



Escalator & Movingwalks



Sigma head office

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ISO 9001
Certificate



ISO 14001
Certificate



ISO 50001
Certificate

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

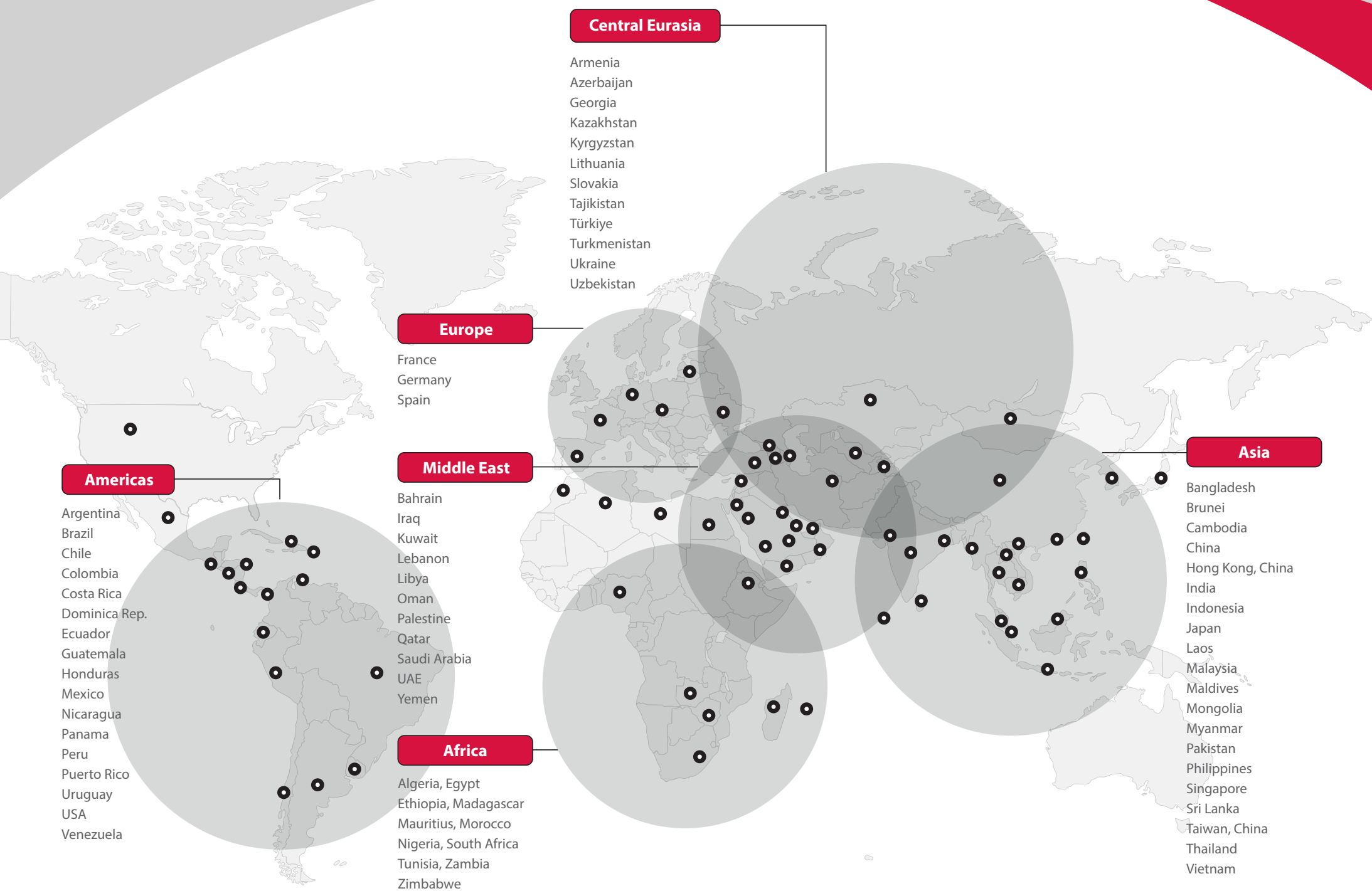
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2024. 07 / Revision 0

Reaching new heights
<http://sigmaelevator.com>



SIGMA GLOBAL FOOTPRINT



Sigma has exported over
160,000 elevators
worldwide since 1978





Top-class Factory

High tech factory with international accreditation enhances the competitiveness of the Sigma brand in the world.



ISO 9001
Certificate



ISO 14001
Certificate



ISO 50001
Certificate

Service excellence

Service excellence is beyond what we provide. It is how we think and act. It is not just “fixing a problem” or performing routine maintenance, but to provide prompt responses to every requests and passion for continuous improvement.

Reliability & Quality

Reliability and safety have been Sigma's foremost concerns. We are constantly pursuing to develop safer and reliable technologies for new products.

Korea flavored aesthetics

Providing trendy and practical products in collaboration with Korea Design Center.

Global engineered

The world's best engineers develop robust and optimized products through stringent quality verification system.

Qualified technology & products

Uniform and safe product supply according to Sigma's product development and proven parts supply process.

The Essence of World Best Technologies...

