

UKRAINIAN TRADE MARK SINCE 1918



ELECTRON

KEY FIGURES



PJSC “Concern-Electron” is a diversified group of industrial, scientific and production enterprises



The first JSC in Ukraine since 1991



LOCATION



GENERAL PRODUCTION
AND OFFICES AREA

230 000
m²

PLANT
ELECTRONMASH
PLANT
POLYMER-ELECTRON
LTD
SPHEROS ELECTRON

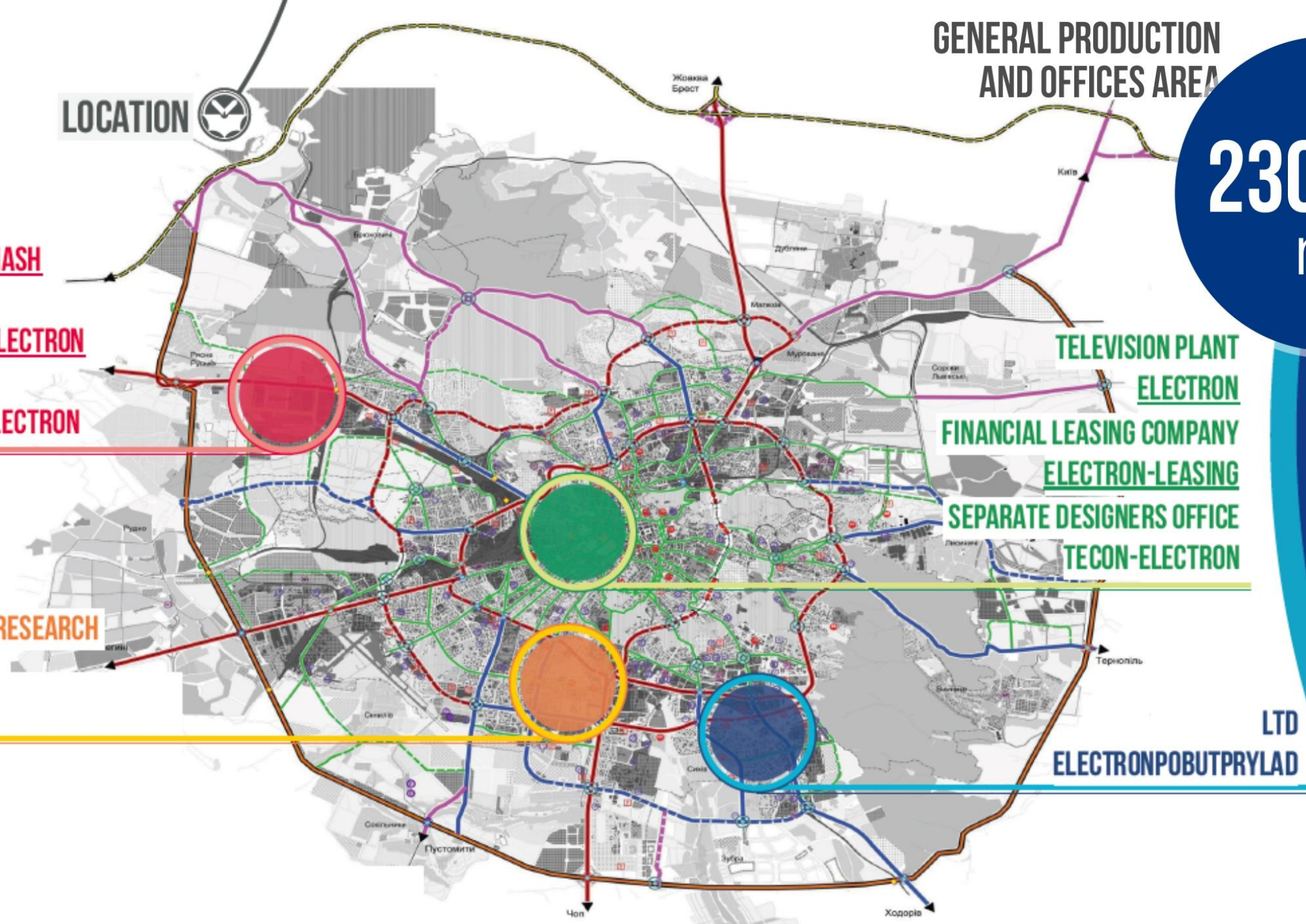
TELEVISION PLANT
ELECTRON

FINANCIAL LEASING COMPANY
ELECTRON-LEASING

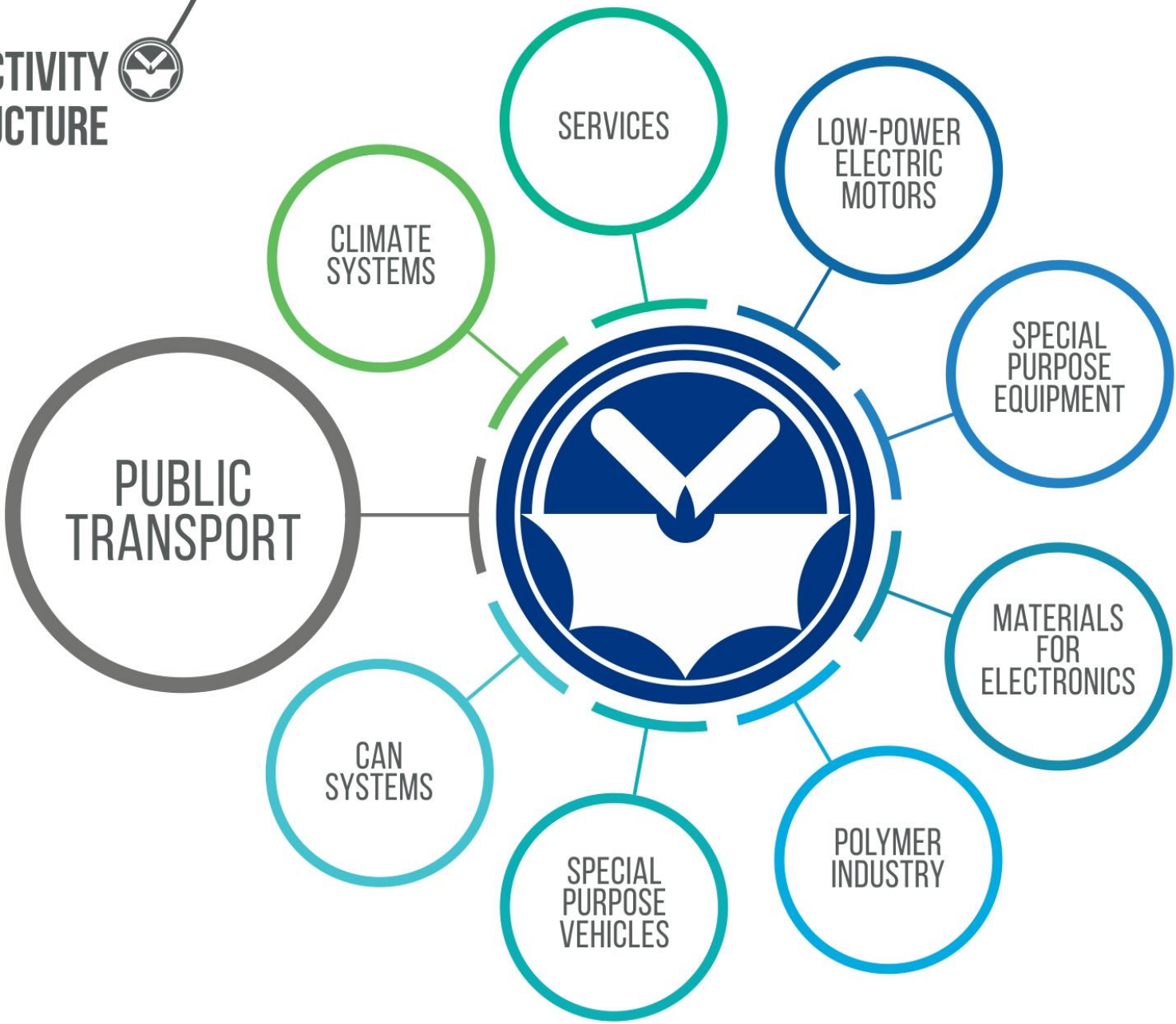
SEPARATE DESIGNERS OFFICE
TECON-ELECTRON

SCIENTIFIC RESEARCH
COMPANY
CARAT

LTD
ELECTRONPOBUTPRYLAD



**BUSINESS ACTIVITY
STRUCTURE**



TRANSPORT ENGINEERING



“ElectronMash” is an enterprise of a full-scale production, specializing in design and production of modern urban public transport



Product portfolio: trams, trolleybuses, electrobuses, city buses

production opportunities



or



or



Per year

2011
founded
in

2013
the first
products

3.9
hectares
plant
area



"ELECTRONMASH"



- High-quality products
- Guaranteed quality

