





# / HYUNDAI ELEVATOR CO., LTD.

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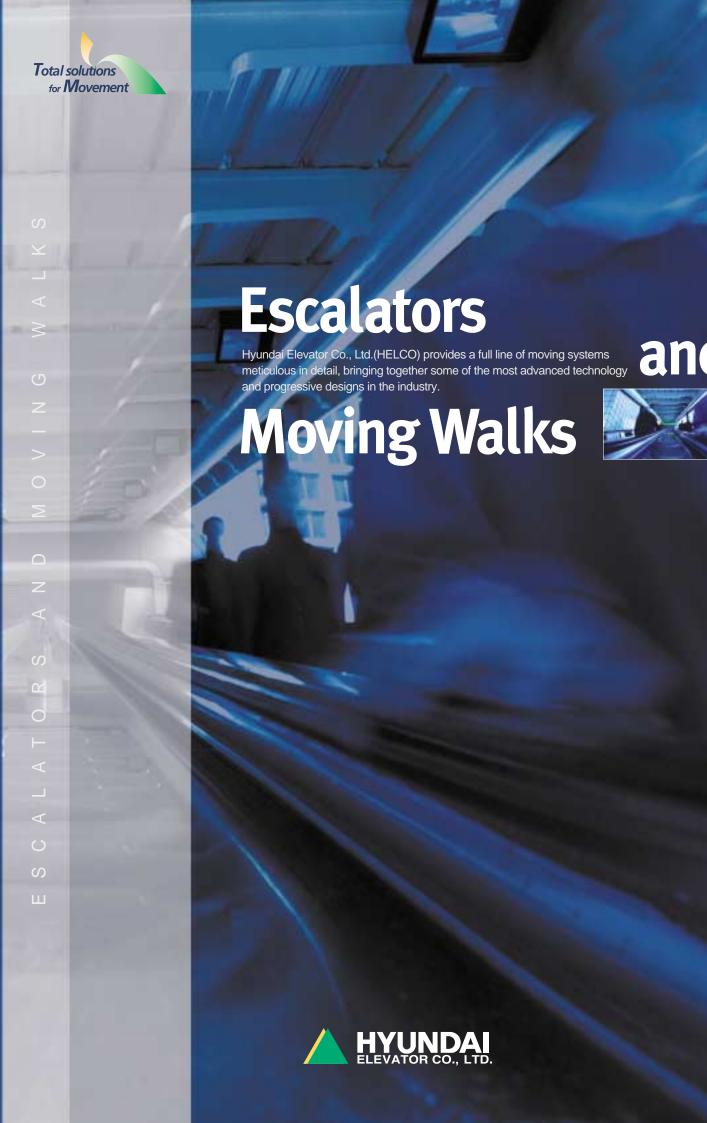
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# HYUNDAI Escalators and Moving Walks

Hyundai escalators and moving walks are an outstanding class of people moving systems. They offer a streamlined touch of styling and proficiency while addressing the very latest in safety concerns. Their compact design allows them to be placed in minimum sized wellways and that provides you with the flexibility you need to make the most efficient use of your valuable building space. Our complete line up includes the Millennium, H-series, Modular escalators and pallet type moving walks. One of them will be the ideal answer to your pedestrian-traffic needs.



Lotte Dept. Store, Seoul, Korea



General Hospital, Baton Rouge, USA



Incheon International Airport, Incheon, Korea



Incheon International Airport, Incheon, Korea



Subway Line7 (Isu), Seoul, Korea



Hyundai Dept. Store, Seoul, Korea

# MILLENNIUM ESCALATORS



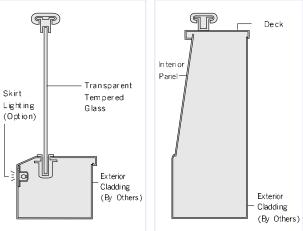
The latest models are Millennium escalators, which are new generation escalators that are controlled by Microprocessors and are ergonomically designed to give a very smooth ride. The new design provides a marked improvement by minimizing the front and back step movement in the down direction. This eliminates the jerk people may experience when going down in a escalator. The style of newel face is also quite a new modernized one.

