

## Hitachi Hoists

# Electric Chain Hoist





# Hitachi Electric Chain Hoists are Packed with Advanced Features

STANDARD MODEL S series S / F series F

## HELICAL GEARING S F

used where practical to provide quiet operation.

## LONG LIFE BRAKE UNIT S F

Disk type Electro-Magnetic brake system for steady operation and long life.

## AUTOMATIC ADJUSTING BRAKE F

are equipped with patented Automatic Adjusting Brake for easier maintenance and added safety.  
U.S. PAT. 3908802  
Germany PAT. 2354044



## ELECTRO-MAGNETIC CONTACTOR S F

with mechanical-interlocking against line short by mechanical shock.

## POWER CHAIN S F

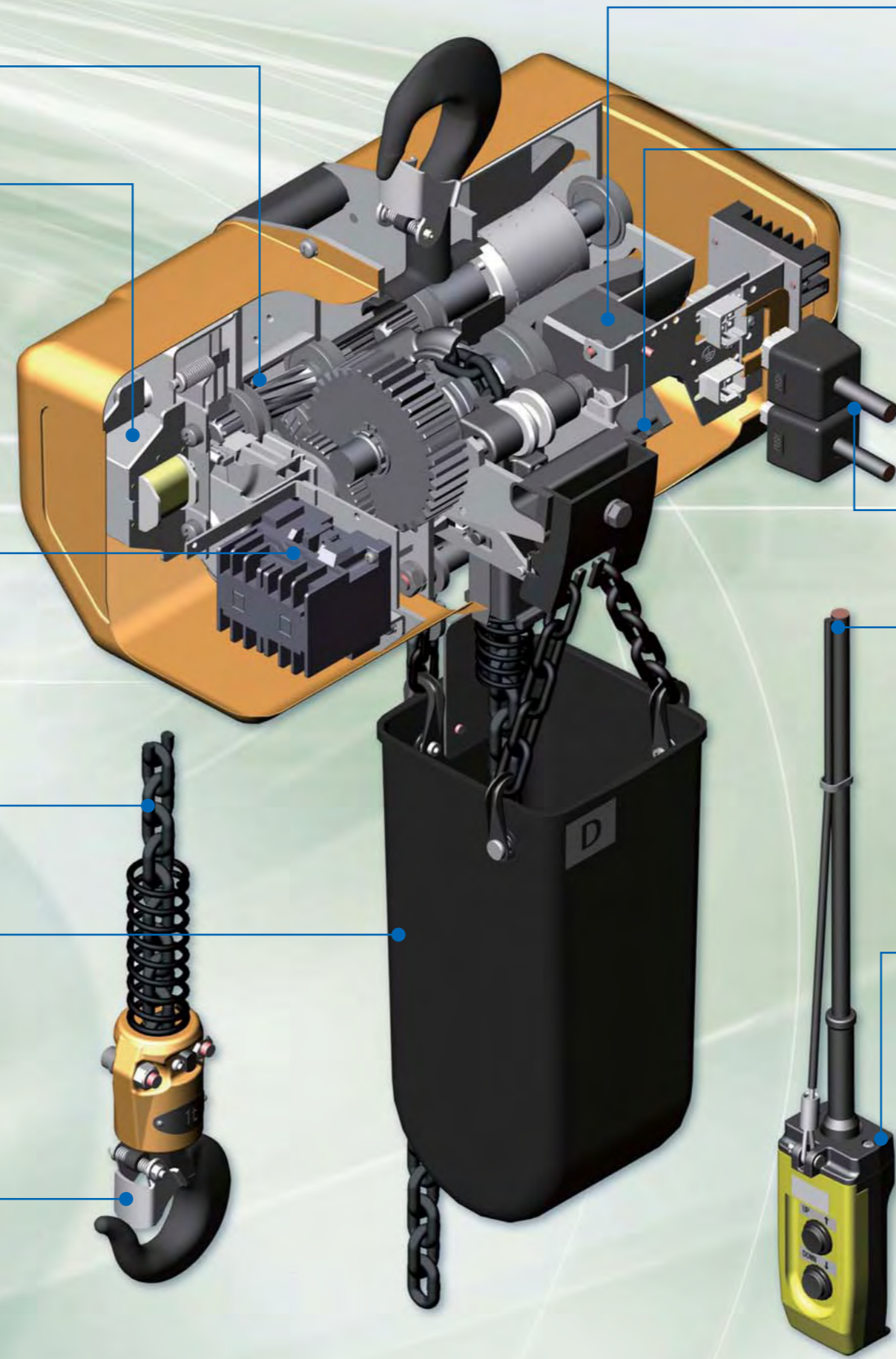
special (patented) alloy steel chain surface hardened for optimum strength and wear resistance.  
(U.S. PAT. 3830054)

## CHAIN CONTAINER S F

as standard part for safer operation.

