

lighTram[®] Plug

More space. More capacity. Service contracts.



Electric buses *unlike any other*



Best-in-class vehicles

As operators the world over seek the very best electrical-powered vehicles to modernise their public transport fleets, our lighTram® bus range offers unparalleled advantages than any other vehicle in its class.



HESS: Pioneers in electric vehicles

Our experience in electric vehicles used for public transport is vast and unique. Founded in 1882, the first electrical bus left the company in 1940. In eight decades we have become known as pioneers for electrical buses.



More Space and Capacity

The lighTram® electric bus family from HESS is consistently designed for maximum transport capacities. The entire ground space of the passenger compartment can be used, and component towers are not required.

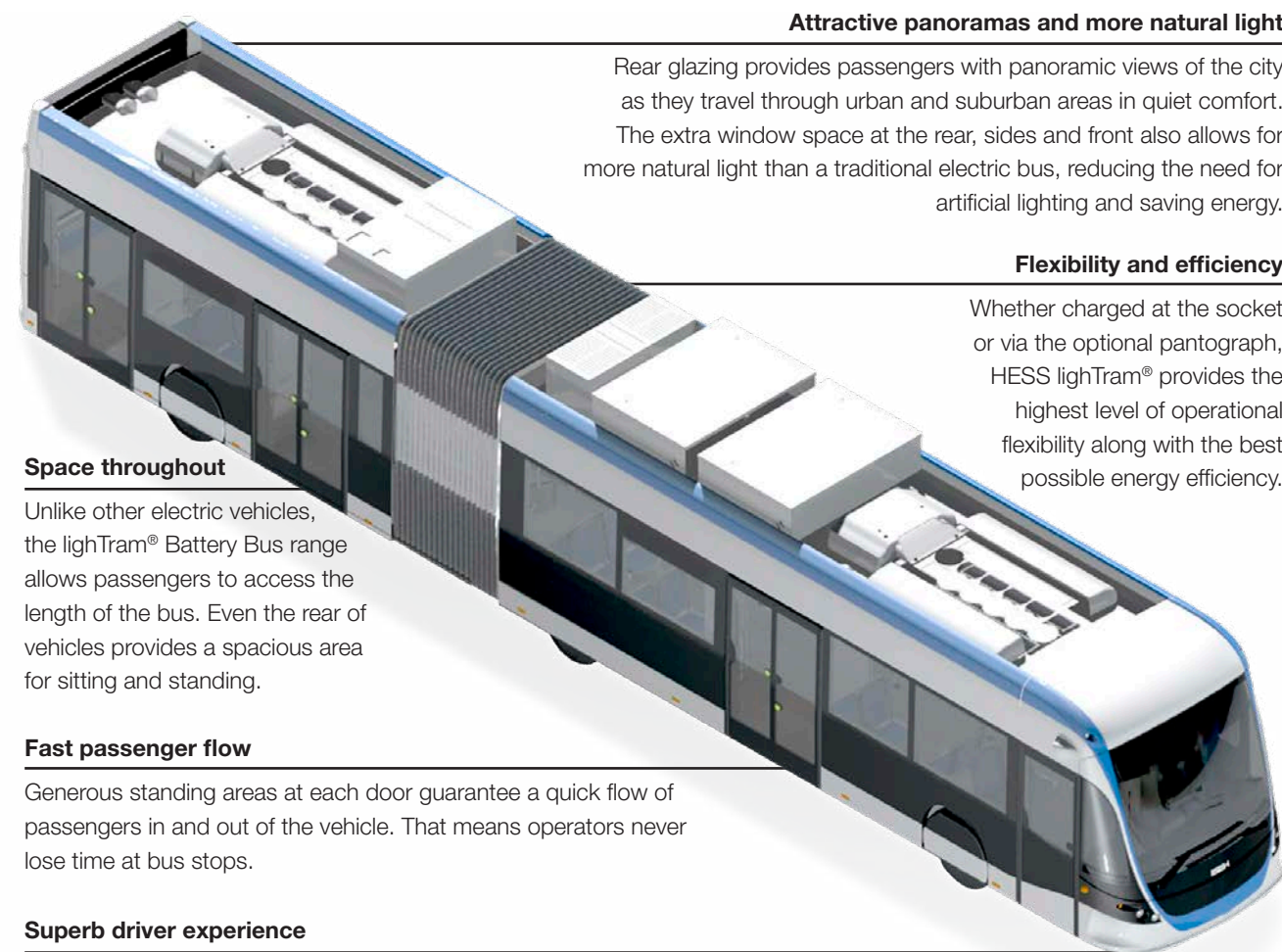




A vehicle that feels good to travel on

The lighTram® Plug Battery Bus has been designed for the needs of modern commuters and drivers. It offers:

Light filled interiors, timeless attractive styling and panoramic rear window to take in the sights.



