

## NEW BUSES for BIG CITIES



*Project “New appearance of the city”*

Based on the buses **CityLAZ 10**, **CityLAZ 12** , **CityLAZ 13,5** & **CityLAZ 20**

December 2009

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## Structure of LAZ

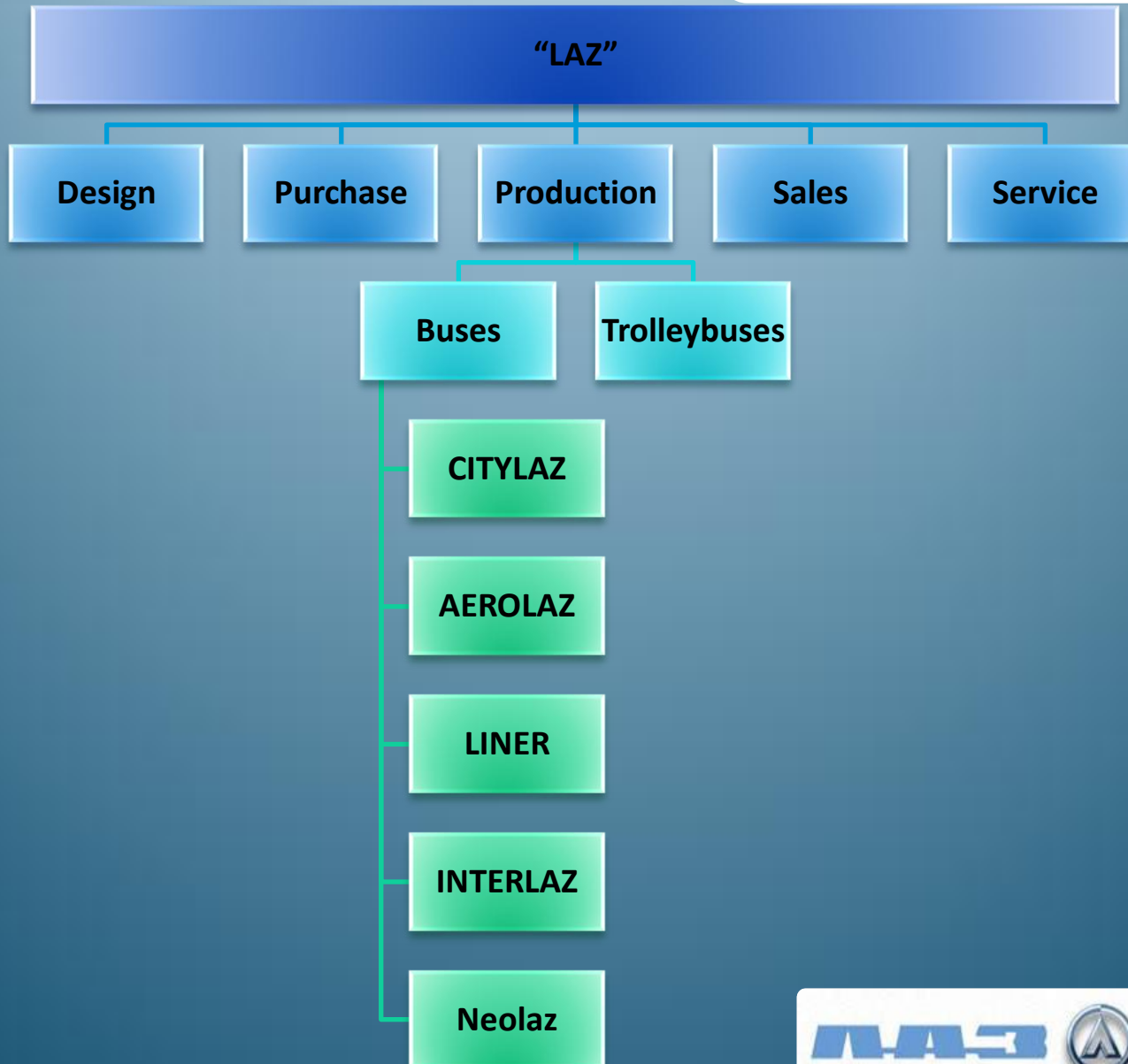
CityLAZ-10, CityLAZ-12, CityLAZ-13,5 & CityLAZ-20 general data:

