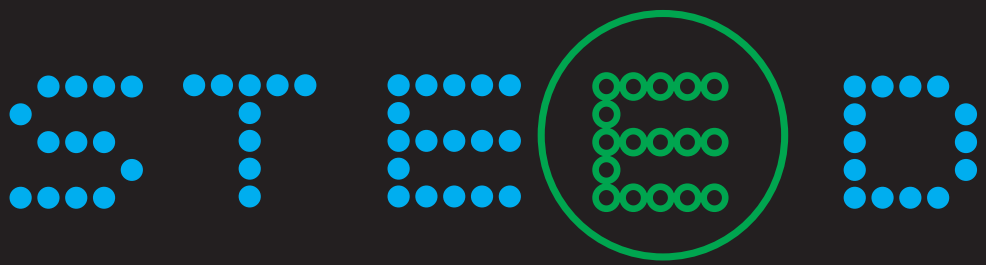

FULL ELECTRIC BUS

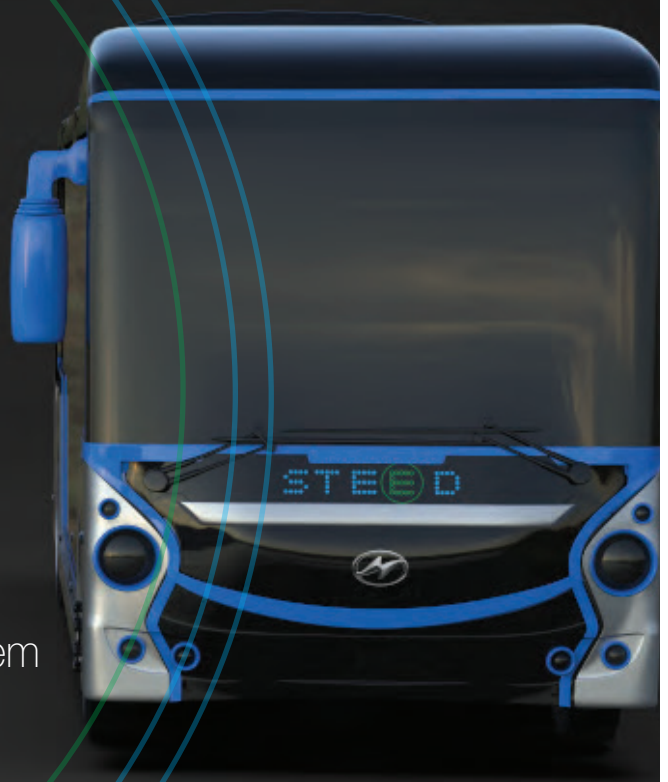
The zero emission STEED low floor EV is an advanced solution for delivering class leading low floor transport options for the mass transportation industry with an innovative all electric drive train and patronage of 46 people STEED offers significant reductions in operating costs, helping operators to improve their green footprint and add to their bottom line

ustainable
ransport
lectric
negry
elivered

VEHICLE FEATURES

STEED FEATURES

- 26 seatbelted seats
- 22 standing positions
- Wheelchair accessable
- DC fast charging under 2 hours
- Low entry flat floor
- Front Integrated passenger storage area
- Extra wide passenger entrance & aisle
- Saloon air conditioning
- Internal and external camera recording system
- Hanover FSR desitination boards
- Onboard audio visual monitors
- Removable overhead storage racks



Specifications

Electric motor	Prestolite MD901900N
Energy storage type	Lithium iron phosphate battery
Vehicle Electric control system	Higer ECS version 2.11
Side windows	Black privacy tint and UV protection
	Double glazed (Option)
Access ramp	Manual Wheelchair ramp
	Electric wheelchair ramp (Option)
Front axle	Maintenance-free
Rear axle	Maintenance-free
Steering system	Bosch 8095
Drive shaft	Maintenance-free
Brakes	4 wheel disc brakes, Wabco EBS, ABS and ASR
Traction braking system	Kinetic regeneration system
Suspension	Advanced 4 airbag motive suspension system
Suspension levelling	Front ECASII with kneeling function
Tyres & Wheels	245/70R19.5 energy saving Michelin tyres
	Alloy rims
	Steel wheel (Option)
Air-conditioning & Heating	Heated passenger saloon climate control
	Seperate front drivers AC and heating
Operational technology	Actia podium 2
	Integrated Higer CAN-Bus system with VDS VDO Smart Tachograph Front electric blinds Heated rear-view mirrors FSR Destination System