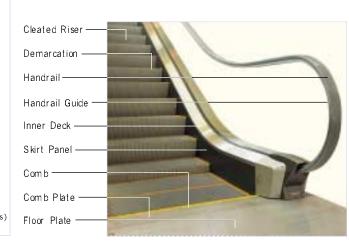
Main Spe	ecif	ications						
Туре								
Cton Midth	30°	594 m m	81 3 m m	1014 mm				
Step Width	35°	61 2 m m	81 3 m m	1014 mm				
Carrying Capacity		4500 Person/h	6750 Person/h	9000 Person/h				
Vertical	30°	$2046\mathrm{mm}$ $\sim$ $10500\mathrm{mm}$						
Rise	35°	Under 6000mm						
Speed	30°	30 m/min ( $st$ 30 $\sim$ 40 m/min)						
of Step	35°	30 m/m in						
Inclination	30°	30 degree						
meima tion	35°		35 degree					
Power Sour	Power Source		AC 3PH, 208-600V, 50/60Hz					
Operation System	Operation System		Key Switch Reversible Operation (Automatic: optional)					



Optional features shown by (\*) marks are available to extra costs.

## ML-BT ML-BB (\*)





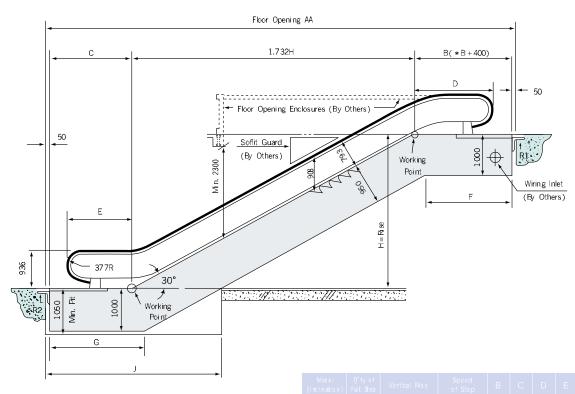
	Interior Panel	Transparent tempered glass	Stainless hairlined steel			
Balustrade	Deck	Stainless ha	airlined steel			
Balustrade	Skirt Pan el	Stainless hairlined steel (* Stainle	ss hairlined steel + Teflon coating)			
Handrail Color		To be selected (Basic : Black)				
Step	Step Tread	Extruded aluminum				
Step	Demarcation	Yellow molded safety inserts on 3 sides (Synthetic resin)				
	Comb	Yellow synthetic resin (* Extruded aluminum)				
	Floor Plate	Lighted directional indicator (*) Stainless plate with anti-slip growes				
	Exterior Cladding	By others				

Optional features shown by ( \*) marks are available to extra costs.

# MILLENNIUM 30° ESCALATORS LAYOUT PLAN

ML-BT, ML-BB

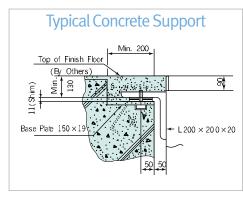




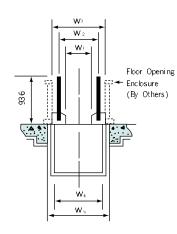
- 1. AA=1.732H+B+C+100
- 2. In case of inverter system is a Hyundai.
- 3. Escalator for subway or semi-(\*)Dimension

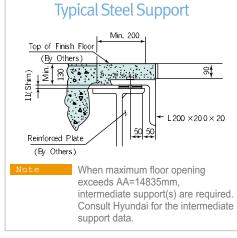
	2	H≤6000		2286	2080	1695	1490	2116	2250	4230
ML-BT 600 0 < H≤7600 30m/min 2693 2487 2102 1897 25	2523	2657	4640							
L-BB	3	760 0< H≤10500		2876	2606	2237	1967	2707	2777	4750
(30°)	2727	4720								
	4	11=0000	50 - 4011/11111	3882	2962	2642	2372	3712	3133	5120
	L-BB	L-BT L-BB 3	L-BT 600 0 < H ≤ 7600 L-BB 3 760 0 < H ≤ 10500 H ≤ 600 0	L-BT 6000 ⟨H≤7600 30m/min L-BB 3 760 0⟨H≤10500 30°/min H≤6000 30°40m/min	L_BT	L_BT	L_BT	L_BT	L_BT	L_BT

Sect	Section Dimensions Unit: mr									
Туре										
W1	594	813	1014							
W2	837	1056	1257							
W3	1130	1349	1550							
W4	1080	1299	1500							
W5	1230	1449	1650							



React Vertical Rise		ML800	ML1000	Unit : kg		
	R1	0.66H+2600	0.73H+2900	0,79++3200		
30 00 ~600 0	R2	0.66H+2000	0.73H+2300	0.791+3200		
	IVE					
Note		When rise is over 6000mm, consulty Hyundai for reactions data.				
		Tryunuan ioi	reactions de	ata.		



