



ISO 9001
Certificate



ISO 14001
Certificate



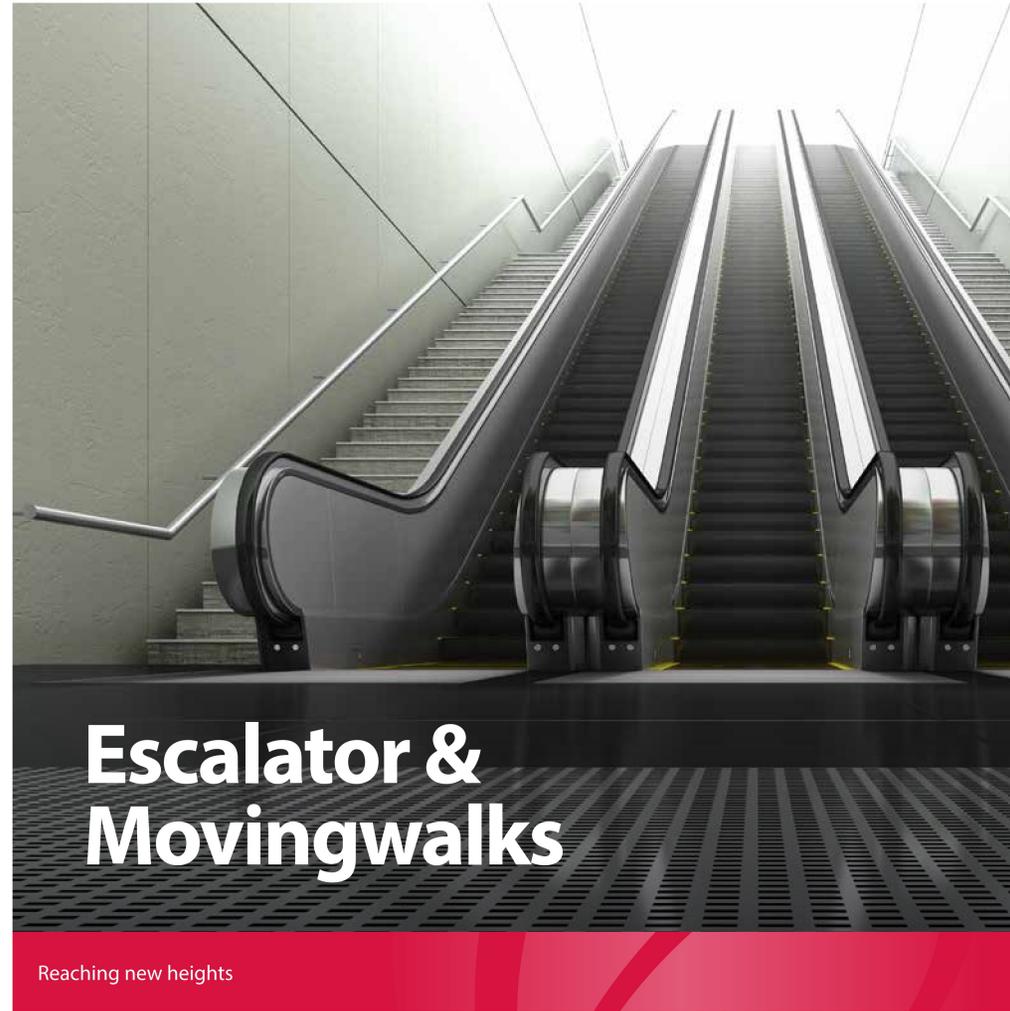
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SIGMA Reaching new heights
www.sigmaelevator.com

Sigma constantly endeavors to improve products. Please note that the information in this catalog is subject to change without prior notice.
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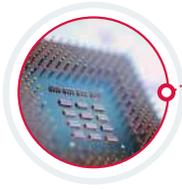
Escalator & Movingwalks

Reaching new heights

www.sigmaelevator.com



SIGMA Reaching new heights



Engineered to be safe & reliable

Sigma products are engineered by highly qualified engineers thereby ensuring customers receive excellent products with reliable quality.



Aesthetics Design Excellence

Sigma's international design centers are staffed with professionals who continue to pursue ideal aesthetic designs to satisfy customers needs.



Global Network

Sigma has served customers in more than 60 countries over the last 40 years.

Sigma has installed over 160,000 elevators worldwide since 1978



SIGMA Escalator & Movingwalks

The Essence of World Best Technologies...