STEO

FULL ELECTRIC BUS

STEO

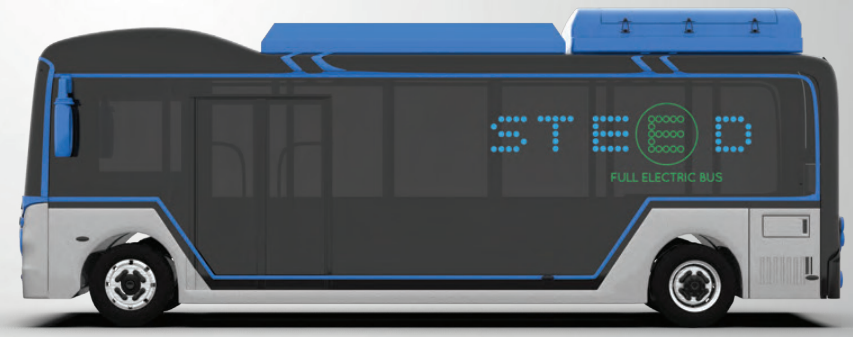
FULL ELECTRIC BUS

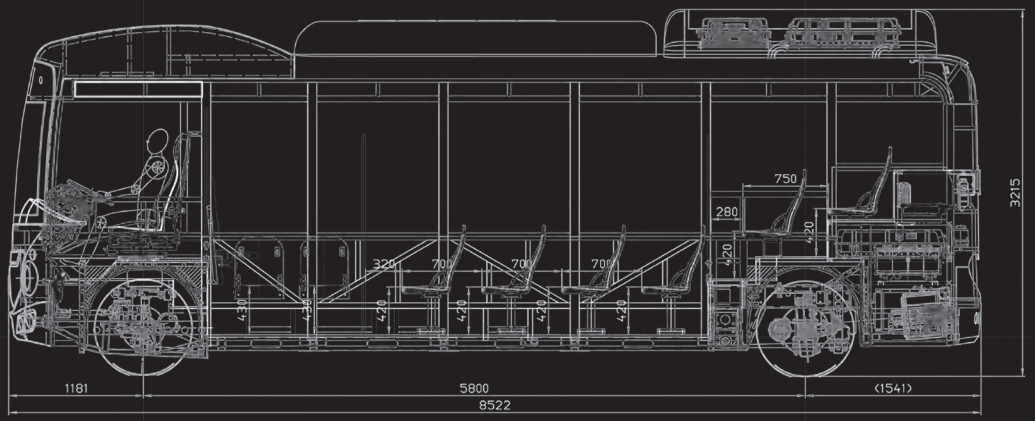
Overall Length (OL)	8522mm
Overall Width (OW)	2370mm
Height with A/C (OH)	3215mm
Wheel base (WB)	5800mm
Front overhang (FO)	1181mm
Doors size, clear opening	1200mm
Approach Angle front	18 deg
Departure Angle rear	13 deg
Kerb weight	8.500kg
Gross vehicle weight	12.400kg
Max. weight on the front axle	4.200kg
Max. weight on the rear axle	8.200kg
Passenger capacity	48
Standees	22
Max. seats	26
Min. seats	10(5+5)

STEED

FULL ELECTRIC BUS

L	8522 mm
W	2370 mm
H	3215 mm




750
280
420
420
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320
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430
430
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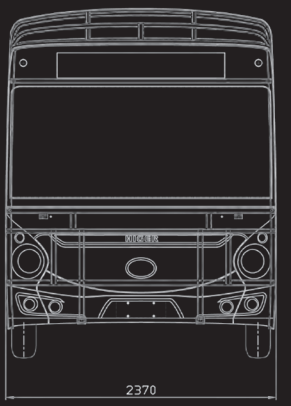
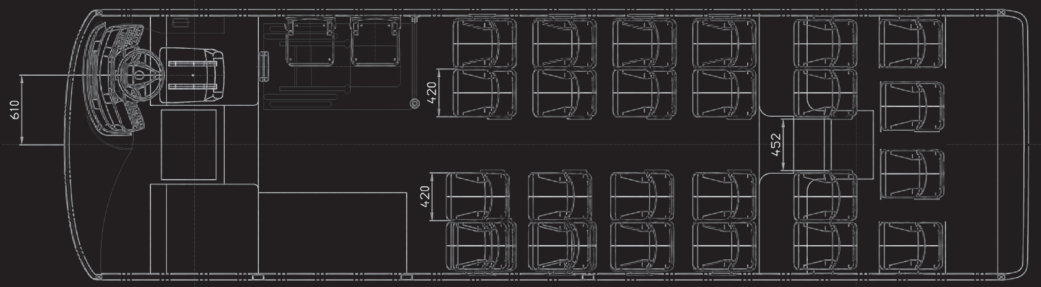
420
1181
5800
(1541)
8522


