

EC4



NITCHI ELECTRIC CHAIN HOIST

MODELS
EC4/ECT4/ECC4/ECE4/ECG4/ECP4

No. 3

EC4 SERIES



manufactured by

NITCHI CO., LTD.

OSAKA, JAPAN.

<http://www.nitchi.co.jp/>

NITCHI EC4 Series electric chain hoists

The efficient, economical hoists you can rely on.

Wear Resisting Load Sheave

The special load sheaves engage precisely with the load chains and are specially thermo-refined to make them long wearing.

Heavy Duty Motor

The Class "B" (ECC4 Class "E") insulation of the high performance motors are capable of handling most materials handling applications.

First Stage Helical Gearing

The precision helical gears in the first stage of the reduction gear system largely reduce gear tooth impact and the operating vibrations, and is one of the main factors for the quiet long dependable life of the EC4 Series.

Easy Cable Couplings - NEW!!

The new Easy Cable Coupling system makes it possible to easily and quickly to attach, detach or replace the pendant and cables.

Push Button Switch

The strong light-weight push button switch responds immediately and can be operated with a light touch of the button.

Chain Bucket

Each hoist is supplied with a chain bucket as standard equipment.

Forged Steel Hooks

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

Space Age Materials - NEW!!

The remarkably durable lightweight resinoid center-frame and cover provide tight fits that notably improve dust and moisture protection, and assist to lower operating noises.

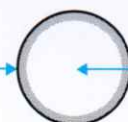
Steel Construction

The two rugged steel plates main frame provides maximum protection against dynamic loads.

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.

Super tough
carbonized
hard surface



Soft core

Cross section
of chain link

Moisture and Dust Protection – IMPROVE!

The **IP54** protection of the hoist bodies and the **IP64** protection of the push button switch are more than adequate for most applications that demand for moisture and dust protection.

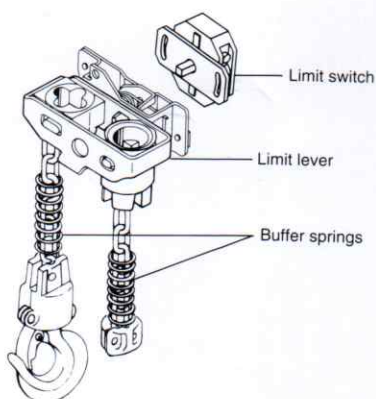
Quiet and Smooth Operation – IMPROVED!

The **helical gears** on the first stage of the reduction gears lower vibrations and noise levels remarkably. When compared to the former EC-3M Series, the noise levels of the EC4 Series are **3 to 10 Decibels lower!**

Over Lifting and Over lowering LIMIT SWITCH– IMPORTANT!!!

The over lifting and over lowering limit switch system is one of the most important safety devices on an electric chain hoist, which can not be substituted with micro switches that rely on the over load protection device. The EC4 Series are equipped with what we believe is the most efficient and reliable limit switch system available for electric chain hoists, which functions completely independent of the overload protection.

- A. Buffer Springs** located on both ends of the load chain absorb the initial shock and allow the limit switch to function before the hoist is under substantial force.
- B. Limit Lever** is the mechanical actuator, which positively activates the limit switch system when the hoist are over lifted or over lowered.
- C. Limit Switch** instantly stops the hoist when over lifting or over lowering.



High ED Percent Rating

(In accordance with (JIS) B8815-1994)

Model	ED %
EC4 (1- speed type)	40%
ECT4 (2- speed type)	25%
ECC4 (single phase type)	25%

Durable Brake

The solenoid brake system responds instantly and will safely support the load during power failures. This brake system has proven to be extremely long wearing and will keep servicing costs down.

Electro-Magnetic Controlled (EC4 & ECT4) – IMPORT!!!

Models EC4 (1-speed type) and ECT4 (2-speed type) are electoro-magnetic controlled with 24-volt, and will protect the operator from harmful electrical shocks.

