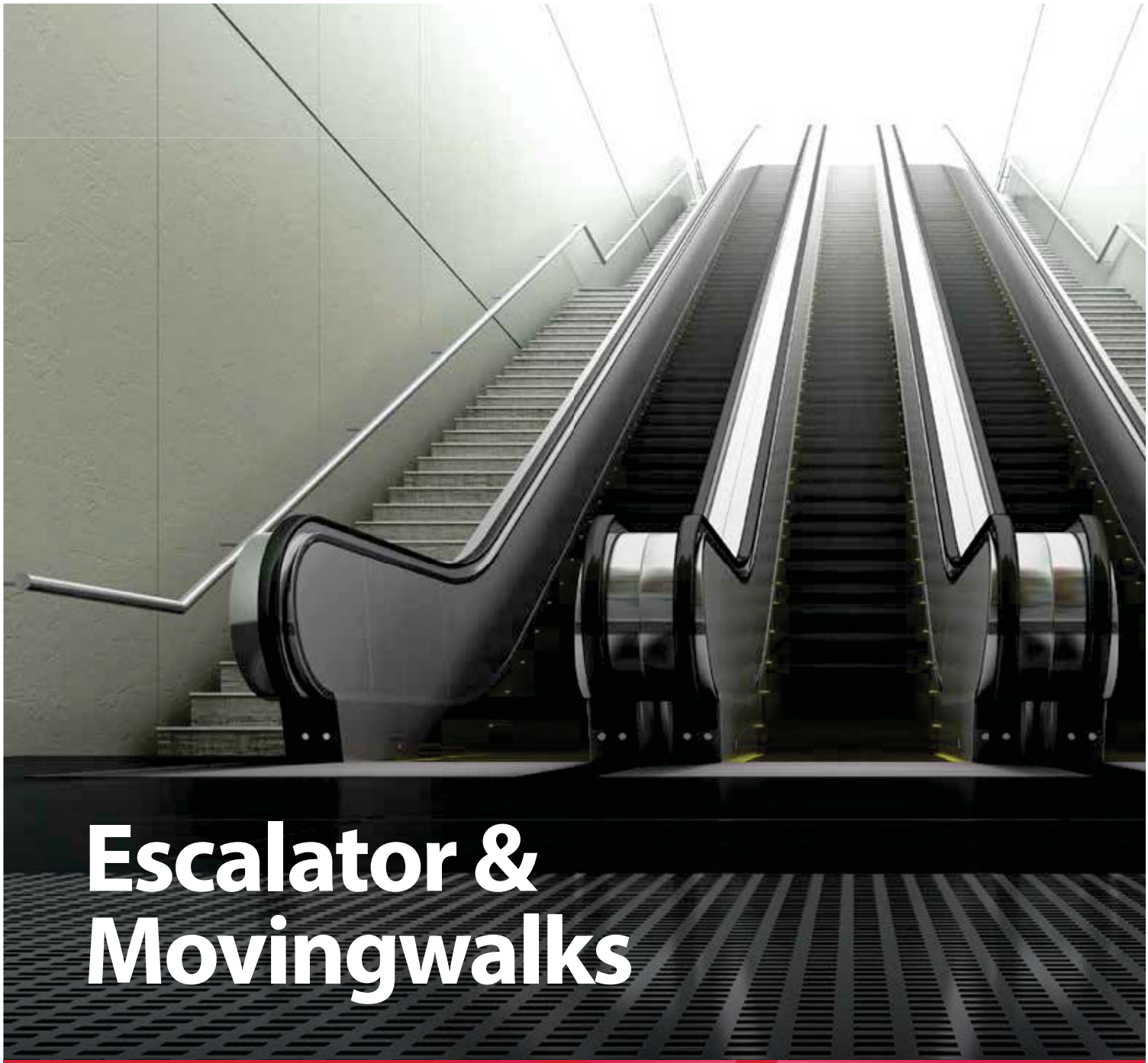


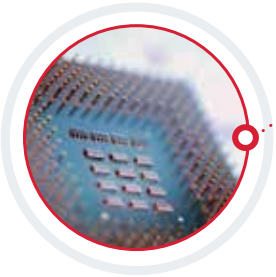
Escalator & Movingwalks

Reaching new heights

www.sigmaelevator.com

SIGMA

SIGMA Reaching new heights



Engineered to be safe & reliable

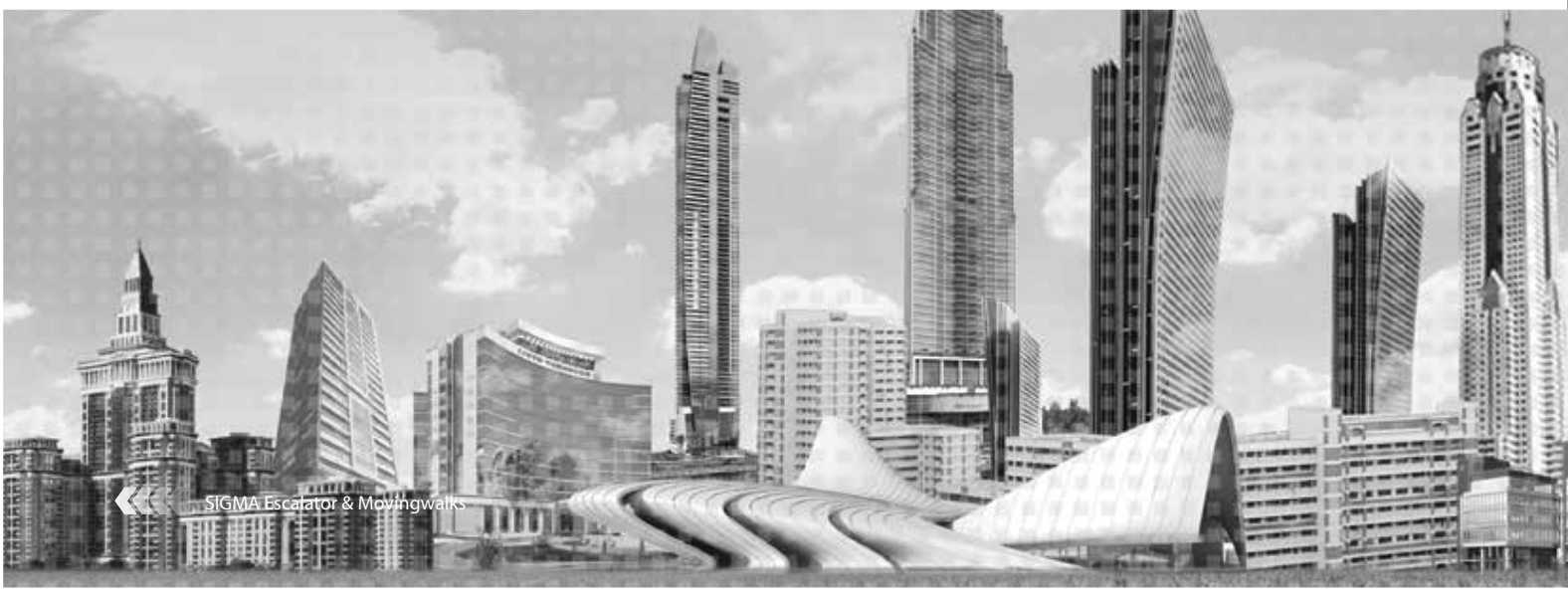
Sigma products are engineered by highly qualified engineers thereby ensuring customers receive excellent products with reliable quality.