## LOWER HOOK S F

is heat-treated and equipped with safety latch and 360° swivelling.



## REVERSE PHASE INSPECTION RELAY S F

cut control circuit when reverse phasing.  
Except the 3 phase models of 250 kg and 500 kg, and single phase models.

## LIMIT SWITCH (Upper and Lower) S F

interrupt motor power to prevent hook overtravel and hazardous condition such as chain kink.

## AUXILIARY BRAKE SYSTEM F

F series hoists equipped with auxiliary brake.

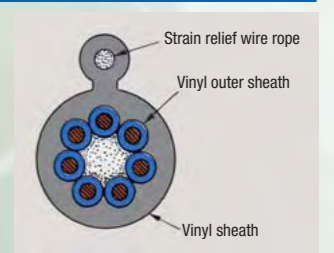


## PLUG-IN CABLES S F

reduce maintenance time and installation.

## PUSHBUTTON CABLE S F

is molded with strain relief wire rope into one body. This assures easier and safer operation.

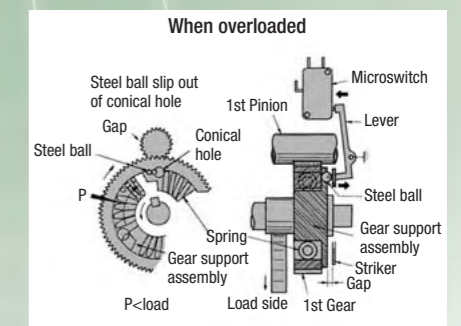


## PUSHBUTTON SWITCH S F

is rain-proof plastic for severe impact and corrosive atmosphere resistance and mechanically interlocked. The 24 volt control circuit reduce shock hazard to the operation.

## HITACHI OVERLOAD LIMITER S option F option

Unique, patented over load protection device is available on all models upon request.  
U.S. PAT. 4103873  
CANADA PAT. 1062232  
Others



Outline

S series

F series

Others



# S series

## Electric chain hoist

### Suspension type

Single speed model

Dual speed model

Single phase model



#### Specifications table

##### SINGLE SPEED (3 PHASE)

S(H)

| Rated Load (kg)        |           | 250                  | 500                  | 1,000 | 2,000  | 3,000 | 5,000 |  |
|------------------------|-----------|----------------------|----------------------|-------|--------|-------|-------|--|
| Model Name             |           | 1/4S(H) <sub>2</sub> | 1/2S(H) <sub>2</sub> | 1S(H) | 2S(H)  | 3S(H) | 5S(H) |  |
| Standard Lift (m)      |           | 3(6)                 |                      |       |        |       |       |  |
| Hoisting Speed (m/min) | 50Hz      | 10                   | 7.2                  | 4.6   | 2.3    | 1.5   | 0.9   |  |
|                        | 60Hz      | 12                   | 8.5                  | 5.5   | 2.8    | 1.8   | 1.1   |  |
| Motor Output (kW)      | 50Hz      | 0.45                 | 0.63                 | 0.8   | 0.8    | 0.8   | 0.8   |  |
|                        | 60Hz      | 0.55                 | 0.75                 | 1.0   | 1.0    | 1.0   | 1.0   |  |
| Link Chain             | Dia. (mm) | φ6.3                 | φ6.3                 | φ7.1  | φ7.1   | φ7.1  | φ7.1  |  |
|                        | No. of    | 1                    | 1                    | 1     | 2      | 3     | 5     |  |
| Rating                 |           | 30% ED               |                      |       | 25% ED |       |       |  |
| Power Cord Length      |           | 5m                   |                      |       |        |       |       |  |

##### DUAL SPEED (3 PHASE)

SN(H)