Sigma is a respected provider of escalators with an unmatched heritage

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



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



Green Future
in Your Life

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

Green Technology

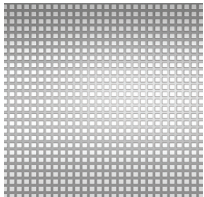
Sigma Commercial Escalators are well suited for today's urban structures.
New technological advancements have been applied to make escalator the world-best in design and safety.
Advanced technology and aesthetic design makes Sigma escalators appealing
while improved strength and safety features offer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

Floor



Aluminum



Stainless steel
(Option)

Glass panel



Clear Glass

Various colors for handrails



Black



Red(Option)



Beige(Option)



Blue(Option)



French gray
(Option)



Green(Option)



Carbon black
(Option)

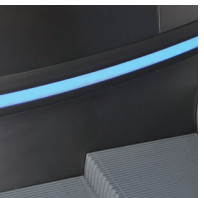
Balustrade lighting



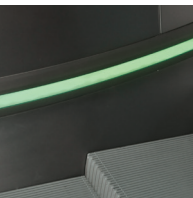
Blue



Green



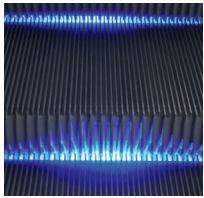
Blue



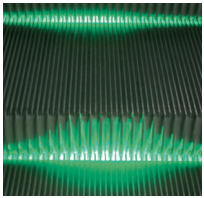
Green

Skirt panel lighting

Under step lighting

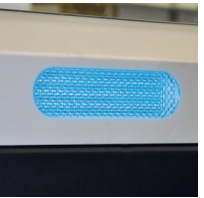


Blue

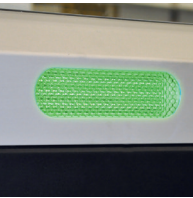


Green

Comb lighting



Blue



Green

* Available in White, Red, Blue, Green and Yellow

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°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.



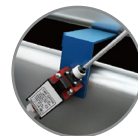
Handrail Entry Safety Guard

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 automatically stop the escalator.



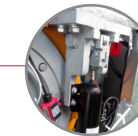
Floorplate Safety Contact

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



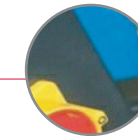
Auxiliary Brake (Rise>6m)

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.



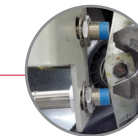
Safety Grounding

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



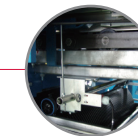
Non-reversal Device

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.



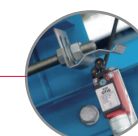
Missing Step Monitoring Device

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.



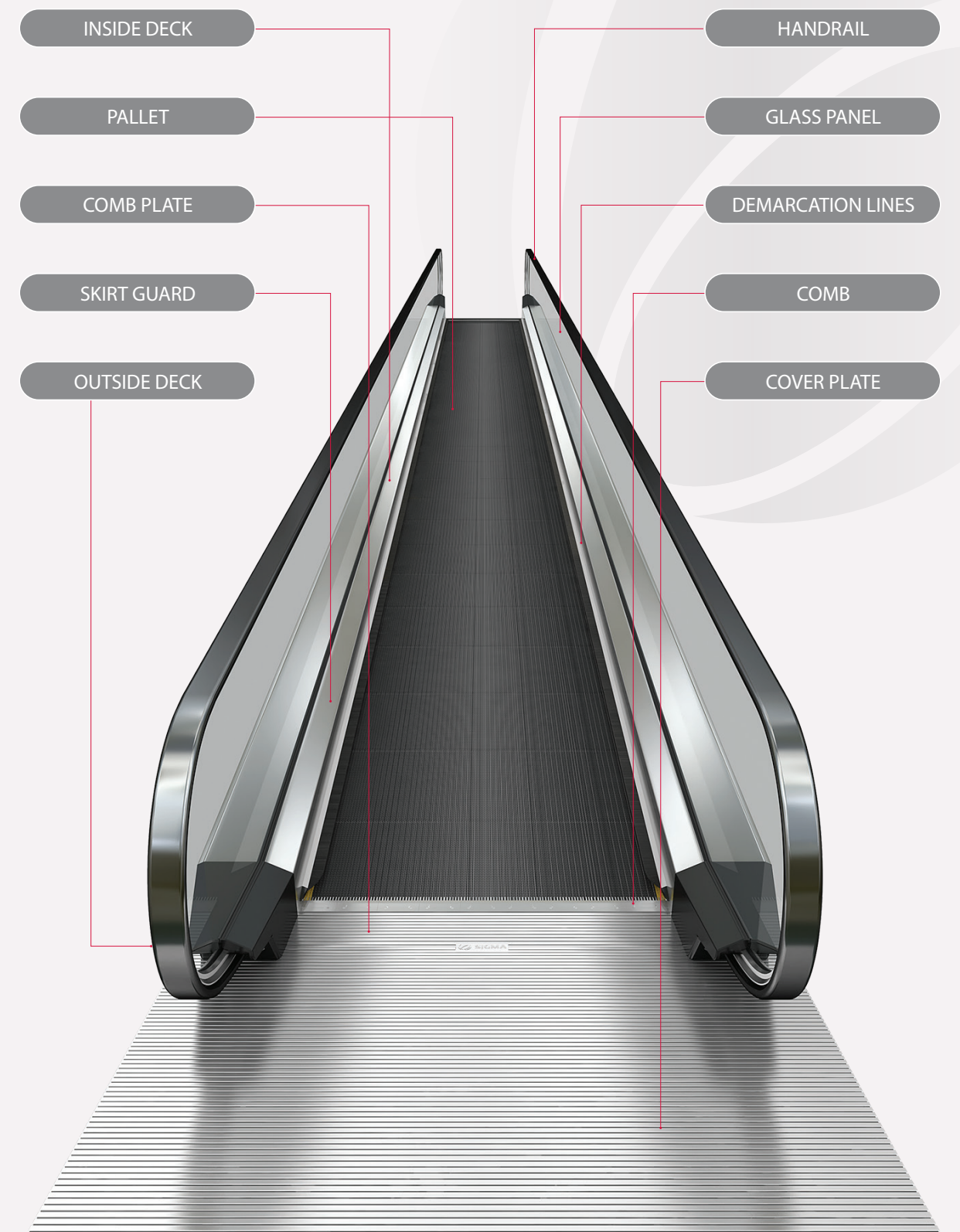
Broken Chain protection device

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.

