

CENNTRO



Product Feature: Low Speed Electric Vehicles with Capabilities from Off-Road Utility Vehicles to Class 4 Work Trucks

October 25, 2022





 **SUSTAINABLE
FLEET
TECHNOLOGY**
WEBINAR SERIES 2022

Sessions through December 06, 2022

<https://www.sustainablefleetexpo.com/>



Upcoming Webinar Sessions

- **10/27 SFT Webinar: Maintaining Your Level of Service and Balancing Sustainability Goals with a Broken Supply Chain**
- **11/09 SFT Webinar: Drive Fleet Productivity and Efficiency with a Right Sized Fleet and Right Typed Vehicles**
- **11/15 Product Feature Webinar: Build Your Fleet Dream Team with Sourcewell**
- **11/29 Product Feature Webinar: Off-Grid Dual Fuel EV Propane Fueling with PERC and Propane Fueling Solutions**
- **12/01 SFT Webinar: The Rise of Hydrogen Fuel Cells in Transportation**
- **12/06 Product Feature Webinar: Integrating and Managing Your Fleet Charging Network with Gilbarco Veeder-Root**



Format

- Q&A at the end
- Submit questions and comments to “Panelists”
- Scheduled for 2:00p-3:00p
- Handout
- Recording





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Introducing Our Speakers:



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CENNTRO AUTOMOTIVE

CENNTRO
OCTOBER 2022



www.cenntroauto.com

WIDELY DEPLOYED BROADLY USED



- Established in 2013, Cenntro's all-electric vehicles bring innovation to traditional urban delivery and vocational services.
- Focused on Class 1 – Class 4 Commercial Vehicles
- Based in Freehold, NJ with assembly facilities being added in Jacksonville, FL and Herne, Germany.
- Produced over 3,700 commercial EVs in more than 26 countries.

CENNTRO

WIDELY DEPLOYED BROADLY USED

Cenntro's product portfolio ranges from last-mile delivery to urban logistics, to vocational and increasingly to on demand delivery.



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CENNTRO'S PRODUCT LINE

Focused on Electric Commercial Vehicles from Class 1 to Class 4 that are mainly used for urban delivery and urban services



Focused Markets: North America, Europe and Asia



North America



Europe



Asia

Our Achievements

Geographic coverage across North America, Europe and Asia

- **An early entrant** that invested significantly since 2013
- **A global leader** in commercial EV sales and services. As of December 31, 2021, Cenntro have sold or put into service more than 3,700 vehicles.
- **A disruptor** that established decentralized distributed assembly facilities and a strong supply chain
- **An innovator** leading commercial EV electrification and autonomous driving



3,700+
Vehicles Delivered



32+
Countries Homologated



\$250 million+
Cash*



25+
Countries Sold



238+
Patents Granted



3
Assembly Plants

*As of December 30, 2021, the closing date of the stock purchase transaction with Naked Brand Group.

