

Demi masa. Sesungguhnya manusia itu dalam kerugian.

Kecuali orang-orang yang beriman dan ber'amal salih dan berwasiat (nasihat-menasihati) dengan kebenaran dan berwasiat dengan kesabaran.

(Al-Qur'an : Surat Al-'Asfir : 1 – 3)

LAMPIRAN 1
(Spesifikasi Hyundai Elevator)



HYUNDAI ELEVATOR SPECIFICATION

PROJECT : GRAHA WIDYA MARANATHA, BANDUNG
SPEC. : P17 - 105 - 12/12 (VF1C)

I. BASIC SPECIFICATION

Car Nos.	: # L1, # L2
Service	: Passenger Elevator / <i>873 For lift</i>
Quantity	: 2 Units
Capacity	: 17 Persons / 1150 KGs
Speed	: 105 mpm
Control	: AC - VVVF
Operation	: Simplex Selective Collective
Floor	: 12 flr / 12 Stop
Service Floors	: 12 flr (1,2,3,4,5,6,7,8,9,10,11,12)
Opening	: 12 Front = 12 ; Rear = NIL
Door - Type	: Two Panel Centre Opening
Door - Size	: 1000 (W) x 2100 (H) mm
Hoistway size	: 2350 (W) x 2300 (D) mm
Travel	: 47.090 mm
Overhead	: 5.000 mm
Pit Depth	: 2.100 mm
Motor	: AC - 18,5 KW / Unit
Roping	: 1 : 1
M/C Room Location	: Directly Above the Hoistway
Power Supply	: AC 3 pH 380 V 50 Hz
Lighting Supply	: AC 1 pH 220 V 50 Hz

II. ELEVATOR CAR

Car Internal Size	: 1800 (W) x 1500 (D) mm
Car External Size	: 1900 (W) x 1670 (D) mm
CAR DESIGN	: C - 231 A PPP
- Ceiling / Lighting	: Milky-White Acrylic Indirect Lighting cover set in : Painted Steel Sheet with Aluminium Frame
- Side & Rear Wall	: Painted Steel Sheet (P - 007)
- Front Wall	: Painted Steel Sheet (P - 007)
- Car Door	: Painted Steel Sheet (P - 007) } <i>DITENTUKAN KE / INTERIOR.</i>
- Transom panel	: Stainless steel hairline
- Entrance column	: Stainless steel hairline
- Kick Plate	: Stainless steel hairline
- Flooring	: Luckstrong (RT-20011)
- Ventilation	: Cross Flow Fan
- Emergency exit	: Provided
- Interphone	: Provided (3 Ways)
- Handrail	: HR-03 (Stainless Steel)



III. HOISTWAY ENTRANCE

Entrance design	: All floors : E - 050 PP
Landing Door	: All floors : Painted Steel Sheet (P-007)
Jamb	: All floors : Narrow Jamb in Painted Steel Sheet (P-007)
Transom Panel	: All floors : NIL
Sill	: Extruded Hard Aluminium

} DITENTUKAN
AKS / INTERIOR

IV SIGNALS

Car Operating panel	: Micro Touch Button Type combined with Car Position Indicator. : Type : OPP - D130
Car Position Indicator	: Dot Matrix Type Combined with Car Operation Panel : Type : OPP - D130
Hall Position Indicator	: All floors : Dot Matrix Type : Type : PI - D300 → PENAWARAN HIP-D130
Hall Call Button	: All floors : Micro Touch Button Type : Type : HPB - 130 → PENAWARAN HIP-D130
Hall Lantern	: NIL

} DITENTUKAN
AKS / INTERIOR

V. FEATURES

- Selective Collective
- Automatic by Pass
- Car Arrival Gong
- Dot Matrix Type Indicator
- Direction Reversal call Cancel
- Anti Stall Timer
- Star False Door Open
- Door Motor Protection Timer
- Hall Button Lock Protection Timer
- Levelling Protection Timer
- Hand Operation
- Car Top Maintenance Station
- Buffer
- Fire Emergency Return
- Attendant Service
- Fire Lift FEO
- ARD
- Supervisory Panel