BUREAU VERITAS
Certification

LLC JV "Electrontrans"
311, Shevchenka Str., Lviv, 79069, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015
Scope of certification

Development, design, manufacture, sale of trams, trolleybuses, buses and other vehicles, transport and engineering equipment.
Manufacture, installation and sale of spare parts, components and mechanisms for vehicles. Service and maintenance, repair of the vehicles.

Original cycle start date: 15 May 2014
Expiry date of previous cycle: 14 May 2017
Certification / Recertification Audit date: 05 May 2017
Certification / Recertification cycle start date: 15 May 2017
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 14 May 2020

Certificate No. UA228474/1 Version: 1 Revision date: 27 April 2018

Olga Svirzhynska
Signed on behalf of BVCH SAS UK Branch

Certification body address: 2nd Floor, 66 Princes Street, London E1 6ND, United Kingdom
Local office: 5th Floor, 26, Strossa Petryura St., Kyiv, 01032, UKRAINE

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call +359 44 264 16 00

BUREAU VERITAS
Certification

LLC JV "Electrontrans"
311, Shevchenka Str., Lviv, 79069, Ukraine

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 9001:2008
Scope of certification

Development, design, manufacture, sale of trams, trolleybuses, buses and other vehicles, transport and engineering equipment. Manufacture, installation and sale of spare parts, components and mechanisms for vehicles.
Service, maintenance and repair of the vehicles.

Recertification cycle start date: 15 May 2014
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 14 May 2017
Original certification date: 15 May 2014

Certificate No. UA227906 Version: 0, Revision date: 15 May 2014

Olga Svirzhynska

Certification body address: Brandon House, 180 Borough High Street, London, SE1 1LB, United Kingdom
Local office: 5th Floor, 26, Strossa Petryura St., Kyiv, 01032, UKRAINE

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
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PIPE BENDING DIVISION