Opening Two New Plants

North America: Jacksonville, Florida

Newly established facility to start trial production in late Q1 2023



EUROPE: Herne, Germany



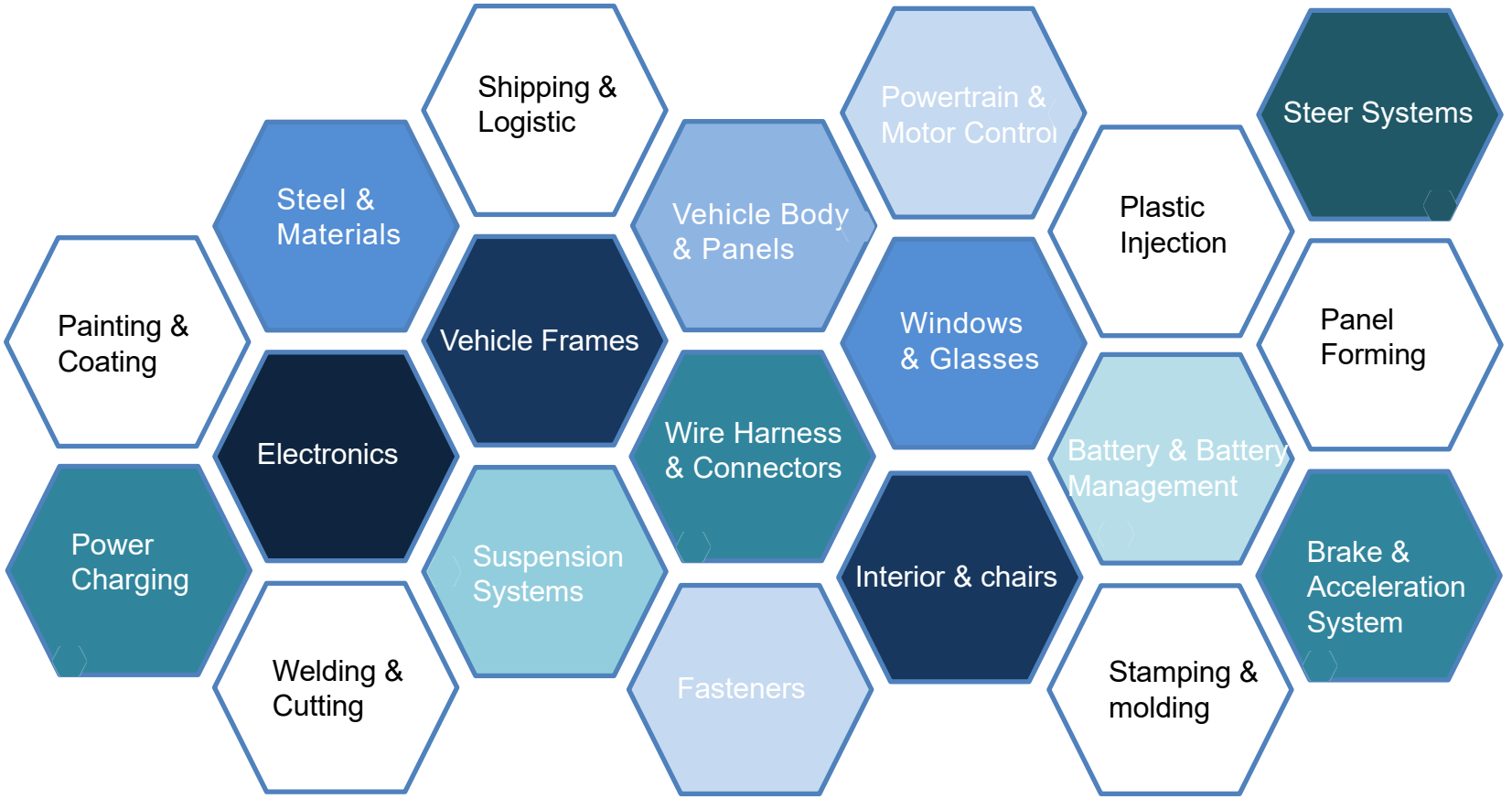
Established facility currently producing Metro and moving to start trial production of EU Logistar line in Q4 2022



Well-Established Supply Chain to Meet Market Demands



We developed an industry-leading supply chain with more than 300 qualified parts vendors.



PRODUCT OVERVIEW

Cenntro Automotive



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LS 400 - Launching in North America

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- The LS 400 is an All Electric Class 4 truck perfectly suited to operate effectively in last-mile & service logistics.
- Equipped with two 40 kWh LiFePO4 battery packs for longer cycle life and increased safety.
- Chassis Cab & Box Truck variations are available.