- FIRE MAN SWITCH

VI. STANDARD SAFETY DEVICE

- Safety Edge Both Side & Safety Ray
- Overload Features
- Emergency Call Button
- Emergency Stop Switch
(provided in switch cabinet)
- Emergency Car Lighting
- Emergency Exit Switch
- Gate Switch
- Interlock Switch
- Governor
- Safety Device
- Magnetic Brake
- Phase Protection Device
- Pulse Generator Error Check
- Limit S/W & Final Limit S/W
- Pit S/W

LAMPIRAN 2
(Standar Dimensi Dan Reaksi Elevator Hyundai)

Standard Dimensions & Reactions

(Unit : mm)

Speed (m/min)	Capacity		Clear Opening	Car		Hoistway				M/C Room				M/C Room Reaction(kg)	
				Internal	External	1Car	2Cars	3Cars	Depth	1Car	2Cars	3Cars	Depth	R1	R2
	Persons	kg	OP	CA×CB	A×B	X1	X2	X3	Y	MX1	MX2	MX3	MY		
60	6	450	800	1400×850	1460×1005	1800	3700	5600	1480	2000	4000	6000	3200	3600	2000
	8	550	800	1400×1030	1460×1185	1800	3700	5600	1660	2000	4000	6000	3400	4250	2250
	9	600	800	1400×1100	1460×1255	1800	3700	5600	1730	2000	4000	6000	3500	4100	2450
				1400×1150	1460×1305	1800	3700	5600	1780	2000	4000	6000	3550		
	10	680	800	1400×1250	1460×1405	1800	3700	5600	1890	2000	4000	6000	3600	4200	2700
	11	750	800	1400×1350	1460×1505	1800	3700	5600	2000	2000	4000	6000	3700	4550	2800
	13	900	900	1600×1350	1660×1505	2050	4200	6350	2000	2300	4400	6800	3750	5100	3750
				1600×1400	1660×1555	2050	4200	6350	2050	2300	4400	6800	3800		
	15	1000	900	1600×1500	1660×1655	2050	4200	6350	2150	2300	4400	6800	3850	5450	4300
				1600×1550	1660×1705	2050	4200	6350	2200	2300	4400	6800	3900		
90	1150	1000	1800×1500	1900×1670	2350	4800	7250	2280	2600	4900	7500	3900	6600	5100	
		1100	2000×1350	2100×1520	2550	5200	7850	2130	2800	5250	8300	3800			
105	1350	1000	1800×1700	1900×1670	2350	4800	7250	2480	2600	4900	7500	4200	7800	6000	
			1800×1730	1900×1900	2350	4800	7250	2510	2600	4900	7500	4300			
		1100	2000×1500	2100×1670	2550	5200	7850	2280	2800	5250	8300	4000			
			2000×1550	2100×1720	2550	5200	7850	2300	2800	5250	8300	4100			
		1100	2000×1750	2100×1920	2550	5200	7850	2530	2900	5400	8300	4300			
			2000×1800	2100×1970	2550	5200	7850	2580	2900	5400	8300	4400			
24	1600	1100	2150×1600	2250×1770	2700	5500	8300	2380	3000	5650	8700	4200	8500	6800	
2150×1670	2250×1840	2700	5500	8300	2450	3000	5650	8700	4300						

- Notes : 1. Blue colored dimensions shall be applied for Malaysia & Singapore market.
 2. Above hoistway dimensions are based on 15-storied buildings. For application to over 16-storied buildings, the hoistway dimensions shall be at least 5% larger considering the sloping of the hoistways.
 3. Above dimensions are based on center opening doors. For applicable dimensions with side opening doors, consult Hyundai.
 4. When non-standard capacities and dimensions are required to meet the local code, consult Hyundai.
 5. The capacity in persons is calculated at 68kg/person. (EN81 75kg/person)

(Unit : mm)

Speed (m/min)	Overhead (OH)	Pit (PP)	M/C Room Height (MH)
60	4600	1500	2200
90	4800	1800	2400
105	5000	2100	2400

Note : Above is minimum size.