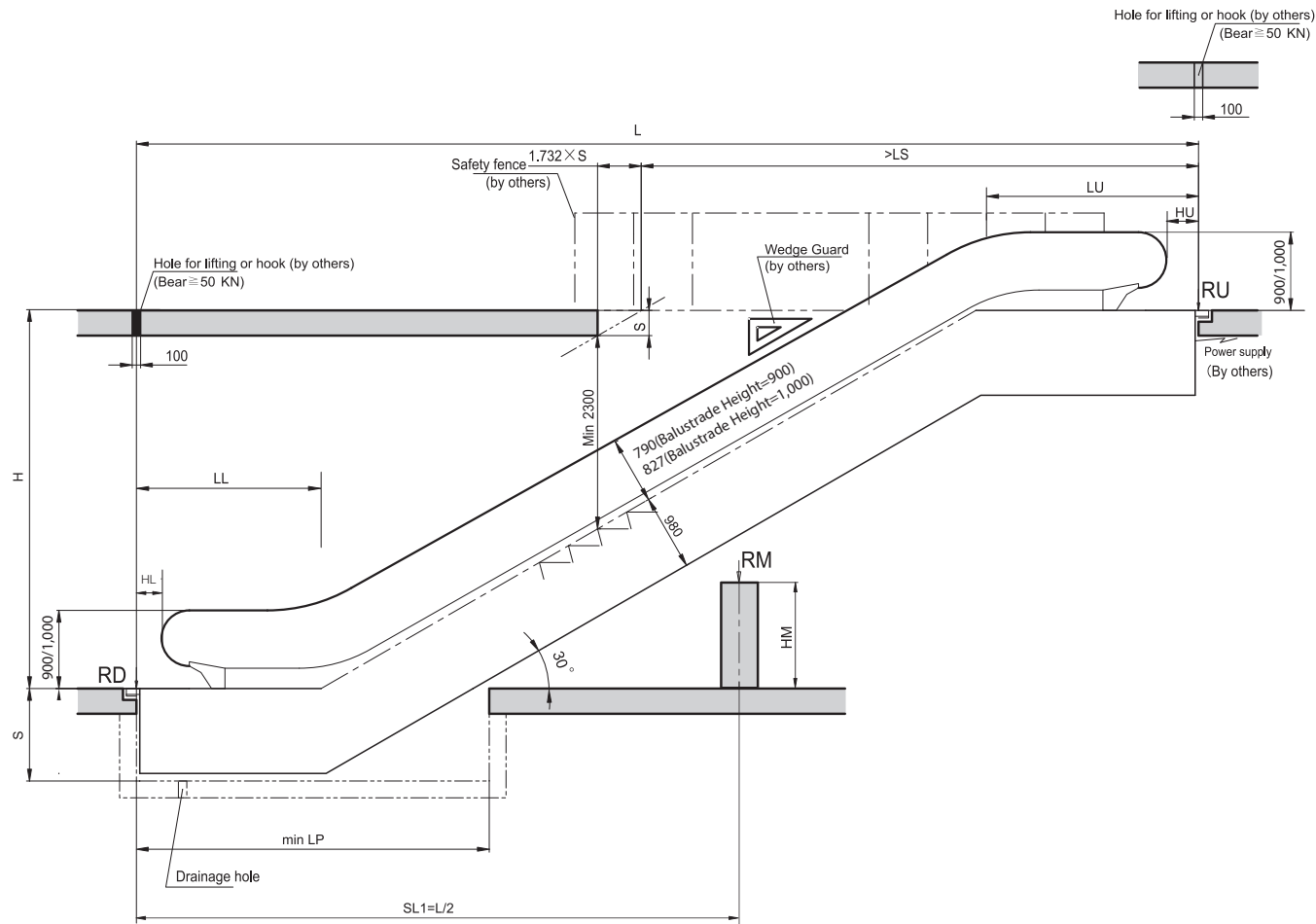


Movingwalks

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



Layout VERA Commercial Specifications (30°, Rise 2278~8000mm)



Dimensions

(HU & HL dimensions are based on Balustrade Height=900mm / 1000mm)

Rise H (mm)	Step Width A (mm)	Span L (mm)	Min LP (mm)	LU (mm)	LL (mm)	LS (mm)	HU (mm)	HL (mm)	RU (kN)	RD (kN)	RM (kN)
H ≤ 6000 with 2 flat steps	1000	1.723*H+4698	4350	2449	2249	6433	666 / 621	666 / 621	4.96*L+7	4.96*L+2.3	-
	800								4.31*L+7	4.31*L+2.3	-
	600	1.723*H+5198				6933			3.66*L+7	3.66*L+2.3	-
6000 < H ≤ 8000 with 3 flat steps	1000	1.723*H+5498	4750	2849	2649	6833	666 / 621	666 / 621	2.03*L+5.7	2.03*L+2.3	6.46*L+1.4
	800								1.78*L+5.2	1.78*L+2.2	5.74*L+1.3
	600	1.723*H+5998				7333			1.53*L+54.8	1.53*L+2.0	5.02*L+1.3

Note: Dimensions may vary based on code/local requirements as well as choice of machine and drive. Dimensions can be adapted for the replacement of existing escalators. Please contact your local Otis sales representative for details.

Minimum S = 1056 (indoor) and 1256 (outdoor)