Sigma is a respected provider of escalators with an unmatched heritage



Design
Artistic design with smooth and natural lines



Safety
Elimination of the source of safety hazards



Robust
Strength with comfort and low noise



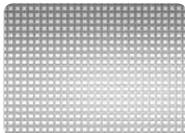
Noise Testing Room
The Sigma factory has a highly sophisticated noise testing room to test the noise level of each escalator. This ensures that Sigma escalators operate with low noise and vibration

Artistic design, pleasant ride,
Optimally engineered, high safety standard
Assures low noise and minimal vibration

Floor



Aluminum



Stainless steel (Option)

Glass panel



Clear Glass

Various colors for handrails



- Black (Option)
- Red (Option)
- Royal Blue (Option)
- Beige (Option)
- French Grey (Option)
- Green (Option)

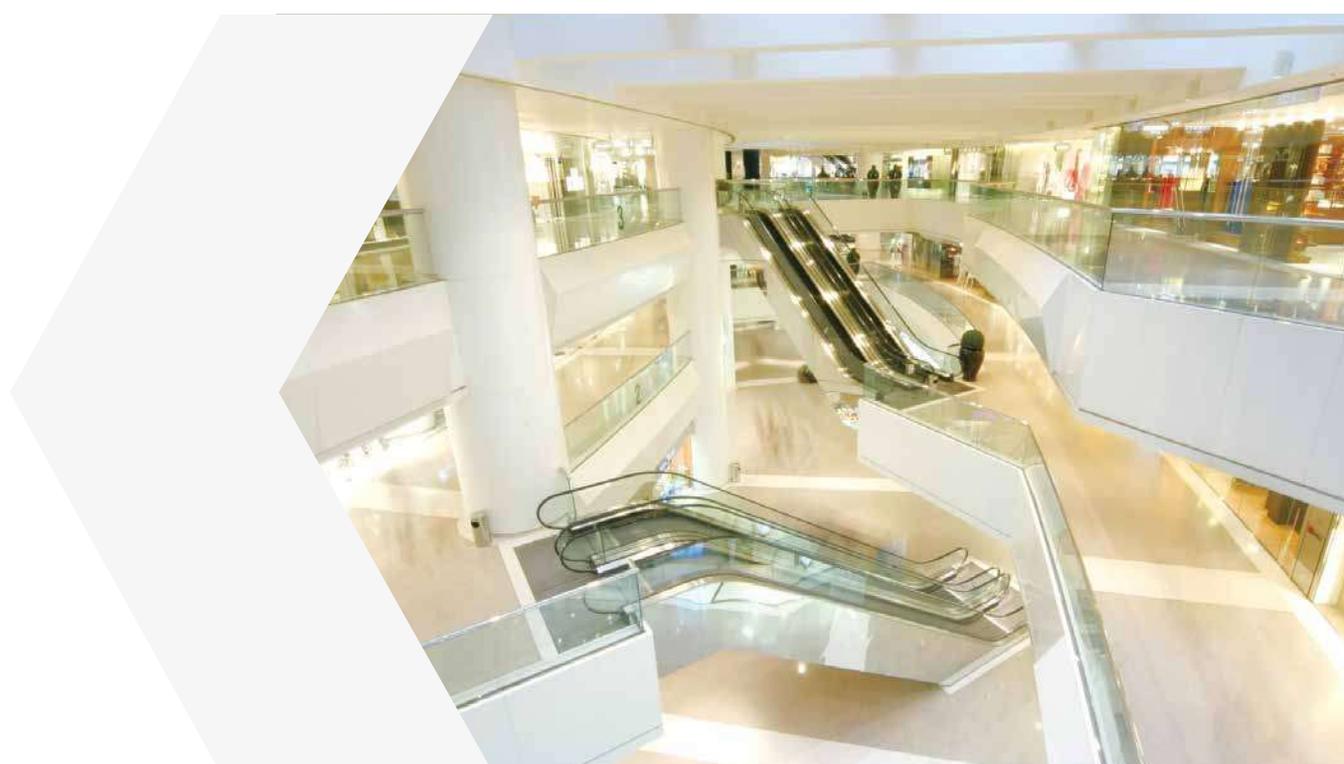
Sigma Commercial Escalators are well suited for today's urban structures. New technological advancements have been applied to make escalator the world-best in design and safety. Advanced technology and aesthetic design makes Sigma escalators appealing while improved strength and safety features offer security to passengers.

Sigma escalators will continue to meet customer demands with higher goals than expected. With certificates to meet various standards around the world, we offer the best quality and safety.

Green Future in Your Life

Green Technology

With unique design and various design options to choose from Sigma escalators blend with building design



Structure & Safety Device

- Self-diagnostic functions with remote communication
- Engineered through field know-how
- Advanced safety system with robust design

Emergency Stop

Located on the upper and lower landing and close to the handrail entrance. The safety stop can be manually activated by pressing a red emergency stop button in case of emergency.



Operational Brake

Integrated within the escalator driving machine and between the motor and reduction gearbox. Escalator safety brake can be activated through electromagnetic braking.



Motor Thermal Protection

The thermal protection switch is located in the motor coil. If the motor temperature exceeds 155°C, the thermal protection sensor will automatically shut down the escalator.



Comb Plate Contact

The comb panel protection switches are located on two sides of each comb plate. If foreign matter lodges between the comb and steps, the comb plate will automatically lift upwards initiating the safety switch and stopping escalator operation.