2370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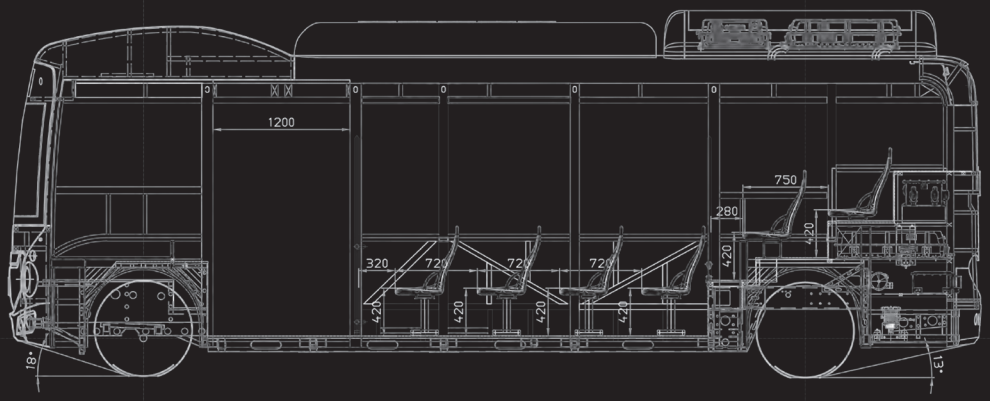
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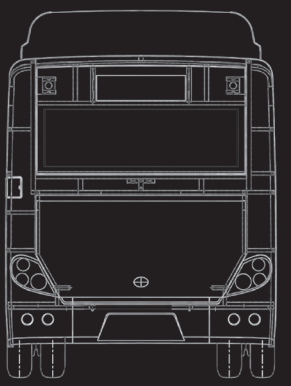


DRIVERS ENVIRONMENT

- Rake and height adjustable dashboard and steering wheel
- Isringhausen seat with 15+ adjustable settings
- Easy reach driver controls
- Wide panaoramic windscreen
- Driver friendly digital remaining charge and distance display

1200MM
WIDE ENTRANCE DOOR
FULL ELECTRIC BUS
WHEELCHAIR ACCESABLE

INTERIOR

WIDE AISLES
COMFORTABLE SEATING
WOOD EFFECT FLOOR

HOW MANY PASSENGERS ?

LIGHT VEHICLE WITH A KERB WEIGHT OF 8.5 TONNE. ROOF MOUNTED BATTERY SYSTEM TO ALLOW FOR MAXIMUM PASSENGER USAGE 22 STANDING /26 SEATED

CONVENIENCE & ACCESABILITY

LOW ENTRY VEHICLE WITH 80% FLAT FLOOR WITH FRONT WHEELCHAIR RAMP

LIGHT SPACIOUS AND COMFORTABLE

COMFORTABLE SEATING WIDE AISLES AND AMPLE STORAGE FOR LUGGAGE AND 2.750 MM INTERNAL HIEGHT SPACE

THAT'S A FAST CHARGE

DC FAST CHARGING WITH FULL CHARGE TIME OF UNDER

STEP

FULL ELECTRIC BUS

METRO READY

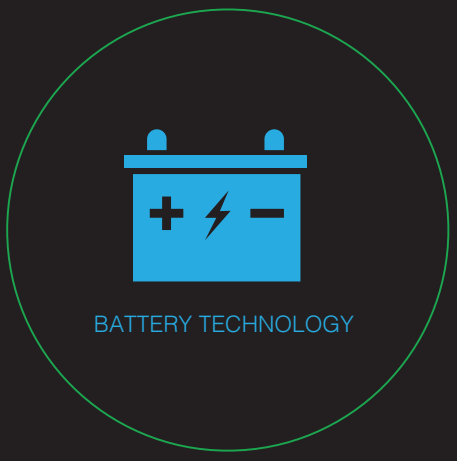
"Metro ready is a new term Harris Auto use to define the extended range STEED can deliver as the first real cross-over EV Bus capable of urban and rural travel In the one defined operational route.