- Exterior design and Technical Information
- Interior

LAZ buses at the international exhibitions

LAZ buses in Europe

# LAZ Structure



# Meet: *CityLAZ-10*



- Noiseless
- Environmentally friendly ( Engine Deutz & MAN, EEV)
- Low entry
- Passenger's capacity – 89, including 26-35 seats
- Length: 10 m.
- Axles, transmission & steering: ZF
- Maximum speed 100 km/h



# Meet: *CityLAZ-12*



- Noiseless
- Environmentally friendly ( Engine Deutz & MAN, EEV)
- 100% low floor or low entry
- Passenger's capacity – 100, including 28-46 seats
- Length: 12 m.
- Axles, transmission & steering: ZF
- Maximum speed 100 km/h

# Meet: *CityLAZ-13,5*



- Noiseless
- Environmentally friendly ( Engine Deutz & MAN, EEV)
- Low entry
- Passenger's capacity – 110, including 52 seats
- Length: 13,5 m.
- Axles, transmission & steering: ZF
- Maximum speed 100 km/h

# Meet: *CityLAZ-20*



- Noiseless
- Environmentally friendly ( Engine Deutz & MAN, EEV)
- 100% low floor
- Passenger's capacity – 210, including 47 seats
- Length: 18,8 m.
- Axles, transmission & steering: ZF
- Maximum speed 100 km/h



## Exterior details



## Exterior design

- **Big windows** create atmosphere of esthetical pleasure during the bus movement
- **Big panoramic windshield** and spherical mirrors provide full situation control on the road
- **Low floor.** Due to low entry and door opening the time for drop-on and drop-off of the passengers will be reduced by **40 %**
- The bus has **special equipment (entrance ramp)** for children's prams and wheel-chairs for disabled people
- **The pneumatic suspension** absorbs all road's defects and provides smooth movement of the bus