Handrail Entry Safety Guard

The handrail entry safety guard is in the handrail entry box of the upper and lower landing, and meets the standard requirements. If foreign matter is inserted in the handrail or rubber head, the safety switch installed behind the rubber head will automat.



Floorplate Safety Contact

A safety switch is installed under the floorplate to ensure proper floorplate positioning. If the floorplate is not initiate, stopping elscalator operation until the floorplate is properly closed.



Auxiliary Brake (Rise>6m)

The auxiliary brake is located at the upper landing. A hoisting height of over 6m, can be realized via action of the wedge and brake disc installed at the main shaft drive, and is the standard configuration. Optional configuration: hoisting height below 6m.



Safety Grounding

All electrical components on the escalator are safely grounded, and directly connected to the ground via the escalator truss.



Non-reversal Device

A rotation sensor is located on the machine that monitors motor rotation speed and direction. If the motor rotates in reverse, the sensor will send a corresponding signal to the main controller to activate the escalator brake.



Step Broken Protection Device

The broken step protection device is located at the machine section close to the upper and lower leveling. If the step of its roller breaks, the safety switch will automatically engage. The switch can be reset by manual.



Missing Step Monitoring Device

Two metal acquisition sensors are located at the turning position of the upper and lower steps. If the step is missing or installed incorrectly, the sensor will send a signal to the control system, to shut down the escalator.

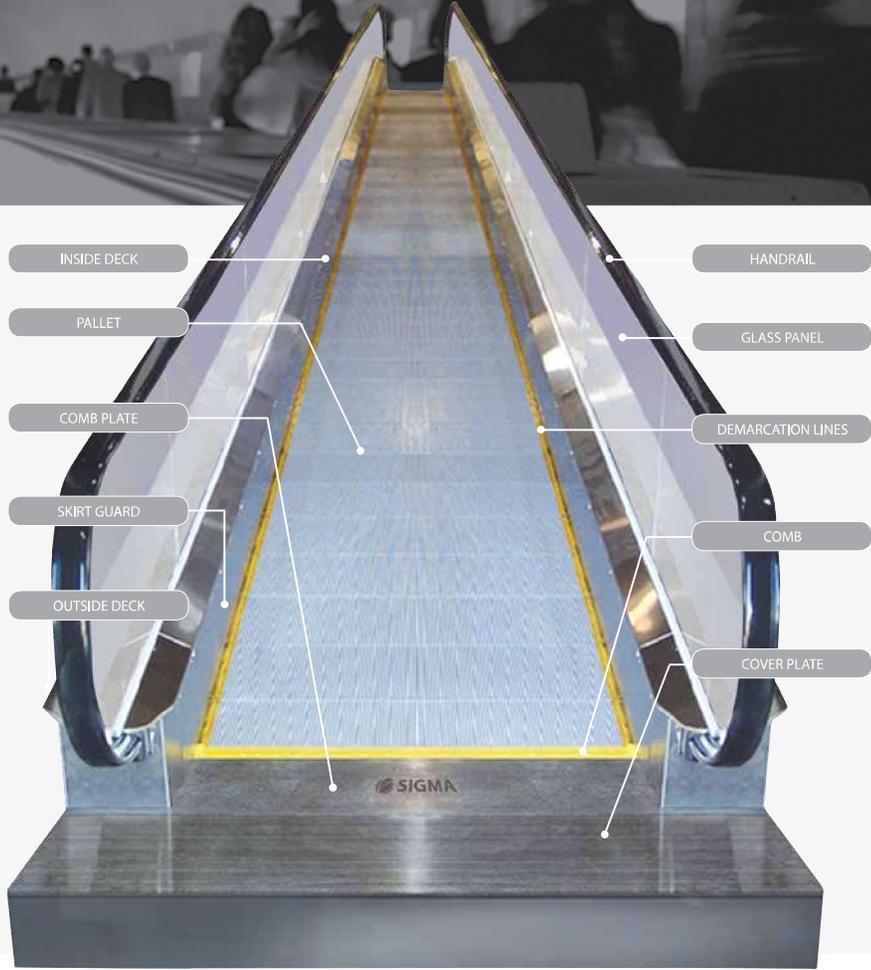
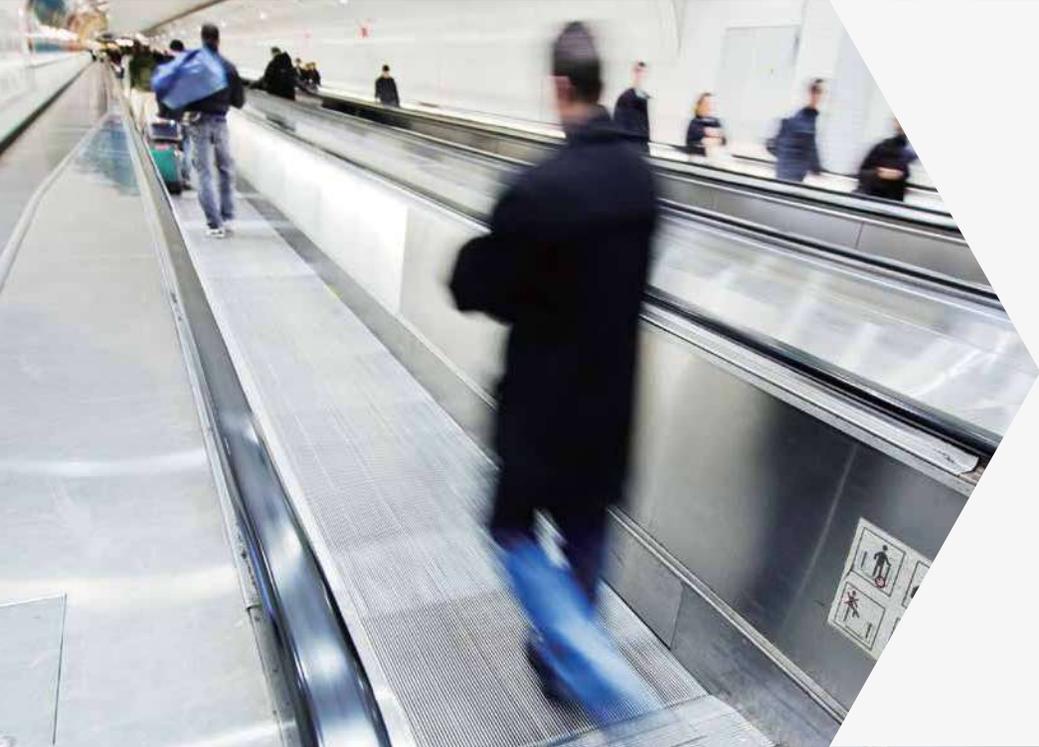


