

NITCHI-MATIC HEAVY DUTY

The NITCHI-MATIC Model MH-5 Series is a line of premium quality electric chain hoists that are designed especially to fulfill the severe requirements of industry. A multitude of special heavy duty features are employed into the NITCHI-MATIC MH-5 Series for extra efficiency, dependability, durability and safety.

STEEL CONSTRUCTION

The main frame consists of two rugged steel side plates that will provide maximum protection against dynamic loads. Castings that are able to crack or break have not been employed in the main frame.

HEAVY DUTY MOTOR

The special heavy duty high performance motors of Model MH-5 (1-Speed) have 30 minutes ratings and Class B insulation for severe use in heavy duty applications.

WEAR-RESISTANT LOAD SHEAVE & CHAIN GUIDE

The load sheave is made of alloy steel that is expertly machined and heat-treated for long wearing, smooth engagement with the load chain. The load chain guide directs the load chain smoothly into the NITCHI-MATIC for positive engagement with the load sheave.

ELECTROMAGNETIC BRAKE

This powerful brake system responds instantly and supplies dependable positive braking power. An extremely long service life has been achieved with the use of non-asbestos brake linings.

OVER-HOISTING & OVER-LOWERING PROTECTION

Possibilities of damage to the NITCHI-MATIC caused by over-hoisting and over-lowering are eliminated with the limit switch.

Ultra-Tough Load Chains

The NITCHI case hardened load chains are made from special alloy steel, and are given super-tough carbonized hard surfaces that resist erosion several times longer than conventional through hardened load chains. The soft core section gives the load chain the elasticity which is essential for material lifting equipment. Every link of load chain is tested, and a record of each chain production lot is kept on record at our factory.

FORGED STEEL HOOKS

Both the top and bottom hooks on all capacities swivel to all directions and are made of drop-forged steel that is heat-treated for greater strength. Every bottom hook is equipped with a thrust bearing for smooth rotation and has a safety latch as a standard equipment.



INDUSTRIAL HOIST

MH-5 SERIES

OIL BATH LUBRICATION

As in all types high quality machinery the NITCHI-MATIC Series uses the oil bath lubrication system. The continuous bath of oil lubricates the reduction gear system and also acts as a coolant for the mechanical brake.

ANTI-PHASE PROTECTION RELAYS

This relay prevents damage to the hoist cause by misconnections (negative phase connections) of the power source wires.

FIRST STAGE HELICAL GEARING

The first stage helical gearing provides a dependable and longer quieter life by reducing gear tooth impact and vibration to a minimum. The reduction gears are exclusively designed for extra durability and are made of special alloy steel that is expertly machined for positive engagement and precisely heat-treated for maximum strength.

MECHANICAL BRAKE

The very reliable mechanical brake works in cooperation with the electromagnetic brake and holds suspended loads at any point.

PUSH-BUTTON SWITCH

The strong light-weight push-button switch of NITCHI-MATIC is rainproof and responds immediately at a touch of the button.

WIDE SELECTION

NITCHI-MATIC is a series of electric chain hoists with standard capacities ranging from 0.5 ton to 50 ton that are available in a wide variety of variations for handling nearly all material handling requirements. The industrial type 3-phase power source version can be used independently as a suspended type electric chain hoist or as an electric chain hoist directly coupled to a manual operated trolley or a motorized trolley. The lifting speed of the NITCHI-MATIC can be selected between single-speed and 2-speed whichever most adequately fulfills your requirements for increasing productivity. Also, a single phase power source version is available for light materials handling operations and home use where 3-phase power sources are not readily available.

INCREASED DURABILITY

Durability is one of the main features we are able to boast about. The NITCHI-MATIC MH-5 Series is designed and made to the Grade M4 and M5 durability standards of the Japanese Industrial Standard. (In accordance with (JIS) B8815 -1994)

HIGH DUTY RATING

A high duty rating is essential for fulfilling the severe work cycles that are required for production in industry. The 40% ED rating of Model MH-5 (1-Speed) is sufficient for almost all heavy duty industrial applications.

DUAL BRAKING SYSTEM

Two completely independent brakes not only reduce the possibility of brake failure, but also increase the braking surface and contribute to the dissipation of heat generated by repeated braking.

SHORT HEADROOM

The ingeniously designed compact construction of NITCHI-MATIC makes it extremely compact and permits the highest possible lift where the last inch of lift must be obtained.

24-VOLT CONTROL

The low 24-volt control protects the operator from harmful electrical shocks.

EASY SERVICING

The robust pressed steel design simplifies the maintenance and the replacement of components.

USEFUL MANUAL

Each NITCHI-MATIC hoist is supplied with a comprehensive handbook that provides sufficient instructions and information on installation, operation and maintenance.