Attractive panoramas and more natural light

Rear glazing provides passengers with panoramic views of the city as they travel through urban and suburban areas in quiet comfort. The extra window space at the rear, sides and front also allows for more natural light than a traditional electric bus, reducing the need for artificial lighting and saving energy.

Flexibility and efficiency

Whether charged at the socket or via the optional pantograph, HESS lighTram® provides the highest level of operational flexibility along with the best possible energy efficiency.

Space throughout

Unlike other electric vehicles, the lighTram® Battery Bus range allows passengers to access the length of the bus. Even the rear of vehicles provides a spacious area for sitting and standing.

Fast passenger flow

Generous standing areas at each door guarantee a quick flow of passengers in and out of the vehicle. That means operators never lose time at bus stops.

Superb driver experience

Spacious cockpit with great vision and adjustable temperature control. Option for state-of-the-art rear view cameras.

Generous space



Passenger flow



Spacious comfort



Capacity



Prams



Wheelchairs



Optimal conditions for the driver

In the spacious cockpit the driver sits in the same position as in other public service buses and has a much better all-round vision, which can be optionally supplemented with state-of-the-art rear-view mirror cameras. An individually adjustable temperature and air regulation supports these ideal driving conditions.



Digital technology - the key to maximum autonomy and lowest costs

Technology and engineering excellence have been the mainstays of our manufacturing success for more than half a century. In the 21st century, a third element enables us to continue building world-class vehicles: data.



Energy Management

All HESS lighTram® Plug Battery Buses offer on-board data management systems which permanently control and optimise the way the vehicle uses energy.

Energy Management Plus

The self learning energy system allows the vehicle to harness data relating to a vehicle's specific route.

As the vehicle continues to travel on a line, the energy management plus uses its predictive computational power to optimise energy consumption and extend on-battery travel.

Optional parameterisation – available both prior to delivery or after purchase – adds an extra layer of robustness and sophistication to the system.