Broken Chain Protection Device

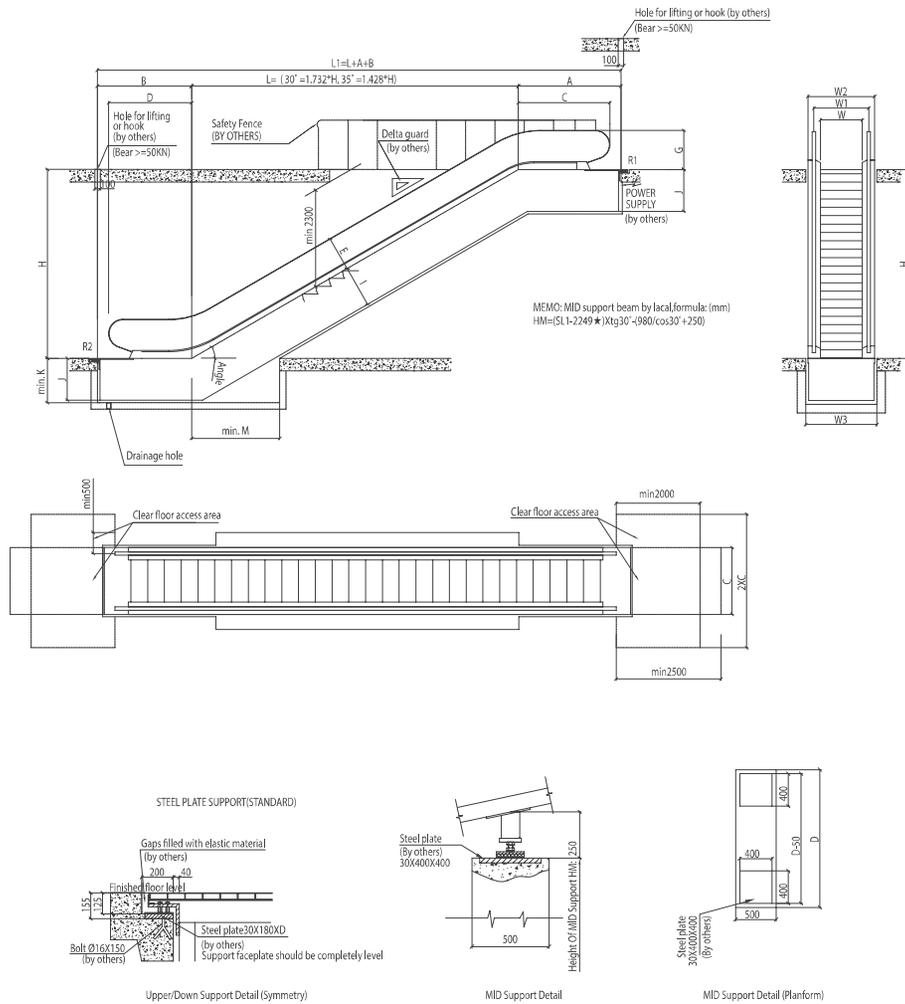
The safety switch is located on the tensioning carriage of the lower landing. If the step chain breaks or stretches abnormally, the safety switch will initiate stopping the escalator.

Movingwalks

Sigma movingwalks keeps you on the move
Airport / Shopping Center / Subway Station / Railway Station / Hospital /
Exhibition Center / Museum / Amusement Park etc.