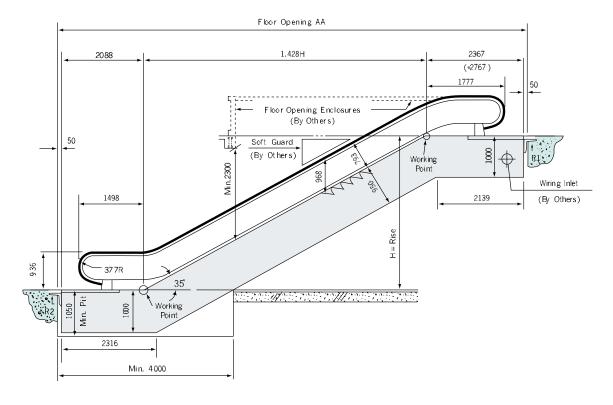


Moto	or Appli	cation	Spe	eed:30m/min
ML800	H≦7610	H≦10400	H≤(11000)	-
ML1000	H≤5577	H≤7610	H≤(10800)	-
ML1200	H≤4460	H≦6110	H≦8900	H ≦10500
MOTOR(kW)	5.5	7.5	11	15
Note		en speed is ındai.	over 40m/	min, consu

# MILLENNIUM 35° ESCALATORS LAYOUT PLAN

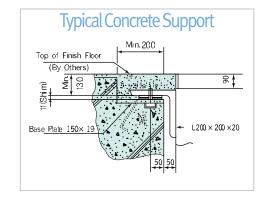
ML-BT, ML-BB



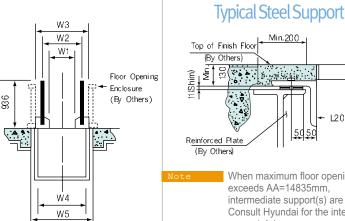


1. In case of inverter system is applied, consult Hyundai.
 2. Escalator for subway or semi-outdoor escalator : (\*)Dimension

Type         ML800         ML1000         ML120           W1         612         813         1014           W2         855         1056         1257           W3         1148         1349         1550           W4         1098         1299         1500	Secti	on Dime	ensions	Unit : mm
W2 855 1056 1257 W3 1148 1349 1550	Туре			
W3 1148 1349 1550	W1	612	813	1014
	W2	855	1056	1257
W4 1098 1299 1500	W3	1148	1349	1550
114 1000 1200 1000	W4	1098	1299	1500
W5 1248 1449 1650	W5	1248	1449	1650



React	ions			Unit : kg
3000	R1	0.52H+2700	0,6H+3000	0.67H+3300
~6000	R2	0.52H+2200	0,6H+2500	0.67++ 2700
Note			s over 6000i reactions da	,



Motor Application Speed:30m/min							
ML800	H≤6000	-					
ML1000	H≤ 558 0	H≤6000					
ML1200	H≤4460	H≤6000					
MOTOR(kW)	5.5	7.5					

R <u>einforced</u> (By Oth	
Note	When maximum floor opening exceeds AA=14835mm, intermediate support(s) are required. Consult Hyundai for the intermediate support data.

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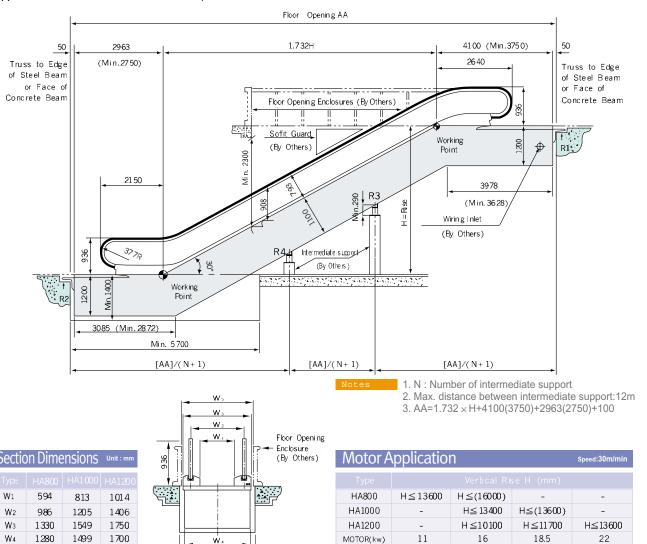
## H-SERIES ESCALATORS LAYOUT PLAN

HA-BB, HA-BT



The sizes shown above are applied to 3 flat step.

