LIFT VINE ELEVATORS LTD

TECHNICAL SPECIFICATION SHEET: SUMASA & ASILLER MRL PASSENGER LIFTS

Document Ref: LV-SPEC-MRL-2026 | **Applicable Standards:** EN 81-20:2020 / EN 81-50:2020 / CE Mark | **Authorized Partner:** SUMASA (Spain) & ASILLER (Turkey)

1. General Mechanical & Electrical Specifications

Parameter	450 kg (6 Persons)	630 kg (8 Persons)	1,000 kg (13 Persons)	1,600 kg (Bed Lift)
Drive System	Gearless PMSM (2:1)	Gearless PMSM (2:1)	Gearless PMSM (2:1)	Gearless PMSM (2:1/4:1)
Machine Location	Inside Shaft (Headroom)	Inside Shaft (Headroom)	Inside Shaft (Headroom)	Inside Shaft / Chassis
Rated Speed	1.0 m/s	1.0 – 1.6 m/s	1.6 – 2.0 m/s	1.0 – 1.6 m/s
Max Travel	Up to 45m (15 Stops)	Up to 60m (20 Stops)	Up to 90m (30 Stops)	Up to 60m (20 Stops)
Motor Power (kW)	4.8 kW	6.7 kW	9.5 kW	15.0 kW
Power Supply	400V 3-Phase, 50Hz	400V 3-Phase, 50Hz	400V 3-Phase, 50Hz	400V 3-Phase, 50Hz
AVR Tolerance	370V – 440V AC	370V – 440V AC	370V – 440V AC	370V – 440V AC
Blackout ARD	Standard (Battery)	Standard (Battery)	Standard (Battery)	Standard (Battery)
Landing Doors	EN 81-58 E120 (Integrity)	EN 81-58 E120 (Integrity)	EN 81-58 E120 (Integrity)	EN 81-58 E120 / EI60

2. Architectural Shaft & Civil Dimensions (EN 81-20 Standard)

Model Capacity	Cabin Internal (W x D x H)	Clear Shaft Inside (W x D)	Min Pit Depth	Min Overhead (Headroom)
450 kg (6 Persons)	1,000 x 1,250 x 2,200 mm	1,600 x 1,650 mm	1,100 mm	3,450 mm
630 kg (8 Persons)	1,100 x 1,400 x 2,200 mm	1,750 x 1,800 mm	1,150 mm	3,500 mm
1,000 kg (13 Persons)	1,100 x 2,100 x 2,300 mm	1,800 x 2,500 mm	1,250 mm	3,600 mm
1,600 kg (Bed Lift)	1,400 x 2,400 x 2,300 mm	2,250 x 2,850 mm	1,400 mm	3,800 mm

3. Nigerian Grid & Infrastructure Adaptations

Automatic Rescue Device (ARD): In the event of grid failure, battery-powered ARD levels the car to the nearest floor and opens doors within 30 to 60 seconds.

Wide-Input AVR Voltage Ride-Through: Three-phase inverter profile operates down to 370V line-to-line AC without undervoltage fault lockouts. Motor PTC thermistors protect windings against prolonged thermal rise.

Coastal Corrosion Protection: Sills and car frames utilize SUS 304 or optional SUS 316 marine-grade stainless steel to resist Atlantic salt spray in Lekki, Victoria Island, and Port Harcourt.

ENGINEERING DISCLAIMER: *Dimensions and ratings shown are preliminary reference values for architectural planning. Final shaft dimensions, structural lintel beam reaction forces, and pit waterproofing details must be confirmed by Lift Vine Elevators project engineering before casting concrete. Certified CAD shop drawings are issued upon contract execution.*