## (1) chimax




Standard safety device

## 1. Lock of phase, error phase protection

The escalator (passenger conveyor) will be automatically stopped for running in case of phase failure.

## 2. Motor over-load protection

The escalator will be automatically stopped running in case the current exceeds the $15 \%$ of rated.

## 3. Electrical appliance loop protection

It offers the automatic circuit disconnection device to protect the circuit and main components of the escalator (Passenger Conveyor).

## 4. Handrail inlet protection

When foreign matters are jamming in the handrail inlet, the escalator (Passenger Conveyor) will be automatically stopped for running

## 5. Comb plate safety device

When foreign matters are jamming in or between the combs, the escalator (Passenger Conveyor) will be automatically stopped for running.

## 6. Step sagging protection device

When there is abnormal step bending, the escalator (Passenger Conveyor) will be stopped for running before the step entering into the comb plate.

## 7. Broken drive-chain safety device

When the drive-chain has been over-stretched or it is broken, the escalator (Passenger Conveyor) will be automatically stopped for running.

## 8. Broken step chain protection

When the step (pallet) chain has been over-stretched or broken, the escalator (Passenger Conveyor) will be automatically stopped for running.

## 9. Over-speed protection

When there is over-speed to the escalator (Passenger Conveyor), it will be automatically stopped for running.

## 10. Direction reversal protection

In the event of an unintentional reversal of the direction of travel, the escalator (Passenger Conveyor) will be automatically stopped for running.

## 11. Security line

The yellow synthetic resin security line is located in the front position and two sides of the escalator step so that the passengers will not step on the edge of the adjacent step or between step and skirt panel.
The security line on both sides of the step is higher than the tread surface. (The Passenger Conveyor offers the selective yellow spray-painted security-line.)

## 12. Emergency stop button

When the button has been pressed down, the escalator (Passenger Conveyor) will be stopped for running.

## 13. Brake protection

When the electric force falls short of supply or it acts any of the safety device, the brake function goes into effect by the safety device through the spring resilience action, the escalator (Passenger Conveyor) stopped for running accordingly.

## 14. Safety inspection switch

It has a safety device to prevent from the escalator starting during the inspection and maintenance.

## 15. Step illumination

Illumination exists in the upper and lower ends of the escalator, in the lower part of the step in order to remind the passengers of the security matters.

## 16. Skirt panel protection

When foreign matter has been jammed in between the skirt panel and the step, the escalator (Passenger Conveyor) will be automatically stopped for running.

## 17. Control device for handrail breakage

 When the handrail is broken, the escalator will be automatically stopped for running.
## Optional safety device

## 18. Alarm bell starting device

The alarm bell rings when the escalator stars in order to remind the passengers of the security matters.

## 19. Handrail speed monitor

When the handrail speed versus step is slower than certain percentage, the escalator (Passenger Conveyor) will be stopped for running.

## 20. Skirt panel brush

It is a optional safety device. The brush that has been installed between the skirt panel and the step will prevent the shoes of passengers from touching the skirt panel.

## 21. Fire-proof rolling door device

When this device comes into action, it can stop the escalator (Passenger Conveyor).

## 22. Lower machine room drain

When it exceeds the standard water level in the machine room, the automatic drain system will start accordingly. (outdoor type)

## 23. Auxiliary brake

It prevents from the escalator slide and ensures the passengers security in case of the drive chain breakage or the out-of-order of the brake. (It should be equipped with the emergency brake when $\mathrm{H}>6 \mathrm{~m}$.)

## Function

| Static electricity protection <br> Remove static electricity raised form running of steps | Un-intentional reversal protection <br> Protection against risk of unintentional reversal protection |
| :--- | :--- |
| Emergency stop button <br> Push the emergency stop button to stop the <br> escalator/passenger conveyor against emergency happen | Lack of phase, error phase protection <br> Protection against risk of phase failure |
| Skirting protection <br> Protection against risk of foreign matters being jammed into <br> clearance between steps and skirting | Short circuit protection <br> Protection against risk of short circuit |
| Handrail entry safety protection <br> Protection against risk of foreign matters being jammed into <br> handrail entry | Over-load protection <br> Protection against risk of motor continually over-load |
| Main drive chains safety protection <br> Protection against risk of drive chains being breakage or over <br> long | Step sagging protection <br> Protection against risk of steps being breakage and sagging |
| Over-speed protection <br> Protection against risk of speed being over $20 \%$ of rated speed | Step chains safety protection <br> Protection against risk of step chains being breakage or over <br> long |
| Under-speed protection <br> Protection against risk of speed less than $80 \%$ of rated speed | Comb safety guard <br> Protection against risk of foreign matters being trapped into <br> comb teeth of step(pallet) |

## Advantageous Performance

The truss utilizes first class angle steel with unique structure, high strength and complete durable features.

| The overall design is concise and smooth and compatible. | Etched stainless steel from panels are available with various <br> patterns. |
| :--- | :--- |
| The advanced interactional craftsmanship ensures the <br> accuracy of steps. | The main board of super CPU monitors the operation in real <br> time, which can automatically stops the running and records <br> the error code in case of any abnormal condition happen. |
| The large size diameter of step roller with stable running, low <br> noise and long lifetime. | VVVF is optional for control running speed to save energy. It <br> can prolong the lifetime and operations cost. |

The human-oriented handrail entrance is secured by brush.