H-Series Escalators are designed for installation in subway stations, multi-sports complexes, and mammoth conference halls or airports. It has also been used to move people outside while protecting them from snowfall, rain, and wind. The H-Series Escalators meet standards set by the American Society of Mechanical Engineers (ASME) and European Norm (EN). (Applicable Vertical Rise: 7600~13600 mm)



Doodie																	
Reaction	ns																Unit : kg
	se H(mm)	7600	8000	8400	8800	9200	9600	10000	10400	10800	1 1200	1 16 00	1 20 00	12400	12800	13200	13600
	g AA(mm)	20326	21019	21711	22404	23097	23790	24483	25175	25868	26561	27254	27847	28539	29332	29925	3 07 18
	R1	5840	6010	6190	6360	6530	6700	4980	5100	5220	5330	5450	5 57 0	5680	5800	5910	6030
HA80 0	R2	5170	5330	5500	5660	5830	6000	4210	4320	4430	4540	4650	4760	4870	4980	5090	5200
		9890	10210	1 05 30	10850	11170	1 1480	8040	8250	8450	8660	8870	9090	9300	9510	9720	9930
	R4	-	-	-	-	-	-	7760	7980	8190	8410	8630	8840	9060	9280	9490	9710
	R1	6470	6650	6840	7030	7210	7400	5 540	5670	5800	5920	6050	6180	6310	6430	6560	6680
	R2	5640	5820	6000	6190	6360	6540	4600	4720	4840	4960	5080	5200	5320	5440	5560	5680
	R3	10800	11150	1 15 00	1 18 40	12190	1 25 40	8770	9000	9230	9460	9690	9920	1 01 50	10380	10610	1 08 40
	R4	-	-	-	-	-	-	8480	8710	8950	9190	9420	9660	9900	10130	10370	10610
	R1	6960	7160	7370	7570	7770	7970	5990	6130	6270	6410	6550	6680	6820	6960	7090	7230
	R2	6120	6310	6510	6700	6900	7090	4990	5120	5250	5380	5510	5640	5770	5900	6030	6160
	R3	1 17 30	12110	12480	12860	13240	13620	9520	9770	10010	10260	10520	10770	1 10 20	11270	11520	1 17 70
		-	-	-	-	-	-	9210	9470	9720	9980	10240	10500	10760	1 10 10	1 1270	1 15 30

When maximum vertical rise ranges over 13600mm, consult Hyundai.

W<sub>4</sub>

W<sub>4</sub> + 200

1650

W5

1430

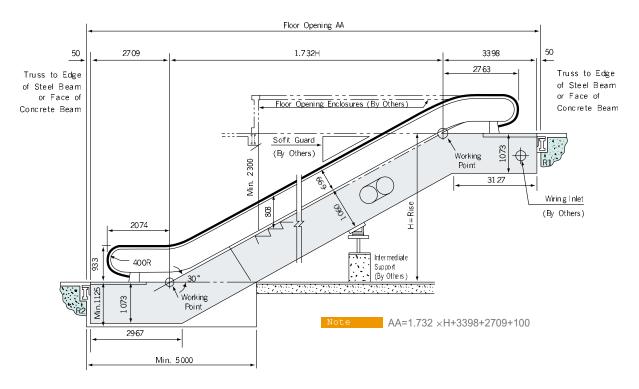
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## MODULAR ESCALATORS LAYOUT PLAN

M-BB

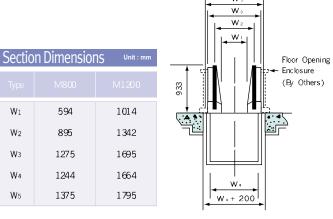


The Modular Escalator's unique construction is especially suited for heavy-duty uses in high rise buildings and in areas of mass transit. The idea of applying multiple drive units makes this system to extend its slope to whatever rise and do not need separate machine rooms. Competitive products use a system of helical gears that have a motor efficiency up to 85%. (Applicable Vertical Rise: Max. 36000mm)