Availability: Order Book Open for 2023 Deliveries



Dimensions (LxWxH)	5998x2060x2730mm	236x81x107.5in
Cargo Box Size (LxWxH)	3750x2060x1900	147.6x81x74.8in
Cargo Capacity	18M ³	636FT ³
Max Speed	90km/h	60mile/h
Wheelbase	3600mm	141.7in
Payload	3517.6kg	7755 lbs.
Gradeability	25%	
Max Range	160.93 km	100 mile
Gross Vehicle Weight Rate	6500kg	14330lb
Nominal Power	60kw	
Peak Power	100kw	
Battery Type	LiFePO4	
Battery Capacity	127kwh	



LS 400 Service Maintenance

The LS400 contains the following systems that require maintenance.

- **Shock Absorbers** supporting leaf springs. Hydraulic oil loses viscosity at 90k miles under normal wear & tear. 50k miles or sooner for heavy use. Labor time 1.6 hrs. for 2 shocks.
- **Hydraulic Power Steering System.** Requiring fluid flush every 80K miles. .9 Labor Time (Using Fluid Recovery System)
- **Radiator Coolant** (for Liquid Cooled Motor). Flush required every 85K miles. .6 Labor Time (Using Fluid recovery and bleed out system)
- **Disc Brake Pads** for Air Brake System with Regen assist. Commercial Grade Ceramic Pads should last 90k miles with Regen assist. *Labor time 1.5 labor hours per wheel for front. 4.5 labor hours for dual rear wheels (requires grease repack on hub bearings)*
- **Dual 12v batteries.** Recommend replacement every 5 years.
- ****Costs varies on parts (good, better, best), shop hourly labor charge (retail, commercial, in-house)***



Cenntro Vehicles are Charging Infrastructure Neutral

- Vehicles are Charged either by **AC** (Slow), or **DC** (Fast) Charging Stations
- Charge Times are determined by size of the EV battery against the KWh Rate of the Charger.
- E.g. 80_{kWh} Battery ÷ 50_{kWh} **DC Charger** = 1.6 hours of charge time
- E.g. 80_{kWh} Battery ÷ 19.2_{kWh} **AC Charger** = 4.2 hours of charge time
- Cenntro's Logistar Vehicle Line uses a CCS1 charging connector.
- Cenntro's Metro Vehicle Charger uses a J1772 charging connector.



CENNTRO GLOBAL DISTRIBUTION AND SERVICE

CENNTRO EV CENTER – Provides direct sales, marketing, technical and after-market support

CENNTRO PARTS WAREHOUSE – Provides quick parts delivery for after-market services

CENNTRO DEALER/DISTRIBUTOR – A regional distribution channel to sell, deliver and service Cenntro's vehicles. Cenntro's Dealer/Distributor Distribution Network complements our EV Centers and will consist of:

- Independent dealers or local dealer networks
- Local regional distributors
- Value-added resellers including upfitters
- Cenntro Sales agents



The Metro

Launched 2017 -19 Million Miles Strong



Metro® is a unique electric light commercial vehicle designed for city utility applications including delivery and city services.

Launched in 2017 with more than 4,200 vehicles produced to date. Currently, Metro is on the road in Europe, the United States, and 20 other countries.

Metro® has been customized with different variations for Cenntro's Customers.



Metro® Specifications	Metro®
Dimensions (mm)	3910x1400x1905
Payload Capacity (kg)	500
Cargo Volume (m ³)	3.8
Max Speed (Km/h)	85
Range (Km)	200
Battery Type	Lithium-ion
Battery Capacity (Kwh)	25.92
Peak Power (Kw)	24

Metro is a matured product and large-scale deployment

Cenntro Metro vs. Small ICE

ENGINEERED FOR CAMPUS APPLICATIONS

Most often campuses are replacing a small gas/diesel powered pickup truck or van

A
~30% Reduction in width
Indoors or outdoors
Traverse narrow passageways



C
100% Reduction in CO2 emissions
Fits sustainability programs
enacted on many campuses

B
38% Better turning radius
Improved maneuverability
13ft vs 21ft

D
Pay load and towing
411 only ~20% less carrying
capacity with smaller footprint