Dimensions

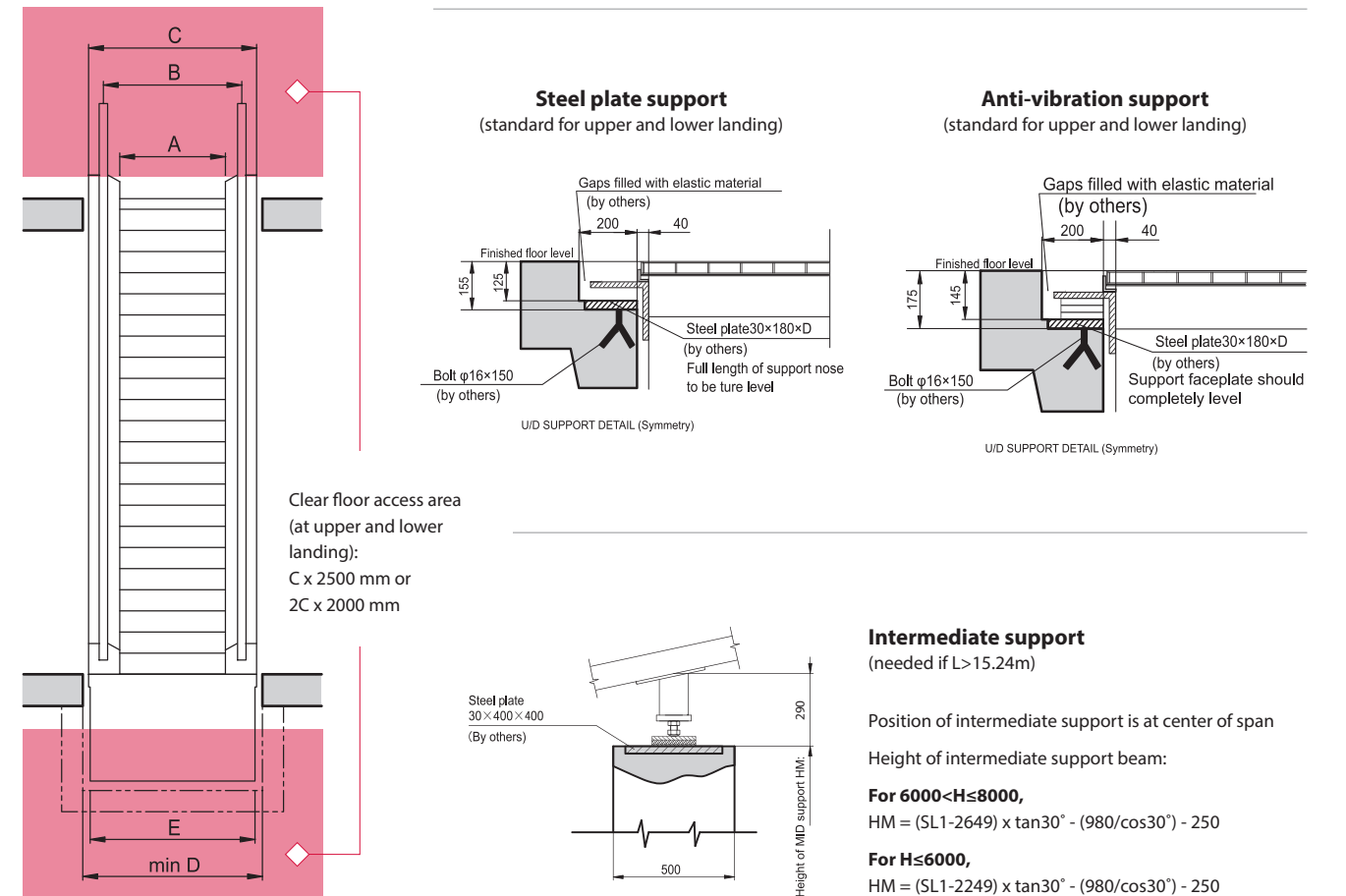
(units : mm)

Step Width A (mm)	Handrail Center Width B (mm)	Escalator Width C (mm)	Pit Width D (mm)	Truss Width E (mm)
1000	1247	1540	1620	1500
800	1044	1337	1420	1297
600	841	1134	1220	1094