Standard Dimensions & Reactions

(Unit : mm)

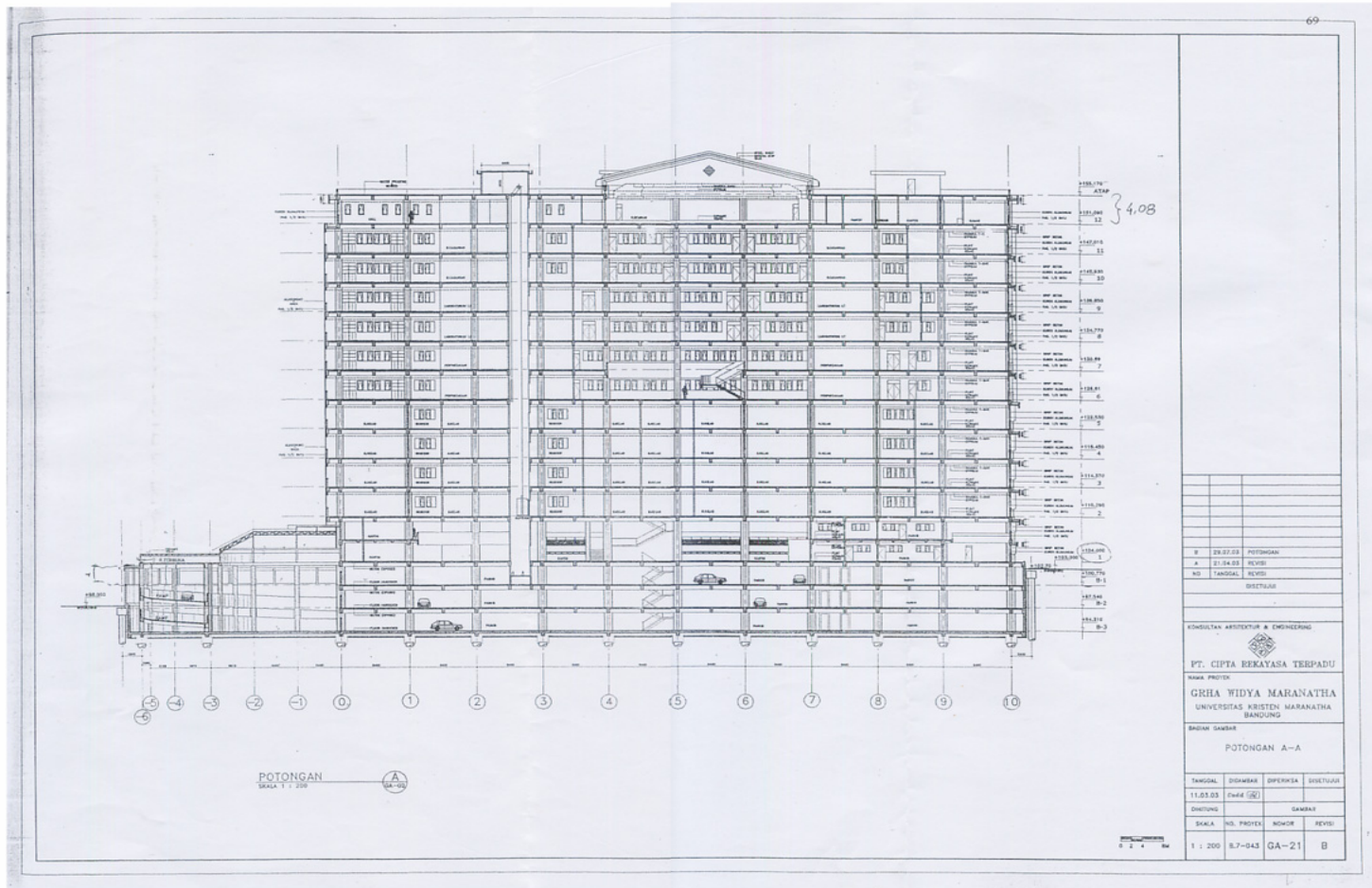
Speed (m/min)	Capacity		Clear Opening OP	Car		Hoistway				M/C Room				M/C Room Reaction(kg)			
	Persons	kg		Internal	External	1Car	2Cars	3Cars	Depth	1Car	2Cars	3Cars	Depth	R1	R2		
				CA×CB	A×B	X1	X2	X3	MY	MX1	MX2	MX3	MY				
120 150 180	13	900	900	1600×1350	1700×1570	2300	4550	6900	2200	2800	5500	7900	4500	12030	6630		
				1600×1400	1700×1620	2300	4550	6900	2250	2800	5500	7900	4500				
	15	1000	900	1600×1500	1700×1720	2300	4550	6900	2350	2800	5500	7900	4700	12810	6950		
				1600×1550	1700×1770	2300	4550	6900	2400	2800	5500	7900	4700				
	17	1150	1000	1800×1500	1900×1720	2500	4950	7500	2400	3000	6100	8800	4700	13080	7130		
				2000×1350	2100×1570	2700	5350	8100	2250	3200	6250	9100	4500				
	210 240	20	1350	1000	1800×1700	1900×1920	2500	4950	7500	2600	3000	6100	8900	5000	14360	7650	
					1800×1730	1900×1950	2500	4950	7500	2630	3000	6100	8900	5000			
		24	1600	1100	2000×1500	2100×1720	2700	5350	8100	2400	3200	6250	9100	4700	15090	8080	
					2000×1550	2100×1770	2700	5350	8100	2450	3200	6250	9100	4700			
		300 360	15	1000	900	1600×1500	1700×1720		4600	6950	2400		5600	8200	4900	12810	7800
						1600×1550	1700×1770		4600	6950	2450		5600	8200	4900		
17			1150	1000	1800×1300	1900×1520		5000	7550	2200		5800	8400	4500	14100	8000	
					1800×1370	1900×1590		5000	7550	2300		5800	8400	4900			
20			1350	1000	1800×1500	1900×1720		5000	7550	2400		6100	8900	4900	15100	8050	
					2000×1350	2100×1570		5400	8150	2250		6200	9000	4900			
300 360			24	1600	1100	2000×1750	2100×1970		5000	8150	2450		6200	9000	5000	15700	8100
						2000×1800	2100×2020		5000	8150	2700		6400	9000	5000		
	17		1150	1000	2150×1600	2250×1820		5700	8650	2500		6500	9400	5000	17500	11900	
					2150×1670	2250×1890		5700	8650	2600		6500	9400	5000			
	20		1350	1000	1800×1700	1900×1920		5100	7700	2400		6200	9100	5700	17800	13200	
					1800×1730	1900×1950		5100	7700	2650		6200	9100	6000			
	24	1600	1100	2000×1500	2100×1720		5500	8300	2450		6200	9100	6300	18100	13500		
				2000×1550	2100×1770		5500	8300	2500		6200	9100	6300				
	300	360	1600	1100	2000×1750	2100×1970		5500	8300	2650		6500	9100	6300	18100	13500	
					2000×1820	2100×2020		5500	8300	2700		6500	9100	6300			
	360	7700	4000	4000	2150×1600	2250×1820		5800	8700	2500		6500	9400	6200	18100	13500	
					2150×1670	2250×1890		5800	8700	2600		6500	9400	6300			

