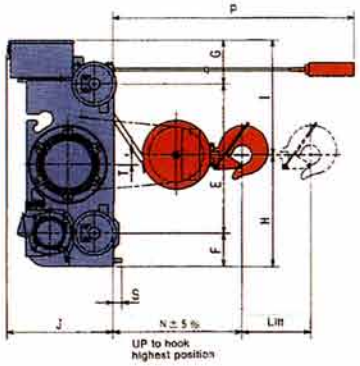


Model		S-3		S-5	
		LR3A	HR3A	LR2A	HR2A
Cap. (t)		3		5	
Lift (m)		6	12	8	12
Dimension (mm)	A	440	590	646	771
	B	711	861	920	1045
	C	650	950	900	1150
	E	680		680	
	F	125		167	
	G	75		88	
	H	468		517	
	I	605		418	
	J	410		540	
	N	345		346	
	O	52		125	
	P	6000	12000	8000	12000
	Q	75		170	
	R	63		65	
	S	35		40	
	T	43		30	
	V	135	130	97	100
	W	453	753	590	840
	X	150		150	
	Y	175		175	
	Z	45		45	
Weight (kg)		425	475	600	680
Hook block weight (kg)		25		42	
Applicable I-Beam (mm)		12 kg rails or 38 mm. steel square bars			

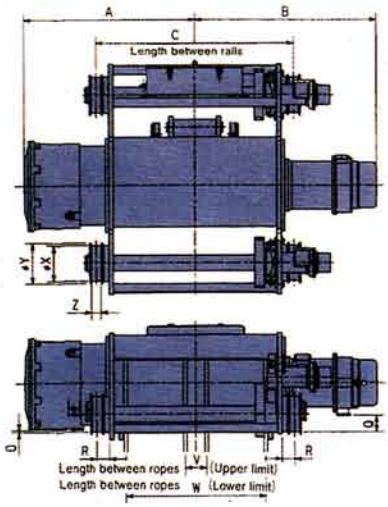
Double rail Type S (7.5t • 10t • 15t • 20t • 30t)