Reactions	Unit : kgs/AA:m
M800	M1200
R1 = $485(AA + 0.1) - \frac{3800}{AA + 0.1} + 1500$	$R1 = 636(AA + 0.1) - \frac{3800}{AA + 0.1} + 1800$
$R2 = 485(AA + 0.1) + \frac{3800}{AA + 0.1} + 600$	$R2 = 636(AA + 0.1) + \frac{3800}{AA + 0.1} + 800$

- 1. If support spacing AA exceeds 1.732H+TT+TB+100, then truss extensions are required at top or bottom. Floor opening AA cannot exceed 14835mm. Truss extensions are optional available at extra costs. Maximum allowable truss extension is 2438mm.
- 2. When maximum floor opening exceeds 14835 mm intermediate support(s) are required. Consult Hyundai for the intermediate support data.
- 3. The reactions calculated from these formulas are actual maximum loads based on escalator dead weight maximum passenger load per ASME code requirements, and a maximum cladding weight of 50kgs/ m²(10 lbs/ft²) over the entire length. No additional factors are included



Floor Opening	Unit : mm
Vertical Rise(H)	2440 to 36580
	3398
	1.732 × H
	2709
Floor Opening(AA)	1.732 × H + TT + TB + 100
Max. Floor Opening	14835

min

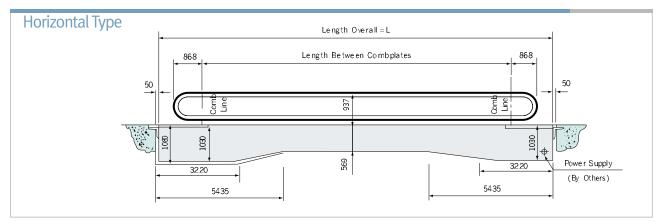
6 | hyundai escalators and moving walks | | www.hyundaielevator.co.kr | 7

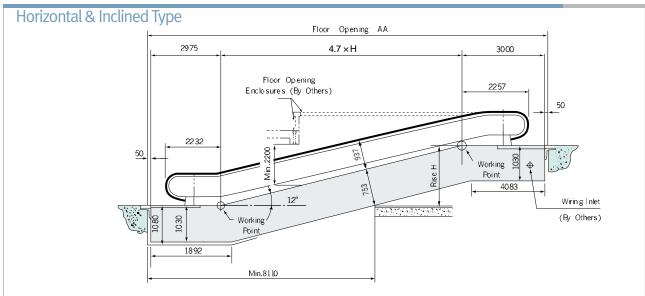
# MOVING WALKS LAYOUT PLAN

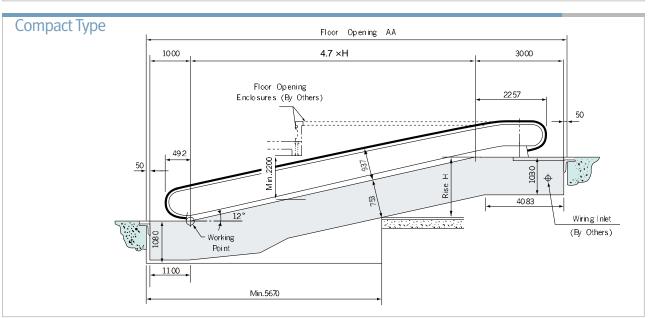
PM-BT, PM-BB

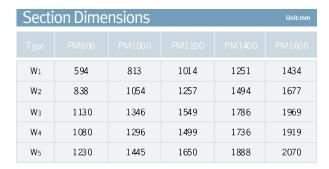
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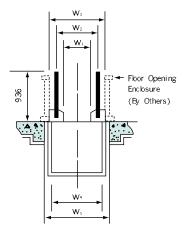
Hyundai moving walks are available in horizontal, inclined design within 12 degree or in combined design and are widely applicable to various buildings and facilities such as supermarkets, subway and railroad stations, sports stadiums, department stores, and so on. They offer a new dimension of convenience, satisfaction and excitement for the customers and passengers.