Layout Vera Commercial (Rise : 1500(30°)/1770(35°) ~ 6000mm)



Technical Data Vera Commercial (Rise : 1500(30°)/1770(35°) ~ 6000mm)

I Dimensions

(units : mm)

Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	A	B	G	C	D	I	J	K	M	E	
30°	2	1500	600	2949	2249	900	1940	1740	980	996	1146	2281	827	
			800/1000	2449		1000							897	
	3	6000	600	3349	2649	900	2340	2140	980	996	1146	2041	827	
			800/1000	2849		1000							897	
	35°	2	1770	600	2977	2316	900	1968	1807	980	996	1146	2041	827
				800/1000	2477		1000							897
3		6000	600	3377	2716	900	2368	2207	980	996	1146	2041	827	
			800/1000	2877		1000							897	

(units : mm)

Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	W	W1	W2	W3
30°/35°	2/3	1500(30°)	600	611	841	1144	1230
		1770(35°)	800	814	1044	1347	
		6000	1000	1017	1247	1551	

I Reaction Load

(unit : kN, L1:m, 1kN=100kg)

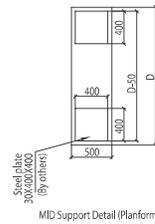
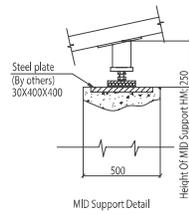
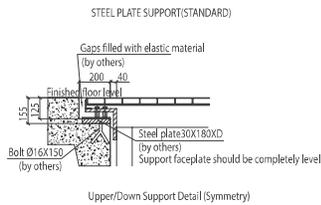
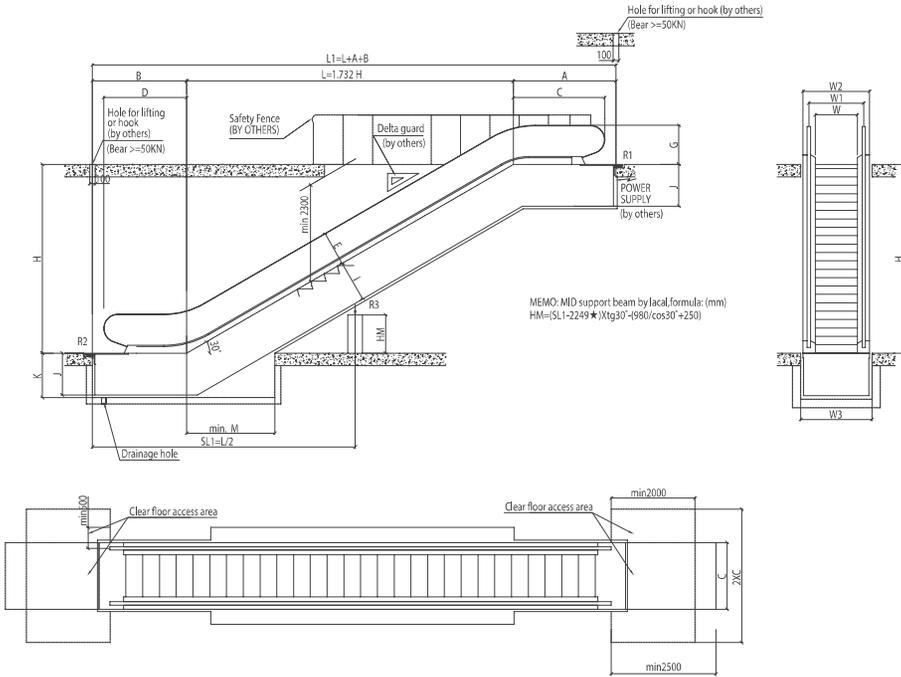
Angle of Inclination	No. of Flat Step	Step Width	R1	R2	R3 (With Intermediate Support)
30°	2/3	600	3.66*L1+7	3.66*L1+2.3	-
			1.53*L1+4.8	1.53*L1+2	5.02*L1+1.3
		800	4.31*L1+7	4.31*L1+2.3	-
	1000	1.78*L1+5.2	1.78*L1+2.2	5.74*L1+1.3	
		4.96*L1+7	4.96*L1+2.3	-	
		2.03*L1+5.7	2.03*L1+2.3	6.46*L1+1.4	
35°	2/3	600	3.76*L1+7	3.76*L1+2.3	
		800	4.41*L1+7	4.41*L1+2.3	
		1000	5.11*L1+7	5.11*L1+2.3	

I Electric Data

(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

Angle of Inclination	No. of Flat Step	Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm ²)	MCCB Capacity of Building (A)
30°/35°	2/3	600	1500 ~ 6000	7.5	10	30
			1500 ~ 5200	7.5		
		800	5201 ~ 6000	9.5		40
			1500 ~ 4200	7.5		30
		1000	4201 ~ 6000	9.5		40

Layout Vera Commercial (Rise : 6001 ~ 8000mm)



Technical Data Vera Commercial (Rise : 6001 ~ 8000mm)