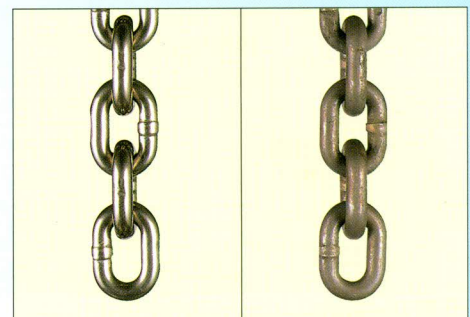
OPTIONAL EQUIPMENT

OVERLOAD PROTECTION

This is a special device for additional safety to operators, hoist and load. When a load that is greater than the setting of the overload protection is applied, the hoist will stop automatically and prevent the load from being hoisted.

NN CASE HARDENED CHAIN

This is a series of Nitchi case hardened chains with a special non-electrolytic nickel plating that is fused into the material of the chains. This special plating does not effect the original features of the chains and will not peel off like conventional surface plated chains. The NN case hardened chains have outstanding characteristics in resisting rust and corrosion caused by rain, seawater, steam and chemicals.



Case hardened
NN Chain

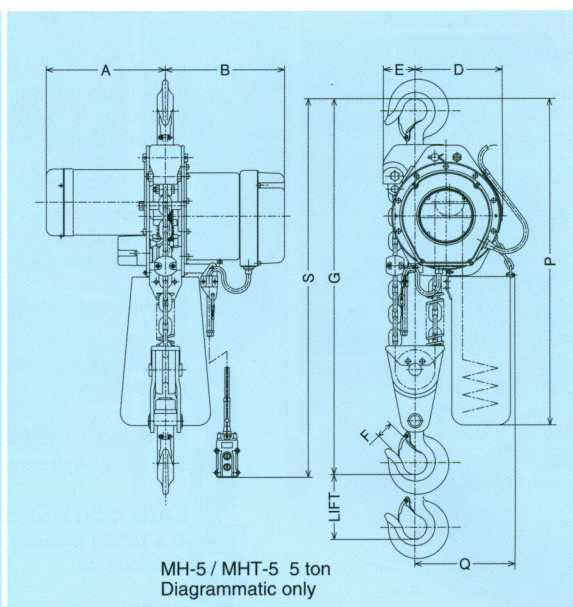
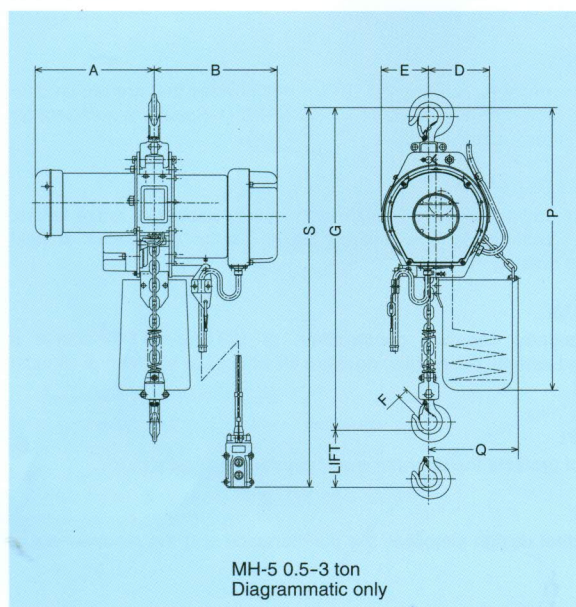
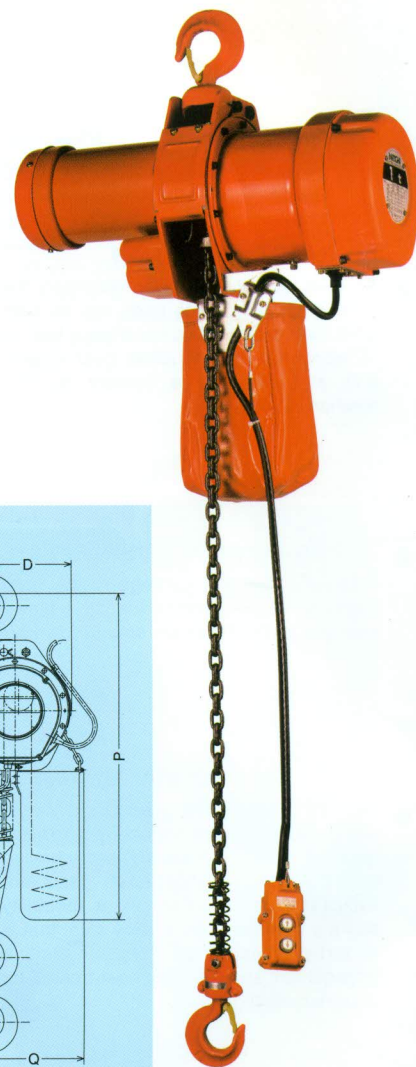
Standard
Case hardened Chain

NITCHI-MATIC ELECTRIC CHAIN HOIST

MODEL MH-5

The single load chain fall design of 3 ton and the exceptionally low headrooms of Model MH-5 are the results of the streamlined, robust steel constructions and well balanced designs.

