

Drive type	Left Hand Drive, 4 X 2				
Model	Space				
ENGINE	D6ABDD	D6CB38	D6CC38	D6CD38	D6HA3H
Suspension type	Air / Rigid				
Trim	Luxury				
Seat capacity	28+1 / 41+1 / 43+1 / 45+1 / 49+1			41+1 / 43+1 / 45+1 / 49+1	43+1

Dimensions (mm)

Overall	Lenght	11,730			
	Width	2,495			
	Height	3,340, (A/CON:3,340) (Roof spoiler:3,385)			
Wheel Base	5,850				
Wheel Tread	Front	ISO Type wheel mounting + Steel wheel : 2,052 ISO Type wheel mounting + Aluminum wheel : 2,073 JIS Type wheel mounting + Steel wheel : 2,056			
	Rear	ISO Type wheel mounting + Steel wheel : 1,826 ISO Type wheel mounting + Aluminum wheel : 1,850 JIS Type wheel mounting + Steel wheel : 1,830			
Overhang (Bumper)	Front	2,640			
	Rear	3,240			
Body Inside	Length	10,730			
	Width	2,365			
	Height	1,950			
Min. Ground Clearance	200				

Weight (kg)

Seat capacity	45+1	45+1	45+1	45+1	43+1	
Empty Vehicle Weight (Cargo)	11,975	11,975	12,345	12,345	12,275	
	Front	4,255	4,255	4,445	4,445	7,800
	Rear	7,720	7,720	7,900	7,900	4,475
Gross Vehicle Weight *	17,500 / 18,500	18,500	18,500	18,500	18,500	
	Front	7,000	7,000	7,000	7,000	7,000
	Rear	10,500 / 11,500	11,500	11,500	11,500	11,500

* Max. GVW includes the front & rear axle loads based on the permissible tire load.

Calculated Performance

Engines		D6ABDD	D6CB38	D6CC38	D6CD38	D6HA3H
Max. Speed	km/h	98.4	115.9	115.9	115.9	146.9
Max. Gradeability	tan θ	0.259	0.29	0.29	0.29	0.67
Min. Turning Radius	m	10.1	10.1	10.1	10.1	10.1

Chassis Specifications

Engine

Engine model		D6ABDD	D6CB38	D6CC38	D6CD38	D6HA3H
Type		Turbo Charger, Intercooler				
		4 cycle, water-cooled direct-injection diesel	Electronic Diesel, 4 cycle, water-cooled direct-injection diesel			
Number of Cylinder		6 in-line				
Piston Displacement (cc)		11,149	12,344	12,344	12,742	9,960
Bore x Stroke (mm)		130 x 140	130 x 155		130 x 160	122 x 142
Compression Ratio		16.5 : 1	17.2 : 1		16.2 : 1	17 : 1
Max. Power** (ps/rpm)	Euro I	300/2,200	-	-	-	-
	Euro II	-	-	-	-	-
	Euro III	-	380/1,900	-	-	-
	Euro IV	-	-	380/1,900	-	380/2,000
	Euro V	-	-	-	380/1,900	-
Max. Torque** (kg.m/rpm)	Euro I	110/1,400	-	-	-	-
	Euro II	-	-	-	-	-
	Euro III	-	148/1,200	-	-	-
	Euro IV	-	-	148/1,200	-	173/1,200
	Euro V	-	-	-	160/1,200	-
Cooling System	General	Wax type with thermostat, Forced circulation by centrifugal water pump				
	Radiator	Corrugated fin and tube type with pressure cap and condenser tank				
Electrical System	Battery	24V-200AH				
	Alternator	24V-150A (OPT:24V-180A)	24V-180A			
	Starter	24V-5.5 KW	24V-6.0 KW			
Fuel System	Injection pump	In-line type	EUI system			
	Fuel filter	Spin-on type				
Oil System	Lubrication	Forced lubrication by gear pump				
	Oil grade	API classification service CF-4 or above		API classification service CI-4 or above		
Exhaust system		-			EGR+PMC	

** Max. power and torque of engine specifications may vary according to each country.

Clutch

Type	Hydraulic control with air assisted, Single dry plate	
Facing Material	Non-Asbestos	
Facing Size (mm)		
Outside dia x Inside dia	ø430 x ø250	ø430 x ø242