The skirt panel, inside and outside of cover plate are made of stainless steel.

Etched stainless steel from panels are available with various patterns.

The main board of super CPU monitors the operation in real time, which can automatically stops the running and records the error code in case of any abnormal condition happen. can prolong the lifetime and operations cost.

ESCALATORS

Floor plan of HS-200-30K Commercial Escalator


| Type | Rise | Weight | Support Loads |  | Power kw | Transport size |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | R1 | R2 |  |  |  |
| $\begin{gathered} 30-60 \mathrm{~K} \\ 4500 \\ \text { man/hour } \end{gathered}$ | H | KN | KN | KN | $\mathrm{v}=0.5 \mathrm{~m} / \mathrm{s}$ | H | 1 |
|  | 3000 | 57 | 46 | 41 | 5.5 | 2172 | 11177 |
|  | 3500 | 60 | 49 | 44 |  | 2217 | 12165 |
|  | 4000 | 63 | 52 | 47 |  | 2254 | 13155 |
|  | 4500 | 67 | 56 | 50 |  | 2284 | 14146 |
|  | 5000 | 70 | 60 | 53 | 8 | 2309 | 15138 |
|  | 5500 | 74 | 62 | 56 |  | 2330 | 16131 |
|  | 6000 | 77 | 65 | 59 |  | 2348 | 17125 |
| $\begin{gathered} \text { 30-80K } \\ \text { 6750 } \\ \text { man/hour } \end{gathered}$ | 3000 | 59 | 52 | 47 | 5.5 | 2066 | 10788 |
|  | 3500 | 63 | 56 | 50 |  | 2101 | 11778 |
|  | 4000 | 67 | 60 | 54 | 8 | 2130 | 12769 |
|  | 4500 | 70 | 64 | 57 |  | 2153 | 13762 |
|  | 5000 | 74 | 68 | 60 |  | 2172 | 14755 |
|  | 5500 | 78 | 74 | 66 | 11 | 2188 | 15750 |
|  | 6000 | 81 | 78 | 69 |  | 2201 | 16745 |
| $\begin{gathered} 30-100 \mathrm{~K} \\ 9000 \\ \text { man/hour } \end{gathered}$ | 3000 | 63 | 59 | 53 | 8 | 2066 | 10788 |
|  | 3500 | 67 | 64 | 57 |  | 2101 | 11778 |
|  | 4000 | 71 | 68 | 61 |  | 2130 | 12769 |
|  | 4500 | 75 | 73 | 65 |  | 2153 | 13762 |
|  | 5000 | 79 | 79 | 71 | 11 | 2172 | 14755 |
|  | 5500 | 83 | 84 | 75 |  | 2188 | 15750 |
|  | 6000 | 86 | 88 | 79 |  | 2201 | 16745 |

mm size units, individual size may be revisde.

ESCALATORS

## Floor plan of HS-200-35K Commercial Escalator



| Type | Rise | Weight | Support Loads |  | Power kw | Transport size |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | R1 | R2 |  |  |  |
| $\begin{gathered} \text { 30-60K } \\ 4500 \\ \text { man/hour } \end{gathered}$ | H | KN | KN | KN | $\mathrm{v}=0.5 \mathrm{~m} / \mathrm{s}$ | H | I |
|  | 3000 | 54 | 43 | 39 | 5.5 | 2291 | 10458 |
|  | 3500 | 57 | 46 | 41 |  | 2345 | 11309 |
|  | 4000 | 60 | 49 | 44 |  | 2389 | 12163 |
|  | 4500 | 64 | 52 | 46 |  | 2425 | 13019 |
|  | 5000 | 67 | 54 | 49 | 8 | 2456 | 13877 |
|  | 5500 | 70 | 57 | 51 |  | 2481 | 14737 |
|  | 6000 | 73 | 60 | 54 |  | 2503 | 15598 |
| $\begin{gathered} \text { 30-80K } \\ \text { 6750 } \\ \text { man/hour } \end{gathered}$ | 3000 | 58 | 49 | 44 | 5.5 | 2177 | 10073 |
|  | 3500 | 60 | 52 | 47 |  | 2219 | 10926 |
|  | 4000 | 63 | 56 | 50 | 8 | 2253 | 11782 |
|  | 4500 | 66 | 59 | 53 |  | 2281 | 12640 |
|  | 5000 | 70 | 62 | 56 |  | 2304 | 13500 |
|  | 5500 | 73 | 65 | 59 | 11 | 2324 | 14362 |
|  | 6000 | 76 | 69 | 61 |  | 2340 | 15224 |
| $\begin{gathered} 30-100 \mathrm{~K} \\ 9000 \\ \text { man/hour } \end{gathered}$ | 3000 | 60 | 56 | 50 | 8 | 2177 | 10073 |
|  | 3500 | 64 | 60 | 53 |  | 2219 | 10926 |
|  | 4000 | 67 | 64 | 57 |  | 2253 | 11782 |
|  | 4500 | 71 | 67 | 60 |  | 2281 | 12640 |
|  | 5000 | 74 | 71 | 67 |  | 2304 | 13500 |
|  | 5500 | 78 | 77 | 69 | 11 | 2324 | 14362 |
|  | 6000 | 82 | 81 | 72 |  | 2340 | 15224 |