Model MH-5 1-speed hoist is available in a wide range of standard capacities for your choice..... available from light 0.5 ton loads to extremely heavy 50 ton loads. Please refer to succeeding page for specifications of 10 ton and larger capacities.



STANDARD SPECIFICATIONS : MH-5 Electric Chain Hoist

Item No.	Rated Load (ton)	Lift (m)	Hoisting Speed(m/min)		Hoist Motor 3-phase					Load Chain		Test Load (ton)	Minimum Headroom (Max.) G (mm)	Net Weight ※ (approx.) (≒ kg)	Grade
			50Hz	60Hz	Output(kW)		Ins. Class	Rating (min)	% ED	Dia. (mm)	Nos.of falls				
	50Hz				60Hz										
MH5005	0.5	4.0	8.6	10.0	0.83	1.0	B	30	40	7.1	1	0.625	550	53	M5
MH5010	1		6.2	7.3	1.17	1.4				7.1	1	1.25	560	55	M4
MH5020	2		6.7	7.9	2.5	3.0				11.2	1	2.5	725	100	M5
MH5030	3		4.4	5.2	2.5	3.0				11.2	1	3.75	765	102	M4
MH5050	5		2.6	3.1	2.5	3.0				11.2	2	6.25	925	130	M4

Item No.	Rated Load (ton)	Major Dimensions (approx.) (mm)							
		A	B	D	E	F	※P	※Q	S(m)
MH5005	0.5	265	285	152	106	20	690	220	3.6
MH5010	1	285	285	152	106	25	690	220	3.6
MH5020	2	335	335	195	127	30	860	235	3.8
MH5030	3	335	335	195	127	36	880	235	3.8
MH5050	5	335	335	247	93	43	960	290	3.8

NOTES:

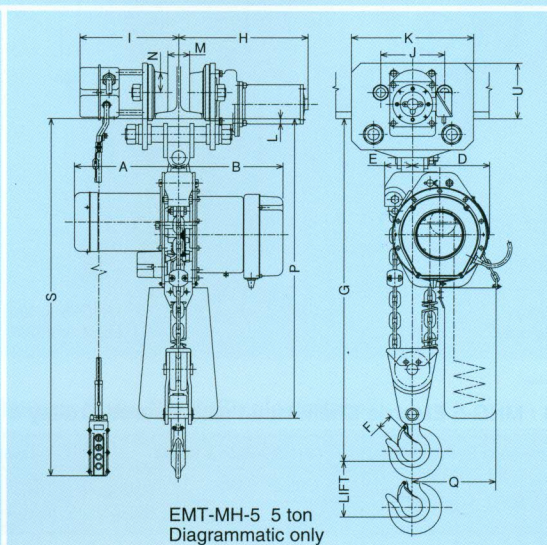
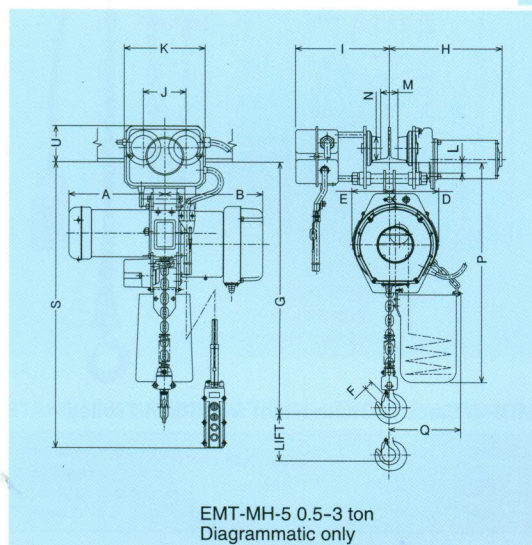
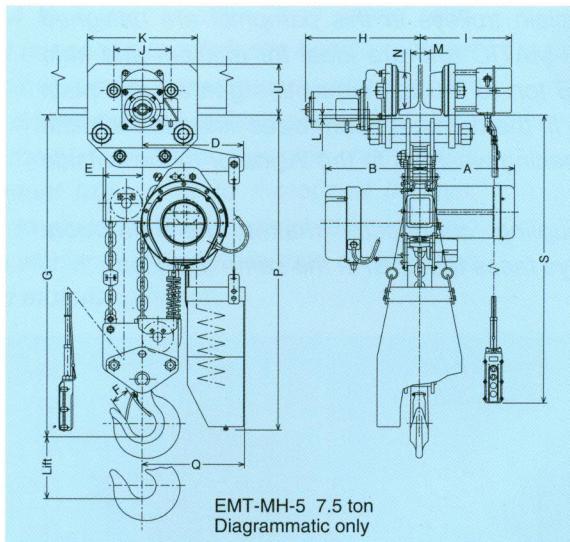
- a - Only the standard lifts hoists, are enumerated above. Please apply for extra long lifts.
- b - Please state power source voltage and Herz on enquiry and or ordering.
- c - 4-core colored cords with rubber-covered power source cable is supplied, without plug.
- d - A chain collecting bucket is supplied with each hoist as standard attachment.