Transmission

Engine		D6ABDD	D6CB38	D6CC38	D6CD38	D6HA3H
Model		M10S5-DD	M12S5-R	M12S5-R	T160S5	ZF12AS2000BO
Type		5 forward & 1 reverse				12 forward & 1 reverse
Gear Ratio	1st	6.571		6.814		12.326/9.59
	2nd	4.436		4.155		7.435/5.784
	3rd	2.631		2.282		4.565/3.552
	4th	1.567		1.381		2.7/2.101
	5th	1.000		1.000		1.629/1.267
	6th	-				1.000/0.778
	Reverse	6.240		6.690		11.413
T.G.S. (Transmission Gear Shift)		Floor shif, Mechanical remote control				Electronic

Propellershaft

Model	S1710	DS4500
Type	Tube	Tubeless
Size (Tube diameter x Thickness)	ø101.6 X 5 t	-

Rear Axle

Model	D8S (3.545/3.909) D10H (4.444)	D10H (3.153)	D10H (3.153/3.545)	R175HS (3.153)	R175HS (3.364)
Type	Full floating type				
Capacity	kg	10,500 / 11,500	11,500		
Final reduction type	D8S: Single Reduction , Spiral gear D10H, R175HS: Single Reduction , Hypoid gear				

Front Axle

Type	Reverse Elliot type "I" beam	
Capacity	kg	7,000

Tire & Wheel

Type	Single Front, Dual Rear	
Tire	Front / Rear	11R22.5-16PR, 295/80R-22.5

Steering

Type	Ball-nut type with integral hydraulic power booster,Tilt & Telescopic	
Steering Wheel Diameter (mm)	ø470	
Tilting Angle	53 ° ~ 64 °	
Telescopic Stroke (mm)	55	
Turning Angle	Inner / Outer	50 ° / 38 °

Service Brake

Type	Full air, dual circuit, fixed "S" cam with spring loaded chambers	
Drum diameter	ø410	
Lining size (mm)	Width x Lining thickness	
	Front	156 x 19t (JIS), 200 x 20t (ISO)
	Rear	220 x 19t (JIS), 200 x 20t (ISO)

Parking Brake

Type	Spring loaded type parking brake on the rear wheels	
Size	220 x 19t (JIS), 200 x 20t (ISO)	

Exhaust Brake

Type	Air operated, butterfly valve type	
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Suspension

Type	Air suspension (Rolling lobe type)	
Spring Size	Dimension(mm)	Diameter x Height - EA
	Front	276 x 332 - 2
	Rear	276 x 324 - 4
Stabilizer bar	Front	Torsion bar type
Shock absorber	Hydraulic double acting telescopic type on the front & rear axles	

Air filter

Type	Dry paper element	
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Fuel tank

Capacity	310/420 liter (Gangway floor), 350 liter (Flat floor)	
Material	Steel	

Frame

Type	Monocoque	
Main section side rail (HxWxT)	Front	180 x 90 x 3.2 t
	Rear	200 x 80 x 4.5 t

Electrical system Specifications

Electrical Equipments

Head lamps	MFR Type (STD)
Front combination lamps	Turn signal / Hazard / Amber / Position-white
Front fog lamp	White
Rear combination lamps	Turn signal / Hazard-amber, Tail / Stop-red
License plate lamp	White
Back-up lamp	White
Room lamp	Flourescent

Instruments

Meter	Speedometer, Odometer
Gauge	Fuel, Water temperature, Voltage, Oil pressure
Warning lamps & indicators	Main beam, Turn signal, Exhaust brake, Parking brake, Oil pressure, Air pressure, Over heat, Brake air, Lamp failure, Coolant level, Door, Seat belt, ABS, battery
Clock	Analogue clock (STD)
Radio	AM/FM radio, cassette
Horn	Dual flat Electric type

A/con (Option)