- Notes: 1. White colored dimensions shall be applied for Malaysia & Singapore market.
 2. The minimum hoistway dimensions are shown on the above table. Therefore, some allowances should be made considering the sloping of the hoistways.
 3. Above dimensions are based on center opening doors. For applicable dimensions with side opening doors, consult Hyundai.
 4. When non-standard capacities and dimensions are required to meet the local code, consult Hyundai.

(Unit : mm)

Speed (m/min)	Overhead (OH)	Top Clearance (TC)	Pit (PP)	M/C Room Height (MH)
120	5500	1800	2100	2400
150	5700	2000	2400	2400
180	5900	2300	2700	2500
210	6400	2700	3200	2800
240	7100	3350	3800	2800
300	7700	4000	4000	3000
360	7700	4000	4000	3000

LAMPIRAN 3 (Denah Tinggi Gedung Grha Widya Maranatha)



LAMPIRAN 4 (Konversi Satuan)

70

Konversi satuan

Dari (harga 1 satuan)	Ke	Harga
inc	m	0,0254
ft	m	0,3048
inc ²	mm ²	645,16
ft ²	m ²	0,092903
inc ³	m ³	16,387064 x 10 ⁻⁶
ft ³	m ³	28,316847 x 10 ⁻³
quart (cair U.S)	liter (1000 mm ³)	0,946353
gallon (cair U.S)	m ³	3,785412 x 10 ⁻³
inc ⁴	cm ⁴	41,623143
cm ⁴	m ⁴	1 x 10 ⁻⁸
ft ⁴	m ⁴	8,630975 x 10 ⁻³
gram	dyne	980,665000
kg	N	9,80665
lb	Kg	0,453592
kip (lbs)	KN	4,448222
kip/ft	KN/m	14,593898
lb/ft	Kg/m	1,488164