| Rated Load (kg)        |              | 250                   | 500                   | 1,000     | 2,000    |  |
|------------------------|--------------|-----------------------|-----------------------|-----------|----------|--|
| Model Name             |              | 1/4SN(H) <sub>2</sub> | 1/2SN(H) <sub>2</sub> | 1SN(H)    | 2SN(H)   |  |
| Standard Lift (m)      |              | 3(6)                  |                       |           |          |  |
| Hoisting Speed (m/min) | 50Hz         | 7.2/1.8               | 7.2/1.8               | 4.6/1.2   | 2.3/0.6  |  |
|                        | 60Hz         | 8.5/2.1               | 8.5/2.1               | 5.5/1.4   | 2.8/0.7  |  |
| Motor Output (kW)      | 50Hz         | 0.32/0.08             | 0.63/0.16             | 0.8/0.2   | 0.8/0.2  |  |
|                        | 60Hz         | 0.38/0.1              | 0.75/0.19             | 0.1/0.25  | 0.1/0.25 |  |
| Link Chain             | Dia. (mm)    | φ6.3                  | φ6.3                  | φ7.1      | φ7.1     |  |
|                        | No. of Falls | 1                     | 1                     | 1         | 2        |  |
| Rating                 |              | 25% ED                |                       | 20/10% ED |          |  |
| Power Cord Length      |              | 5m                    |                       |           |          |  |