Short Head Room

The ingeniously designed compact construction permits the highest possible lift where the last inch of lift must be obtained - compare the difference with equivalent models.

Remarkable Durability

The EC4 Series is designed and made to Grade M4 of Japanese Industrial Standard (JIS) B8815-1994 Electric Chain Hoist.

Easy Servicing

The robust steel design gives easy access to all of the major mechanical and electrical components, which simplifies inspection, maintenance and the replacement of components.

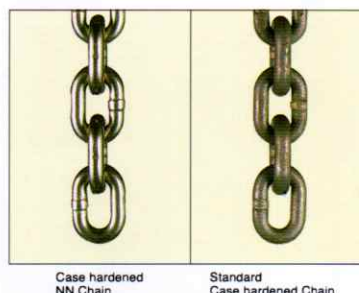
Useful Operation Manual

With each hoist is supplied a comprehensive operation manual providing sufficient instructions and information on installation, operation and maintenance with illustrated parts list.

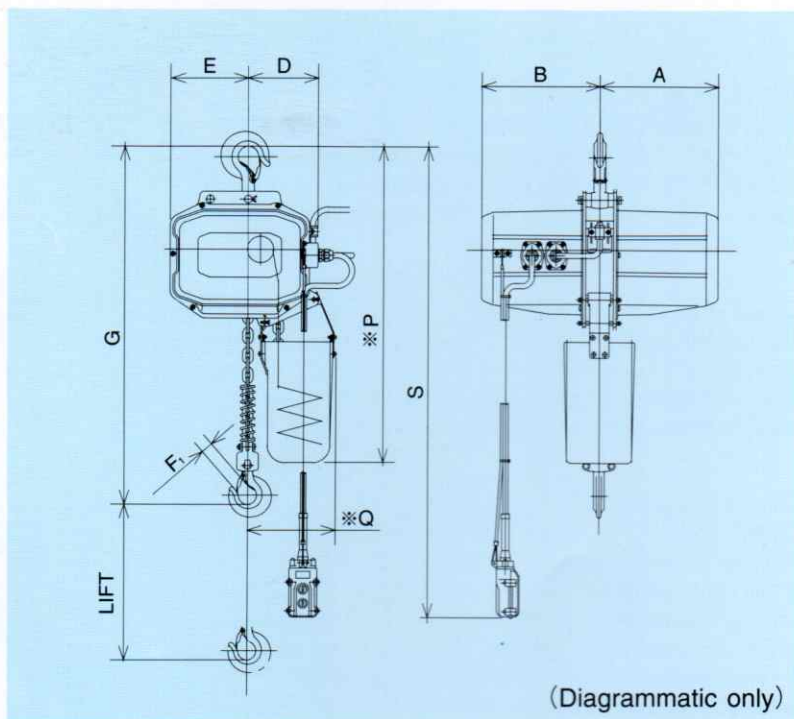
Optional Equipment

The following optional equipment are available at modest extra charges:-

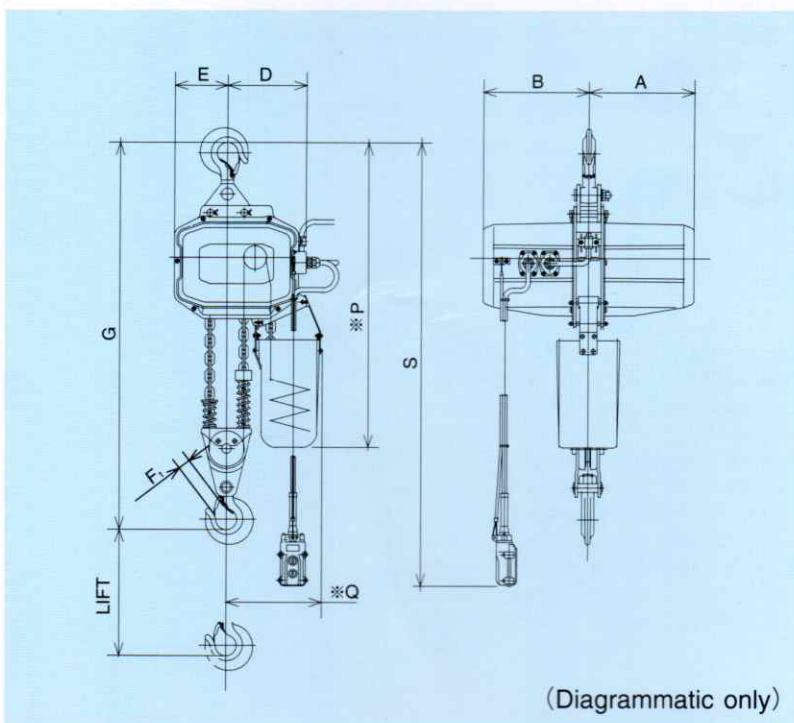
- A. Electric type over load protection
- B. Friction type over load protection
- C. Negative Phase protection
(Warning system to prevent incorrect connection of the power souce)
- D. Push button switch with emergency stop
- E. NN Case hardened Chain
(Non-electrolytic nickel plating fused into the surface of the chain)



1-Speed Electric Chain Hoist / 2-Speed Electric C



EC4 250kg, 500kg & 1t
ECT4 250kg, 500kg & 1t
ECC4 300kg & 500kg



EC4 1 t w & 2 t
ECT4 1 t w & 2 t
ECC4 1 t w

in Hoist / Single-Phase Electric Chain Hoist

EC4 (1-Speed)

One speed electric chain hoists are available in 5 different sizes ranging from light 250 kg to heavy 2 t capacities.