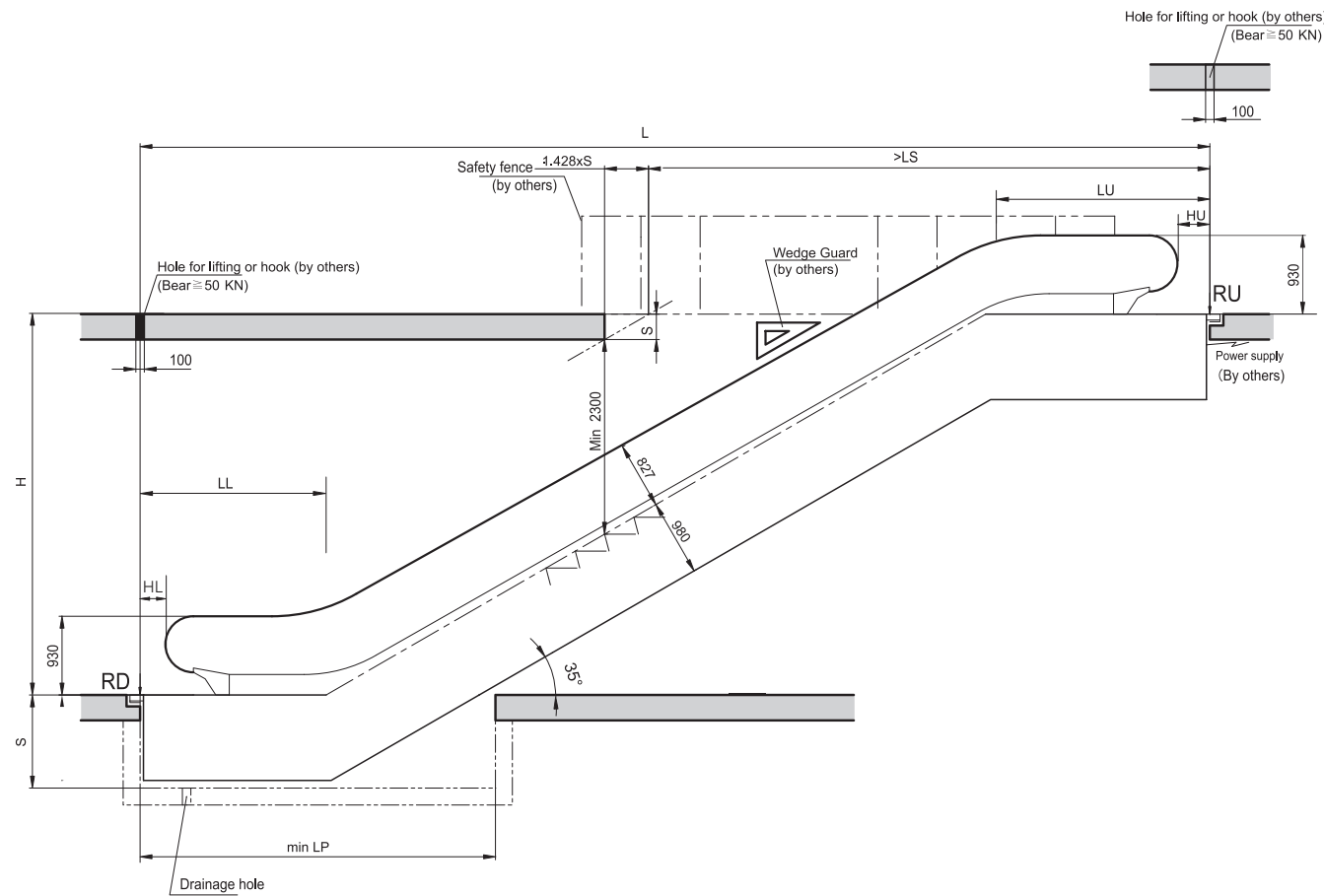
Electric Data

(Based on 380V, 50Hz, Altitude 0~ 1000m)

Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm²)	MCCB Capacity of Building (A)
1,000	2278 ~ 5000	7.5	10	30
	5001 ~ 6200	9		30
	6001 ~ 7600	11		40
	7601 ~ 8000	13		50
800	2278 ~ 6400	7.5	10	30
	6401 ~ 8000	9		30
600	2278 ~ 8000	7.5		30



Layout VERA Commercial Specifications (35°, Rise 2640~8000mm)



Dimensions

(HU & HL dimensions are based on Balustrade Height=900mm / 1000mm)

Rise H (mm)	Step Width A (mm)	Span L (mm)	Min LP (mm)	LU (mm)	LL (mm)	LS (mm)	HU (mm)	HL (mm)	RU (kN)	RD (kN)
H≤6000 with 2 flat steps	1000	1.428*H+4793	4200	2477	2316	5761	666 / 621	666 / 621	5.11*L+7	5.11*L+2.3
	800								4.41*L+7	4.41*L+2.3
	600								3.76*L+7	3.76*L+2.3

Note: Dimensions may vary based on code/local requirements as well as choice of machine and drive. Dimensions can be adapted for the replacement of existing escalators. Please contact your local Otis sales representative for details.

*HU and HL values in table are for 930mm balustrade height.
Minimum S = 1056 (indoor) and 1256 (outdoor)

Dimensions

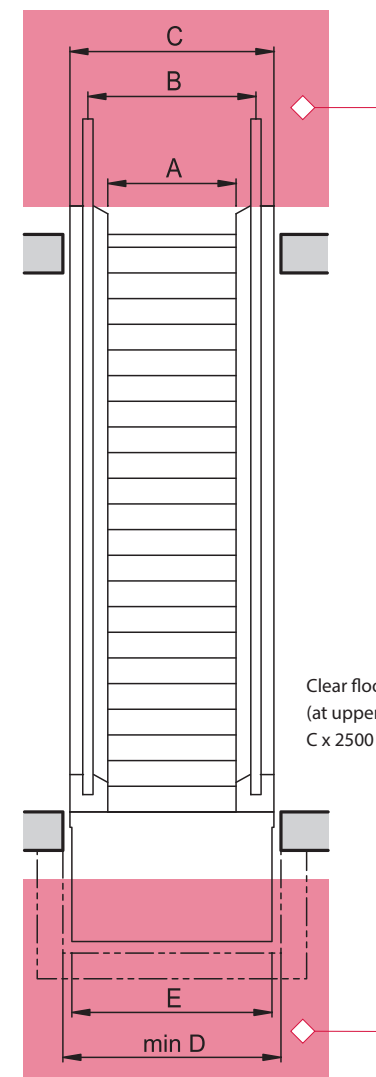
(units : mm)

Step Width A(mm)	Handrail Center Width B(mm)	Escalator Width C(mm)	Pit Width D(mm)	Truss Width E(mm)
1000	1247	1540	1620	1500
800	1044	1337	1420	1297
600	841	1134	1220	1094

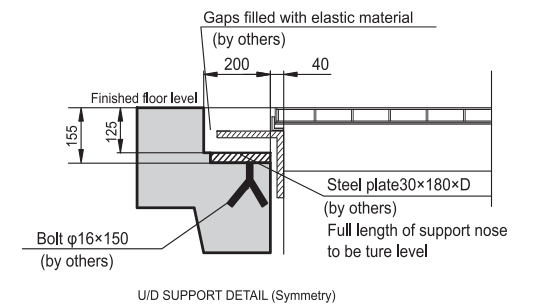
Electric Data

(Based on 380V, 50Hz, Altitude 0~ 1000m)

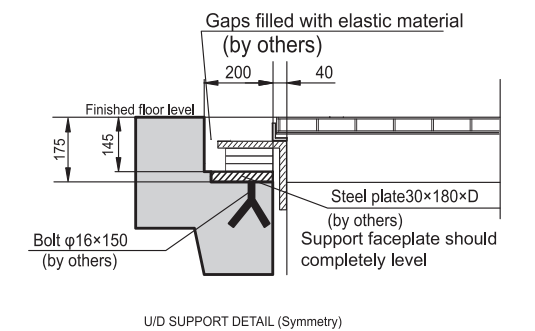
Step Width	Rise H(mm)	Motor (kW)	Power Source Lead In Wire (mm²)	MCCB Capacity of Building (A)
1,000	2278 ~ 5000	7.5	10	30
	5001 ~ 6000	9		30
800	2278 ~ 6000	7.5		30
600	2278 ~ 6000	7.5		30