Aircon	Type	On the roof
	Capacity (kcal/h)	28,000 / 32,000

Body

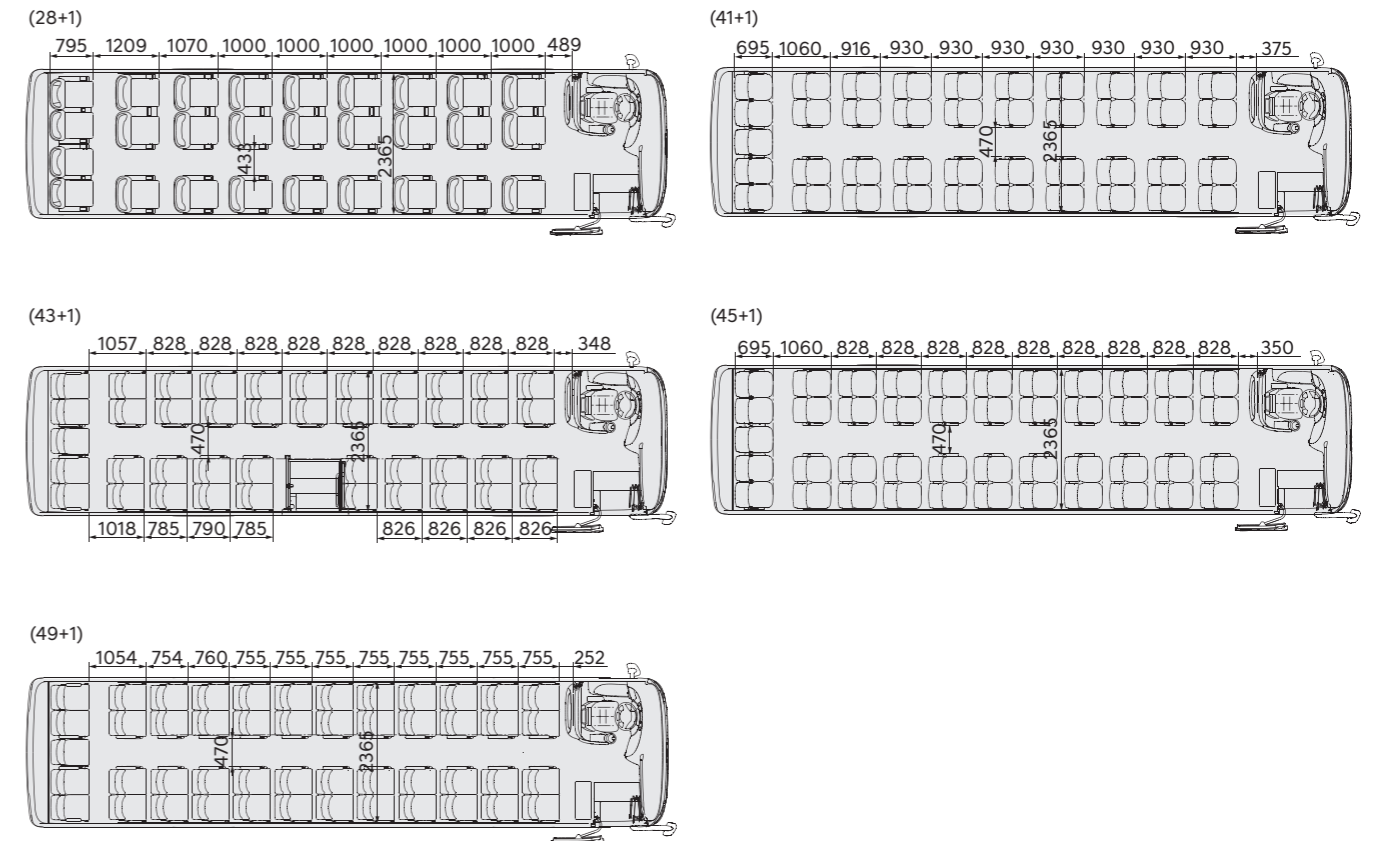
Exterior		
Body type	Monocoque	
Windshield glass	Two pieces type with laminated safety glass (One piece type : OPT)	
Windshield Wipers	Electric high & low speed, wiper with intermittent relay and washers operated electrically	
Outside rear view mirror	Deluxe type on both side	
Side glass	Full fixed type with tempered glass	
Rear glass	One section type with tempered glass	
Bumper	Front	SMC (Sheet moulding compound)
	Rear	Center-SMC, Corner-TPO(Plastic)
Door	Front Door	Auto Folding, Auto Swing (OPT)
	Mid Door	Auto Swing
Luggage box Capacity(m ³)	1-Door	5.6
	2-Door	4.8
Interior		
Driver's Seat	Adjustable up and down & fore-and-after reclining seat formed polyuretane cushion, covered with simulate leather	
Passenger's seat	Steel tube framing reclining type with simulate leather covering	
Floor covering	Linoleum mat	
Sunvisor	Roll curtain type, left hand side above windshield glass	
Shelves	Standard board type	

Annotations

- 1) Empty vehicle weight shown are to 3.5% variation to allow for production tolerance.
- 2) Empty vehicle weight includes weight of oil, fuel, coolant and spare tire carrier & bracket, spare tire but exclude standard tool set.
- 3) This vehicle specifications may differ per country.
- 4) For further information please contact the commercial vehicle export teams of HMC.
- 5) In order that product improvement may be introduced at any time, specifications are subject to change without prior notice.