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 Escalator & Movingwalks

Sigma has installed over 160,000 elevators worldwide since 1978

SIGMA SUBS DISTRIBUTORS

Khalid Al Attar Tower
U.A.E

Al Rames Tower
Qatar

Darwaza Tower
Kuwait

Vorobievy Gory
Russia

Triumph Palace
Russia

Antei
Russia

Sheraton Hotel
Puerto Rico

Baiyoke Tower
Thailand

Grand Hyatt Hotel
Indonesia

Emerald Tower
Kazakhstan

LG Beijing Tower
China

Juma Al Majid Tower
U.A.E

Armada Tower
U.A.E

Rostonskaya
Russia

Shangri La Hotel
Mongolia

Plaza La Castellana
Venezuela

Torre Global Bank
Panama

Ocean Two
Panama

Bassura Residence
Indonesia

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

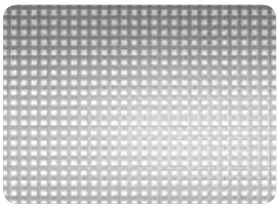
Noise Testing Room

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

Green Future in Your Life

Green Technology

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

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.

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 Thermic Protection

The thermal protection switch is located in the motor coil. If the motor temperature exceeds 155℃, 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 escala-tor 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

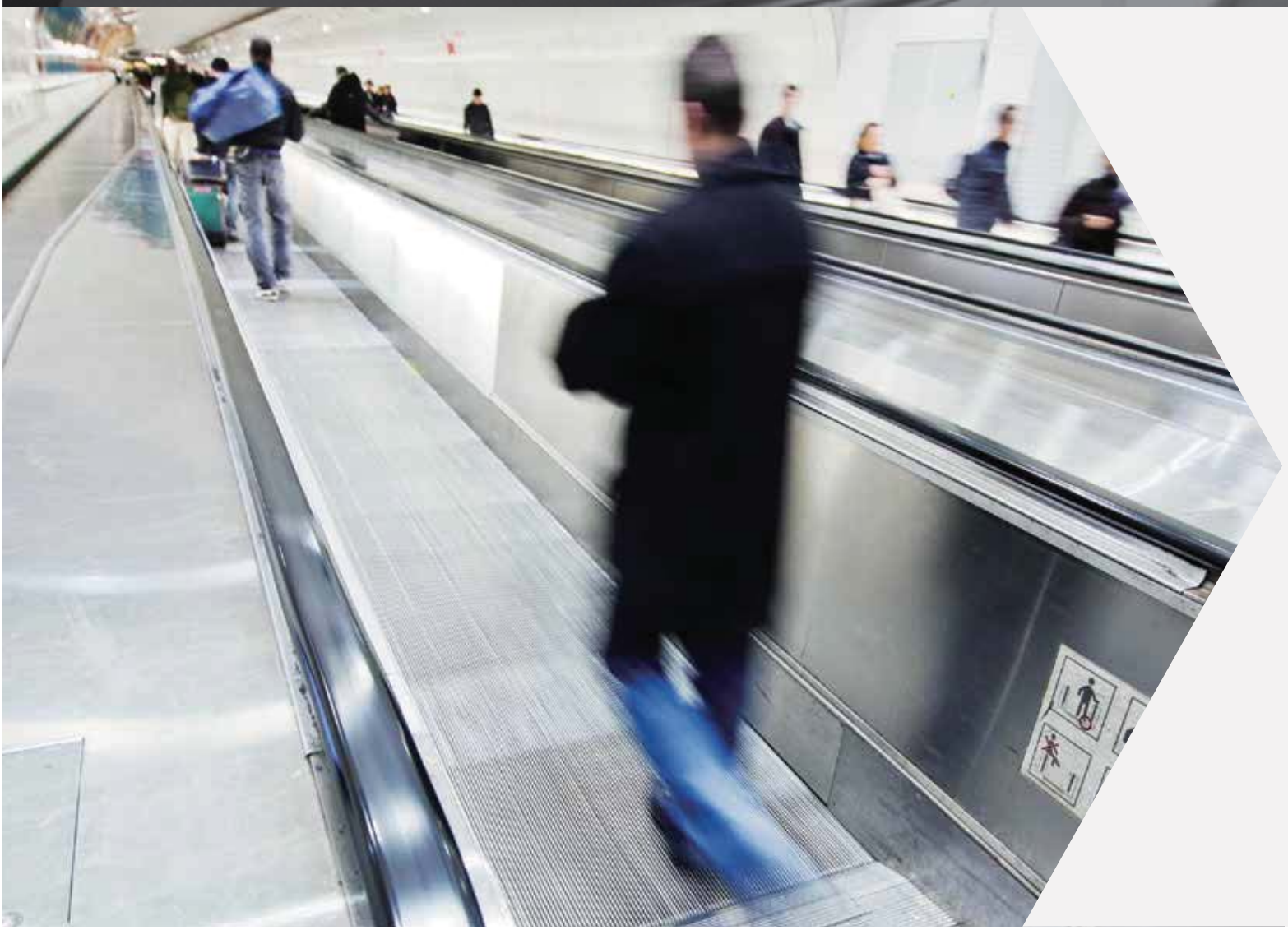
Two metal acquisition sensors are located at the turning position of the upper and lower steps. If the step is missing or installed incorrectly, the sensor will send a signal to the control system, to shut down the escalator.