I Dimensions

(units : mm)

Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	A	B	G	C	D	I	J	K	M	E
30°	3	6001	600	3349	2649	1000	2340	2140	980	996	1146	2060	882
		8000	800/1000	2849									

(units : mm)

Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	W	W1	W2	W3
30°	3	6001	600	611	802	1144	1230
		~	800	814	1005	1347	1430
		8000	1000	1017	1208	1551	1630

I Reaction Load

(unit : kN, L1.m, 1kN=100kg)

Angle of Inclination	No. of Flat Step	Step Width	R1	R2	R3 (With Intermediate Support)
30°	3	600	3.66*L1+7	3.66*L1+2.3	-
			1.53*L1+4.8	1.53*L1+2	5.02*L1+1.3
		800	4.30*L1+7	4.30*L1+2.3	-
			1.78*L1+5.2	1.78*L1+2.2	5.74*L1+1.3
		1000	4.96*L1+7	4.96*L1+2.3	-
			2.03*L1+5.7	2.03*L1+2	6.46*L1+1.4

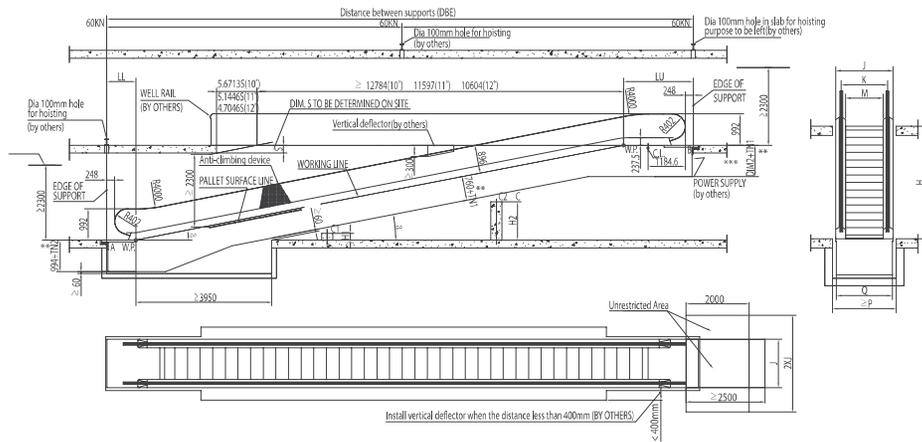
I Electric Data

(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

Angle of Inclination	No. of Flat Step	Step Width	Rise H (mm)	EM-1 Motor (kW)	Power Source Lead In Wire (mm ²)	MCCB Capacity of Building (A)	
30°	3	600	6001 ~ 7100	7.5	10	30	
			7101 ~ 8000	9.0		40	
		800	6001 ~ 6700	9.0			50
			6701 ~ 7200	9.5		40	
		1000	7201 ~ 8000	11.0			
			6001 ~ 6400	9.5		60	
		6401 ~ 7500	11.0	60			
		7501 ~ 8000	13.0				

Layout Inclined Movingwalks (Rise : 1500 ~ 6000mm)

※ If exterior cladding is done by others, distance between exterior bottom and truss bottom TN1 and TN2 would be defined according to customer's requirement.



Technical Data Inclined Movingwalks (Rise : 1500 ~ 6000mm)

I Dimensions

(units : mm)

Angle of Inclination	Rise (H)	Step Width	LU	LL	DM2
10°	1500 ~ 6000	800	2426	1020	994 (EM1-W1) 1054 (ECH2/EC2-25)
		1000			
11°		800	2208	928	
		1000			
12°	800	2026	852		
	1000				

(units : mm)

Angle of Inclination	Rise (H)	Step Width	M	K	J	P
10°	1500 ~ 6000	800	805	1037	1330	1430
		1000	1007	1237	1530	1630
11°		800	805	1037	1330	1430
		1000	1007	1237	1530	1630
12°	800	805	1037	1330	1430	
	1000	1007	1237	1530	1630	

I Reaction Load

(unit : kN, L1.m, 1kN=100kg)

Angle of Inclination	Step Width	A	B	C1 (With Intermediate Support)	C2 (With Intermediate Support)
10°/11°/12°	800	4.25°DBE+8.2	4.25°DBE+18.0	-	-
		1.90°DBE+9.0	1.90°DBE+17.0	5.20°DBE+8.2	-
		1.30°DBE+9.0	1.30°DBE+17.0	3.10°DBE+9.2	3.10°DBE+10.0
	1000	4.90°DBE+6.2	4.90°DBE+14.0	-	-
		2.20°DBE+5.0	2.20°DBE+14.0	6.10°DBE+4.2	-
		1.50°DBE+6.0	1.50°DBE+15.0	3.45°DBE+5.0	3.45°DBE+5.2