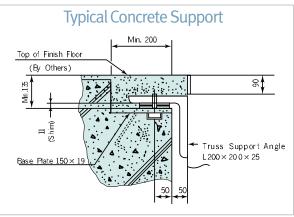


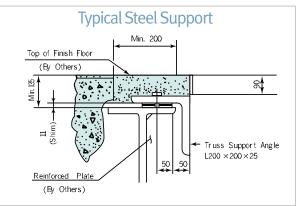




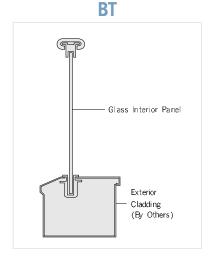


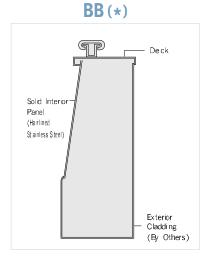






## Balustrade Designs & Finishes for Moving Walks





	Interior Panel	Transparent tempered glass	Stainless hairlined steel		
	Deck	Stainless hairlined steel			
Balustrade	Skirt Panel	Stainless hairlined steel (* Stainless hairlined steel + Teflon coating			
	Handrail Color	To be selected (Basic : Black)			
D	Pallet Tread	Extruded aluminum			
Pallet	Demarcation	Yellow molded safety inserts on 2 sides (Synthetic resin)			
Comb		Extruded aluminum			
Floor Plate		Lighted directional indicator (*) Stainless plate with anti-slip grooves			
	Exterior Cladding	By others			

Note Optional features shown by (\*) marks are available to extra costs.

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## WORKS TO BE DONE BY OTHER CONTRACTORS



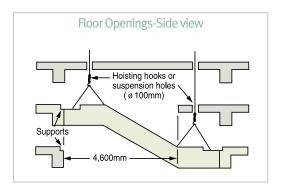
The following list explains the work which is necessary for a normal escalator installation, but is not done by the escalator contractor. Therefore this work must be provided by others.

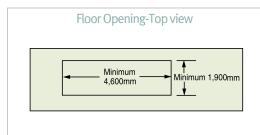
## I Building Work

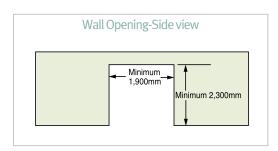
- Necessary properly framed openings in the floors, necessary supports for the truss per the manufacturer's drawings and information. Necessary enclosure, well-way railings, baffles and barricades around the well-way as required. Coordination with the escalator contractor for the location and installation of the steel member required for truss attachment prior to the pouring of the concrete supports.
- 2 Covering for the exterior of the escalator from the edges of the decks including covering for the truss and soffit. The materials used will be fire resistant as required by the applying code and will weigh not more than 25 kgs/m² (5 lbs/ft²) for Millennium escalator and 50kgs/m² (10 lbs/ft²) for Modular escalator and H-series escalator.
- Floor openings for escalators shall be protected against the passage of flame, heat, and/or smoke in accordance with the provisions of the building code.
- 4 Arrangement for proper ventilation of the machine compartment and controller space.

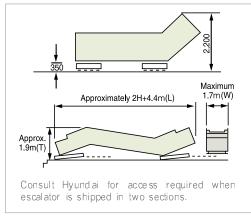
- Finished flooring and its base over the escalator contractor's floor support.
- Provision and maintenance of temporary endosures or other protection from open wellways during the time the escalator is being installed.
- Painting and finishing of all material other than that described in this specification.
- Any governmentally required safety provisions not directly involved in the escalator installation.
- Soffit guards at the intersecting angle of the outside deck and ceiling.
- 10 Transparent barriers between adjacent parallel escalators and on the outboard side of single escalators.

### Openings and Suspension Holes For Installation (By Others)









#### Building Safety Facilities (By Others)

To ensure passengers' safety, full safety facilities around the escalator must be constructed by other contractors.



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## **Electrical Work**

- Permanent electric service, as hereafter specified to the controller in the machine compartment, and wiring for lighting.
- 2 Temporary power as required for construction, testing and adjusting of the same characteristics as the permanent power supply.
- Provision of a light and single phase lighting circuit run to combination receptade and convenience outlets to be located at the top and bottom of the escalator.
- 4 Any electric circuits and outlets for special use as required.