## Exterior Design, CityLAZ-10



## Exterior Design, CityLAZ-12





## Exterior Design, CityLAZ-13,5

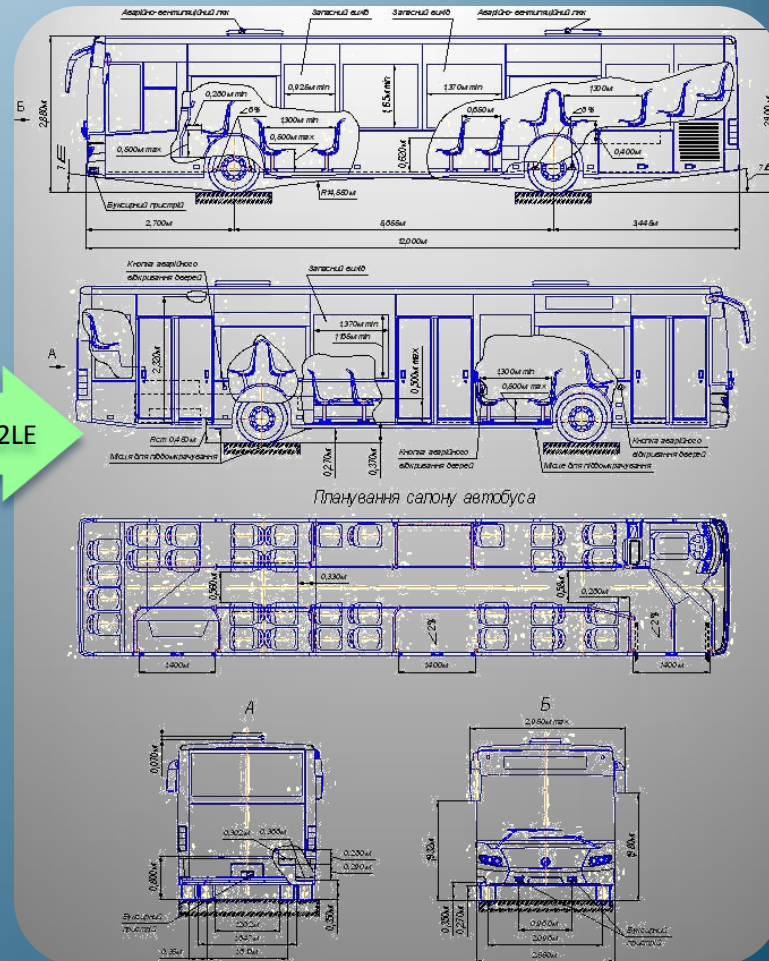


## Exterior Design, CityLAZ-20





## CityLAZ-12LE





# Technical Information

City LAZ 12 & City LAZ 12LE


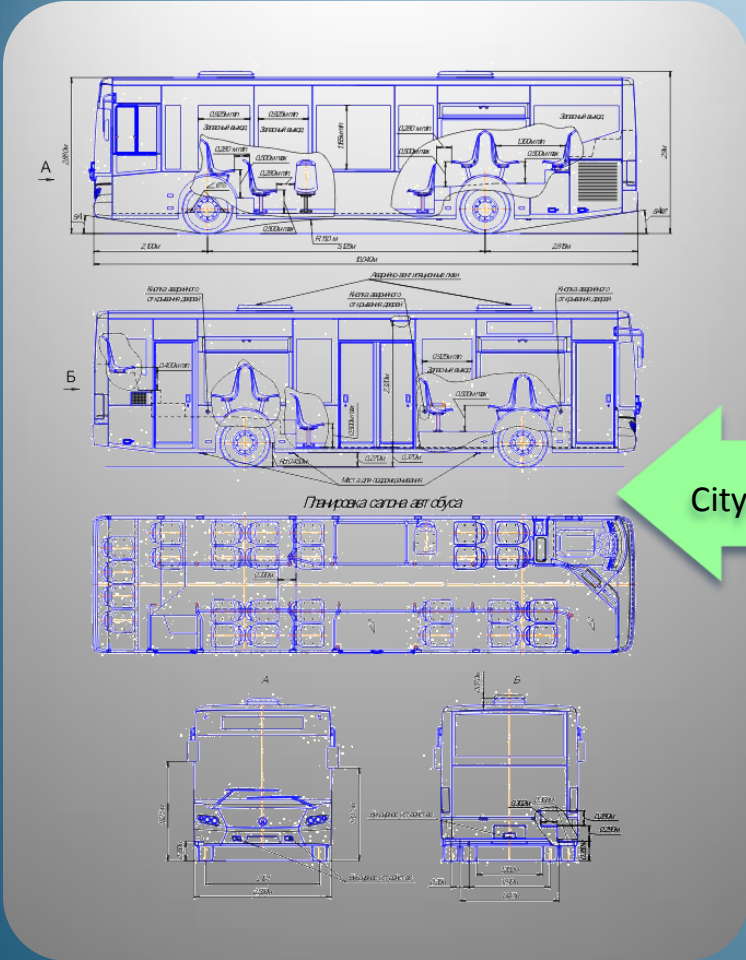
length / width / height	12,00 / 2,55 / 3,06
Floor level height	0,35 m
Doors	2-2-2
Passengers capacity	100
Quantity of seats	28-46
Weight of bus, kg:	laden mass 11200 gross 18000
Engine/Capacity, kWt (h.p.)	DEUTZ, TCD2013LO6 4V (Euro 5) 213 (290) MAN D0836 LOH64 (Euro5) 213 (290)
Fuel system	BOSCH PFM 1 P 005
Transmission	ZF ECOMAT 6HP 502
Suspension front/rear	WABCO, dependent pneumatic
Front axle	ZF RL-85A
Rear axle	ZF AV-132/80
Brake system	WABCO, double-circuit, with pneumatic drive and drum/disc mechanisms, ABS/ASR
Secondary brake system	ZF intarder, engine brake
Tires	295/80R22.5
Steering	ZF Servocom 8098 with hydrobooster
Steering column	with regulation of height and wheel position angle
Driver's working place	equipped with the monitor for displaying information about bus systems
Driver's seat	on the pneumatic suspension, regulated, with head-rest and safety-belt
Passengers' seats	semisoft, with fabric basis on steel carcass
Windshield	safe, hardened, glued, tinted
Lateral windows' glasses	safe, hardened, glued, tinted
Ventilation	natural through roof hatches and quarter lights of lateral windows, forced - through roof fans
Electrical equipment	24 V
Heating	liquid, independent heater 30 kWt, engine start heating
Climate control	air-conditioner (climate control), liquid heating by convectors using the heat of engine cooling system and additional heater 24 kWt
Body	galvanized, wagon type, engine compartment door and baggage compartment doors are made of aluminium, wing arches are made of
Internal illumination	general, individual, driver's workplace, night - floor and steps
Additional equipment	ramp for wheel-chairs, space for wheel-chairs
Options	electronic route indicators, air-conditioner, climate-control, tachograph, double-glazing, driver's partition-wall, video system, kneeling system
Fuel consumption	24
Maximum speed, km/h	100

