

VIM



Personalized and
Sustainable Mass Transport



100% ELECTRIC | ZERO EMISSION

18 meters EV City Bus

vimautomotive.com





FUTURE IN HAND

Urban cities are now expanding into megacities. With growing passenger numbers and various demand of public transport, VIM developed a new electric bus series—Ecotranzit.

Ecotranzit is the ideal role for future mobility in megacity and the best choice for operators who want to manage zero emission bus fleet and operate high volume route in center areas.



BRAND NEW DESIGN

Ecotranzit, a new product in VIM pedigree, adopts our new family design concept. We always believe that less Design elements, higher efficiency and more convenience will contribute to better appealing. The appearance harmoniously combines the established look of predecessor and concise design language.

The striking front panel and illuminated logo radiates confidence and momentum; The top-mounted battery packages guarantee more space inside. All these details originate from VIM's philosophy.



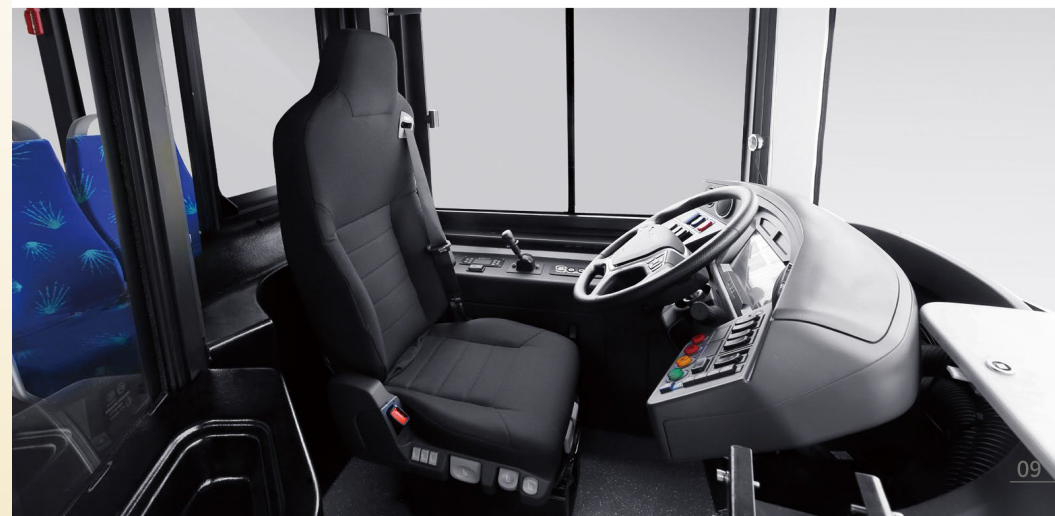




WELCOME ON BOARD

The capacious interior conveys a feeling of comfort. Generously-dimensioned body structure and reasonable layout in the interior offer passenger spaciousness without compromise. The large panoramic windows bring a broad view from inside to scenery outside.

Low floor throughout the bus and facilities for wheel chair users and people with restricted mobility ensures easy boarding and staying. The climate in Ecotranzit shows its flexibility in all seasons. The powerful air conditioner boosts the air circulation and maintain a comfort temperature for passengers. The sidewall-mounted heater also comforts their heart in cold winter days.





360° ON TOUR SOLUTION

As one of the most experienced EV manufacturers in Qatar, VIM not only offers a complete EV product series ranging from 6 Meter to 18 Meter, but also provides all-around care for our customers. We call it 360° ON TOUR SOLUTION. It's a solution for customers who want to operate full electric buses in their business.

Customized product, Lifecycle management, battery solution, charging solution, operation management and after-sales service are all integrated into this solution. There is no need to worry about the full life cycle operation of your electric buses. Further details please contact our professionals.

18 meters EV City Bus Specification

System	Bus Model	Comments
Overall Specification	Model Year	2022 or above 2022
	Body structure	1. Monocoque
		2. Electrophoretic deposition (ED) for body frame
	Floor structure	Low floor
	Min. Daily Operating Mileage	200km
	Average Daily Operating Hours	18-20
	Operating temperature	Up to 55 °C
	Max speed(km/h)	70(limit speed)
	Overall length(mm)	18000
	Overall width(mm)	2550
	Overall height(mm)	3420
	Min. Ground clearance (mm)	130
	Seat capacity	58(passenger seat), 4 (family seat) ,2(flip seat) +1(wheelchair)+1(driver)
	Rated passenger capacity (including driver)	129
	Number of standees	Min. 75
	Max G.V.W(kg)	30,000
	Min. Front Departure (Degree)	6.7
	Min. Rear Departure (Degree)	7
	Minimum diameter of turning circle	26
Min. Grade Capability	13%	
Warranty	Complete vehicle	3 years unlimited mileage
	Motor/Controller	5 years or 500,000 km Whichever comes first
	Battery	8 years or 800,000 km Whichever comes first
	Road signs	10 years