Using intelligent Higer power saving technology to extend the usable operational range between required charging, STEED is versatile and competent in all environments".

STEO

FULL ELECTRIC BUS

CATL



Partnerships with global vehicle manufacturers includes

TOYOTA

PSA GROUPE

BATTERY POWER

The STEED is powered by CATL Lithium Ion batteries producing **174 Kw** of power. CATL are one of the worlds leading battery manufacturers with supply partnerships to global vehicle manufacturers including

Toyota, Mercedes Jaguar Landrover, BMW PSA group and Higer Bus.

BATTERY TECHNOLOGY

STEED

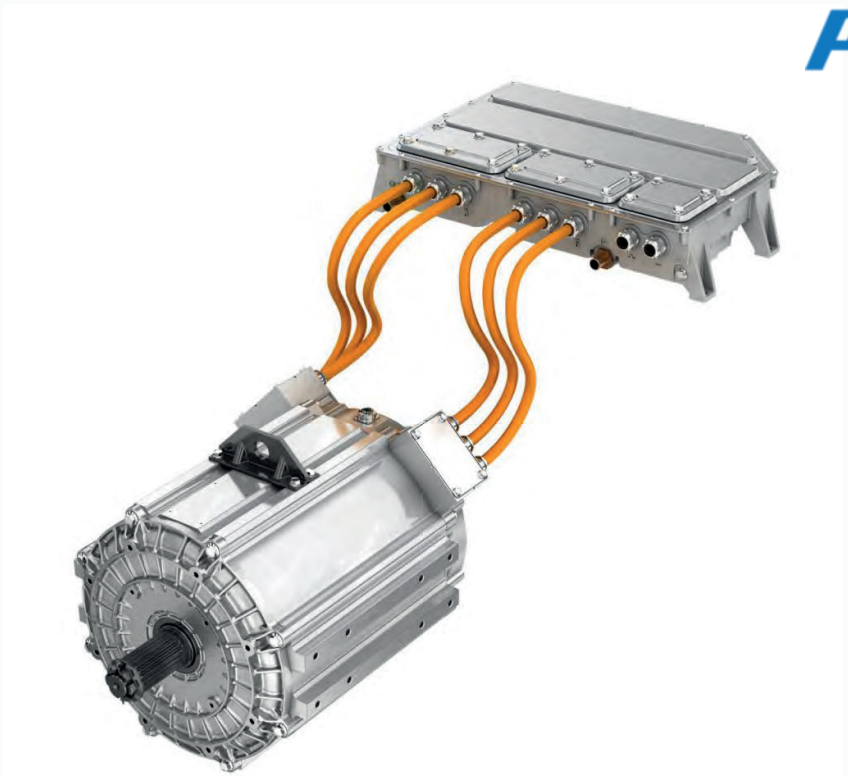
POWERED BY

CATL

PROPULSION POWER

The STEED propulsion power unit is manufactured by Prestolite producing peak power of 1900NM of torque

Prestolite electric



POWER SUPPLY

STEED

MOTOR FEATURES

- Proven permanent magnet technology for optimal efficiency
- Outer rotor topology for maximum torque density
- Low electro-magnetic audible noise
- Low-cogging and ripple torque for better NVH
- Four-quadrant operation
- Double-ended shaft option
- Thermal protection

INVERTER FEATURES

- 3-phase or 6-phase high voltage inverter
- Variable switching frequency
- ReflexTM gate driver technology for high power and current densities
- EMI Filter
- Best-in-class power Density
- High efficiency

STANDARDS

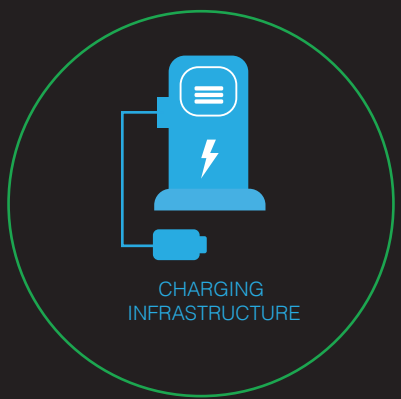
- System protection: IP 6K9K
- Automotive components: AEC-Q100/AEC-Q101/ AEC-Q200
- Electromagnetic compatibility EMC: Main automotive intl standards
- Shock and vibration standards:GMW3172 Sprung masses
- Max coolant inlet temperature: 65°C Coolant type: 40/60 water-glycol
- Toxic materials and flammability: ROHS, ELV, UL94-V0