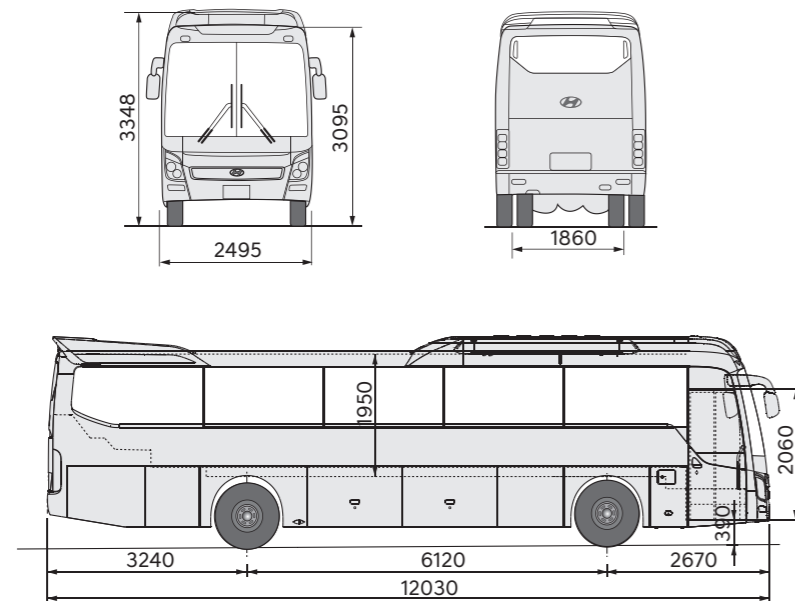
Seat Layout

Space Luxury



UNIVERSE EXPRESS

HYUNDAI BUS



Drive type	Left Hand Drive, 4 X 2					
Model	Express					
Engine	D6AC	D6CB38	D6CB41	D6HA3H	D6CC38	D6CD38
Suspension type	Air / Rigid					
Trim	Noble					
Seat capacity	28+1 / 41+1 / 43+1 / 45+1 / 49+1			43+1		

Dimensions (mm)

Overall	Lenght	12,030
	Width	2,495
	Height	3,490 (A/CON:3,490) (Roof spoiler:3,535)
Wheel Base	6,120	
Wheel Tread	Front	ISO Type wheel mounting + Steel wheel : 2,052 ISO Type wheel mounting + Aluminum wheel : 2,076 JIS Type wheel mounting + Steel wheel : 2,056
	Rear	ISO Type wheel mounting + Steel wheel : 1,826 ISO Type wheel mounting + Aluminum wheel : 1,850 JIS Type wheel mounting + Steel wheel : 1,830
Overhang (Bumper)	Front	2,670
	Rear	3,240
Body Inside	Length	10,780
	Width	2,345
	Height	1,950
Min. Ground Clearance	200	

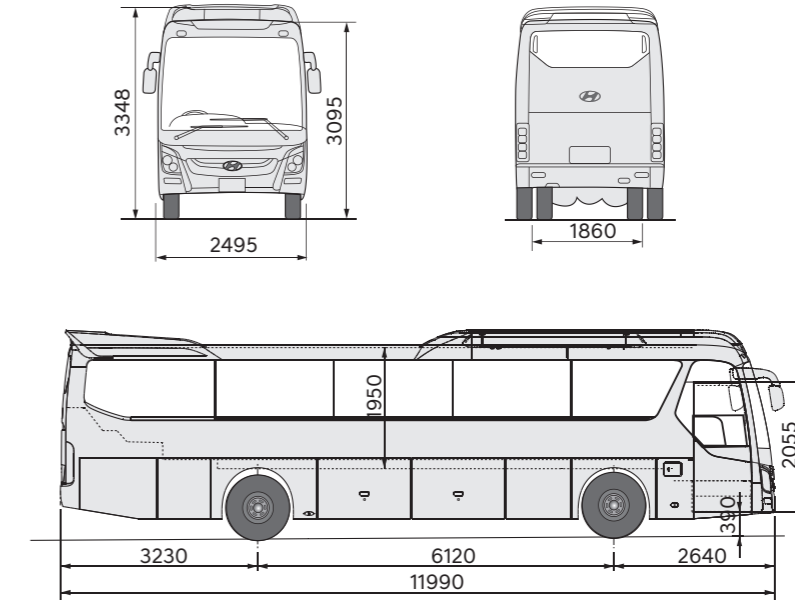
Weight (kg)