Steel plate support (standard for upper and lower landing)

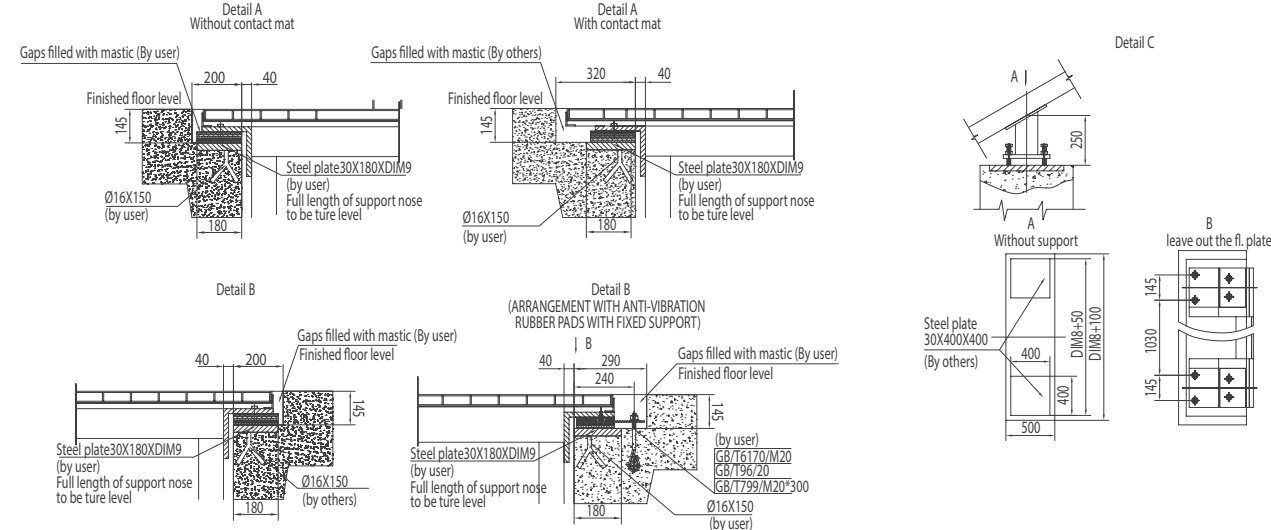
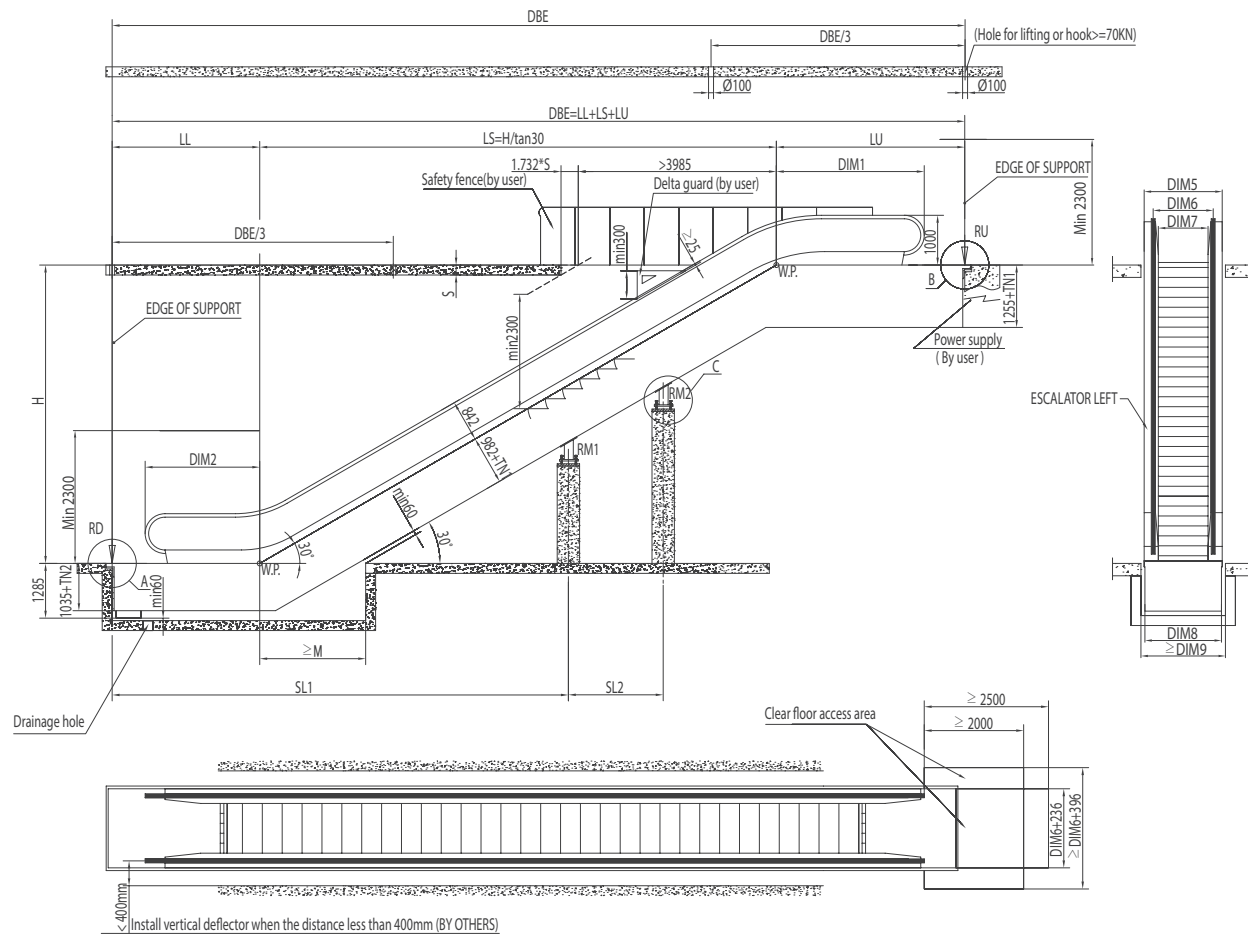


Anti-vibration support (standard for upper and lower landing)



Layout XO21NP (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.