CityLAZ-12

CityLAZ-12LE

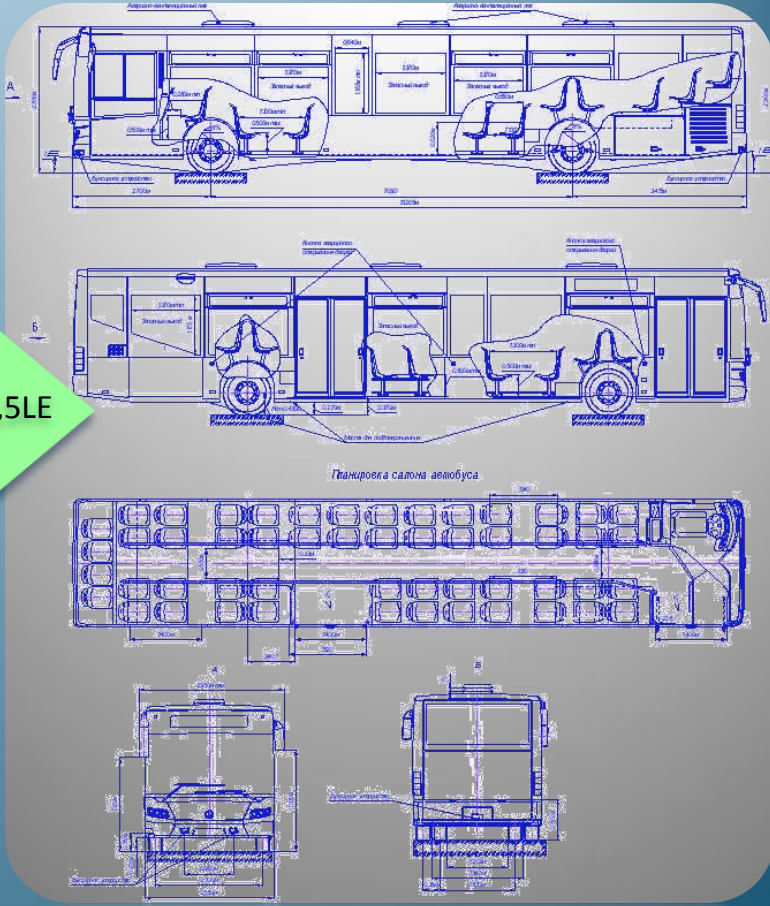


## Technical Information









CityLAZ-10LE

CityLAZ-13,5LE










# Technical Information

## City LAZ 10LE








length / width / height	10,04/ 2,55 / 3,06
Floor level height	0,35 m
Doors	1-2-1
Passengers capacity	89
Quantity of seats	27
Weight of bus, kg:	laden mass 9150 gross 15480
Engine/Capacity, kWt (h.p.)	DEUTZ, TCD2013LO4 4V (Euro 5) 161 (219) 
Fuel system	BOSCH PFM 1 P 005
Transmission	Mechanical, ZF 5S 700 with teleflex pneumatic booster 
Suspension front/rear	WABCO, dependent pneumatic
Front axle	ZF RL-85A 
Rear axle	ZF AV-132/80 
Brake system	WABCO, double-circuit, with pneumatic drive and drum/disc mechanisms, ABS/ASR 
Secondary brake system	ZF Intarder, engine brake
Tires	295/80R22.5
Steering	ZF Servocom 8098 with hydrobooster 
Steering column	with regulation of height and wheel position angle
Driver's working place	equipped with the monitor for displaying information about bus systems
Driver's seat	on the pneumatic suspension, regulated, with head-rest and safety-belt
Passengers' seats	semisoft, with fabric basis on steel carcass
Windshield	safe, hardened, glued, tinted
Lateral windows' glasses	safe, hardened, glued, tinted
Ventilation	natural through roof hatches and quarter lights of lateral windows, forced - through roof fans
Electrical equipment	24 V
Heating	liquid, independent heater 30 kWt, engine start heating
Climate control	air-conditioner (climate control), liquid heating by convectors using the heat of engine cooling system and additional heater 24 kWt
Body	galvanized, wagon type, engine compartment door and baggage compartment doors are made of aluminium, wing arches are made of
Internal illumination	general, individual, driver's workplace, night - floor and steps
Additional equipment	ramp for wheel-chairs, space for wheel-chairs
Options	electronic route indicators, air-conditioner, climate-control, tachograph, double-glazing, driver's partition-wall, video system, kneeling system
Fuel consumption	25
Maximum speed, km/h	100

## City LAZ 13,5LE

length / width / height	13,20 / 2,55 / 3,06
Floor level height	0,35 m
Doors	2-2-0
Passengers capacity	110
Quantity of seats	52
Weight of bus, kg:	laden mass 11200 gross 18000
Engine/Capacity, kWt (h.p.)	DEUTZ, TCD2013LO6 4V (Euro 5) 213 (290)   MAN D0836 LOH64 (Euro5) 213 (290)
Fuel system	BOSCH PFM 1 P 005
Transmission	ZF ECOMAT 6HP 502 
Suspension front/rear	WABCO, dependent pneumatic
Front axle	ZF RL-85A 
Rear axle	ZF AV-132/80 
Brake system	WABCO, double-circuit, with pneumatic drive and drum/disc mechanisms, ABS/ASR 
Secondary brake system	ZF Intarder, engine brake
Tires	295/80R22.5
Steering	ZF Servocom 8098 with hydrobooster 
Steering column	with regulation of height and wheel position angle
Driver's working place	equipped with the monitor for displaying information about bus systems
Driver's seat	on the pneumatic suspension, regulated, with head-rest and safety-belt
Passengers' seats	semisoft, with fabric basis on steel carcass
Windshield	safe, hardened, glued, tinted
Lateral windows' glasses	safe, hardened, glued, tinted
Ventilation	natural through roof hatches and quarter lights of lateral windows, forced - through roof fans
Electrical equipment	24 V
Heating	liquid, independent heater 30 kWt, engine start heating
Climate control	air-conditioner (climate control), liquid heating by convectors using the heat of engine cooling system and additional heater 24 kWt
Body	galvanized, wagon type, engine compartment door and baggage compartment doors are made of aluminium, wing arches are made of
Internal illumination	general, individual, driver's workplace, night - floor and steps
Additional equipment	ramp for wheel-chairs, space for wheel-chairs
Options	electronic route indicators, air-conditioner, climate-control, tachograph, double-glazing, driver's partition-wall, video system, kneeling system
Fuel consumption	25
Maximum speed, km/h	100