Seat capacity	45+1		43+1	
Empty Vehicle Weight (Cargo)	12,320		12,680	12,725
	Front	4,555	4,900	4,850
	Rear	7,765	7,780	7,875
Gross Vehicle Weight *	18,500		18,500	18,500
	Front	7,000	7,000	7,000
	Rear	11,500	11,500	11,500

* Max. GVW includes the front & rear axle loads based on the permissible tire load.

UNIVERSE RHD (General / Japan)

HYUNDAI BUS



Drive type	Right Hand Drive, 4 X 2		
Model	General		Japan
ENGINE	D6CB38	D6CB41	D6HC43
Suspension type	Air / Rigid		
Trim	Noble		
Seat capacity	45+1	45+1 / 49+1	27+1 / 30+1 / 40+1 / 45+1 / 49+1 / 53+1 / 52+1 / 54+1 / 55+1 / 56+1

Dimensions (mm)

Overall	Lenght	11,990
	Width	2,490
	Height	3,490 (A/CON:3,490) (Roof spoiler:3,535)
Wheel Base	6,120	
Wheel Tread	Front	ISO Type wheel mounting + Steel wheel : 2,052 ISO Type wheel mounting + Aluminum wheel : 2,076 JIS Type wheel mounting + Steel wheel : 2,056
	Rear	ISO Type wheel mounting + Steel wheel : 1,826 ISO Type wheel mounting + Aluminum wheel : 1,850 JIS Type wheel mounting + Steel wheel : 1,830
Overhang (Bumper)	Front	2,640
	Rear	3,230
Body Inside	Length	10,780
	Width	2,365
	Height	1,950
Min. Ground Clearance	200	

Weight (kg)

Seat capacity	45+1	
Empty Vehicle Weight (Cargo)	13,020	
	Front	4,850
	Rear	8,170
Gross Vehicle Weight *	18,500	
	Front	7,000
	Rear	11,500

* Max. GVW includes the front & rear axle loads based on the permissible tire load.

Calculated Performance

Engines		General						Japan
		D6AC	D6CB38	D6CB41	D6HA3H	D6CC38	D6CD38	D6HC43
Max. Speed	km/h	119.6	116.1	115.6	139.9	116.1	116.1	110.2
Max. Gradeability	tanθ	0.312	0.293	0.397	0.673	0.293	0.317	0.493
Min. Turning Radius	m	10.1	10.1	10.1	10.1	10.1	10.1	10.1