Dimension (For Sloped opaque balustrade handrail)

(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	

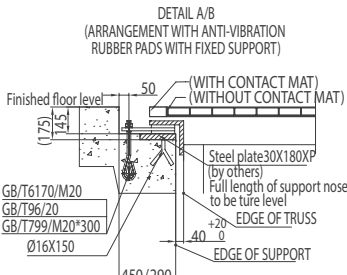
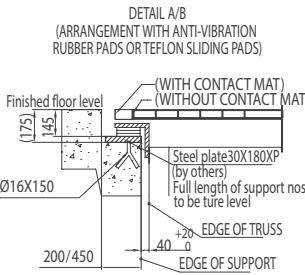
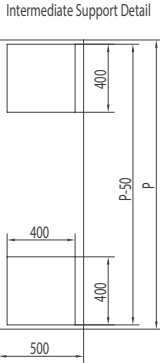
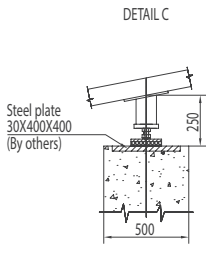
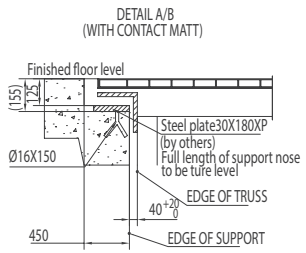
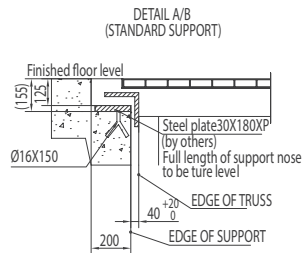
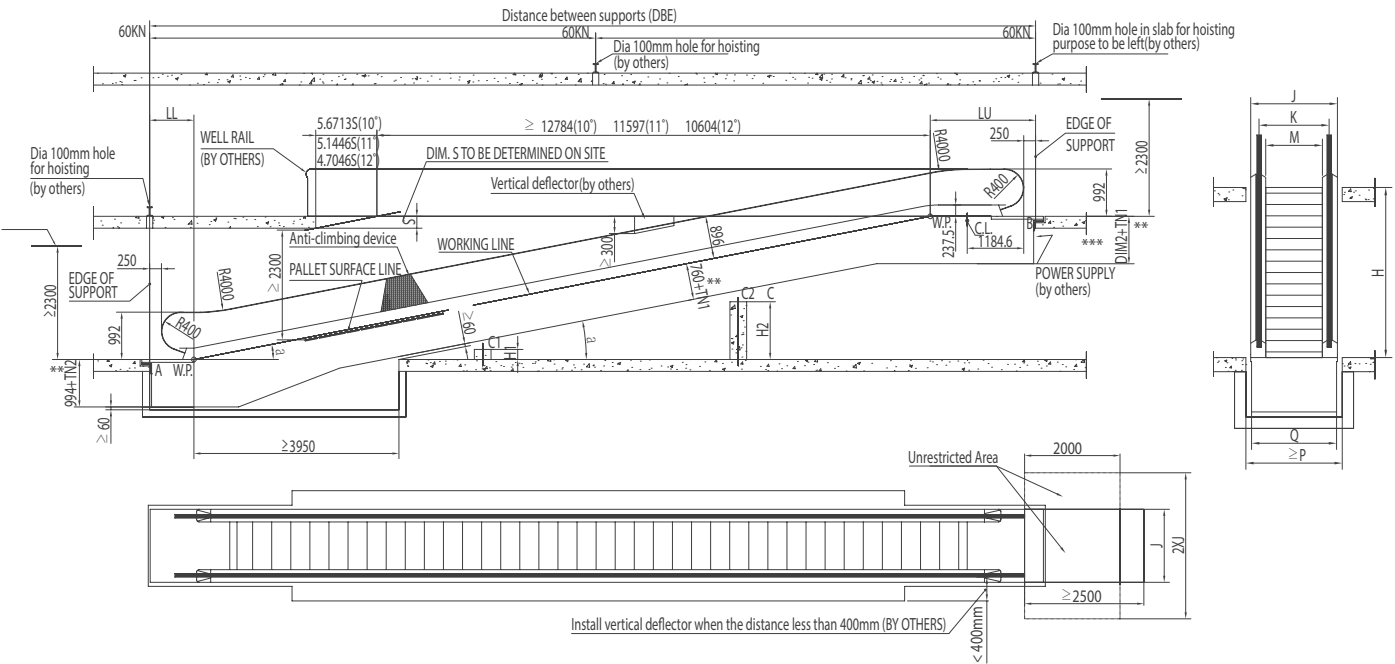
Electric Data

Based on 380V, 50Hz, Altitude 0~ 1000m, EMC-W1 machine

Step Width	Rise H (mm)	Motor (kW)	Power Source Lead In Wire (mm ²)	MCCB Capacity of Building (A)
800	3000 ~ 5200	7.5	10	30
	5201 ~ 6800	9.5		30
	6801 ~ 8000	11		40
	8001 ~ 9500	13		40
	9501 ~ 10100	15		40
	10101 ~ 15000	18.5 / 22		50 / 60
	3000 ~ 6700	7.5		30
	6701 ~ 8700	9.5		30
1000	8701 ~ 10200	11		40
	10201 ~ 12300	13		40
	12301 ~ 12700	15		40
	12701 ~ 15000	18.5 / 22		50 / 60

Layout XOP (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.