|  | Step width |  |  |
| :--- | :---: | :---: | :---: |
|  | 1000 mm | 800 mm | 600 mm |
| A : Step width | 1000 | 800 | 600 |
| B : Width between handrails | 1157 | 957 | 757 |
| C : Handrail center distance | 1237 | 1037 | 837 |
| D : Width of escalator | 1540 | 1340 | 1140 |
| E : Width of shaft | 1580 | 1360 | 1180 |
| F : Minimum spacing | 2236 | 2036 | 1636 |
| G : Maximum outreach | 16000 | 17200 | 18900 |

[^0]
## The Construction Layout Drawing of HS200 Medium Height Commercial Escalator



| Type | Rise | Weight | Power/kw |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 30-80M } \\ & \text { 6750 } \\ & \text { man/hour } \end{aligned}$ | H | KN | $\mathrm{v}=0.5 \mathrm{~m} / \mathrm{s}$ |
|  | 6000 | 89 | 11 |
|  | 6500 | 95 |  |
|  | 7000 | 99 |  |
|  | 7500 | 102 | 15 |
|  | 8000 | 106 |  |
|  | 8500 | 115 | $2 \times 8$ |
|  | 9000 | 118 |  |
|  | 9500 | 122 |  |
|  | 10000 | 126 |  |
|  | 6000 | 94 | 15 |
|  | 6500 | 100 |  |
|  | 7000 | 104 |  |
|  | 7500 | 113 |  |
| $\begin{gathered} \text { 30-100K } \\ 9000 \\ \text { man/hour } \end{gathered}$ | 8000 | 117 | $2 \times 8$ |
|  | 8500 | 121 |  |
|  | 9000 | 125 |  |
|  | 9500 | 129 | $2 \times 11$ |
|  | 10000 | 133 |  |


|  | Step width |  |
| :--- | :---: | :---: |
|  | 1000 mm | 800 mm |
| A : Step width | 1000 | 800 |
| B : Width between handrails | 1157 | 957 |
| C : Handrail center distance | 1237 | 1037 |
| D : Width of escalator | 1540 | 1340 |
| E : Width of shaft | 1580 | 1360 |
| F : Minimum spacing | 2226 | 2036 |
| G : Maximum outreach | 16000 | 17200 |
| N : Width of supporting | 1500 | 1300 |

1.If $\mathrm{L}>\mathrm{G}$, an intermediate support is required, please consuit.
2. With a double drive and Step width of 600 mm , the truss must be 2.With a double driv
3. Detailed motor power parameters may check with our technical department.

The Constructuion Layout Drawing of HS200 Public Traffic Type Stainless Steel Slant Handrail Escalator