~50%

Reduction in vehicle **weight** –
tread lightly anywhere

~49%

Reduction in Annual
Operating Expense per
vehicle

~47%

Less overall volume – **drive**
most anywhere, anytime and
more compact parking

Diverse and Robust Applications



City Delivery



Maintenance Truck



Cargo Mover



Farm Truck



Coffee Truck



Autonomous



Field Stretcher



Ad Display



Warehouse



Park Service



Food Service



Emergency Services



People Mover

Off Road Vehicle (ORV)

CENNTRO



ORV SPECIFICATIONS		
Dimensions (LxWxH)	4010x1600x2150mm	158x32x85in
Truck Bed Size (LxWxH)	1970x1560x400mm	78x61x16in
Cargo Capacity	1.64M ³	57.85FT ³
Max Speed	65km/h	34mile/h
Wheelbase	2500mm	98.4in
Payload	800/1200kg	1764/2756lb
Gradeability	26%	
Max Range NEDC	80km	50miles
Gross Vehicle Weight Rate	1149 kg	2535 lbs.
Nominal Power	7.5kw	
Peak Power	15kw	
Battery Type	LiFePO4	
Battery Capacity	11.5kwh	

Cenntro's off-road vehicle (ORV) is engineered to meet the challenges of commercial, ranch, land management and agricultural use.



CENNTRO'S TEAM

READY TO SUPPORT YOUR FLEET

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Addendum European Product Line