CityLAZ-10LE

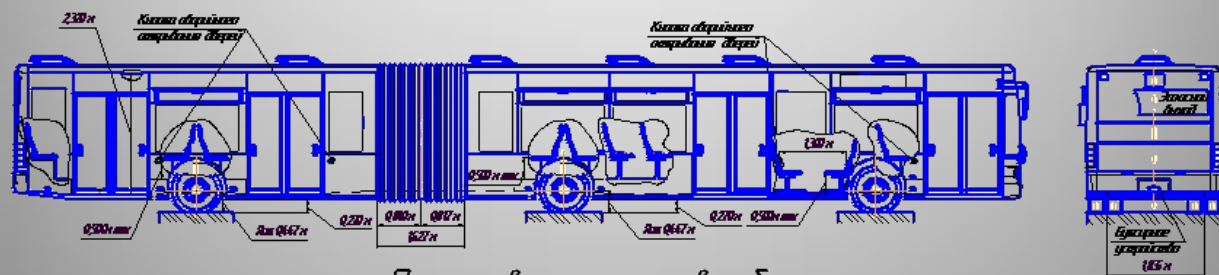
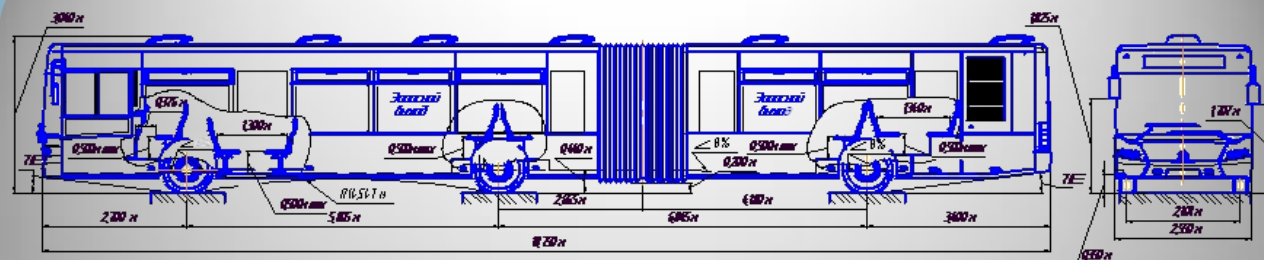
CityLAZ-13,5LE

Maximum speed, km/h	100
Fuel consumption	25
Quantity of seats	52
Passengers capacity	110
Weight of bus, kg:	laden mass 11200 gross 18000
Engine/Capacity, kWt (h.p.)	DEUTZ, TCD2013LO6 4V (Euro 5) 213 (290)   MAN D0836 LOH64 (Euro5) 213 (290)
Fuel system	BOSCH PFM 1 P 005
Transmission	ZF ECOMAT 6HP 502 
Suspension front/rear	WABCO, dependent pneumatic
Front axle	ZF RL-85A 
Rear axle	ZF AV-132/80 
Brake system	WABCO, double-circuit, with pneumatic drive and drum/disc mechanisms, ABS/ASR 
Secondary brake system	ZF Intarder, engine brake
Tires	295/80R22.5
Steering	ZF Servocom 8098 with hydrobooster 
Steering column	with regulation of height and wheel position angle
Driver's working place	equipped with the monitor for displaying information about bus systems
Driver's seat	on the pneumatic suspension, regulated, with head-rest and safety-belt
Passengers' seats	semisoft, with fabric basis on steel carcass
Windshield	safe, hardened, glued, tinted
Lateral windows' glasses	safe, hardened, glued, tinted
Ventilation	natural through roof hatches and quarter lights of lateral windows, forced - through roof fans
Electrical equipment	24 V
Heating	liquid, independent heater 30 kWt, engine start heating
Climate control	air-conditioner (climate control), liquid heating by convectors using the heat of engine cooling system and additional heater 24 kWt
Body	galvanized, wagon type, engine compartment door and baggage compartment doors are made of aluminium, wing arches are made of
Internal illumination	general, individual, driver's workplace, night - floor and steps
Additional equipment	ramp for wheel-chairs, space for wheel-chairs
Options	electronic route indicators, air-conditioner, climate-control, tachograph, double-glazing, driver's partition-wall, video system, kneeling system
Fuel consumption	25
Maximum speed, km/h	100