##### SINGLE PHASE

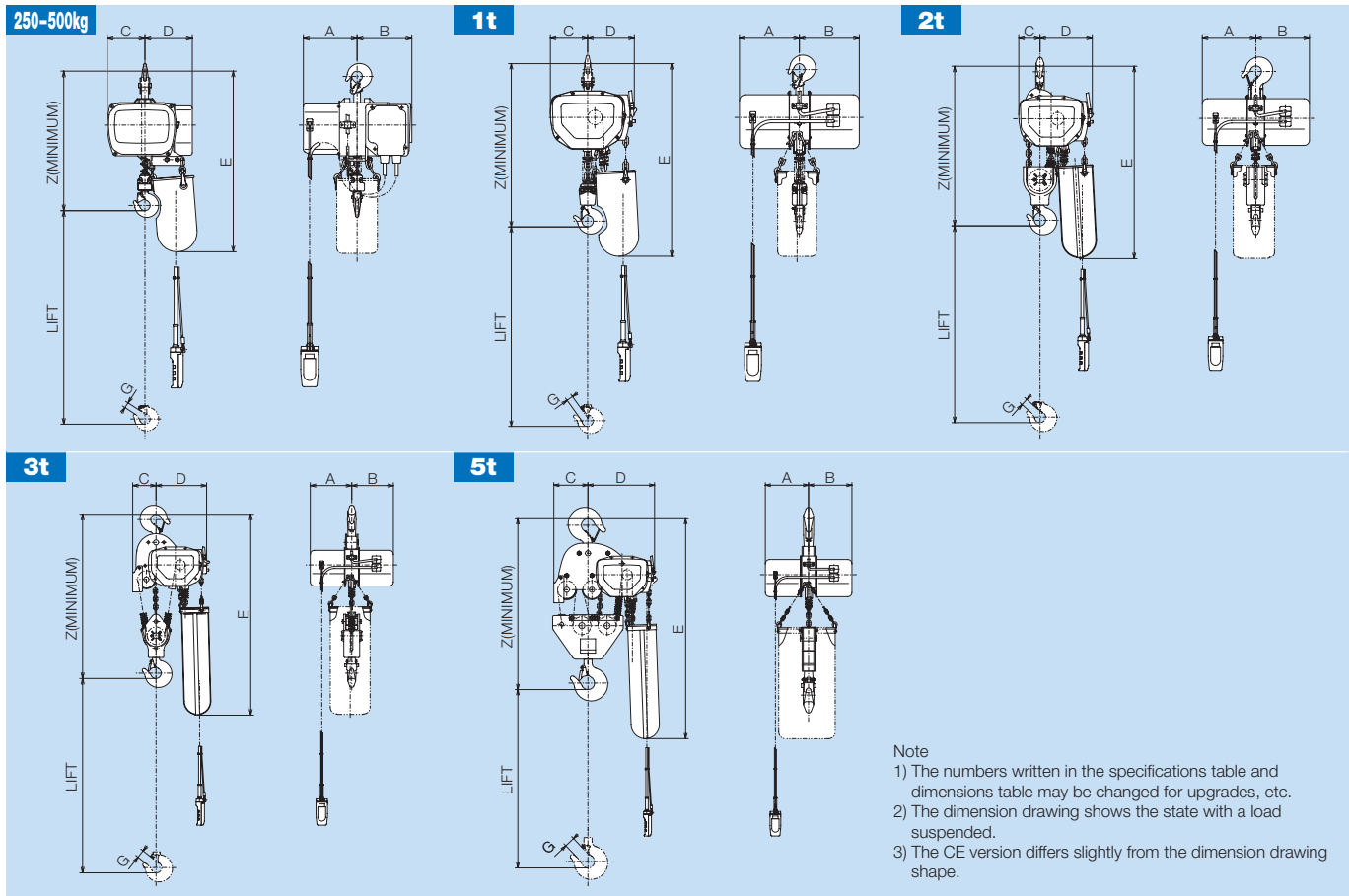
SS(H)<sub>2</sub>, S(H)1

| Rated Load (kg)        |              | 250                   | 500                   | 1,000  | 2,000  | 3,000  | 5,000  |  |
|------------------------|--------------|-----------------------|-----------------------|--------|--------|--------|--------|--|
| Model Name             |              | 1/4SS(H) <sub>2</sub> | 1/2SS(H) <sub>2</sub> | 1S(H)1 | 2S(H)1 | 3S(H)1 | 5S(H)1 |  |
| Standard Lift (m)      |              | 3(6)                  |                       |        |        |        |        |  |
| Hoisting Speed (m/min) | 50Hz         | 5.0                   | 3.6                   | 2.3    | 1.1    | 0.8    | 0.45   |  |
|                        | 60Hz         | 6.0                   | 4.3                   | 2.8    | 1.4    | 0.9    | 0.55   |  |
| Motor Output (kW)      | 50Hz         | 0.25                  | 0.32                  | 0.4    | 0.4    | 0.4    | 0.4    |  |
|                        | 60Hz         | 0.30                  | 0.37                  | 0.5    | 0.5    | 0.5    | 0.5    |  |
| Link Chain             | Dia. (mm)    | φ6.3                  | φ6.3                  | φ7.1   | φ7.1   | φ7.1   | φ7.1   |  |
|                        | No. of Falls | 1                     | 1                     | 1      | 2      | 3      | 5      |  |
| Rating                 |              | 25% ED                |                       |        | 20% ED |        |        |  |
| Power Cord Length      |              | 5m                    |                       |        |        |        |        |  |

All dimensions and specifications are subject to change without notice.

# Suspension type

## ■ Dimensions



Note  
 1) The numbers written in the specifications table and dimensions table may be changed for upgrades, etc.  
 2) The dimension drawing shows the state with a load suspended.  
 3) The CE version differs slightly from the dimension drawing shape.

## ■ Specifications table

### SINGLE SPEED (3 PHASE)

| Model Name     |        | 1/4S <sub>2</sub> | 1/4SH <sub>2</sub> | 1/2S <sub>2</sub> | 1/2SH <sub>2</sub> | 1S    | 1SH | 2S    | 2SH | 3S    | 3SH   | 5S    | 5SH   |
|----------------|--------|-------------------|--------------------|-------------------|--------------------|-------|-----|-------|-----|-------|-------|-------|-------|
| Rated Load     | (kg)   | 250               |                    | 500               |                    | 1,000 |     | 2,000 |     | 3,000 |       | 5,000 |       |
| Dimensions     | Z      | 450               |                    | 450               |                    | 530   |     | 645   |     | 800   |       | 895   |       |
|                | A      | 181               |                    | 181               |                    | 216   |     | 216   |     | 216   |       | 216   |       |
|                | B      | 184               |                    | 184               |                    | 216   |     | 216   |     | 216   |       | 216   |       |
|                | C      | 125               |                    | 125               |                    | 135   |     | 90    |     | 125   |       | 175   |       |
|                | D      | 165               |                    | 165               |                    | 170   |     | 215   |     | 270   |       | 340   |       |
|                | D'(CE) | 200               |                    | 200               |                    | 170   |     | 215   |     | 270   |       | 340   |       |
|                | E      | 620               |                    | 620               |                    | 680   |     | 705   | 775 | 835   | 1,050 | 1,065 | 1,095 |
| G              | 19     |                   | 19                 |                   | 23                 |       | 26  |       | 42  |       | 48    |       |       |
| Approx. Weight | (kg)   | 28                | 31                 | 31                | 34                 | 37    | 42  | 49    | 59  | 61    | 72    | 88    | 105   |

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### DUAL SPEED (3 PHASE)

| Model Name     |        | 1/4SN <sub>2</sub> | 1/4SNH <sub>2</sub> | 1/2SN <sub>2</sub> | 1/2SNH <sub>2</sub> | 1SN   | 1SNH | 2SN   | 2SNH |
|----------------|--------|--------------------|---------------------|--------------------|---------------------|-------|------|-------|------|
| Rated Load     | (kg)   | 250                |                     | 500                |                     | 1,000 |      | 2,000 |      |
| Dimensions     | Z      | 450                |                     | 450                |                     | 530   |      | 645   |      |
|                | A      | 183                |                     | 183                |                     | 216   |      | 216   |      |
|                | B      | 210                |                     | 210                |                     | 246   |      | 246   |      |
|                | C      | 125                |                     | 125                |                     | 135   |      | 90    |      |
|                | D      | 185                |                     | 185                |                     | 170   |      | 215   |      |
|                | D'(CE) | 200                |                     | 200                |                     | 170   |      | 215   |      |
|                | E      | 620                |                     | 620                |                     | 680   |      | 705   | 775  |
| G              | 19     |                    | 19                  |                    | 23                  |       | 26   |       |      |
| Approx. Weight | (kg)   | 33                 | 36                  | 36                 | 39                  | 42    | 47   | 54    | 64   |