Seq	Item	Standard
1	Drive motor system & electric system	<p>1. Central drive Motor on rear axle, DANA DDM155A permanent magnet synchronous motor, co, with retarder function. Drive motor peak power 350KW, Peak torque 3500N.m Peak rotation speed 3400rpm , IP67</p> <p>2. Storage Battery, lithium iron phosphate battery with Battery Management System (BMS) CATL 542kwh, IP68 , Single cell Cycle life >4000 times at 25 & 0.5C/0.5C & 100%DOD & SOC80% Battery performance Min. 70% after 8 years To display at dashboard & warning for low level Min. 70% after 8 years</p> <p>3. Water cooling system of battery Chiller, AITS brand,</p> <p>4. INOVANCE integrated inverter</p> <p>5. Electric power steering pump</p> <p>6. Electric air compressor</p> <p>7. EU CCS Type 2 socket, dual gun, 200A per gun On both sides at rear end of bus</p> <p>8. Available time for full charging from SOC 20% to 100% by slow charging Max. 240 minutes at depot between 00:00 - 04:00 AM.SOC 20%-100%</p> <p>9. Operating temperature up to 45 °C during the night; up to 55 °C during the day</p>
2	Front axle	ZF low floor front axle
3	Middle axle	ZF low-floor middle axle
4	Rear axle	ZF low-floor rear axle
5	Brake system	Pneumatic double circuit air brake, energy storage spring break, integral disc brake
6	Suspension	Air spring suspension with WABCO ECAS electric lifting system and kneeling system
7	Steering	<p>1. Bosch 8098 Power steering</p> <p>2. Left handle drive</p> <p>3. Adjustable steering wheel (height & tilt)</p>
8	ABS	WABCO EBS
9	Tire	<p>1. Michelin 275/70R22.5 tubeless tire.</p> <p>2. Aluminum Wheel rim ALCOA</p> <p>3. Tire Pressure Monitoring System (TPMS) Internal type</p> <p>4. Front axle with Stainless Wheel cover</p> <p>5. Middle and rear axles are equipped with enclosed and detachable covers. The covers must be beautifully matching with the overall style of the body shape.</p>

10	Articulated system	HUBNER articulated system
11	Chassis automatic lubrication system	Yes
12	CAN	1. ACTIA CAN BUS system 2. All data should be connected with CAN Bus
13	Passenger door	1. 3 Pneumatic inward-swinging door with remote control key & mechanical lock □2 for front cabin, 1 for rear cabin behind the rear axle 2. Anti-pinch passenger doors 3. Door Micro Switch to open & close the front door from outside, can be located inside the fuel tank compartment or inside other nearest compartment
14	Passenger seat	1. 58 seats Kiel brand with hand rest at gangway side, 2+2 layout with E-mark certificate 2. Four Priority & Family seats combination seats in front cabin with partition 4 3. Seat pitch: Min. distance between two seats/seat pitch (mm),680 4. Legroom (mm) Minimum 230mm 5. Seat cushion width (mm) 400 6. Seat overhaul height (mm) 900 7. Min. of 30mm foam thickness at seat bottom & Min. of 25mm foam thickness at back 8. USB charging point on side wall
15	Wheelchair ramp and Parking area	1. Manual wheelchair ramp, not less than 900 (wide) * 700, with yellow surface when pedal is closed, the size of wheelchair area is 1300 * 750, 2. The wheelchair is equipped with a fixing device. 3. The wheelchair area guardrail is fitted with a backrest, height > = 1300, width > = 320, the ground of wheelchair area is yellow, There is a wheelchair sign on it. 4. Two flip the seat in wheelchair area. 5. Two way communication device Communication device between driver and disable passenger.
16	Driver's seat	High backrest shocked adjustable, air suspension, both side armrests black leather, leave seat alarm three-point seat belt with alarm, 6 direction adjustable. CVG Brand, Model; GSX3000 With EU Certificate
17	Driver cabin	1. The rear partition is full bottom half with an Aluminum composite panel and top with transparent glass. The driver's right side is a swivel door with an Aluminum composite panel and top with transparent glass with some holes. Plus on the sidebar another glass closes the gap. This model is much lesser cost and is with Aluminum composite panel and top with transparent glass doable. 2. Wrings for automatic fare collection system
18	Step	1. Step area yellow warning. 2. All steps edge with yellow warning bar. 3. Steps with no standing area printed
19	Side window	1. Glued sealing side window glass, Double glazed tinted glass. 2. Front door glass and driver side window white glass 3. Emergency hammer 10 units
20	Interior	1. Luxury A/C trimming, aluminum air duct with LED lighting 2. Aluminum alloy handrail and guardrail with hanging rings 3. Aluminum composite for the side wall and ceiling
21	Floor	Gerflor France 8805 floor leather city bus design with no standing area printed