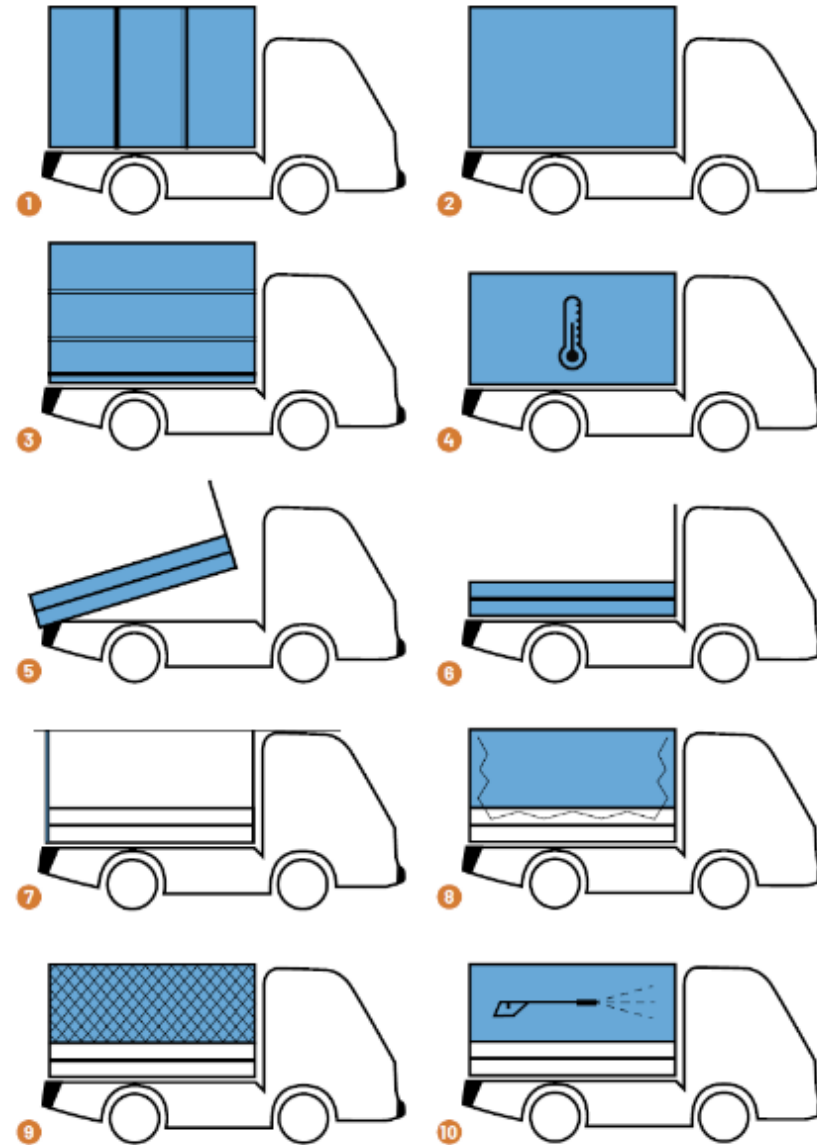


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Metro Upfits

- box bodies (L, XL, XXL) with sliding doors
- box bodies (L, XL) with doors
- box bodies (L, XL, XXL) with tarpaulin roller blinds
- Isothermal structure
- Tipper, rear or 3 sides
- Flatbed
- Transport rack
- Tarpaulin frame with tarpaulin white or colored or with self-rolling tarpaulin white or colored
- Leaf lattice
- Surface cleaning and disinfection setup
- Individual superstructures



LS 200 (EU)

CENNTRO



Logistar 200 or LS 200 is an electric light commercial vehicle with up to 8 cubic meter cargo space when equipped with a cargo box. It also can come as a truck bed and a van configuration for different applications. The LS 200 has launched in Europe as N1 category truck.



Dimensions (LxWxH)	4770x1677x2416mm	133x58x59in
Cargo Capacity (cargo box)	7.8M ³	100FT ³
Max Speed	80km/h	50mile/h
Wheelbase	3050mm	88in
Payload	1000kg	992lb
Max Range NEDC	255km	75mile
Gross Vehicle Weight Rate	2,600kg	2,448lb
Peak Power	50kw	
Battery Type	LiFePO4	
Battery Capacity	39.9kwh	



Availability: Launching in Europe currently.

LS 100 (EU)

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The Logistar 100 is a light electric commercial van. Compact but designed to offer best-in-class cargo space with multiple entry points at the side and rear of the vehicle. It is versatile, easy to maneuver and at home in urban areas.



Dimensions (LxWxH)	3,66 x 1,61 x 1,69	144 x 63.3x 66.5 in
Cargo Capacity (cargo box)	7.8M ³	100FT ³
Max Speed	90 km/h	55 mph
Wheelbase	2485 mm	97 in
Payload	449 kg	992lb
Max Range	120 km	74.5 mph
Gross Vehicle Weight Rate	2,600kg	2,448lb
Peak Power	25 kW	
Battery Type	LiFePO4	
Battery Capacity	16 kWh	

Availability: Launching in Europe currently.

LS 260 (EU)

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The LS260 is a panel van that defines a new size in the van segment. With an impressive length and a load capacity of 7.5 cubic meters, two side loading doors and convenient rear doors with a cargo opening of up to 270°. Together with a payload of 1,280 kilograms and a range of up to 270 kilometers, the LS260 is aimed at a wide range of applications for skilled trades, courier, express and parcel services, logistics solutions and facility management.



Dimensions (LxWxH)	5,46 x 1,85 x 2,05 m	214.9 x72.83x80.7 in
Cargo Capacity (cargo box)	7,5 m ³	264 cu ft.
Max Speed	95 km/h	59 mph
Wheelbase	3380 mm	133 in
Payload	1280 kg	2821.9 lbs.
Max Range (WLTP)	270 km	167 miles
GVWR	3060 kg	6746.14 lbs.
Peak Power	75 kW	
Battery Type	LiFePO4	
Battery Capacity	43.5 kWh	

Availability: Launching in Europe currently.



ELECTRIC TAKES ALL FORMS

**From the First Mile to the Last
to On Demand Delivery**

Cenntro has it Covered

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