Chassis Specifications

Engine		D6AC	D6CB38	D6CB41	D6HA3H	D6CC38	D6CD38	D6HC43
Engine model								
Type		Turbo Charger, Intercooler 4 cycle, water-cooled direct-injection diesel Electronic Diesel, 4 cycle, water-cooled direct-injection diesel						
Number of Cylinder		6 in-line						
Piston Displacement (cc)		11,149	12,344	12,344	9,960	12,344	12,742	9,960
Bore x Stroke (mm)		130 x 140	130 x 155	130 x 155	122 x 142	130 x 155	130 x 160	122 x 142
Compression Ratio		17.5 : 1	17.2 : 1	17.2 : 1	17 : 1	17.2 : 1	16.2 : 1	17.2 : 1
Max. Power** (ps/rpm)	Euro I	340/2,200	-	-	-	-	-	-
	Euro II	-	-	-	-	-	-	-
	Euro III	-	380/1,900	410/1,900	-	-	-	-
	Euro IV	-	-	-	380/1900	380/1900	-	-
	Euro V	-	-	-	-	-	380/1900	-
	PPNLT (Japan)	-	-	-	-	-	-	430/1800
Max. Torque ** (kg.m/rpm)	Euro I	140/1,400	-	-	-	-	-	-
	Euro II	-	-	-	-	-	-	-
	Euro III	-	148/1,200	173/1,200	-	-	-	-
	Euro IV	-	-	-	173/1200	148/1200	-	-
	Euro V	-	-	-	-	-	160/1200	-
	PPNLT (Japan)	-	-	-	-	-	-	210/1200
Cooling System	General	Pressure type with thermostat, Forced circulation by centrifugal water pump						
	Radiator	Corrugated fin and tube type with pressure cap and condenser tank						
Electrical System	Battery	24V-200AH						
	Alternator	24V-150A (OPT:24V-180A)	24V-180A					
	Starter	24V-5.5 KW	24V-6.0 KW					
Fuel System	Injection pump	In-line type	EUI system					F2 Common Rail
	Fuel filter	Spin-on type						
Oil System	Lubrication	Forced lubrication by gear pump						
	Oil grade	API classification service CF-4 or above			API classification service CI-4 or above			JASO classification service DH-2 or above
Exhaust system		-				EGR+PMC		EGR+DOC+DPF+SCR+AOC

** Max. power and torque of engine specifications may vary according to each country.

Clutch

Type	Hydraulic control with air assisted, Single dry plate		
Facing Material	Non-Asbestos		
Facing Size (mm) Outside dia x Inside dia	ø430 x ø242		

Transmission

Engine		General						Japan
		D6AC	D6CB38	D6CB41	D6HA3H	D6CC38	D6CD38	D6HC43
Model		M12S5-R/ M12S5-DD	M12S5-R	ZF6S1900	ZF12AS2000B0	M12S5-R	T160S5	ZF6S2110B0
Type		5 forward & 1 reverse		6 forward & 1 reverse		5 forward & 1 reverse		6 forward & 1 reverse
Gear Ratio	1st	6.814 / 7.213	6.814	6.320	12.326/9.59	6.814		6.435
	2nd	4.155 / 4.398	4.155	3.620	7.435/5.784	4.155		3.769
	3rd	2.282 / 2.415	2.282	2.150	4.565/3.552	2.282		2.259
	4th	1.381 / 1.462	1.381	1.370	2.700/2.101	1.381		1.444
	5th	1.000 / 1.000	1.000	1.000	1.629/1.267	1.000		1.000
	6th			0.810	1.000/0.778			0.805
Reverse		6.690 / 7.081	6.690	5.810	11.413	6.690		5.887
T.G.S. (Transmission Gear Shift)		Floor shif, Mechanical remote control			Electronic	Floor shif, Mechanical remote control		

Propellershaft

Model	DS4500
Type	Tubeless

Rear Axle

Model	D10H (3.545)	D10H (3.153)	D10H (3.909, 3.545)	R175HS (3.364)	D10H (3.153)	R175HS (3.153)	R175HS (3.909)
Type	Full floating type						
Capacity	kg 11,500						
Final reduction type	D10H, R175HS: Single Reduction , Hypoid gear						

Front Axle

Type	Reverse Elliot type "I" beam	
Capacity	kg 7,000	

Tire & Wheel

Type	Single Front, Dual Rear	
Tire	Front / Rear 11R22.5-16PR, 295/80R-22.5	

Steering

Type	Ball-nut type with integral hydraulic power booster, Tilt & Telescopic	
Steering Wheel Diameter (mm)	ø470	
Tilting Angle	53 ° ~ 64 °	
Telescopic Stroke (mm)	55	
Turning Angle	Inner / Outer 50 ° / 38 °	

Service Brake

Type	Full air, dual circuit, fixed "S" cam with spring loaded chambers	
Drum diameter	ø410	
Lining size (mm)	Width x Lining thickness	
	Front	156 x 19 (JIS), 200 x 20 (ISO)
	Rear	220 x 19 (JIS), 200 x 20 (ISO)

Parking Brake

Type	Spring loaded type parking brake on the rear wheels	
Size	220 x 19 (JIS), 200 x 20 (ISO)	

Exhaust Brake

Type	Air operated, butterfly valve type	
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Suspension