NITCHI-MATIC ELECTRIC CHAIN HOIST WITH ELECTRIC TROLLEY

MODEL EMT-MH-5

In addition to hoisting and lowering, Model EMT-MH-5 (1-speed hoist with 1-speed trolley) can transport heavy loads swiftly with great efficiency and complete safety. 0.5 ton to 7.5 ton trolleys can be adjusted to fit the different beam sizes listed in the table by simple relocation of the spacing washers to the inside or to the outside of the frame.

The drop-forged steel trolley wheels are heat-treated and have precision bearings to provide smooth and easy travel.



STANDARD SPECIFICATIONS : EMT-MH-5 Electric Chain Hoist with Electric Trolley

Item No.	Rated Load (ton)	Lift (m)	Hoist Motor								Traversing Speed(m/min)		Trolley Motor						Test Load (ton)	Minimum Headroom (Max.) G (mm)	Net Weight ※ (approx.) (≒kg)
			Hoisting Speed (m/min)		3-phase		Load Chain		3-phase				Breadth of Beams	Minimum radius for curve (m)							
					Output(kW)	Ins.			Rating	Output	Ins.	Rating			b (mm)						
			50Hz	60Hz	50Hz	60Hz	Class	(min)	Dia. (mm)	Nos.of falls	50Hz	60Hz	(kW)	Class	(min)						
MHE5005	0.5	4.0	8.6	10.0	0.83	1.0	B	30	7.1	1	20(10)	24(12)	0.2	E	30	75, 100, 125	1.0	0.625	535	84	
MHE5010	1		6.2	7.3	1.17	1.4			7.1	1	20(10)	24(12)	0.2			75, 100, 125	1.0	1.25	545	86	
MHE5020	2		6.7	7.9	2.5	3.0			11.2	1	20(10)	24(12)	0.4			100, 125, 150	1.0	2.5	725	153	
MHE5030	3		4.4	5.2	2.5	3.0			11.2	1	20(10)	24(12)	0.4			100, 125, 150	1.5	3.75	805	172	
MHE5050	5		2.6	3.1	2.5	3.0			11.2	2	10(20)	12(24)	0.4(0.75)			125, 150, 175	1.5	6.25	975	219	
MHE5075	7.5		1.7	2.1	2.5	3.0			11.2	3	10	12	0.75			150, 175	1.5	9.37	1,065	290	

Item No.	Rated Load (ton)	Major Dimension (approx.) (mm)															
		A	B	D	E	F	H	I	J	K	L	M	N	U	※P	※Q	S (m)
MHE5005	0.5	265	285	152	106	20	b/2+280	b/2+230	127	240	32-t ₂	b-49	φ 69	99+t ₂	675	220	4.0
MHE5010	1	285	285	152	106	25	b/2+280	b/2+230	127	240	32-t ₂	b-49	φ 69	99+t ₂	675	220	4.0
MHE5020	2	335	335	195	127	30	b/2+325	b/2+235	159	300	33-t ₂	b-70	φ 95	121+t ₂	860	235	4.0
MHE5030	3	335	335	195	127	36	b/2+330	b/2+240	180	340	37-t ₂	b-76	φ 110	134+t ₂	920	235	4.0
MHE5050	5	335	335	247	93	43	b/2+330	b/2+245	204	390	38-t ₂	b-80	φ 130	158+t ₂	1,010	290	4.0
MHE5075	7.5	335	335	360	145	65	b/2+330	b/2+250	204	390	38-t ₂	b-80	φ 130	158+t ₂	1,140	400	4.3

- e - The values in the () are for electric trolleys with half speed and special speed.
 f - The dimensions P and Q marked * in the above table vary according to different lifts.
 g - With each hoist is packed a handbook giving comprehensive instructions for installation, and operation with an inspection certificate.

The design, materials and specifications are subject to change for improvements without notice.