STANDARD SPECIFICATIONS: Model EC4 Suspended Type One speed Electric Chain Hoist

Item No.	Rated load	Lift (m)	Lifting Speed (m/min)		Motor output (kW)		Rating (min.)	Load chain		Cable Length		Minimum head room G (mm)	Net weight (approx.) ※(kg)	Major Dimension (approx.) (mm)																				
			50Hz	60Hz	50Hz	60Hz		Dia. (mm)	No. of falls	Power Source (m)	Pendant S(m)			A	B	D	E	F ₁	※P	※Q														
EC40025	250kg	3.0 6.0	8.7	10.3	0.4	0.5	30	6.3	1	5.0	2.6 5.6	485	35 38	245	245	137	149	20	660	195														
EC40050	500kg	3.0 6.0	8.6	10.1	0.9	1.1					2.6 5.6	520	37 41																					
ECJ40100	1t w	3.0 6.0	4.3	5.0							2	2.6 5.6	660								43 49	167	119	25	715 835	225								
EC40100	1t	3.0 6.0	5.6	6.6	1.1	1.3					7.1	1	2.6 5.6								570				49 52	255	255	150	168	710	200			
ECJ40200	2t	3.0 6.0	2.8	3.3									2								2.6 5.6	755	58 65	191	127							30	770 890	240

1. The values marked * are valid for the standard 3 meter lift and will vary in accordance with the lift.
2. The design, materials and specifications are subject to change for improvements without notice.

ECT4 (2-Speed)

Two speed electric chain hoists are also available in 5 different capacities ranging from 250 kg to 2t. The 4 to 1 speed ratio of Model ECT4 is ideal for a large variety of applications...no more cumbersome inching, the slow speed works accurately when spotting the load to a desired position, and with the fast speed the load can be quickly and efficiently handled. The slow and fast speeds are both completely at your command with the dual-stage push button switch. For slow speed press the buttons halfway down, and the fast speed can be obtained by completely depressing the buttons.