Prestolite electric

PASSENGER WI-FI
CCTV
ARRIVALS
DEPARTURES
DELAYS
REALTIME PASSENGER INFORMATION
SMART TICKETING
INTERACTIVE TERMINALS
MOBILE PASSENGER INFORMATION
DUBLIN CITY
CONNECTED SYSTEMS FOR CONNECTED JOURNEYS

STEP

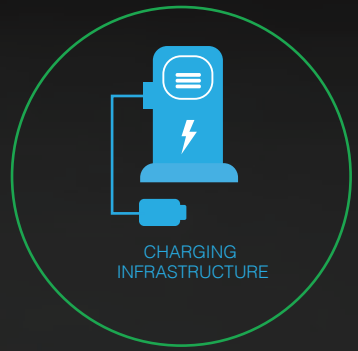
FULL ELECTRIC BUS



CHARGING
INFRASTRUCTURE

HIGER

EV + - POWER



The STEED charging system incorporates

Charging module,
Power supply interface,
Charging interface,
Protection module,
Control module,
IP54 Compliant cabinet
CCS2 Charging Gun
Charging current
Charging voltage
Remaining charging time

The charger is able to dynamically adjust the constant current and constant voltage mode according to the BMS charging voltage and current limit available

CCS2 COMPLIANT

HIGER

EV + - POWER

Cabinet model	RGZP/75KW/750V-EN
Cabinet size	820*650*1700mm
Protection grade	IP54
Installation method	Fixed installation
Input voltage (V)	380&15%
Input current (A)	Less than 100A
Input frequency (Hz)	50-60
Input power factor	More than 0.99
Output voltage Adjustment	DC200-750V
Constant power output	DC400-750V
Module power	T
Output current	2-180A
Adjustment range (A)	
Ripple coefficient(%)	Less than 0.5
Module Cooling method	Intelligent air cooling
Current sharing coefficient	Less than 5 %

Voltage stabilized accuracy(%)	Less than 0.5
Current stabilized accuracy (%)	Less than 0.5
Efficiency (%)	More than 94
Noise (dB)	Less than 65
Communication interface	PLC
Charging Method	IEC 61851-23-2014 DefinedCC
Charging Gun	IEC 62196-3 2014 Defined FF
Charging gun line Length	5M
Output mode	Single gun

HIGER
BUS AND COACH

HIGER TAKES YOU HIGHER

Higer is a leading manufacturer and exporter of buses and coaches to over 100 countries and is now a leading name in the EV Mass transportation revolution. Higer has developed class leading EV technology and has partnered with renowned Blue Chip manufacturers to ensure a strong market offering and advanced vehicle designs , ready to introduce EV solutions to a worldwide market

STEED
HARRIS
AUTO

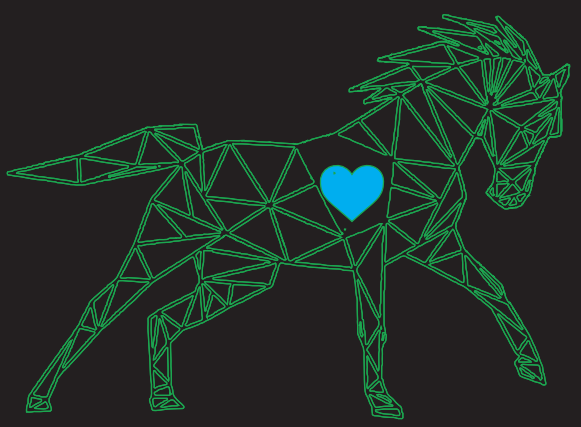
HARRIS
HARRIS

HARRIS AUTO UC

HARRIS AUTO UC part of the Harris Group
based on the Naas Road Dublin 12

- Over 50 year heritage in the motor industry
- Harris International parts distribution centre
- Onsite EV and Diesel repair facilities
- State of the art workshops
- In-house training and education facilities
- ISO accredited KD Plant
- Vehicle distribution and storage facility
- One of the largest CV vehicle showrooms in UK & Ireland

ZERO
EMISSIONS



Harris Auto are excited to establish a plan to achieve success for green on demand mobility transportation and also to create a sustainable model of how the public and private sectors can work together to realise a sustainable vision of green public transport for the future

Welcome to

STEO

FULL ELECTRIC BUS

STEP
FULL ELECTRIC BUS
STEP

HIGER EV POWER

HARRIS AUTO

STEED

FULL ELECTRIC BUS

WWW.HARRISAUTO.CO.UK