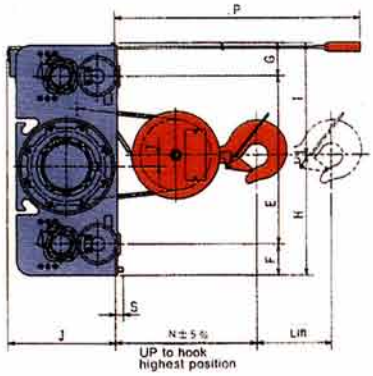
S-7.5 • 10 • 15 • 20





S-30

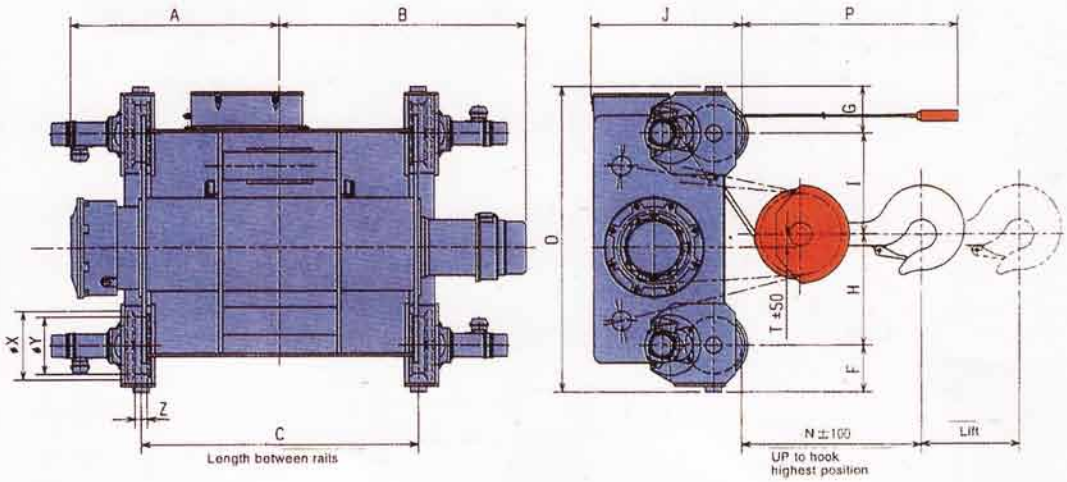




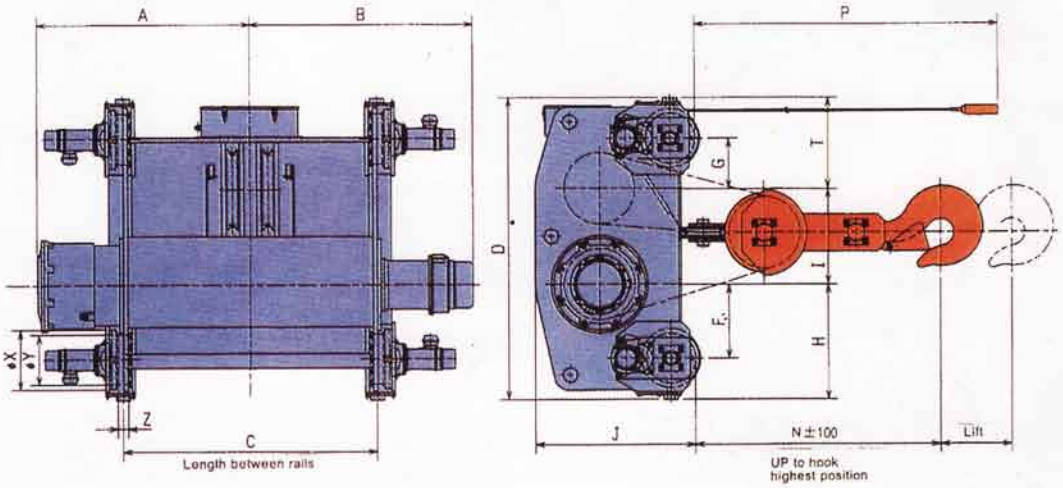
Model		S-7.5		S-10		S-15		S-20-HR	S-30-HR
		LR	HR	LR	HR	LR	HR		
Cap. (t)		7.5		10		15		20	30
Lift (m)		8	12	8	12	8	12	12	12
Dimensions (mm)	A	669	749	719	844	799	949	999	1209
	B	1004	1129	959	1084	1085	1235	1235	1285
	C	950	1200	950	1200	1000	1300	1300	1400
	E	760		840		1000		1045	1190
	F	170		170		220		220	220
	G	223		233		243		248	242
	H	570		613		760		790	850
	I	583		630		703		723	802
	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	55
	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	70
Weight (kg)		900	980	1250	1360	1900	2100	2500	3600
Hook block weight (kg)		80		100		190		280	380
Hook block weight (kg)		15 kg rails or 44 mm. steel square bars				22 kg rails or 50 mm. steel square bars			37 kg rails or 65 mm. steel square bars

Double rail Type S (40t • 45t)

S-40



S-45



Model		S-40		S-45	
		LR	HR	LR	HR
Cap. (t)		40		45	
Lift (m)		6.5	11.5	12.5	19.0
Dimensions (mm)	A	1399	1749	1490	1840
	B	1515	1865	1565	1915
	C	1700	2400	1780	2480
	D	1874		2114	
	F	287		520	
	G	287		350	
	H	681		807	
	I	619		670	
	J	930		1125	
	N	1110		1720	
	P	7500	12000	11000	16000
	T	81		637	
	X	419		419	
	Y	350		350	
	Z	75		75	
Weight (kg)		4800	5300	6000	6500
Hook block weight (kg)		750		760	
Applicable I-Beam (kg)		37 kg rails or 65 mm. steel square bars		37 kg rails or 65 mm. steel square bars	