STANDARD SPECIFICATIONS: Model ECT4 Suspended Type Two speed Electric Chain Hoist

Item No.	Rated load	Lift (m)	Lifting Speed (m/min)				Motor output (kW)				Rating (min.)		Load chain		Cable Length		Minimum head room G (mm)	Net weight (approx.) ※(kg)	Major Dimension (approx.) (mm)							
			Fast		Slow		Fast		Slow		Fast	Slow	Dia. (mm)	No. of falls	Power Source (m)	Pendant (S(m))			A	B	D	E	F ₁	※P	※Q	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz																
ECT40025	250kg	3.0 6.0	8.7	10.3	2.2	2.6	0.4	0.5	0.1	0.13	30	10	6.3	1	5.0	2.6 5.6	485	37 40	245	245	137	149	20	660	195	
ECT40050	500kg	3.0 6.0	8.6	10.1	2.2	2.6	0.9	1.1	0.23	0.28						2.6 5.6	520	41 44								
ECTJ40100	1t w	3.0 6.0	4.3	5.1	1.1	1.3										2.6 5.6	660	47 52			167	119	25	715 835	225	
ECT40100	1t	3.0 6.0	5.6	6.7	1.4	1.7	1.1	1.3	0.27	0.33			7.1	1		2.6 5.6	570	54 58	255	255				150	168	710
ECTJ40200	2t	3.0 6.0	2.8	3.3	0.7	0.8										2.6 5.6	755	63 70			191	127	30	770 890	240	

1. The values marked * are valid for the standard 3 meter lift and will vary in accordance with the lift.
2. The design, materials and specifications are subject to change for improvements without notice.
3. Refer to page 5 & 6 for the specifications of the trolleys.

ECC4 (Single-Phase)

Single phase electric chain hoists are available for 300 kg, 500 kg and 1t w capacities. Model ECC4 is specially designed and manufactured for the efficient handling of loads on household power sources. N.B. Low voltage control optional extra.

STANDARD SPECIFICATIONS: Model ECC4 Suspended Type Single Phase Electric Chain Hoist

Item No.	Rated load	Lift (m)	Lifting Speed (m/min)		Motor output (kW)		Rating (min.)	Load chain		Cable Length		Minimum head room G (mm)	Net weight (approx.) ※(kg)	Major Dimension (approx.) (mm)						
			50Hz	60Hz	50Hz	60Hz		Dia (mm)	No. of falls	Power Source (m)	Pendant S(m)			A	B	D	E	F ₁	※P	※Q
ECC40030	300kg	3.0	5.4	6.4	0.4	15	6.3	1	5.0	2.6	485	36	245	245	137	149	20	660	195	
ECC40050	500kg		3.2	3.8							520	36								167
ECCJ40100	1t w		1.6	1.9				660			42									

1. The values marked * are valid for the standard 3 meter lift and will vary in accordance with the lift.
2. The design, materials and specifications are subject to change for improvements without notice.
3. Refer to page 5 & 6 for the specifications of the trolleys.