### SINGLE PHASE

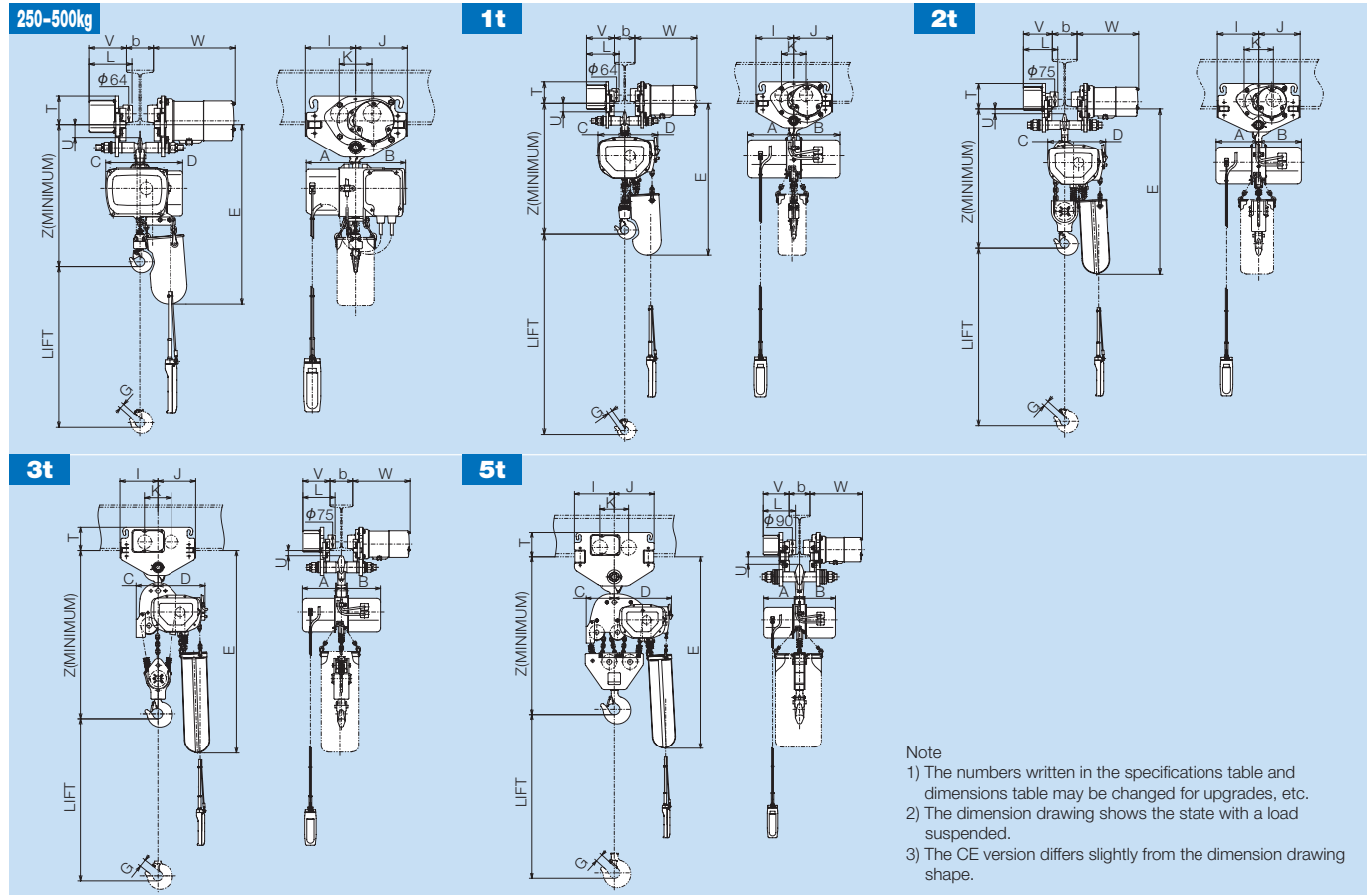
| Model Name     |        | 1/4SS <sub>2</sub> | 1/4SSH <sub>2</sub> | 1/2SS <sub>2</sub> | 1/2SSH <sub>2</sub> | 1S1   | 1SH1 | 2S1   | 2SH1 | 3S1   | 3SH1  | 5S1   | 5SH1  |
|----------------|--------|--------------------|---------------------|--------------------|---------------------|-------|------|-------|------|-------|-------|-------|-------|
| Rated Load     | (kg)   | 250                |                     | 500                |                     | 1,000 |      | 2,000 |      | 3,000 |       | 5,000 |       |
| Dimensions     | Z      | 450                |                     | 450                |                     | 530   |      | 645   |      | 800   |       | 895   |       |
|                | A      | 181                |                     | 181                |                     | 246   |      | 246   |      | 246   |       | 246   |       |
|                | B      | 210                |                     | 210                |                     | 246   |      | 246   |      | 246   |       | 246   |       |
|                | C      | 125                |                     | 125                |                     | 135   |      | 90    |      | 125   |       | 175   |       |
|                | D      | 165                |                     | 165                |                     | 170   |      | 215   |      | 270   |       | 340   |       |
|                | D'(CE) | 200                |                     | 200                |                     | 170   |      | 215   |      | 270   |       | 340   |       |
|                | E      | 620                |                     | 620                |                     | 680   |      | 705   | 775  | 835   | 1,050 | 1,065 | 1,095 |
| G              | 19     |                    | 19                  |                    | 23                  |       | 26   |       | 42   |       | 48    |       |       |
| Approx. Weight | (kg)   | 34                 | 37                  | 34                 | 37                  | 39    | 44   | 51    | 61   | 63    | 74    | 90    | 107   |