LASER CUTTING DIVISION

- ISO certificate

workshops

- modern flexible manufacturing
- efficient use of production space

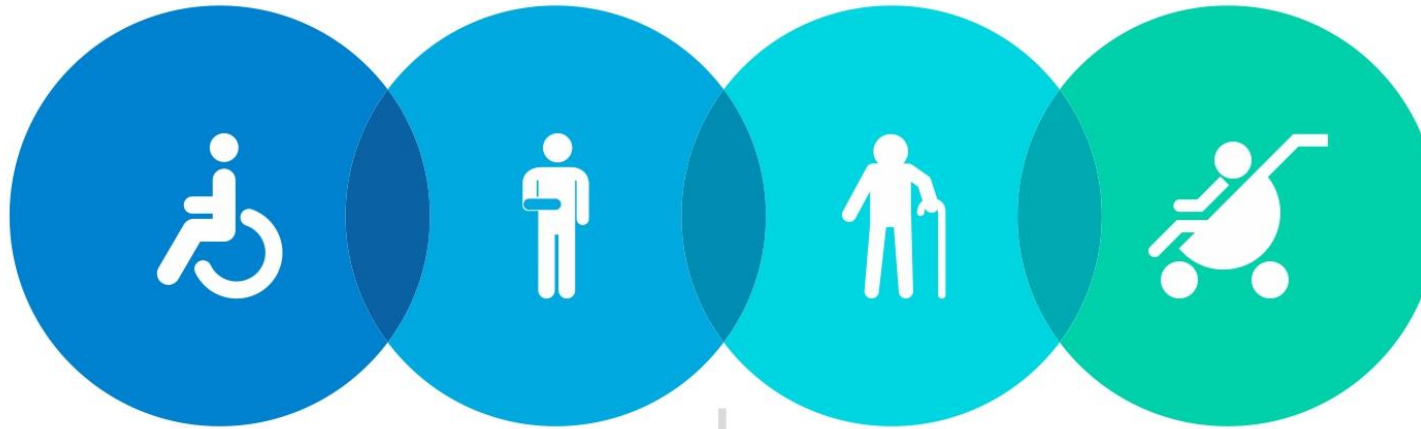


MECHANICAL
WORKSHOP

ASSEMBLY
WORKSHOP



FULL INCLUSIVE
TRANSPORT



All "Electron" transport complies with the rules of UN Convention on the carriage of persons with reduced mobility

“ELECTRON” TROLLEYBUSES



- The trolleybus body is made of stainless steel, which ensures its long life (15–20 years).
- The IGBT transistor traction converter with vector control
- Asynchronous motors
- The energy recuperates electrical network



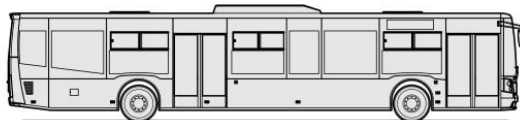
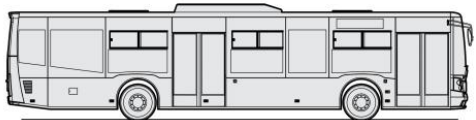
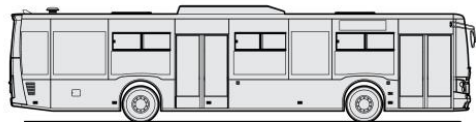
THE BEST SOLUTION
FOR A CITY



“ELECTRON” CITY BUSES



- Diesel engines Euro 5/ Euro 6
- Dual-circuit pneumatic system with disc brakes, ABS, parkinghand brake, bus stop brake
- The independent front suspension makes the bus motion easy and smooth, which is especially important in the city