C DETAIL


| Type | Rise | Weight | Support Loads |  | Type | Rise | Weight | Support Loads |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H | KN | $\mathrm{v}=0.5 \mathrm{~m} / \mathrm{s}$ | $\mathrm{v}=0.65 \mathrm{~m} / \mathrm{s}$ |  | H | KN | $\mathrm{v}=0.5 \mathrm{~m} / \mathrm{s}$ | $\mathrm{v}=0.65 \mathrm{~m} / \mathrm{s}$ |
| $\begin{aligned} & 30-80 \mathrm{~K} \\ & 6750 \\ & \text { man/hour } \end{aligned}$ | 3000 | 80 | 8Kw | 8Kw | $\begin{aligned} & 30-100 \mathrm{~K} \\ & 9000 \\ & \text { man/hour } \end{aligned}$ | 3000 | 85 | 8Kw | 11 Kw |
|  | 3500 | 85 | 8Kw | 8Kw |  | 3500 | 89 | 8Kw | 11Kw |
|  | 4000 | 89 | 8Kw | 11 Kw |  | 4000 | 93 | 11 Kw | 11Kw |
|  | 4500 | 92 | 8Kw | 11 Kw |  | 4500 | 97 | 11 Kw | 11Kw |
|  | 5000 | 96 | 11 Kw | 11 Kw |  | 5000 | 101 | 11 Kw | 15Kw |
|  | 5500 | 100 | 11Kw | 11 Kw |  | 5500 | 106 | 11Kw | 15Kw |
|  | 6000 | 103 | 11Kw | 15Kw |  | 6000 | 109 | 15Kw | 15Kw |
|  | 6500 | 110 | 11 Kw | 15Kw |  | 6500 | 115/120 | 15Kw | 2*8Kw |
|  | 7000 | 114 | 11 Kw | 15Kw |  | 7000 | 119/124 | 15Kw | 2*8Kw |
|  | 7500 | 117 | 15Kw | 15Kw |  | 7500 | 129 | 2*8Kw | 2*11Kw |
|  | 8000 | 121/127 | 15Kw | 2*11Kw |  | 8000 | 133 | 2*8Kw | 2*11Kw |
|  | 8500 | 131 | 2*8Kw | 2*11Kw |  | 8500 | 137 | 2*8Kw | 2*11Kw |
|  | 9000 | 134 | 2*8Kw | 2*11Kw |  | 9000 | 141 | 2*8Kw | 2*15Kw |
|  | 9500 | 138 | 2*8Kw | 2*15Kw |  | 9500 | 145 | 2*11Kw | 2*15Kw |
|  | 10000 | 142 | 2*8Kw | 2*15Kw |  | 10000 | 150 | 2*11Kw | 2*15Kw |
|  | 11000 | 150 | 2*8Kw | 2*15Kw |  | 11000 | 158 | 2*11Kw | 2*15Kw |
|  | 12000 | 157 | 2*11Kw | 2*15Kw |  | 12000 | 166 | 2*15Kw | 2*15Kw |
|  | 13000 | 165 | 2*11Kw | 2*15Kw |  | 13000 | 175 | 2*15Kw | 2*15Kw |
|  | 14000 | 173 | 2*15Kw | 2*15Kw |  | 14000 | 183 | 2*15Kw | 2*15Kw |
|  | 15000 | 180 | 2*15Kw | 2*15Kw |  | 15000 | 192 | 2*15Kw | 2*15Kw |
|  | 16000 | 189 | 2*15Kw | 2*15Kw |  | 16000 | 200 | 2*15Kw | 2*15Kw |


|  | Step width |  |  |
| :--- | :---: | :---: | :---: |
|  | 1000 mm | 800 mm | 600 mm |
| A : Step width | 1000 | 800 | 600 |
| B : Width between handrails | 1157 | 957 | 757 |
| C : Handrail center distance | 1237 | 1037 | 837 |
| D : Width of escalator | 1540 | 1340 | 1140 |
| E : Width of shaft | 1580 | 1360 | 1180 |
| F : Minimum spacing | 2236 | 2036 | 1636 |
| G : Maximum outreach | 16000 | 17200 | 18900 |
| N : Width of supporting | 1500 | 1300 | 1100 |

[^1]
## PERFECTION IS OUR GOAL

## SAFETY EFFICIENCY COMFORT ENVIRONMENT SPACE



## OPPERATION OFFICES

TAIPEI HEAD OFFICE

Tel:02-2537-1355
Fax:02-2567-5205

Address: 2F., No.129, Sec. 2, Minsheng E. Rd., Zhongshan Dist., Taipei City 104,

Taiwan (R.O.C.)

KAOHSIUNG OFFICE

TEL: (07) 261-1321
FAX: (07) 215-0326
Address: 7F.-9, No.103, Zhongzheng 4th Rd., Xinxing Dist., Kaohsiung City 800, Taiwan (R.O.C.)

TAOYUAN FACTORY

TEL: (03) 361-0491
FAX: (03) 362-7316
Address: No.253, Yongfeng Rd., Bade Dist., Taoyuan City 334, Taiwan (R.O.C.)

TAICHUNG OFFICE

## TEL: 04-2321-2301

FAX: 04-2325-6774

Address: 4F.-7, No.55, Guanqian Rd.
West Dist., Taichung City 403, Taiwan
(R.O.C.)

THAILAND DEALER

TEL: (662) 246-1962~3
FAX: (662) 246-1964
Address: 61/279 Rama 9 Road, Huay
Kwang, Huay Kwang, Bangkok 10310


[^0]:    1. If $L>G$, an intermediate support is required, please consult.
    . If step width is 600 mm , upper truss shall increase 417 mm
    2. Detailed motor power parameters may check with our technical department.
[^1]:    1.If $\mathrm{L}>\mathrm{G}$, an intermediate support is required, please consuit.
    2. With a double drive and Step width of 600 mm , the truss must be extended by 417 mm .
    3. Detailed motor power parameters may check with our technical department.

