



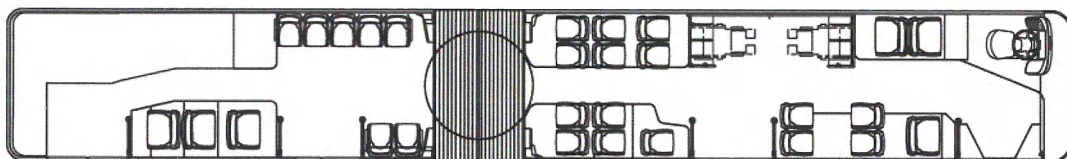
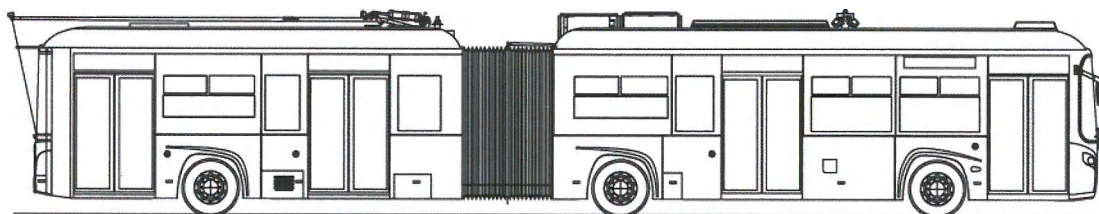
AVANCITY+^{HTB}

AVANCITY+ S HTB is a trolleybus based on Skoda electrical traction system with independent running mode provided by a diesel auxiliary power unit allowing equivalent performance either on electric mode or on sections not covered by wire. The trolleybus design does not differ from that of AVANCITY+ S bus, the only visible difference concerns the assemblies on the roof. The roof unit can also include supercapacitors modules capable of storing most of energy generated during braking. The stored energy is returned to the traction motor during acceleration, both in electric mode or autonomous running with a better efficiency in electricity and fuel consumption.

	AVANCITY+ HTB		
	4 doors		
PASSENGERS (standard)			
Seated	28	28	28
Standing	105	111	118
Wheelchair	2	--	--
Folding seats	--	4	--
Driver	1	1	1
TOTAL	136	144	147

MAIN DIMENSIONS (mm)

	AVANCITY+ HTB
Maximum length (trolley lifted)	17.825
Maximum width	2.525
Maximum height (with trolley)	3.400
Corridor width front / central / rear	895 / 614 / 544
Minimum height from ground	150
Wheelbase front / rear	5.315 / 6.850
Overhang front / rear	2.688 / 2.972
Turning diameter (ext. wheel)	21.161
Entrance step height	325
Dry weight with driver	20.100 Kg



04/2011



TRACTION EQUIPMENTS

- Traction motor 3 phase asynchronous Skoda Electric, 260 kW, air cooled
- Inverter 1 for auxiliary services, 1 for battery recharger 24 V and 1 for electric traction, located in the roof unit
- Supercapacitors n. 10 modules on the roof with specific inverter

INDEPENDENT MARCH EQUIPMENT

- Diesel engine MAN D0836 LOH 64 at 6 cylinders, EURO 5 with EGR system
- Diesel engine power 213 kW at 2.300 rpm
- Generator LECHMOTOREN SDPW46, synchronous permanent magnets
- Input voltage 750 V DC
- Power 175 kW at 2.300 rpm

CURRENT-COLLECTING SYSTEM (TROLLEY)

The system LEKOV consists in 2 trolley poles with frameworks, control box, retainer hooks and cable winches. The system enables automatic emergency lowering in case of de-wiring.

PERFORMANCES

Maximum speed: 70 km/h with trolley and with diesel engine.

FRONT AND REAR AXLE - TYRES

VOITH Independent front axle with direction single tyres. Power steering ZF 8098. Steering wheel adjustable in inclination and height. Central and rear axle with twin tyres, inverted portal axle GRAZIANO TRASMISSIONI BRA 132 DISC and BRA 132 DC 90. Maximum load 13.000 kg. Tyres 275/70 R 22,5 rims ISO 7,5"x22,5", M connection.

STRUCTURE

Bodywork made of high resistance steel profiles electrically welded forming an integrated structure.

SUSPENSIONS

Fully pneumatic with air springs.

Front: n. 2 air springs and n. 2 hydraulic shock absorbers.

Central and rear: n. 4 air springs, n. 4 hydraulic shock absorbers, central and rear antirolling bar.

The suspension trim is provided by automatic sensors through an electronic control unit ECAS. Side kneeling system (70 mm) with vehicle stop when doors opened. Chassis rising and lowering device.

BRAKES

Service brakes: disc pneumatically activated on the 3 axles with independent circuits and ABS/ASR.

Emergency brake: obtained by sectioning of the service brake.

Parking brake: mechanic pneumatically activated on the rear axle.

Retarder: rheostatic type activated by brake pedal.

PNEUMATIC SYSTEM

Screw compressor ATMOS. Air dryer WABCO with anti frozen device and automatic condensate drainage system.

Aluminium air tanks with manual centralized condensate drainage.

N. 2 press-block plug for air refilling from outside, on the left side. Polyamides piping.

ELECTRICAL SYSTEM

Multiplex type 24 V with electronic units I/O + graphic display, electric panel PCB technology (Printed Circuit Board), protection by thermal switches and check of associated devices. N. 2 batteries low maintenance 12 V 220 Ah.

Nominal voltage: 24 V, regular operating range of equipments 18-32 V.

The electrical system includes the "emergency central command", circuits main switch and current electrical switch.

ELECTRIC INSULATION MONITORING SYSTEM

It gives optic-acoustic warning on the dashboard. In case of emergency it provides the electrical line switch opening and the automatic poles lowering.

DIAGNOSTIC AND INFORMATION SYSTEM

DIS is a system that allows to record, extract, store and analyze information and data related to the trolleybus running.

DOORS AND WINDOWS

N. 4 doors electrically activated with antitrap device and safety border. The first is inward swinging, the others are sliding. Curved front windscreen. Side windows glued to the structure with upper part sliding horizontally.

FUEL TANK

Capacity 220 litres, located in the front carbody on the right side.

Subject to technical modifications and amendments



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