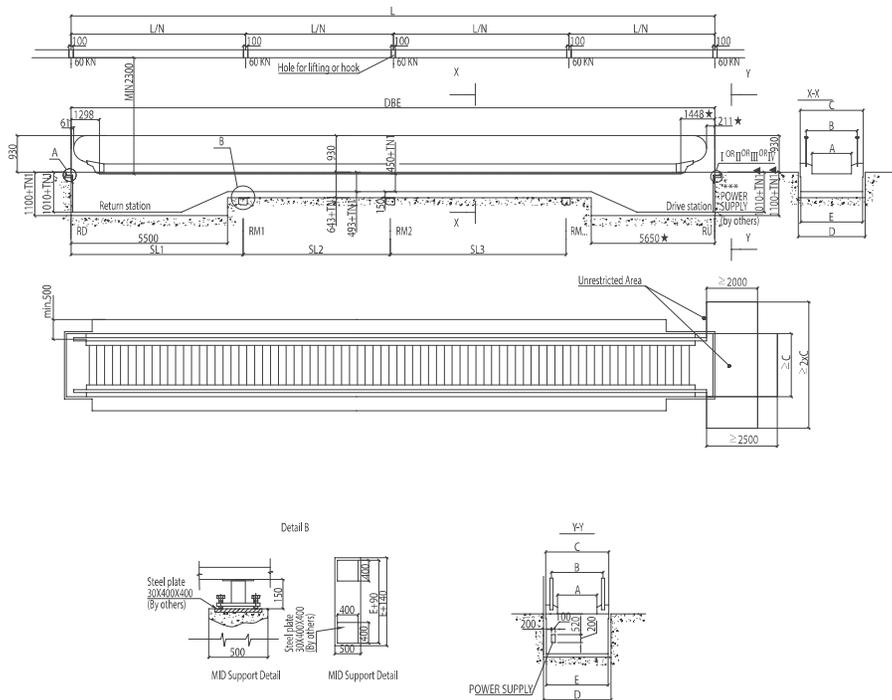
I Electric Data

(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

Angle of Inclination	Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm ²)	MCCB Capacity of Building (A)
10°	800	1500 ~ 4000	7.5	10	30
		4001 ~ 5300	9.5		40
		5301 ~ 6000	11.0		50
	1000	1500 ~ 3500	7.5		30
		3501 ~ 4600	9.5		40
		4601 ~ 5400	11.0		50
11°	800	1500 ~ 4200	7.5		30
		4201 ~ 5400	9.5		40
		5401 ~ 6000	11.0		50
	1000	1500 ~ 3600	7.5		30
		3601 ~ 4700	9.5		40
		4701 ~ 5600	11.0		50
12°	800	1500 ~ 4300	7.5	30	
		4301 ~ 5600	9.5	40	
		5601 ~ 6000	11.0	50	
	1000	1500 ~ 3700	7.5	30	
		3701 ~ 4800	9.5	40	
		4801 ~ 5700	11.0	50	
		5701 ~ 6000	13.0	60	

Layout Horizontal Movingwalks

※ If exterior cladding is done by others, distance between exterior bottom and truss bottom TN1 would be defined according to customer's requirement.



Technical Data Horizontal Movingwalks

I Dimensions

(units : mm)

Angle of Inclination	Max. DBE	Step Width	B	C	D	E
0°	~ 100,000	800	1037	1390	1500	1360
		1000	1237	1590	1700	1560

I Reaction Load

(unit : kN, L1:m, 1kN=100kg)