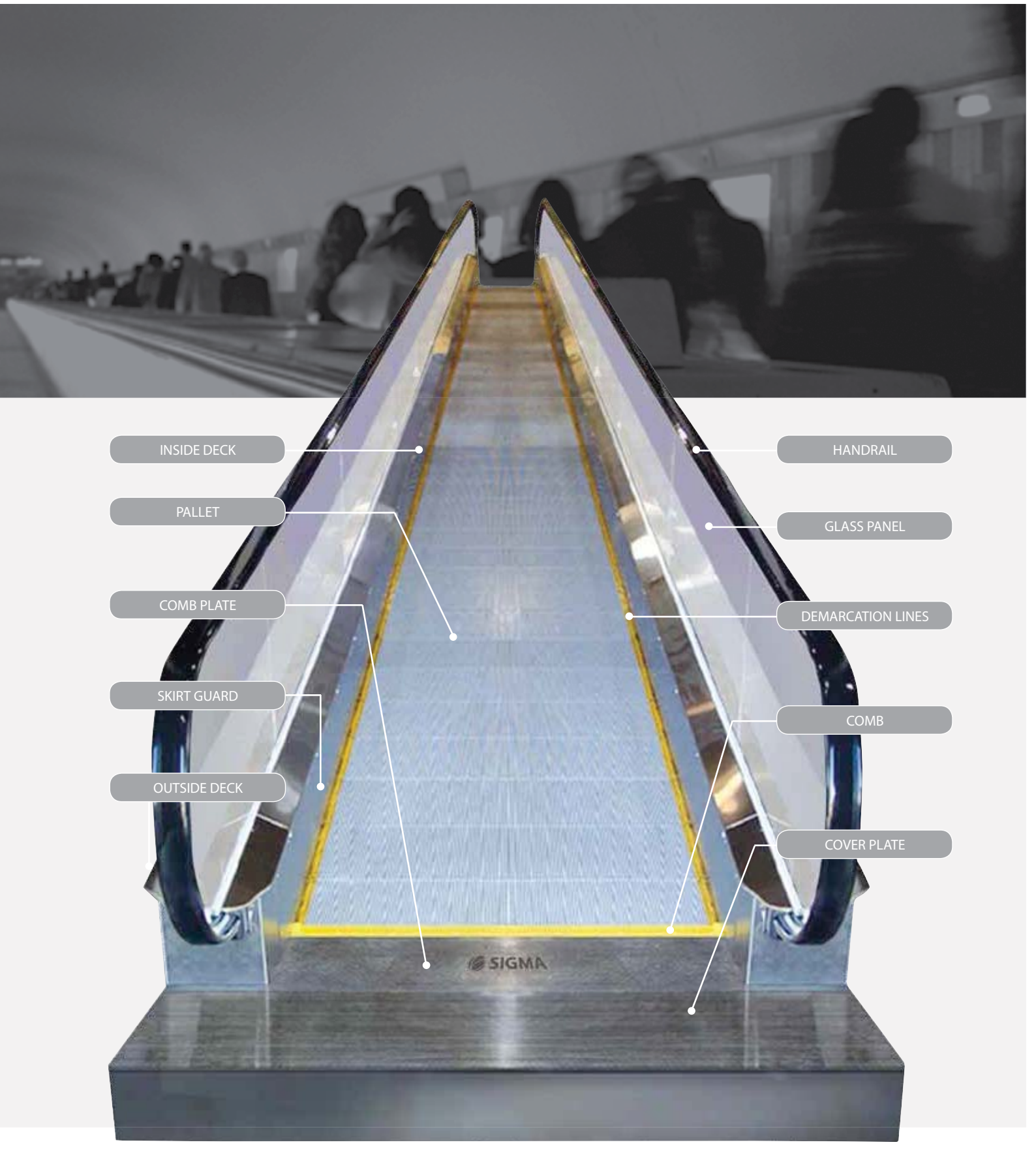
Broken Chain Protection Device

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.