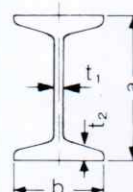
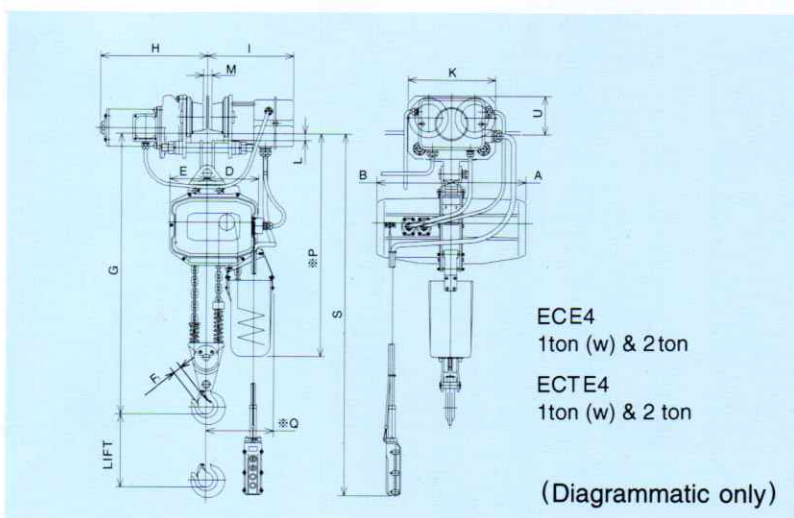
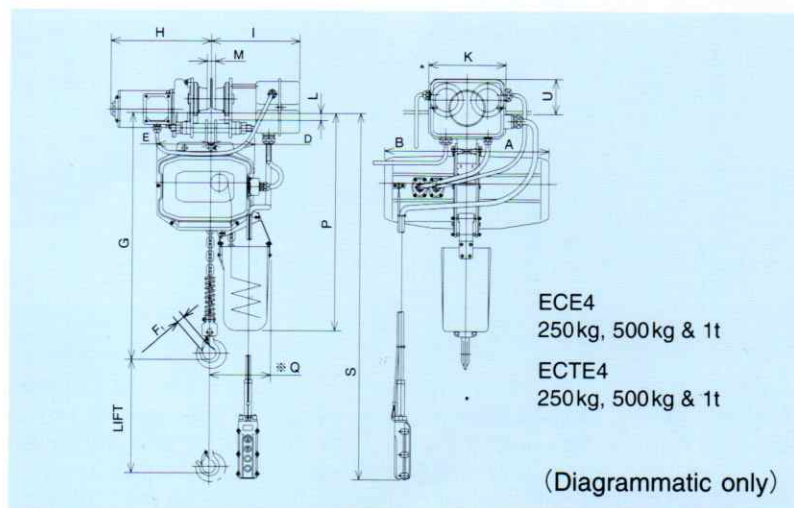
Electric Chain Hoist with Trolley

Models ECE4, ECG4 and ECP4

Model EC4 electric chain hoists are also available direct-coupled to motorized, geared or plain trolleys with mechanical joining devices. All of the trolleys are adjustable and will suit the beam widths listed in the tables. Trolleys for wide and narrow beams are also available at moderate extra charges.

ECE4

1-Speed Electric Chain Hoist with Motorized Trolley



STANDARD SPECIFICATIONS: Model ECE4 Motorized Trolley Type Electric Chain Hoist

Item No.	Rated load	Lift (m)	Traversing Speed (m/min)		Motor output (kW)	Rating (min.)	Breadth of Beams b (mm)	Minimum radius for curve (m)	Cable Length		Minimum head room G (mm)	Net Weight (approx.) ※(kg)	Major Dimension (approx.) (mm)																							
			50Hz	60Hz					Power Source (m)	Pendant S(m)			A	B	D	E	F ₁	H	I	K	L	M	※P	※Q	U											
ECE40025	250kg	3.0 6.0	20 (10)	24 (12)	0.2	30	75 100 125	1.0	1.0	3.0 6.0	495 530	62 66	245	245	123 149	20 b/2 +280	b/2 +240	240	32-t ₂	b-49	715 835	225	670 195	99 +t ₂												
ECE40050	500kg	3.0 6.0								3.0 6.0		65 69																								
ECJE40100	1t w	3.0 6.0								3.0 6.0		71 77													153 168	25										
		76 80																																		
ECE40100	1t	3.0 6.0								3.0 6.0		76 80													255	255	177 127	30	b/2 +325	b/2 +250	300	33-t ₂	b-70	790 910	240	121 +t ₂
ECJE40200	2t	3.0 6.0								3.0 6.0		107 114																								

1. The values marked ※ are valid for the standard 3 meter lift and will vary in accordance with the lift.
2. The design, materials and specifications are subject to change for improvements without notice.
3. The values in the () are for motorized trolleys with half speed.
4. Refer to the above beam drawing for dimensions b and t₂.
5. The standard specifications for EC4 are on page-4.