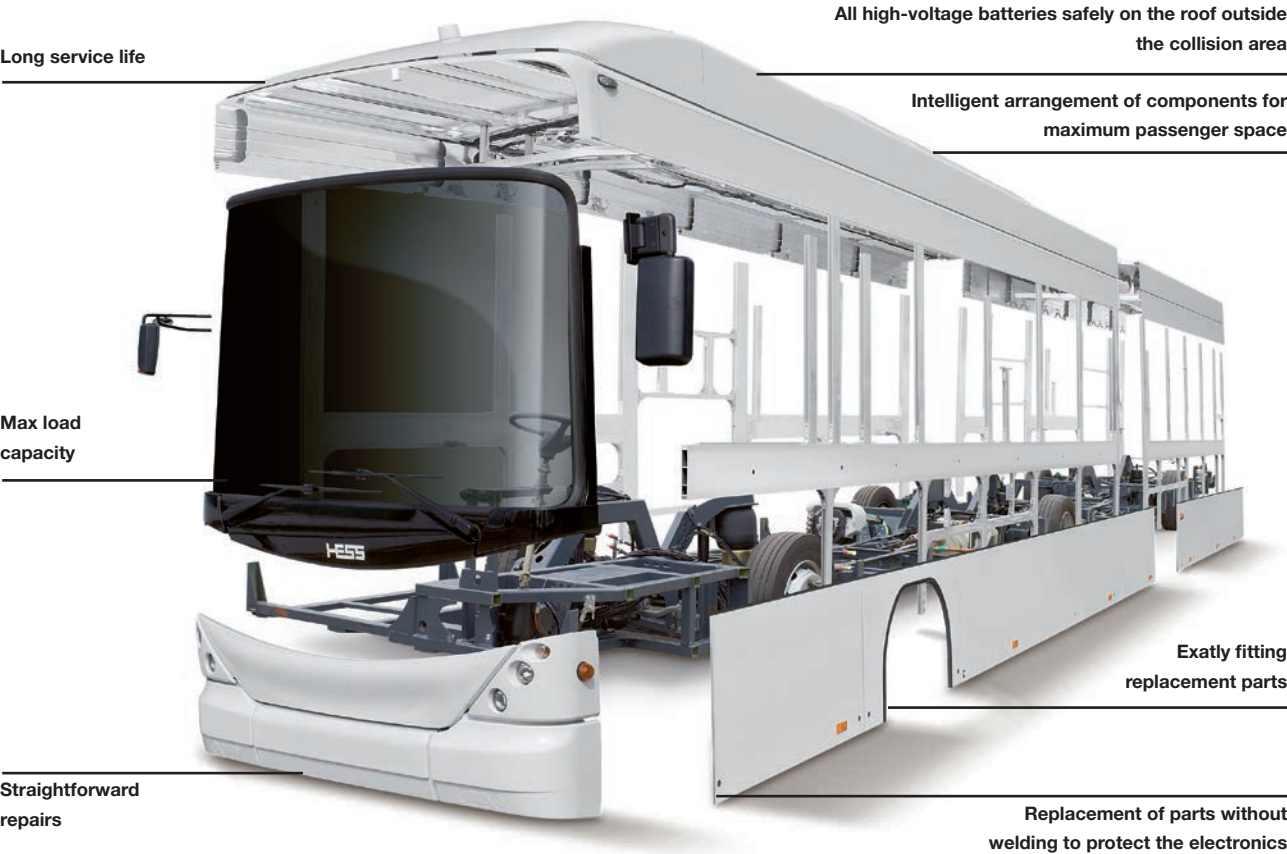
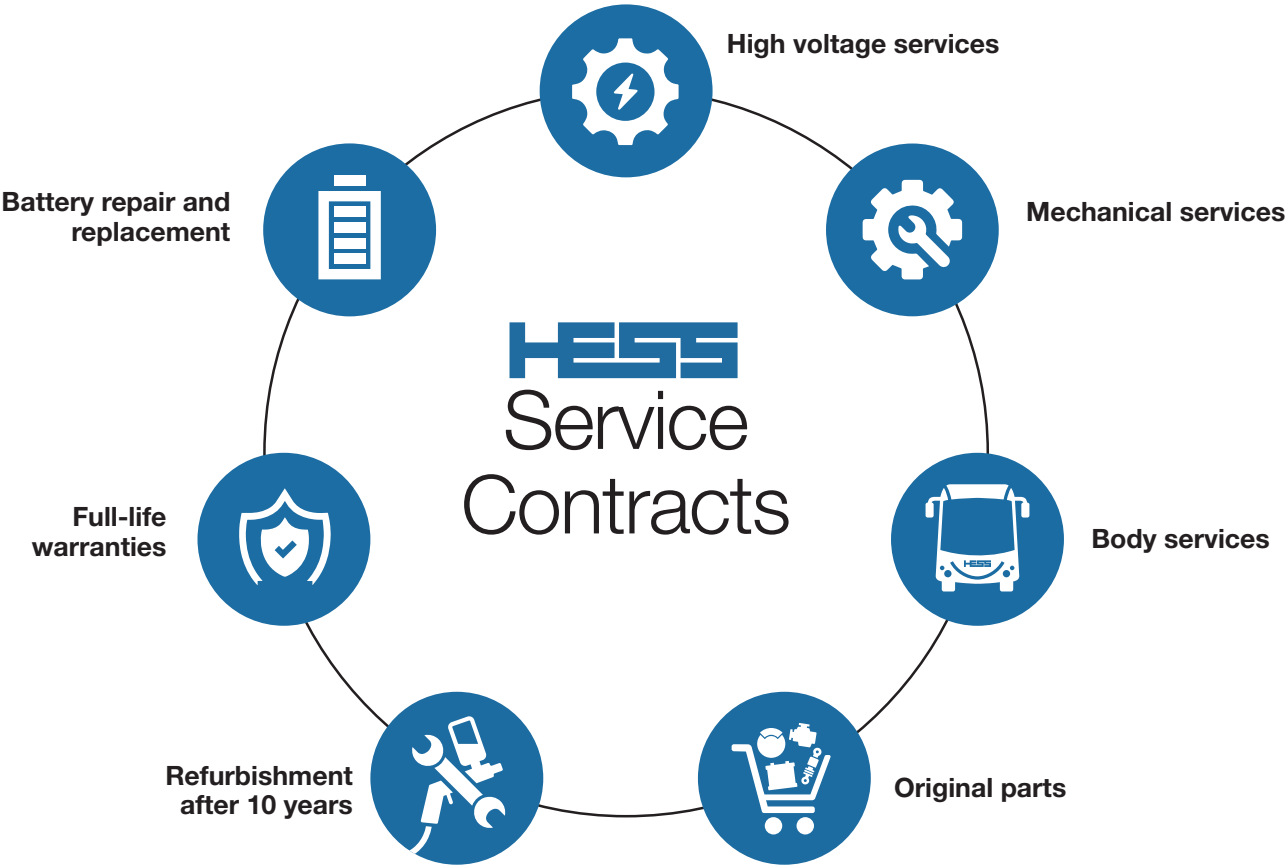
HESS-PLDM

The HESS Power Load Demand Management (PLDM) enables the best possible energy supply from the grid for your vehicles, taking into account the available energy. The HESS-PDM enables you to manage your energy costs in the best possible way.