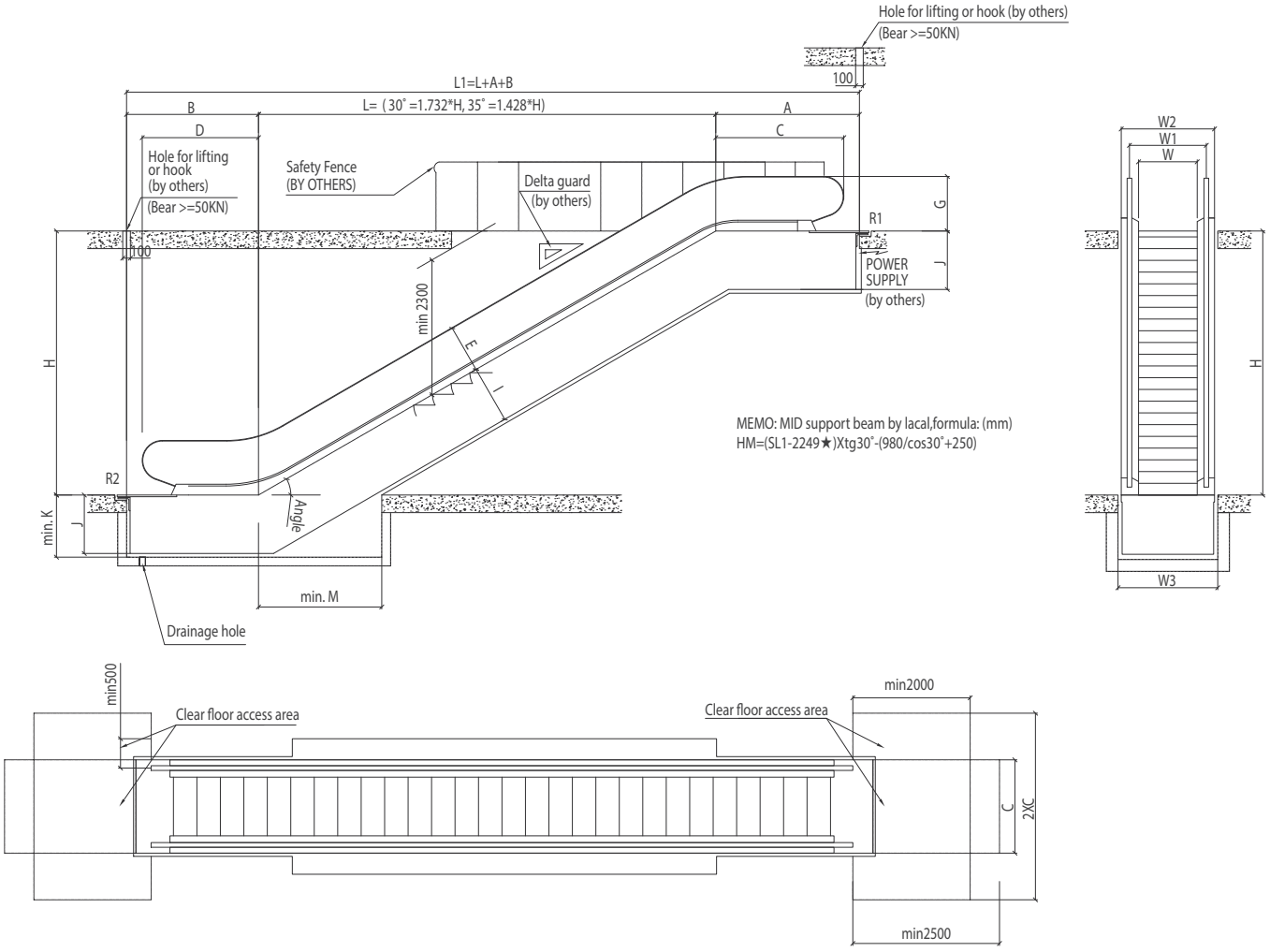
Movingwalks

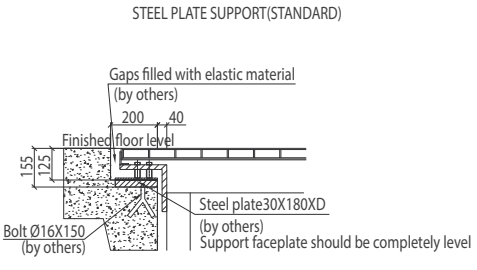
Sigma movingwalks keeps you on the move
Airport / Shopping Center / Subway Station / Railway Station / Hospital /
Exhibition Center / Museum / Amusement Park etc.



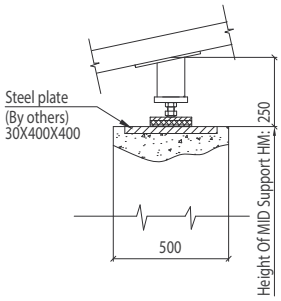

INSIDE DECK
PALLET
COMB PLATE
SKIRT GUARD
OUTSIDE DECK
HANDRAIL
GLASS PANEL
DEMARCATION LINES
COMB
COVER PLATE
SIGMA

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

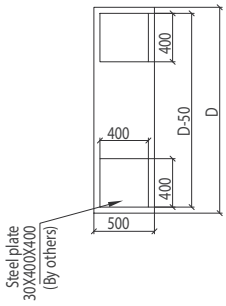




Upper/Down Support Detail (Symmetry)



MID Support Detail



MID Support Detail (Planform)

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

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 ~ 6000	600	2949	2249	900	1940	1740	980	996	1146	2281	827
			800/1000	2449		1000							897
	3		600	3349	2649	900	2340	2140					827
			800/1000	2849		1000							897
35°	2	1770 ~ 6000	600	2977	2316	900	1968	1807	980	996	1146	2041	827
			800/1000	2477		1000							897
	3		600	3377	2716	900	2368	2207					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˚)/ 1770(35˚) ~ 6000	600	611	841	1144	1230
			800	814	1044	1347	1430
			1000	1017	1247	1551	1630

Reaction Load

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

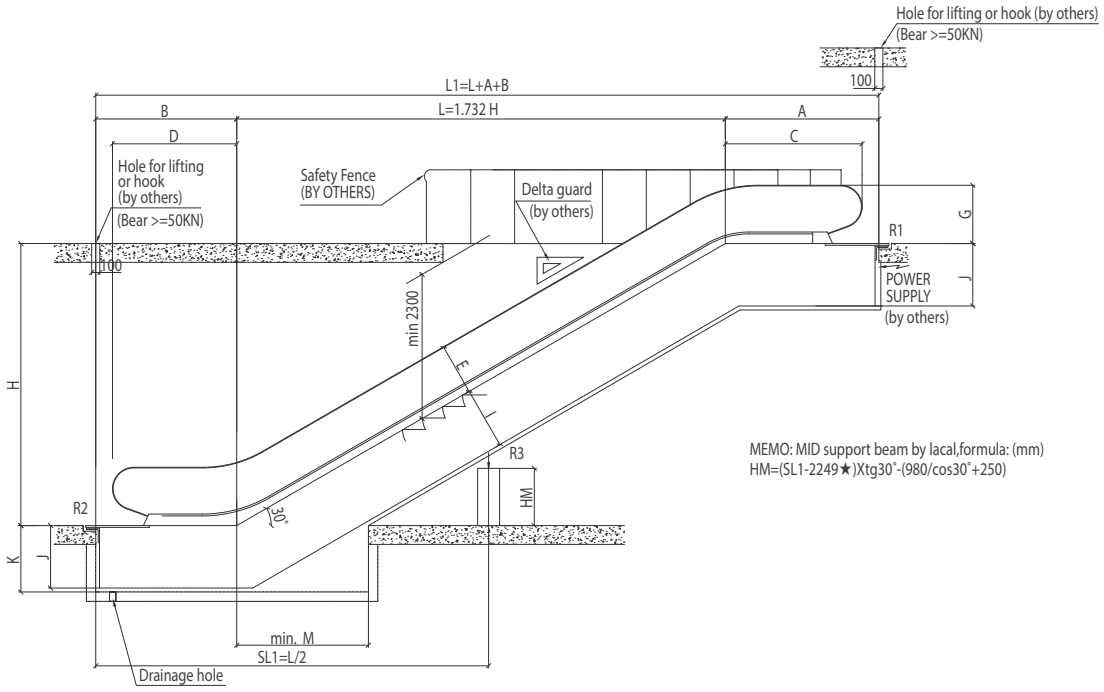
Angle of Inclination	No. of Flat Step	Step Width	R1	R2	R3 (With Intermediate Support)
30°	2/3	600	3.66*L1+7	3.66*L1+2.3	-
			1.53*L1+4.8	1.53*L1+2	5.02*L1+1.3
		800	4.31*L1+7	4.31*L1+2.3	-
			1.78*L1+5.2	1.78*L1+2.2	5.74*L1+1.3
		1000	4.96*L1+7	4.96*L1+2.3	-
			2.03*L1+5.7	2.03*L1+2.3	6.46*L1+1.4
35°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