All dimensions and specifications are subject to change without notice.

# With motorized trolley-ET

This can be combined with a 4-point or 6-point pushbutton and used as a motorized trolley or overhead traveling crane.

## Dimensions



## Specifications table

| Chain Hoist Model Name       |        | 1/4S(H) <sub>2</sub> | 1/4SN(H) <sub>2</sub> | 1/2S(H) <sub>2</sub> | 1/2SN(H) <sub>2</sub> | 1S(H)  | 1SN(H) | 2S(H)    | 2SN(H)   | 3S(H)      | 5S(H)        |
|------------------------------|--------|----------------------|-----------------------|----------------------|-----------------------|--------|--------|----------|----------|------------|--------------|
| Trolley Type                 |        | 1ET                  |                       |                      |                       |        |        | 2ET      |          | 3ET        | 5ET          |
| Rated Load (kg)              |        | 250                  |                       | 500                  |                       | 1,000  |        | 2,000    |          | 3,000      | 5,000        |
| Dimensions (mm)              | Z      | 523                  | 523                   | 523                  | 523                   | 600    | 600    | 700      | 700      | 865        | 984          |
|                              | A      | 181                  | 183                   | 181                  | 183                   | 216    | 216    | 216      | 216      | 216        | 216          |
|                              | B      | 184                  | 210                   | 184                  | 210                   | 216    | 246    | 216      | 246      | 216        | 216          |
|                              | C      | 125                  | 125                   | 125                  | 125                   | 135    | 135    | 90       | 90       | 125        | 175          |
|                              | D      | 165                  | 185                   | 165                  | 185                   | 170    | 170    | 215      | 215      | 270        | 340          |
|                              | D'(CE) | 200                  | 200                   | 200                  | 200                   | 170    | 170    | 215      | 215      | 270        | 340          |
|                              | E      | 693                  | 693                   | 693                  | 693                   | 750    | 750    | 770(840) |          | 910(1,125) | 1,170(1,200) |
|                              | G      | 19                   | 19                    | 19                   | 19                    | 23     | 23     | 26       | 26       | 42         | 48           |
|                              | I      |                      |                       |                      | 185                   |        |        |          | 210      | 210        | 240          |
|                              | J      |                      |                       |                      | 190                   |        |        |          | 210      | 210        | 240          |
|                              | K      |                      |                       |                      | 120                   |        |        |          | 148      | 148        | 173          |
|                              | L      |                      |                       |                      | 182                   |        |        |          | 200      | 203        | 219          |
|                              | T      |                      |                       |                      | 110                   |        |        |          | 140      | 140        | 156          |
| U                            |        |                      |                       | 38                   |                       |        |        | 18       | 16       | 34         |              |
| V                            |        |                      |                       | 159                  |                       |        |        | 172      | 175      | 181        |              |
| W                            |        |                      |                       | 303                  |                       |        |        | 313      | 316      | 323        |              |
| Min. Curve Radius (m)        |        | 1.5                  |                       |                      |                       |        |        | 1.8      |          | 2.0        | 3.0          |
| Applicable Beam Width b (mm) |        | 75-125               |                       |                      |                       |        |        | 100-150  |          |            | 125-175      |
| Approx. Weight (kg)          |        | 66(69)               | 71(74)                | 69(72)               | 74(77)                | 75(80) | 80(85) | 101(111) | 106(116) | 121(132)   | 174(191)     |

All dimensions and specifications are subject to change without notice.