Type	Air suspension (Rolling lobe type)	
Spring Size	Dimension(mm)	Diameter x Height - EA
	Front	276 x 332 - 2
	Rear	276 x 324 - 4
Stabilizer bar	Front	Torsion bar type
Shock absorber	Hydraulic double acting telescopic type on the front & rear axles	

Air filter

Type	Dry paper element
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Fuel tank

Capacity	420 liter
Material	Steel

Frame

Type	Monocoque	
Main section side rail (HxWxT)	Front	180 x 90 x 3.2 t
	Rear	200 x 80 x 4.5 t

Electrical system Specifications**Electrical Equipments**

Head lamps	MFR Type
Front combination lamps	Turn signal / Hazard / Amber / Position-white
Front fog lamp	White
Rear combination lamps	Turn signal / Hazard-amber, Tail / Stop-red
License plate lamp	White
Back-up lamp	White
Room lamp	Flourescent

Instruments

Meter	Speedometer, Odometer
Gauge	Fuel, Water temperature, Voltage, Oil pressure
Warning lamps & indicators	Main beam, Turn signal, Exhaust brake, Parking brake, Oil pressure, Air pressure, Over heat, Brake air, Lamp failure, Coolant level, Door, Seat belt, ABS, battery
Clock	Analogue clock (STD)
Radio	AM/FM radio, cassette
Horn	Dual flat Electric type

A/con (Option)

Aircon	Type	On the roof
	Capacity (kcal/h)	28,000 / 32,000

Body**Exterior**

Body type	Monocoque	
Windshield glass	Two pieces type with laminated safety glass (One piece type : OPT)	
Windshield Wipers	Electric high & low speed, wiper with intermittent relay and washers operated electrically	
Outside rear view mirror	Deluxe type on both side	
Side glass	Full fixed type with tempered glass	
Rear glass	One section type with tempered glass	
Bumper	Front	SMC (Sheet moulding compound)
	Rear	Center-SMC, Corner-TPO (Plastic)
Door	Front Door	Auto swing
	Mid Door	Auto Swing
Luggage box Capacity(m ³)	1-Door	6.4
	2-Door	5.6

Interior

Driver's Seat	Adjustable up and down & fore-and-after reclining seat formed polyuretane cushion, covered with simulate leather
Passenger's seat	Steel tube framing reclining type with vinyl leather covering
Floor covering	Linoleum mat
Sunvisor	Roll curtain type, left hand side above windshield glass
Shelves	Standard board type

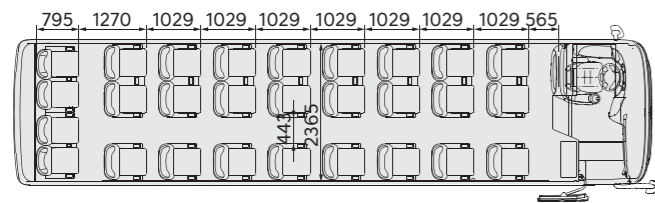
Annotations

- 1) Empty vehicle weight shown are to 3.5% variation to allow for production tolerance.
- 2) Empty vehicle weight includes weight of oil, fuel, coolant and spare tire carrier & bracket, spare tire but exclude standard tool set.
- 3) This vehicle specifications may differ per country.
- 4) For further information please contact the commercial vehicle export teams of HMC.
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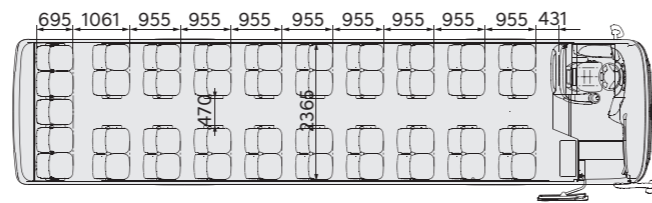
Seat Layout