Angle of Inclination	Step Width	DBE (m)	RD	RU	RM1	RM2	RM3	RM4	RM5	RM6	RM7	RM8	RM9		
0°	800	DBE<=10	4.35*DBE	4.35*DBE+9.6	-	-	-	-	-	-	-	-	-		
		10<DBE<=20	1.63*DBE	1.63*DBE+9.6	5.44*DBE	-	-	-	-	-	-	-	-		
		20<DBE<=30	1.16*DBE	1.16*DBE+9.6	3.19*DBE	3.19*DBE	-	-	-	-	-	-	-		
		30<DBE<=40	0.87*DBE	0.87*DBE+9.6	2.39*DBE	2.39*DBE	2.39*DBE	-	-	-	-	-	-		
		40<DBE<=50	0.70*DBE	0.70*DBE+9.6	1.92*DBE	1.74*DBE	1.74*DBE	1.92*DBE	-	-	-	-	-		
		50<DBE<=60	0.58*DBE	0.58*DBE+9.6	1.60*DBE	1.46*DBE	1.46*DBE	1.46*DBE	1.60*DBE	-	-	-	-		
		60<DBE<=70	0.50*DBE	0.50*DBE+9.6	1.37*DBE	1.25*DBE	1.25*DBE	1.25*DBE	1.25*DBE	1.37*DBE	-	-	-		
		70<DBE<=80	0.44*DBE	0.44*DBE+9.6	1.20*DBE	1.09*DBE	1.09*DBE	1.09*DBE	1.09*DBE	1.09*DBE	1.20*DBE	-	-		
		80<DBE<=90	0.39*DBE	0.39*DBE+9.6	1.06*DBE	0.97*DBE	0.97*DBE	0.97*DBE	0.97*DBE	0.97*DBE	0.97*DBE	1.06*DBE	-		
		90<DBE<=100	0.35*DBE	0.35*DBE+9.6	0.96*DBE	0.87*DBE	0.87*DBE	0.87*DBE	0.87*DBE	0.87*DBE	0.87*DBE	0.87*DBE	0.96*DBE		
		0°	1000	DBE<=10	5.00*DBE	5.00*DBE+11	-	-	-	-	-	-	-	-	-
				10<DBE<=20	1.88*DBE	1.88*DBE+11	6.25*DBE	-	-	-	-	-	-	-	-
20<DBE<=30	1.33*DBE			1.33*DBE+11	3.67*DBE	3.67*DBE	-	-	-	-	-	-	-		
30<DBE<=40	1.00*DBE			1.00*DBE+11	2.75*DBE	2.50*DBE	2.75*DBE	-	-	-	-	-	-		
40<DBE<=50	0.80*DBE			0.80*DBE+11	2.20*DBE	2.00*DBE	2.00*DBE	2.20*DBE	-	-	-	-	-		
50<DBE<=60	0.67*DBE			0.67*DBE+11	1.83*DBE	1.67*DBE	1.67*DBE	1.67*DBE	1.83*DBE	-	-	-	-		
60<DBE<=70	0.57*DBE			0.57*DBE+11	1.57*DBE	1.43*DBE	1.43*DBE	1.43*DBE	1.43*DBE	1.57*DBE	-	-	-		
70<DBE<=80	0.50*DBE			0.50*DBE+11	1.38*DBE	1.25*DBE	1.25*DBE	1.25*DBE	1.25*DBE	1.25*DBE	1.38*DBE	-	-		
80<DBE<=90	0.44*DBE			0.44*DBE+11	1.22*DBE	1.11*DBE	1.11*DBE	1.11*DBE	1.11*DBE	1.11*DBE	1.11*DBE	1.22*DBE	-		
90<DBE<=100	0.40*DBE			0.40*DBE+11	1.10*DBE	1.00*DBE	1.00*DBE	1.00*DBE	1.00*DBE	1.00*DBE	1.00*DBE	1.00*DBE	1.10*DBE		

I Electric Data

(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

Angle of Inclination	Step Width	DBE (m)	Motor (kW)	Power Source Lead In Wire (mm ²)	MCCB Capacity of Building (A)
0°	800	DBE<=55	7.5	10	30
		55<DBE<=67	9.0		
		67<DBE<=71	9.5		
		71<DBE<=83	11.0		
		83<DBE<=100	13.0		
		DBE<=47	7.5		
	1000	47<DBE<=57	9.0		
		57<DBE<=61	9.5		
		61<DBE<=71	11.0		
		71<DBE<=85	13.0		
		85<DBE<=100	15.0		

Technical Data Vera Commercial

Technical Features

Operation Functions

● Standard ○ Option

Function	Description	
Sockets for manual inspection	Used to connect manual inspection control device.	●
Asymmetric and phase sequence relay	Asymmetry supply voltage monitor device.	●
Chain and step wheel control contact	The devices are installed at both landings and near the incline section. It is activated when a step is lowered due to rupture or when the step chain breaks.	●
Main circuit breaker	The main circuit switch is located on the controller upper landing. It can be locked in the "OFF" position.	●
Ground contact	Ground contact device	●
Sockets for hand lamp	In maintenance room of each landing, there is a power supply socket used for maintenance facilities, including the hand lamp.	●
Manual inspection control device	Portable button box, used to facilitate service, adjustment and repair of escalator.	●
Controller lifting device for controller inside truss	Use for lift the control panel in maintenance room at upper landing. - 1 device up to 4 units	●
Hand wheel	For maintenance purposes or in case of emergency the escalator can be operated by a hand wheel. To adapt the hand wheel on the motor shaft the cover has to be removed. After removal of the cover, the hand winding stop switch will be activated and, electrical safety chain will be interrupted.	●
Motor covers control / Hand wheel control contact	Cut down when machine fan cover is opened.	●
Escalator safety tool	In case of working in the truss, the escalator should be mechanically blocked. Safety tool is used to block the motor which is independent with operational brake.	●
Entry steps for maintenance rooms	For convenience, there is a maintenance step with hinged lids installed in both upper and lower maintenance rooms.	●
Brake lining wear device	When energy saving model selects intermittent operation, control contact for breaking lining wear should be selected	○
Skirting panel switches	The device is installed behind skirt panel at both landing. If an object is trapped between the side of a step and the skirt panel, the safety switch will be activated.	○
Mechanic overspeed device	Only triggers operational brake for EN115-2008	○
Main drive chain breakage protection	Once the main drive chain breaks, the sensor detecting main drive speed will detect the main drive speed which became fast. Then it will stop the escalator.	○
Handrail break protect	Stops the escalator if handrail breaks or stops.	○

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Exhibition Center / Museum / Amusement Park etc.