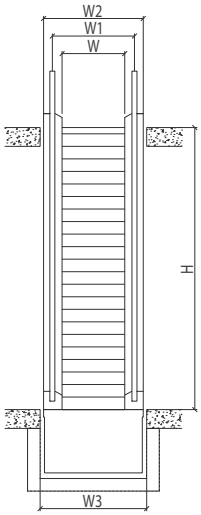
Electric Data

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

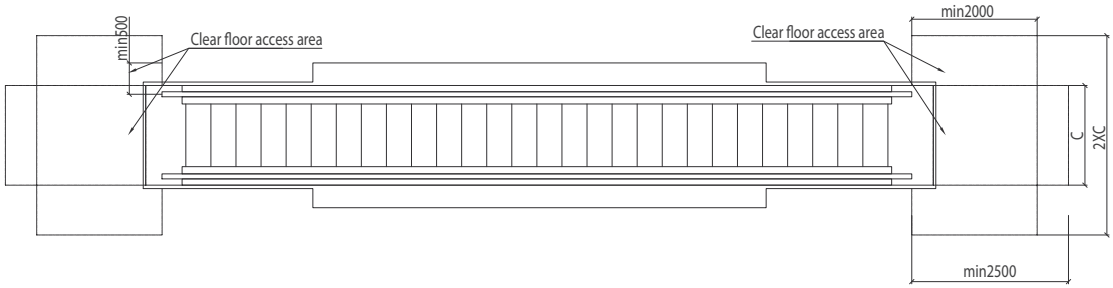
Angle of Inclination	No. of Flat Step	Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm^2)	MCCB Capacity of Building (A)
30°/35°	2/3	600	1500 ~ 6000	7.5	10	30
		800	1500 ~ 5200	7.5		
			5201 ~ 6000	9.5		40
		1000	1500 ~ 4200	7.5		30
			4201 ~ 6000	9.5		40

Layout Vera Commercial (Rise : 6001 ~ 8000mm)

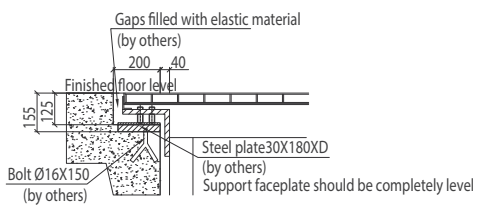




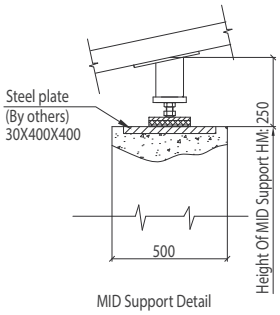
MEMO: MID support beam by lacal,formula: (mm)
HM=(SL1-2249★)Xtg30°-(980/cos30°+250)



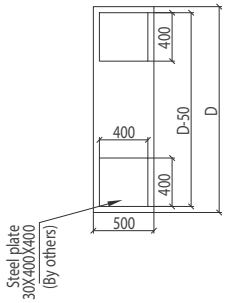
STEEL PLATE SUPPORT(STANDARD)



Upper/Down Support Detail (Symmetry)



MID Support Detail



MID Support Detail (Planform)

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

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 ~ 8000	600	3349	2649	1000	2340	2140	980	996	1146	2060	882
			800/1000	2849									

(units : mm)