- Provision of a grounding electrode to the escalator truss if escalator is isolated from building structure.
- Suitable connections from the power mains to each controller, including necessary circuit breakers and fused mainline disconnect switches.
- 7 Power feeders to the controller of each escalator.
- Provide emergency lights and other interior illuminations as required.

#### Electric Power Requirements (By Others)

Motor Power Supply Capacity		Power Supply Voltage	C.B. Rated Current	Power Feeder(mm²) (from power room to escalator controller)					
(kW) (kVA)	(AC-3Phase)	(A)	20 ∨/	40 VI	60 VI	80 VI	100™	120 \	
		I	50	8	14	22	30	38	38
5.5 12	12	II	30	5.5	5.5	8	14	14	14
		III	30	5.5	5.5	5.5	8	8	14
		I	60	8	22	30	38	50	50
7.5	14	II	40	5.5	5.5	8	14	14	22
		III	30	5.5	5.5	5.5	8	14	14
		I	75	14	22	30	38	50	60
55×2/11	19	II	50	5.5	8	14	22	22	22
		III	40	5.5	5.5	8	14	14	22
		I	125	22	38	50	80	80	100
75 ×2	27	II	75	5.5	14	22	22	30	38
		III	60	5.5	8	14	22	22	22
		I	175	30	50	50	100	125	150
75 ×3	40	II	100	8	22	30	38	50	50
		III	100	5.5	14	22	22	30	38
		I	225	38	80	100	125	200	200
75 ×4	52	II	150	14	22	38	50	60	80
		111	125	8	22	22	30	38	50
7.5 ×5 65		I	300	50	80	125	200	200	250
	65	II	175	14	30	50	60	80	80
		III	150	14	22	30	38	50	60
		ı	350	50	100	150	200	250	300
7.5 ×6	78	II	200	22	38	50	80	80	100
		III	175	14	22	38	50	60	80

Motor	Power Supply Capacity	Power Supply Capacity Power Supply Voltage (AC-3Phase)	C.B. Rated Current	Power Feeder(mm²) (from power room to escalator controller)					
(kW)	(kW) (kVA)		( A)	20 VI	40 VI	60 VI	80 VI	100 M	120 VI
		I	100	14	22	38	50	50	80
11	19	II	50	5.5	8	14	22	22	22
		III	40	5.5	5.5	8	14	14	22
		1	125	22	30	50	60	80	100
16	25	II	60	5.5	14	22	22	30	30
		Ш	50	5.5	8	14	14	22	22
		1	150	22	38	50	80	100	125
18.5	185 31	II	75	8	14	22	30	30	38
		Ш	75	5.5	14	14	22	22	30
		1	175	22	50	80	100	125	150
22	36	II	100	8	14	22	30	38	50
		Ш	75	5.5	14	22	22	30	30
	26 40	1	175	30	50	80	100	125	150
26		II	125	14	22	30	38	50	50
		III	100	5.5	14	22	22	30	38

#### Lighting Power

Balus trade Type	Vertical Rise (m)	Power Supply Capacity	Voltage	C.B. Rated Current	Power Feeder(mm²) (from power room to escalator controller) Span of Length (m)					
	(kVA)	(kVA)		Carron	20	40	60 8	0 100	1 20	
	1.83 ~4.27	14 (3)	100-110	30 (40)	5.5	8		14		
	4.28 ~7.6	2 (6)		40 (70)	5.5 8	3	14		22	
	1.83 ~4.27	14 (3)	200-265	20	3.5	5	5.5		8	
	4.28 ~7.6	2 (6)		20 (40)	3.5	i i	5.5		8	
		1.0	100-110	20	2	3.5	5.5		8	
	_	1.2	200-265		2		3.5	5.5	8	

ı	3 <b>∮</b> , 200V, 50Hz	3∮, 220V, 60Hz
П	3 <b>∮</b> , 346V, 50Hz	3∮, 380V, 60Hz
- 111	3 <b>ø</b> , 415V, 50Hz	3∮, 460V, 60Hz

#### Notes

- 1. The lighting power shall be supplied separately from the main power.
- 2. The power feeder sizes are based on using copper conductors and metallic conduit.
- 3. The optional comblights can be provided with the given lighting power.
- 4. For the application with other voltages consult with Hyundai for the engineering data.
- 5. Consult Hyundai when rise over 7600 mm.
- 6. The capacity shown by ( ) mark shall be applied to moving walks.