Express Noble

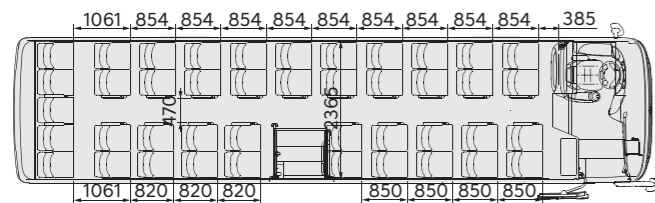
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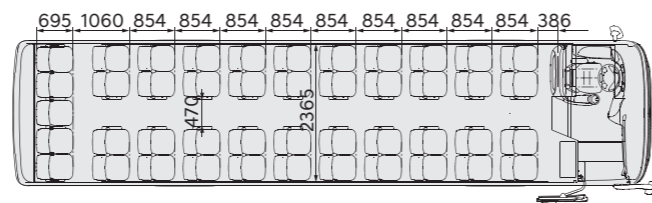
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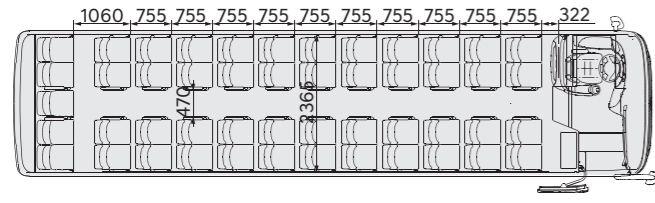
(43+1)



(45+1)



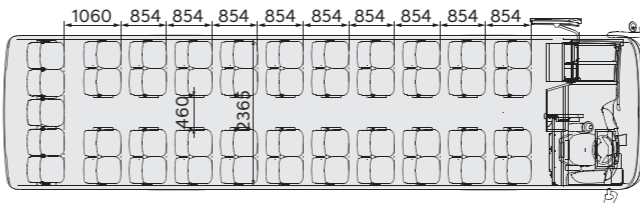
(49+1)



Seat Layout

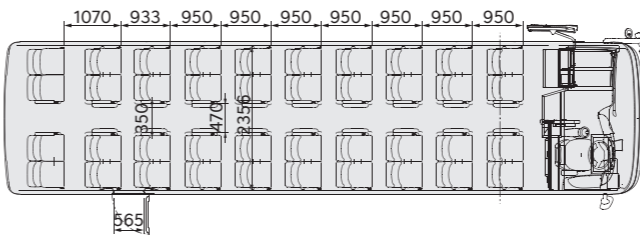
Express Noble RHD (General)

RHD 45+1

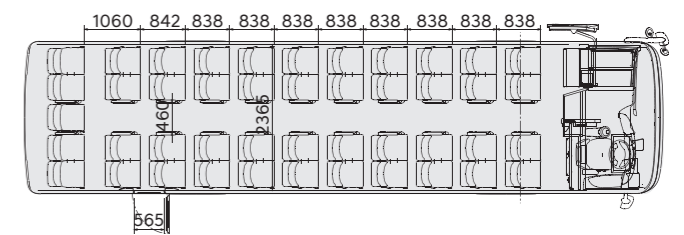


Express Noble RHD (Japan)

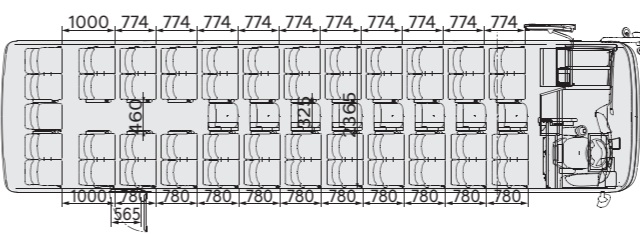
RHD 40+1



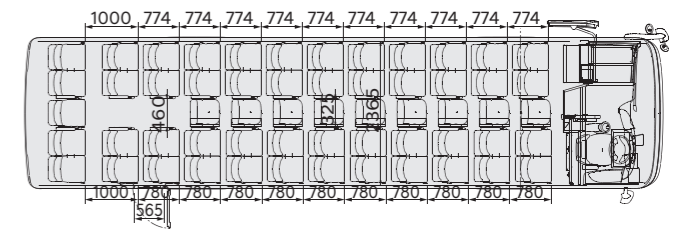
RHD 45+1



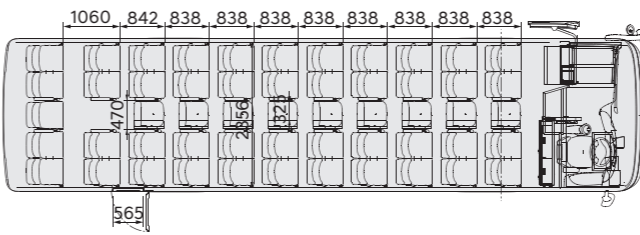
RHD 49+8



RHD 49+9



RHD 54+1



RHD 55+1