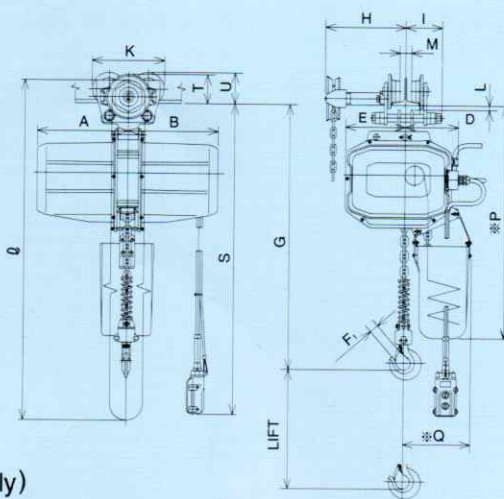
ECG4

Geared Trolley Type Electric Chain Hoist

ECG4
250kg, 500kg & 1t

ECTG4
250kg, 500kg & 1t

ECCG4
300kg & 500kg



(Diagrammatic only)

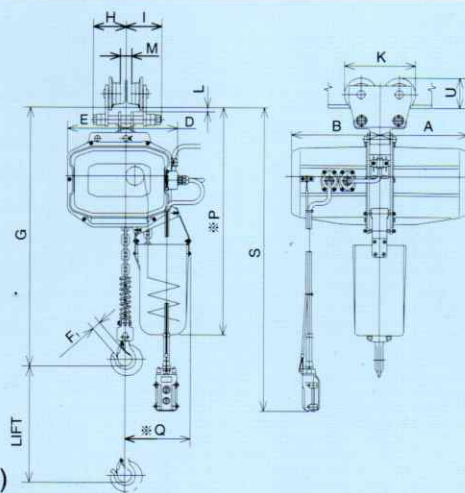
ECP4

Plain Trolley Type Electric Chain Hoist

ECP4
250kg, 500kg & 1t

ECTP4
250kg, 500kg & 1t

ECCP4
300kg & 500kg



(Diagrammatic only)

STANDARD SPECIFICATIONS:

Model ECG4 Geared Trolley Type Electric Chain Hoist & Model ECP4 Plain Trolley Type Electric Chain Hoist

Item No.	Rated load	Lift (m)	Breadth of Beams b (mm)	Minimum radius for curve (m)	Cable Length		Minimum head room G (mm)	ECG4 ECP4												ECG4				ECP4	
					Power Source (m)	Pendant S(m)		Major Dimension (approx.) (mm)												Hand Chain Length L (mm)	H (mm)	T (mm)	Net Weight (approx.) ※(kg)	H (mm)	Net Weight (approx.) ※(kg)
								A	B	D	E	F	I	K	L	M	※P	※Q	U						
ECG40025	250kg	3.0	75	1.0	5.0	2.6	475	245	245	137	149	20	105	206	24-t2	b-42	650	195	80+t2	b/2+190	72+t2	105	47	41	
ECP40025		6.0				5.6																	6.0	53	45
ECG40050	3.0	2.6				3.0	49																44		
ECP40050	6.0	5.6				6.0	55																47		
ECJG40100	1t w	3.0				2.6	3.0																55	50	
ECJP40100		6.0				5.6	6.0																63	55	
ECG40100	1t	3.0	100	1.2	5.0	2.6	550	255	255	150	168	25	128	262	28-t2	b-63	685	200	102+t2	b/2-150	115+t2	128	60	55	
ECP40100		6.0				5.6																	6.0	67	59
ECJG40200	2t	3.0				2.6	3.0																80	73	
ECJP40200		6.0				5.6	6.0																90	80	

1. The values marked * are valid for the standard 3 meter lift and will vary in accordance with the lift.
2. The design, materials and specifications are subject to change for improvements without notice.
3. Refer to the above beam drawing for dimensions b and t2.
4. The standard specifications for EC4 are on page-4.

NITCHI.... a world renowned name for labor - saving
dependable Materials Handling Equipment



- Electric chain hoists(1- speed type)
- Electric chain hoists(2- speed type)
- Motorized trolleys
- Manual operated chain hoists
- Manual operated trolleys (geared & plain)
- Ratchet lever hoists
- Cranes (top running type & suspension type)
- Jib cranes (semicircular & circular swivelling type)
- Webbing sling (polyester)

and more ... for specific requirements