Zemo

ZEB-WRIGHTBUS-GB-KITE-ELECTROLINER-423kWh-HEAVY-2023 Approved Test facility

N/A

			Zei	ro Emi	ission Bu	ıs Certifi	cate			
-										
Customer:	Wrightbus			Tolom	atics Capability	Yes	Test		ER SETTINGS	1
Customer Address: Test Purpose:		I, Ballymena, County A n Bus Testing	ntrim, BT42 1SA		m Speed (km/h)	80 km/h		Weight F°	15261 N/A	kg N
/ehicle Manufacturer:	Wrightbus	in bus resting			ted Capacity	40		F ¹	N/A	N/kmh
enicle Model Name:		roliner AU306 (Heav	vv)	Passenger Capacity		80	F ²		N/A N/A	N/kmh ²
owertrain Technology	Battery Electr		• , ,	Declared Unladen Weight (kg)		13826		est passengers	N/A	passengers
owetrain Configuration	-			Gross Weight (kg)		19341		Inladen Weight	N/A	kg
Zero Emission Heating Heat Pump				GVW Check		OK		itve tests completed	N/A	Tests
Battery Specification				Ch	arging and Refuelling	Capability		Hydrogen S	Specification	
Battery Manufacturer CATL			Plug Type		CCS2 & OppCharge	F	uel Cell Manufactur	er	N/A	
Battery Chem	istry	LFP		Max Charge Capability (kW)		Up to 150kW/300 kW	Fue	el Cell Power Rating	(kW)	N/A
Battery Installed Capacity (kWh)		423		Charger Compatibility		DC	Hydro	gen Storage Capacity (kg)		N/A
Battery Usable Capacity (kWh)* 372			Charge time from 20-80% SOC**		1-2 Hours Hyd		Irogen Storage Pressure (bar)		N/A	
Recommended manufac	turer guideline, s				nufacturer estimate			• • •		
Well-to-Tank Factor:	Flootricity	72.65	g CO2e / MJ	-	and source	UK market standard				nversion 2022
Well-to-Tank Factor:	Electricity Hydrogen	72.65 N/A	g CO2e / MJ g CO2e / MJ		el Provider y of Tanker (kg)	N/A		evidence e / Pathway		Electricity
Energy Density	Hydrogen	N/A N/A	MJ/kg		y of Tariker (kg) ance of Hydrogen (km)	N/A N/A		e / Patriway y Source		Grid
Linergy Denoty	, al ogoli	N/A	ine / kg	Tranoport Block	ande er rij aregen (ran)		2.10.19.	,		
En	nissions	and Ener	gy cons	umption	n results froi	m <mark>approve</mark> c	l test faci	lity - Averc	ige 4 test	
Test Phase	HC (g/km)	CO (g/km)	NOx (g/km)	PM (g/km)	CO₂ (g/km)	CH₄ (g/km)*	N₂O (g/km)*	Total Energy Consumption (kWh)	Vehicle Energy Consumption (kWh/km)	Grid Electrica Energy Consumptior (kWh/ 100km
Outer Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.29	0.81	94.64
Inner Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.66	1.06	122.92
Rural	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.20	0.70	81.48
LBC Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.95	0.89	103.51
UK BUS Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.15	0.80	92.87
				LIICIUV LUI	isumblion c	ana cnara	ina etticiei	ncv		
	Used	N/A	Total measured	d energy consu	med on vehicle (kWh) ¹ ng charging (kWh)		Max Z	E Range at 100% SC E Range at 80% SO	C (km)	466
lydrogen Energy Ove	Used r Test (kWh)	N/A	Total measured Measured g	d energy consu	med on vehicle (kWh) ¹ ng charging (kWh)	N/A	Max Z Max Z	E Range at 100% SC	DC (km) C (km)	
lydrogen Energy Over lydrogen Delivered to Total measured energy	Used r Test (kWh) v Vehicle (kg) r may include er	N/A N/A N/A nergy used during the	Total measured Measured g Gri e 23 minute warn	d energy consu grid energy duri d-to-Wheel effic hup, this is neede	med on vehicle (kWh) ¹ ng charging (kWh) ciency (%) ² ed for charge efficiency of	N/A N/A 86%	Max Z Max Z	E Range at 100% SC ZE Range at 80% SO t Distance Travelled	DC (km) C (km) (km)	373 N/A
lydrogen Energy Over lydrogen Delivered to Total measured energy Grid to Wheel efficience	Used r Test (kWh) v Vehicle (kg) v may include en ry represents the	N/A N/A N/A nergy used during the e total energy losses	Total measured Measured g Gri e 23 minute warn between the grid	d energy consul grid energy duri d-to-Wheel effic hup, this is needed and the wheels	med on vehicle (kWh) ¹ ng charging (kWh) ciency (%) ² ed for charge efficiency of	N/A N/A 86% calculation.	Max Z Max Z Tes	E Range at 100% SC ZE Range at 80% SO	DC (km) C (km) (km)	373
lydrogen Energy Over lydrogen Delivered to Total measured energy Grid to Wheel efficience	Used r Test (kWh) Vehicle (kg) r may include er ry represents the ated toto Fuel Energy	N/A N/A N/A hergy used during the e total energy losses A Well-to-1 Fuel WTT*GHG	Total measured Measured g Gri e 23 minute warm between the grid Wheel GH Emissions	d energy consul grid energy duri d-to-Wheel effici hup, this is needed d and the wheels IG CO 2 efficiency Elect	med on vehicle (kWh) ¹ ng charging (kWh) :ency (%) ² ad for charge efficiency of of the bus. QUVIALENT EM trical Energy	N/A N/A 86% calculation. issions over Electricity WTT* G	Max Z Max i Tes test	E Range at 100% SC ZE Range at 80% SO t Distance Travelled Data Generated by (DC (km) C (km) (km)	373 N/A
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