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

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

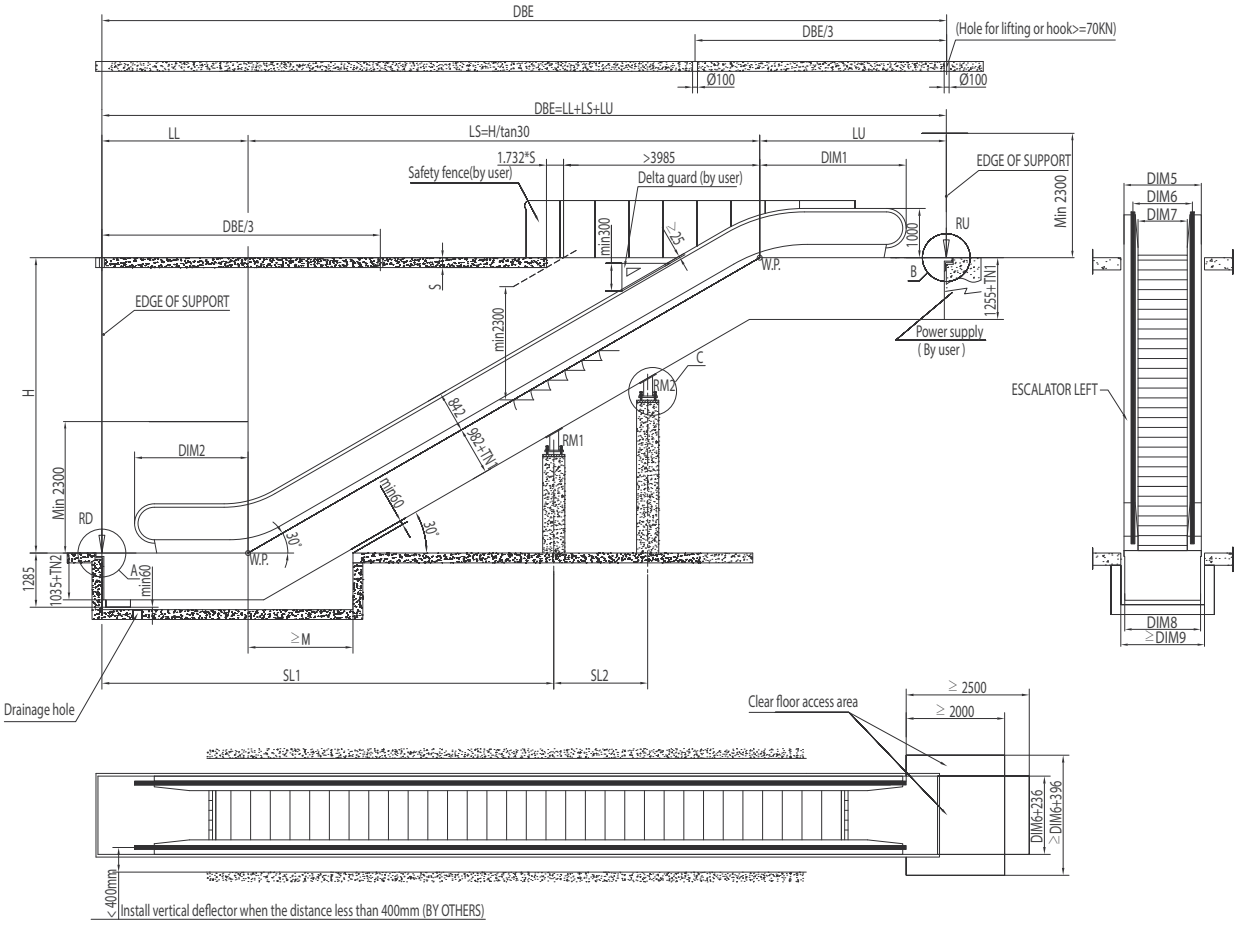
Electric Data

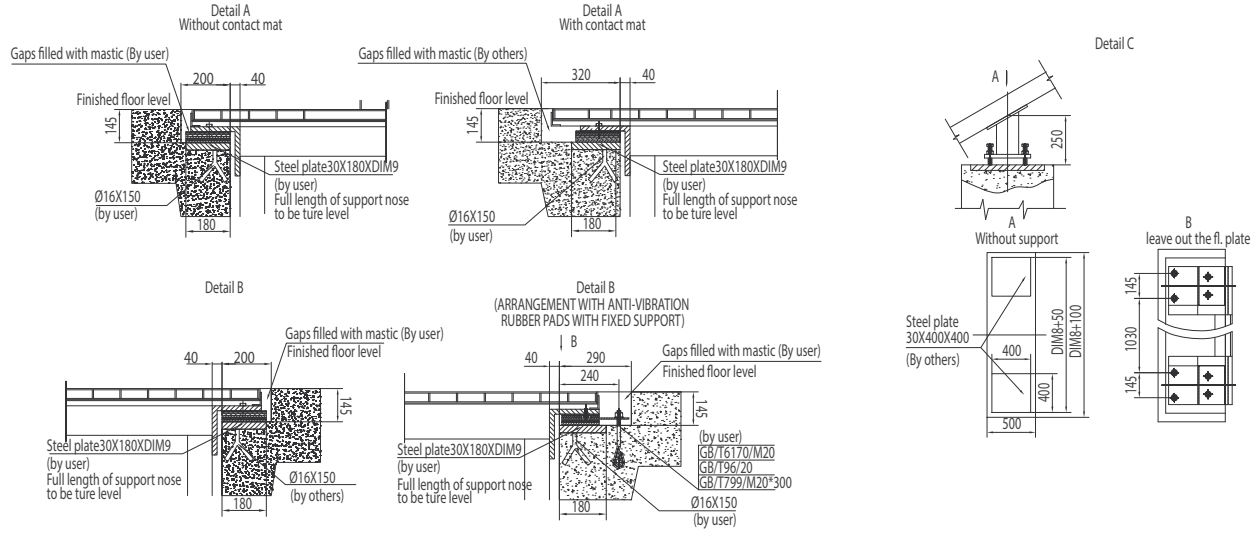
(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

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		
			6701 ~ 7200	9.5		
			7201 ~ 8000	11.0		50
		1000	6001 ~ 6400	9.5		40
			6401 ~ 7500	11.0		50
			7501 ~ 8000	13.0		60

Layout Vera Public (Rise : 3000 ~ 15000mm)

※ 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 Vera Public (Rise : 3000 ~ 15000mm)

Dimensions

(units : mm)

Type	Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	LU	LL	STS Balustrade		M
							DIM1	DIM2	
ESCS	30°	2	3000 ~ 15000	800	2762	2248	1957	1644	2300
				1000					
		3		800	3162	2648	2357	2044	
				1000					
		4		800	3562	3048	2757	2444	
				1000					
ESCL	30°	2	3000 ~ 15000	800	3056	2481	2251	1877	
				1000					
		3		800	3456	2881	2651	2277	
				1000					
		4		800	3856	3281	3051	2677	
				1000					

(units : mm)

Angle of Inclination	No. of Flat Step	Rise (H)	Step Width	DIM5	DIM6	DIM7	DIM9
30°	2/3/4	3000 ~ 15000	800	1367	1005	814	1430
			1000	1570	1208	1017	1630

Reaction Load

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

Angle of Inclination	No. of Flat Step	Step Width	RU	RD	RM1 (With Intermediate Support)	RM2 (With Intermediate Support)	Type
30°	2/3/4	800	4.5*DBE+22	4.6*DBE+7.0	-	-	ESCS
			1.7*DBE+21.5	1.7*DBE+1.5	5.7*DBE+10.0	-	
			1.4*DBE+21.5	1.4*DBE+1.5	3.8*DBE+10.0	3.8*DBE+15.0	
		1000	5.0*DBE+22.0	5.0*DBE+7.0	-	-	
			1.9*DBE+21.5	1.9*DBE+1.5	6.2*DBE+10.0	-	
			1.5*DBE+21.5	1.5*DBE+1.5	4.0*DBE+10.0	4.0*DBE+15.0	
30°	2/3/4	800	4.6*DBE+22.0	4.6*DBE+7.0	-	-	ESCL
			1.7*DBE+23.0	1.7*DBE+3.0	5.7*DBE+15.0	-	
			1.4*DBE+23.0	1.4*DBE+23.0	3.8*DBE+15.0	3.8*DBE+15.0	
		1000	5.0*DBE+22.0	5.0*DBE+7.0	-	-	
			1.9*DBE+23.0	1.9*DBE+3.0	6.5*DBE+15.0	-	
			1.5*DBE+23.0	1.5*DBE+3.0	4.0*DBE+15.0	4.0*DBE+15.0	