23	Safety system	<ol style="list-style-type: none"> 1. Electric Leakage monitoring & protection Live monitoring & connected with CAN Bus 2. Electric shock protection for Entire bus 3. Over charging protection
24	Fan/ A/C	<ol style="list-style-type: none"> 1. NTC Roof mounted A/C, front cabin EMD12(26KW), EMD08(18KW) for rear cabin 2. Dual module A/C system Separate control for driver 3. Remote on-off control
25	Heating system	For driver & passenger
26	Defroster	Defroster
27	Interior lighting	top lamp and step light on the top of the passenger door
28	Exterior lighting	<ol style="list-style-type: none"> 1. All lights at front & rear of the bus shall be LED 2. Rear top position brake lam round two units 3. Daytime Running Lamp 4. Front Fog lamps 5. All lights shall be divided exclude the rear combination lamp
29	Rearview mirror	Luxury electric rearview mirror
30	Emergency exit	None
31	Clock	3 Digital clock with thermometer
32	Sunshade	Electric sun visor front windshield
33	Curtain	NO
34	Road signs	<ol style="list-style-type: none"> 1. Thongda destination boards LED, 4 color changeable, pixel 24X24 as below with 10 years warranty 2. Front within windshield -1. Right Side unit front CABIN -1, Right Side unit rear Cabin-1, Rear within windshield -1, Front right side near driver cabin 3. Front wagon -1 and rear wagon-1 for display of next bus station with announcement of next bus station
35	Passenger Announcement (PA) System	Compact type mic for the driver and multiple speakers inside the bus
36	Monitor	One 10.1-inch colorful reversing monitor with monitoring function & distance radar with buzzer
37	CCTV	Front rear wagon cctv cameras with DVR holding continuous recording of 48 hours. 8 channel Driver and entrance door, Front road surveillance view ,Passenger area view, Exterior bus right side view , Back door view
38	WIFI	Wifi routers with mobile antenna preferably router capable of configuration of bandwidth to prevent video downloads and automatic disconnect after set time, Similar to Airport WiFi
39	TV system with HD player	Front and rear wagon 2 TV screens with 1T HD player installed with instrument panel
40	Advanced Driver Assistance Systems, hazard detection etc.	360 panoramic view system with electronic mirror

41	Pre-set wiring and mounting stands	Buyer should provide the installation place within 5 days after signing the contract. 1. Driver on-board control unit (OBU) 2. Ticketing system validators at all doors 3. Ethernet switch 4. Passenger counting devices (at all doors)
42	Side view mirrors, driver assistance system	Mobileye ADAS system Mobileye ADAS FC, HMW, TSR, PCW, LDW, IHC
43	Fire Extinguisher	1. Three automatic fire extinguishers in rear motor compartment 2. Every battery has also one extinguisher pipeline. 3. all high voltage area fire extinguishers 4. High temperature warning Temperature detection system with warning for all high voltage area 5. CAN connection for Fire Suppression System Fire Suppression System shall be connected with CAN Bus 6. Four units 5KG dry powder fire extinguishers,
44	Disinfection device	Yes
45	Paints	Metallic painting As per customer's requirement . Buyer should provide the drawings within 5 days after signing the contract.
46	Insulation for fire, noise & vibration	As per EU regulations
47	Safety	The planning and technical detail of the following items to be confirmed. 1. Multi-protection BMS system; High precision and high real-time core voltage and temperature detection 2. 24h monitoring function, which monitors battery safety status in real-time 3. Big data analysis based on the cloud platform, which can automatically push abnormal data; 4. Highly reliable insulation detection function, which monitors insulation state of high voltage system in real-time;
48	Telematics	The planning and technical detail of the following items to be confirmed. To realize Real-time monitoring, Track Review, Charger Monitoring, Fault monitoring, Vehicle fault query, charging unit defect, Energy report by period, Energy report by comparison, Parts consumption, SOC curve, Vehicle charging record, Vehicle battery report, Vehicle maintenance table, Operation report and so on

Technical Specification &
Perspective View







Product of
ecotranzit