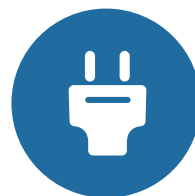




Transports Publics Fribourgeois (TPF)

a smart bus system



lighTram® 19 DC

Thanks to its low-emission electrical drive, the lighTram® is the ideal means of transport for heavy urban traffic. As powerful as they are, they are quiet, economical in their energy consumption and returning recuperated braking energy. With its generous riding and seating comfort and ease of entry the lighTram® is as highly appreciated by bus companies as it is by passengers. Thanks to innovative, patented drive technology, with intelligent control, it impresses even in winter and topographically difficult conditions.

A project of:	Transports Publics Fribourgeois (TPF)
Vehicles:	10 lighTram® 19 DC
Capacity of line:	138 + 1 (5.6p/m ²)
Bus Body:	Aluminium System CO-BOLT®
Steering:	Electrohydraulic
Drive:	Electric on axles 2 + 3 Permanent Magnet motors, liquid cooled
Energy recovery:	Yes
Energy storage:	Yes, incl. peak current smoothing
Service trip without overhead line:	up to 72 % (E-bus approval)
Service trip without overhead line:	up to 30 km
Heating/Cooling:	100% electric: fully automatic heating and air conditioning
Length, width, height:	ca. 18,75 m, 2,55 m, 3,5 m
Driver's workplace:	VDV compatible
Homologation:	Trolleybus standard EN 50502 Bus standard ECE R 107
Plug-in charging:	HESS Trolley Charging Station (incl. preconditioning)
Pantograph charging:	conductive energy transfer type DC (Dynamic Charging) while driving, 600 V / 750 V



HESS