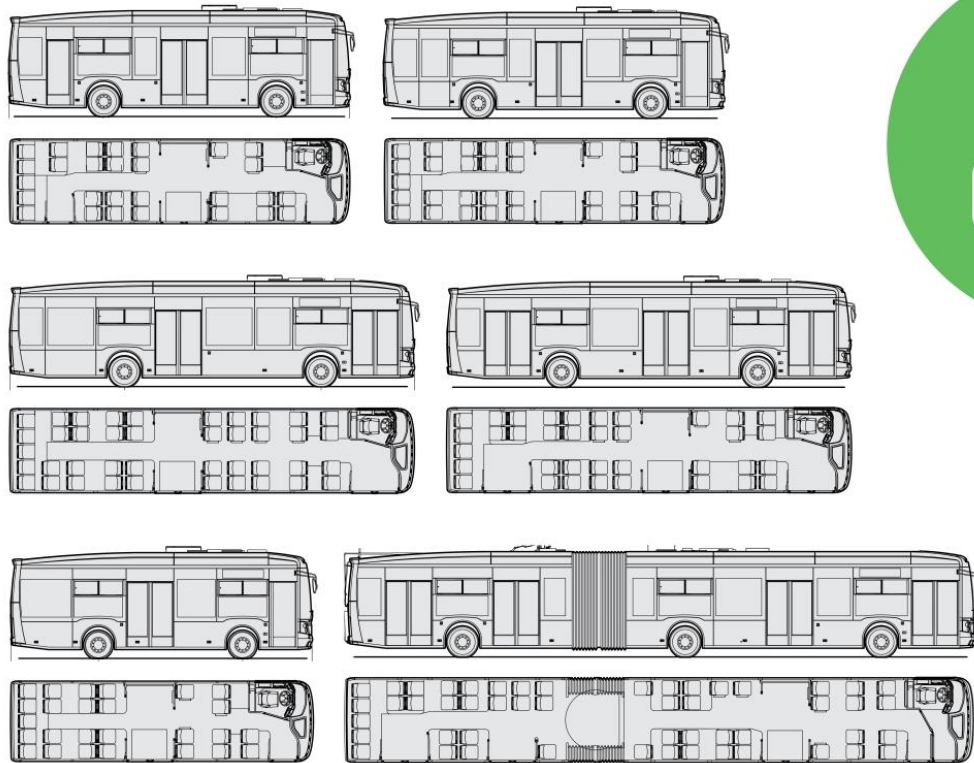


EXPERIENCE &
AVANT-GARDE



“ELECTRON” E-BUSES

- Low level of noise and vibration
- Reduction of the overall noise level in the city
- No harmful emissions into the atmosphere
- Fast charging system



THINKING
GREEN



ELECTRON E19 *electric*



CHARGE
5 hour

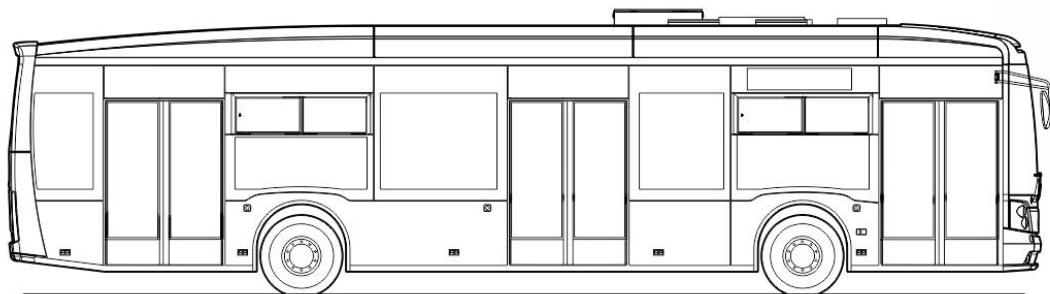
ONE CHARGE RUN
340 km

FAST CHARGE
up to 70%
40 min

LOW FLOOR
100%

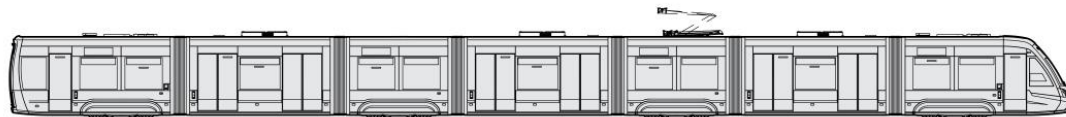
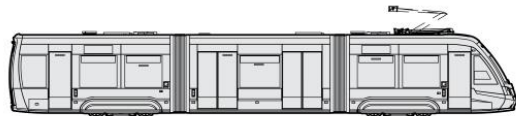
THINKING GREEN


100 ppl



“ELECTRON” TRAMS

- Smallest chassis clearance when wheels worn 110 mm
- Driven loose wheelaxle arrangement
- Braking energy recovery system
- Dual suspension
- Range without grid connection:
1000 mm, 1435 mm, 1524 mm