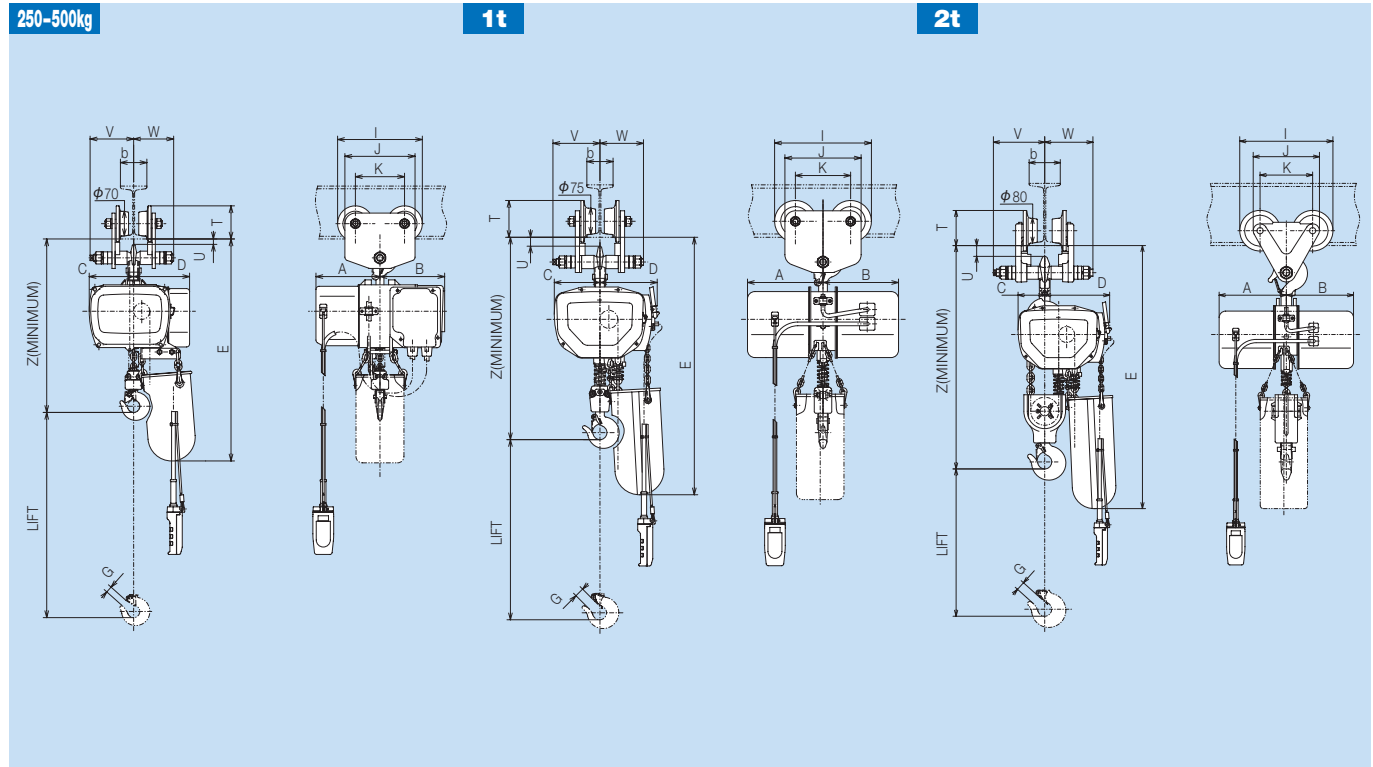
## Motorized trolley specifications table

| Series Name                  |      | ET series  |         |           |         | ST series |         |       |  |
|------------------------------|------|------------|---------|-----------|---------|-----------|---------|-------|--|
| Model Name                   |      | 1ET        | 2ET     | 3ET       | 5ET     | 1ST       | 2ST     | 3ST   |  |
| Working Load Limit (kg)      |      | 1,000      | 2,000   | 3,000     | 5,000   | 1,000     | 2,000   | 3,000 |  |
| Traveling Speed (m/min)      | 50Hz | 10.5(21)   |         |           |         | 10.5      |         |       |  |
|                              | 60Hz | 12.5(25)   |         |           |         | 12.5      |         |       |  |
| Motor Output (kW)            | 50Hz | 0.14(0.27) |         | 0.3(0.6)  |         | 0.07      | 0.14    | 0.2   |  |
|                              | 60Hz | 0.16(0.32) |         | 0.35(0.7) |         | 0.08      | 0.16    | 0.24  |  |
| Applicable Beam Width b (mm) |      | 75-125     | 100-150 |           | 125-175 | 75-125    | 100-150 |       |  |
| Rating                       |      | 25%ED      |         |           |         |           |         | 25%ED |  |