A premium vehicle with low lifecycle costs

HESS's CO-BOLT® aluminium construction system is that rare example of technology with the power to radically transform everything about a product – its safety, efficiency and life-time cost.

CO-BOLT® is both extremely light and remarkably strong. Because of that, we can build all of our lighTram® vehicles with batteries – as well as air-conditioning, break resistors and all other high voltage components – on the roof. That's vital for safety – it keeps critical components away from the part of the vehicle most likely to be damaged in an accident – and it's a huge advantage when it comes to space and passenger capacity.



Service as reliable as our vehicles

HESS buses offer the highest levels of quality in design, engineering and manufacturing, however all public transport vehicles need servicing and accidents are a fact of life for operators. Knowing this, we make sure the reliability of our aftersales service matches the reliability of our vehicles.

Our 10-, 15-or 20-year lifecycle service contracts demonstrate the emphasis we place on manufacturing excellence and the faith we place in the longevity of our vehicles. Having worked with operators for more than 80 years, we understand how important it is to keep a fleet on the road for longer.

Whether an operator needs work done after a collision, vandalism or as a result of any other damage or failure, HESS offers prompt service at various locations throughout Europe.



Why partner with us

We build vehicles of the highest quality and partnerships that last. Our uncompromising manufacturing standards, our world's-best technology and our dedicated after sales service earn us the trust of our collaborators, leading to relationships of unmatched mutual value.



Full-life (20-year) warranties on all vehicles



Tried and tested technology



100% zero tailpipe emission vehicles



Expandable solutions for growing cities



Supported by after-sales service and maintenance



Fixed cost over 20 years



A lighTram® Plug for every route

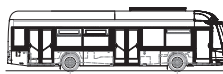
We understand that every city and every route is distinctive. Additionally different operators and different commuters have different requirements, we offer an array of optional inclusions, and have considerable experience working closely with operators to specify vehicles that precisely meet their specific needs.

lighTram® 10 Plug



Length
10,7 m

lighTram® 12 Plug



Length
12 m

lighTram® 18 Plug



Length
18 m

lighTram® 19 Plug



Length
18,7 m

	lighTram® 10 Plug	lighTram® 12 Plug	lighTram® 18 Plug	lighTram® 19 Plug
Total capacity:	56 (+2)	102 + 1 (6 P/m²)	133 + 1 (6 P/m²)	135 + 1 (6 P/ m²)
Length:	10.7m	12m	18m	18,7m
Width:	2,55m	2,55m	2,55m	2,55m
Height:	3,3m	3,5m	3,5m	3,5m
lighTram-Design:	yes	yes	yes	yes
Panorama window:	yes	yes	yes	yes
Rear platform	no	yes	yes	yes
Passenger platform door 2 and 3	yes	yes	yes	yes
Doors:	1-2 or 1-2-2	1-2-2 or 1-2	1-2-2-2 or 1-2-2	1-2-2-2 or 1-2-2
Driver's area:	VDV compatible	VDV compatible		
Diver's arena with security gate "type Brisbane"	Option	Option	Option	Option
Bus body:	Aluminium System CO-BOLT®			
Steering:	Electrohydraulic			
Heating 100% electrical:	yes	yes	yes	yes
Cooling 100% electrical autom. heat pump R407c	Basis	Basis	Basis	Basis
Cooling 100% electrical autom. heat pump CO ₂	Option	Option	Option	Option
Engine type:	Permanent magnet motors, liquid-cooled			
Traction options:				
a) electrical on axle 2	yes	yes	yes	yes
b) electrical on axles 2 + 3	no	no	Option	Option
Battery-Charge:	CCS2, 150kW, 200A DC	CCS2, 150kW, 200A DC	CCS2, 150kW, 200A DC	CCS2, 150kW, 200A DC
Battery options:				
a) minimal	300 kWh	300 kWh	300 kWh	300 kWh
b) maximal	510 kWh	610 kWh	710 kWh	820 kWh
Energy management	yes	yes	yes	yes
Energy management plus	Option	Option	Option	Option
Remote monitoring	Option	Option	Option	Option
Power Demand Managment	Option	Option	Option	Option
Optional loading variant on the roof				
OppCharge top-down 450kW	Option	Option	Option	Option
OppCharge bottom-up 450kW	Option	Option	Option	Option
Further options for all E-Bus types				
Turning assistant and forward collision warning	Basis	Basis	Basis	Basis
Towing device 13t	no	Option	no	no
Rearview mirror cameras	Option	Option	Option	Option
Service-Contract 10, 15 or 20 Years	Option	Option	Option	Option



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