SAVING
ENERGY



DESIGN FEATURES

- Stainless steel body
- Anticorrosive composite materials
- Computer control and diagnostic systems
- Traction asynchronous engines with liquid cooling



COMPUTER
CONTROL

ASYNCHRONOUS
ENGINES



DESIGN FEATURES

- Multi braking systems
- Video surveillance
- Interior noncombustible materials



VIDEO
SURVEILLANCE



MULTI BRAKING
SYSTEMS



SERVICE

- Repair and replacement of components and parts
- Provide technical and operational documentation
- Support for the introduction of new vehicles
- Spare parts delivery
- Staff training



SPECIAL PURPOSE VEHICLES



Product portfolio: municipal vehicles, ambulance, vehicles for military forces

MATERIALS FOR ELECTRONICS



SRC "CARAT" IS A LEADING INDUSTRIAL SCIENTIFIC ORGANIZATION OF UKRAINE ON SCIENTIFIC AND TECHNICAL PROVISION AND SUPPORT IN THE "MATERIALS FOR ELECTRONIC ENGINEERING" AREA

- Semiconductor technology
- Vacuum deposition
- Functional ceramics
- Acousto- and optoelectronics
- Magnetolectronics
- Electroceramics
- Microelectronics
- Optoelectronic devices
- Included in the State Register of Ukrainian Scientific Institutions



CRYSTALS

**LIQUID-PHASE
EPITAXY**

POLYMER INDUSTRY

ENTERPRISE “POLYMER - ELECTRON” IS ONE OF THE LEADERS IN UKRAINE AND MOST POWERFUL ENTERPRISE IN WEST UKRAINE, ON PROCESSING OF ALL TYPES OF PLASTIC

- Plastic production
- Instrumental and nonstandard production
- Scanning of article specimens and plotting of 3D models
- certificate **ISO 9001-2008 AND ISO 9001-2009**
- Foam polystyrene production
 - packing tare for household appliances
 - thermal blocks, heat-insulating material



CLIMATE SYSTEMS



JV “SPHEROS-ELECTRON” IS THE ONLY MANUFACTURER OF CLIMATIC SYSTEMS FOR MOTOR AND ELECTRIC TRANSPORT IN UKRAINE

- **WATER HEATERS:** independent diesel heaters DBW and Thermo E, popular among leading vehicle producers due to a high reliability and quality

- **RECEIVERS**

air cylinders for vehicles, intended for use of compressed air energy use in brake and pneumatic systems of cars, buses, trailers and etc.



- **FUEL TANKS**

customized fuel tanks for vehicles



- **STEERING COLUMNS**

one of the main components of car control system which providing connection of steering wheel with control gear