# With manual driven trolley-BP

The electric chain hoist with manual driven trolley is suitable for relatively light loads transported a short distance.

## Dimensions



## Specifications table

| Chain Hoist Model Name       |        | 1/4S(H) <sub>2</sub> | 1/4SN(H) <sub>2</sub> | 1/2S(H) <sub>2</sub> | 1/2SN(H) <sub>2</sub> | 1S(H)  | 1SN(H) | 2S(H)    | 2SN(H) |
|------------------------------|--------|----------------------|-----------------------|----------------------|-----------------------|--------|--------|----------|--------|
| Trolley type                 |        | 1/2BP                |                       |                      |                       | 1BP    |        | 2BP      |        |
| Rated Load (kg)              |        | 250                  |                       | 500                  |                       | 1,000  |        | 2,000    |        |
| Dimensions (mm)              | Z      | 513                  | 513                   | 513                  | 513                   | 585    | 585    | 703      | 703    |
|                              | A      | 181                  | 183                   | 181                  | 183                   | 216    | 216    | 216      | 216    |
|                              | B      | 184                  | 210                   | 184                  | 210                   | 216    | 246    | 216      | 246    |
|                              | C      | 125                  | 125                   | 125                  | 125                   | 135    | 135    | 90       | 90     |
|                              | D      | 165                  | 185                   | 165                  | 185                   | 170    | 170    | 215      | 215    |
|                              | D'(CE) | 200                  | 200                   | 200                  | 200                   | 170    | 170    | 215      | 215    |
|                              | E      | 685                  | 685                   | 685                  | 685                   | 740    | 740    | 775(845) |        |
|                              | G      | 19                   | 19                    | 19                   | 19                    | 23     | 23     | 26       | 26     |
|                              | I      | 242                  |                       |                      |                       | 277    |        | 300      |        |
|                              | J      | 199                  |                       |                      |                       | 199    |        | 213      |        |
|                              | K      | 139                  |                       |                      |                       | 139    |        | 169      |        |
|                              | T      | 98                   |                       |                      |                       | 110    |        | 128      |        |
|                              | U      | 13                   |                       |                      |                       | 23     |        | 22       |        |
|                              | V      | 124                  |                       |                      |                       | 135    |        | 165      |        |
| W                            | 114    |                      |                       |                      | 125                   |        | 155    |          |        |
| Min. Curve Radius (m)        | 1.0    |                      |                       |                      |                       | 1.2    |        | 1.5      |        |
| Applicable Beam Width b (mm) | 75-125 |                      |                       |                      |                       | 75-125 |        | 100-150  |        |
| Approx. Weight (kg)          | 38(41) | 43(46)               | 41(44)                | 46(49)               | 52(57)                | 57(62) | 66(76) | 71(81)   |        |

## Chain driven trolley, manual driven trolley specifications table

| Classification               | Chain driven trolley |        |         |       |         | Manual driven trolley |       |         |
|------------------------------|----------------------|--------|---------|-------|---------|-----------------------|-------|---------|
|                              | 1/2BC(H)             | 1BC(H) | 2BC(H)  | 3BCH  | 5BCH    | 1/2BP                 | 1BP   | 2BP     |
| Working Load Limit (kg)      | 500                  | 1,000  | 2,000   | 3,000 | 5,000   | 500                   | 1,000 | 2,000   |
| Standard Lift (m)            | 3(6)                 | 3(6)   | 3(6)    | 6     | 6       | —                     | —     | —       |
| Min. Curve Radius (m)        | 1.0                  | 1.2    | 1.5     | 1.5   | 2.4     | 1.0                   | 1.2   | 1.5     |
| Applicable Beam Width b (mm) | 75-125               |        | 100-150 |       | 125-175 | 75-125                |       | 100-150 |

For a crane that uses a chain or manual driven trolley for transverse movement and an electric motor for travel, please purchase a 4PB(H)-C, 4PBN(H)-C type wiring unit (See page 23).