Dimensions

(units : mm)

Angle of Inclination	Rise (H)	Step Width	LU	LL	DIM2
10°	1500 ~ 6000	800	2426	1020	994 (EM-W1 & power < 9.5kw) 1054 ((EC2-25) or (EM-W1 & power ≥ 9.5kw)
		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

For EN115-2008 & EN115-2017:

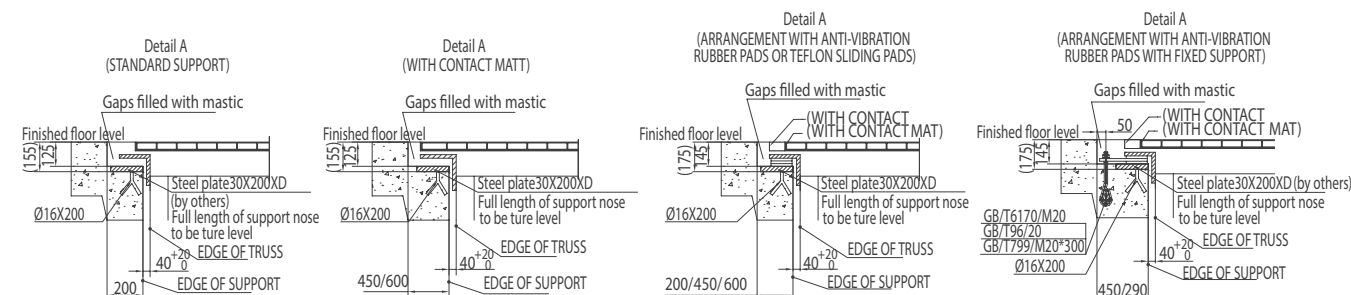
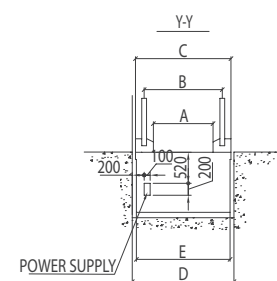
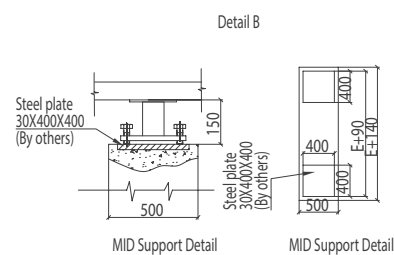
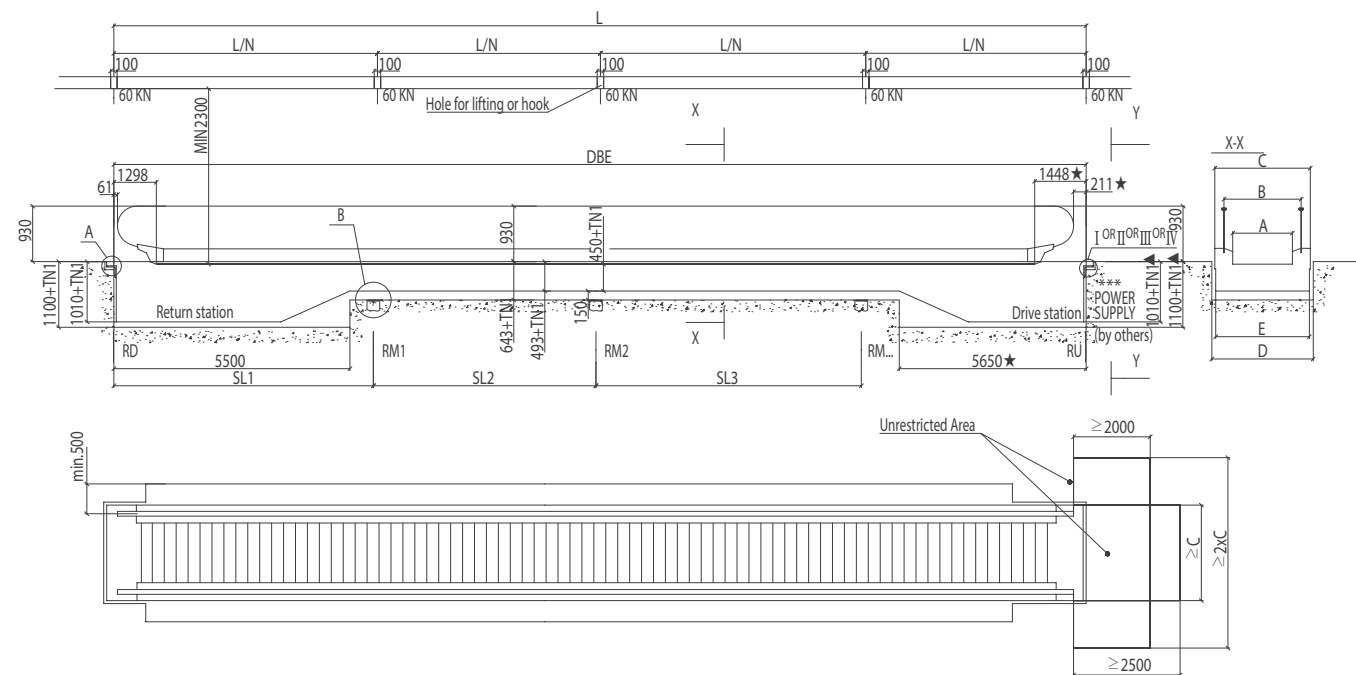
Machine		Motor Power [KW]	H(mm)						Power Source Lead In Wire	MCCB Capacity of Building
			10°		11°		12°			
			1000	800	1000	800	1000	800	mm2	A
Standard	EM_W1	7.5	4200	4600	4300	4800	4500	5000	10	30
		9.5	5800	6200	6000	6400	6200	6500		30
		11	6300	6800	6400	7000	6500	7200		40
		13	7500	8200	7800	8400	8000	8500		40
		15	9000	9600	9200	9800	9500	10000		40

Movingwalks

SIGMA Reaching new heights

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.



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)

[illegible]

| 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					

Operation Functions

Standard			
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.

Option				
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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