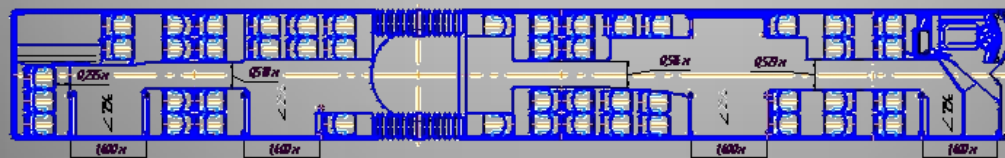


# Technical Information

CityLAZ-20



Планировка салона автобуса



# Technical Information

## City LAZ 20

length / width / height	18,750 / 2,55 / 3,06
Floor level height	0,35 m
Doors	2-2-2-2
Passengers capacity	210
Quantity of seats	47
Weight of bus, kg:	laden mass 16500 gross 29000
Engine/Capacity, kWt (h.p.)	DEUTZ, TCD2013LO6 4V (Euro 5) 213 (290) MAN D0836 LOH64 (Euro5) 213 (290)
Fuel system	BOSCH PFM 1 P 005
Transmission	ZF ECOMAT 6HP 502
Suspension front/rear	WABCO, dependent pneumatic
Front axle	ZF RL-85A
Rear axle	ZF AV-132/80
Brake system	WABCO, double-circuit, with pneumatic drive and drum/disc mechanisms, ABS/ASR
Secondary brake system	ZF intarder, engine brake
Tires	295/80R22.5
Steering	ZF Servocom 8098 with hydrobooster
Steering column	with regulation of height and wheel position angle
Driver's working place	equipped with the monitor for displaying information about bus systems
Driver's seat	on the pneumatic suspension, regulated, with head-rest and safety-belt
Passengers' seats	semisoft, with fabric basis on steel carcass
Windshield	safe, hardened, glued, tinted
Lateral windows' glasses	safe, hardened, glued, tinted
Ventilation	natural through roof hatches and quarter lights of lateral windows, forced - through roof fans
Electrical equipment	24 V
Heating	liquid, independent heater 30 kWt, engine start heating
Climate control	air-conditioner (climate control), liquid heating by convectors using the heat of engine cooling system and additional heater 24 kWt
Body	galvanized, wagon type, engine compartment door and baggage compartment doors are made of aluminium, wing arches are made of
Internal illumination	general, individual, driver's workplace, night - floor and steps
Additional equipment	ramp for wheel-chairs, space for wheel-chairs
Options	electronic route indicators, air-conditioner, climate-control, tachograph, double-glazing, driver's partition-wall, video system, kneeling system
Fuel consumption	30
Maximum speed, km/h	100

CityLAZ-20





# Interior



MAZ  LAZ

# Interior (design)

All range of LAZ city buses has big spacious passenger's compartment

The spacious passenger's compartment with low floor along the full length

The ventilation in the passenger's compartment is provided by cooling-heating climate-control system & window vents and additional roof hatches

Comfortably arranged ergonomic seats are covered with antiwear and antivandalic fabric

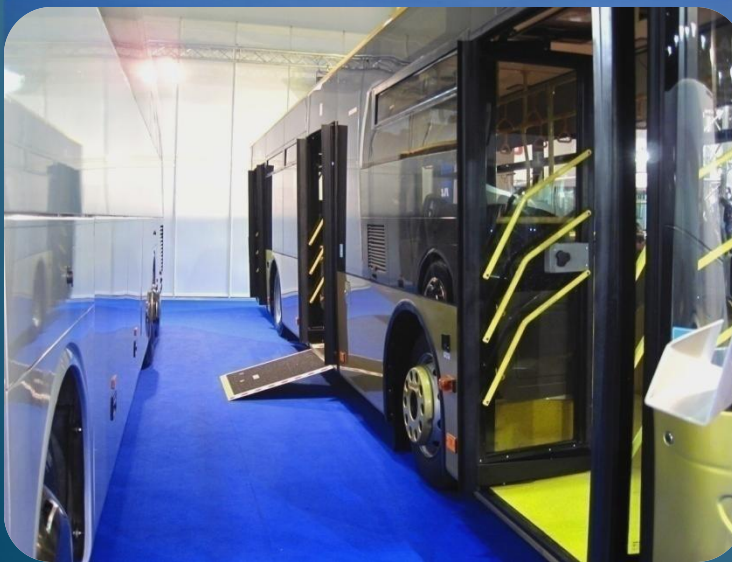


# Interior



# General Information

## LAZ buses at the international exhibitions





# General Information

## LAZ buses in Europe

LAZ buses are successfully operated in deferent European countries







**Thank You For Attention!**