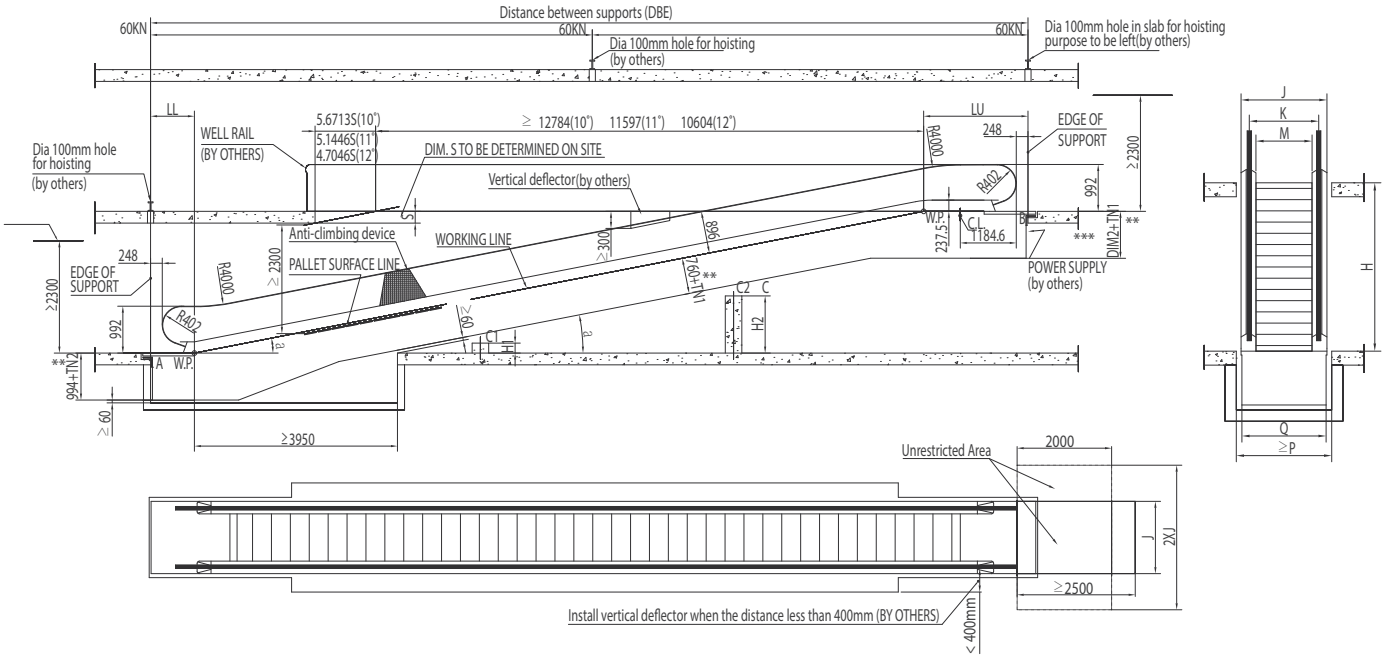
Electric Data

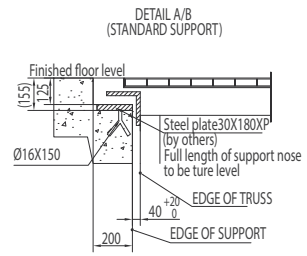
(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

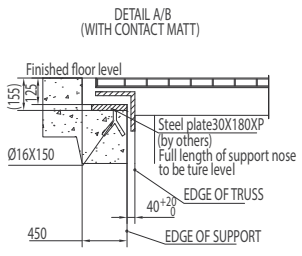
Angle of Inclination	No. of Flat Step	Step Width	Rise H (mm)	Motor (kW)	Machine	Power Source Lead In Wire (mm^2)	MCCB Capacity of Building (A)
30°	2/3/4	800	3000 ~ 5300	7.5	EM-W1	10	30
			5301 ~ 7300	9.5			
			7301 ~ 8200	11.0			
			8201 ~ 10200	13.0			
			10201 ~ 12000	15.0			
			12001 ~ 13600	15.0	EM-H2		
			13601 ~ 15000	18.5			
		1000	3000 ~ 4400	7.5	EM-W1		
			4401 ~ 5600	9.5			
			5601 ~ 6800	11.0			
			6801 ~ 10200	13.0			
			10201 ~ 12000	15.0			
			12001 ~ 12800	18.5	EM-H2		
			12801 ~ 15000	24.0		16	

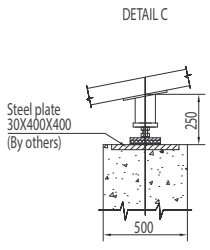
Layout Inclined Movingwalks (Rise : 1500 ~ 6000mm)

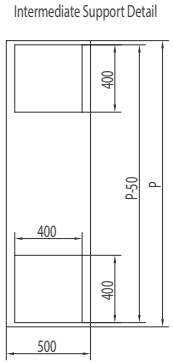
※ If exterior cladding is done by others, distance between exterior bottom and truss bottom TN1 and TN2 would be definced according to customer's requirement.

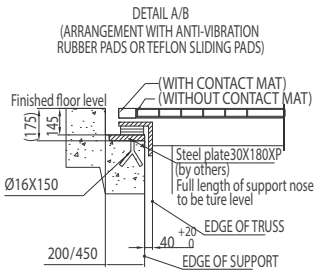


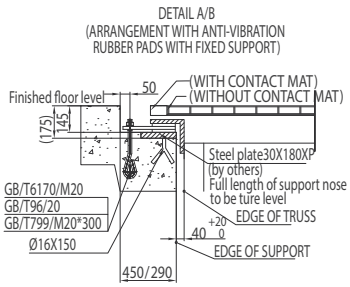












Technical Data Inclined Movingwalks (Rise : 1500 ~ 6000mm)

Dimensions

(units : mm)

Angle of Inclination	Rise (H)	Step Width	LU	LL	DIM2
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

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+8.0	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

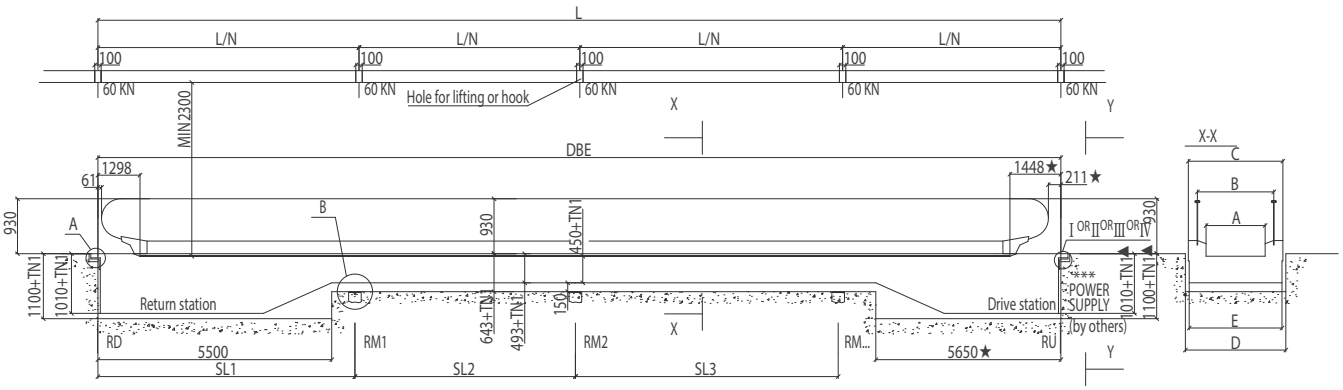
Electric Data

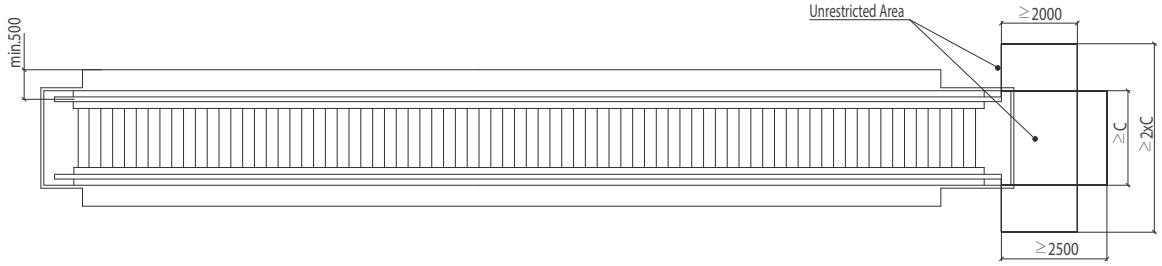
(Based on 400V, 50Hz, Altitude 0 ~ 1000m)

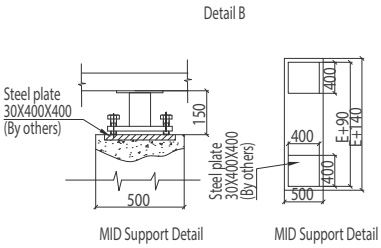
Angle of Inclination	Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm^2)	MCCB Capacity of Building (A)
10°	800	1500 ~ 4000	7.5	10	30
		4001 ~ 5300	9.5		40
		5301 ~ 6000	11.0		50
	1000	1500 ~ 3500	7.5		30
		3501 ~ 4600	9.5		40
		4601 ~ 5400	11.0		50
		5401 ~ 6000	13.0		60
11°	800	1500 ~ 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
		5601 ~ 6000	13.0		60
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

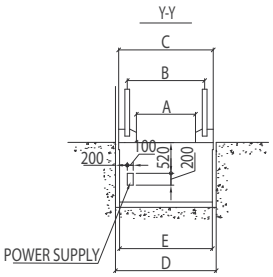
Layout Horizontal Movingwalks

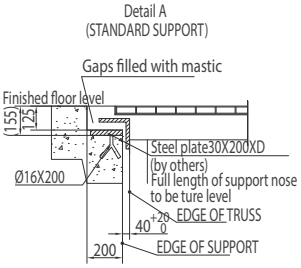
※ If exterior cladding is done by others, distance between exterior bottom and truss bottom TN1 would be defined according to customer's requirement.

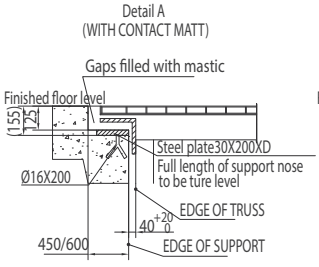


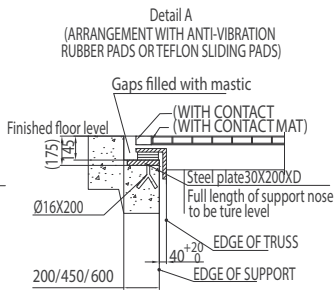


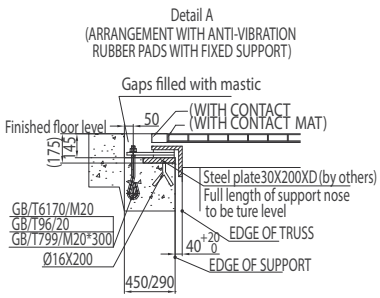












Technical Data Horizontal Movingwalks

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

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
	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

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		
	1000	DBE<=47	7.5		
		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.	○

SIGMA

Escalator & Movingwalks

Sigma Movingwalks keeps you on the move
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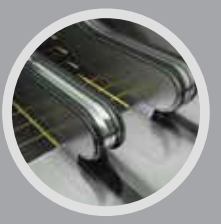

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