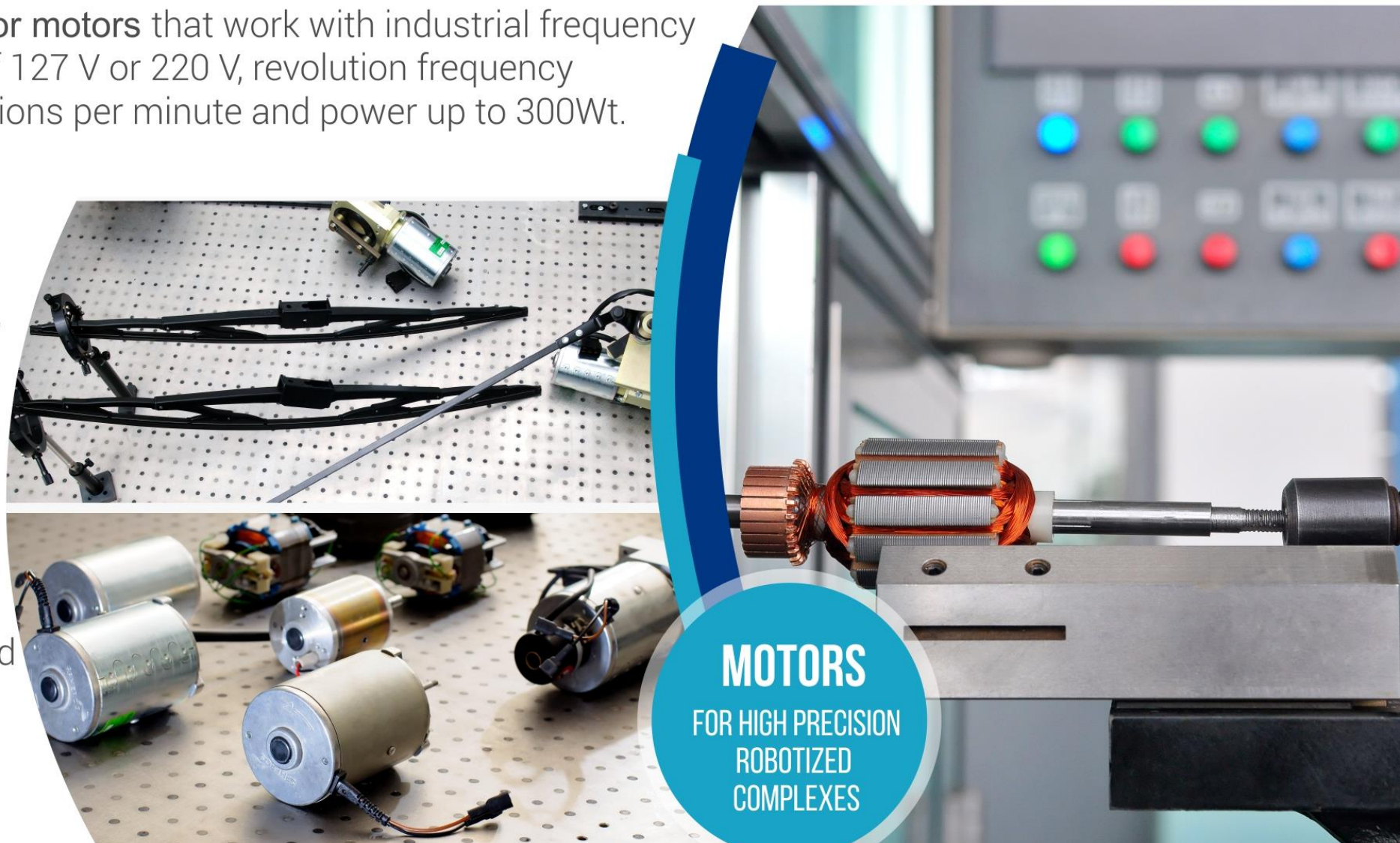


LOW-POWER ELECTRIC MOTORS



IN UKRAINE “ELECTRONPOBUTPRYLAD” PLANT IS A LEADING SPECIALIZED ENTERPRISE IN SERIAL PRODUCTION OF DC AND AC COMMUTATOR MOTORS OF 500-WT POWER, INTENDED FOR RAIL AND URBAN TRANSPORT, MOTOR INDUSTRY, DOMESTIC ELECTRIC APPLIANCES AND ETC.

- AC single-phase commutator motors that work with industrial frequency of 50 Hz, standard voltage of 127 V or 220 V, revolution frequency from 10000 to 20000 revolutions per minute and power up to 300Wt.
- DC motors of 12 V and 24 V supply voltage used for bus fluid heaters of various types, trucks and commercial cars, constructional engineering and equipment of a special purpose
- Motors-reducers for door opening-closing function used in urban electric transport, automatic garage gates, running gear



MOTORS

FOR HIGH PRECISION
ROBOTIZED
COMPLEXES

CAN SYSTEMS

“ELECTRON” TELEVISION PLANT ACTIVITIES IS DESIGN AND PRODUCTION OF PASSENGER TRANSPORT CONTROL CAN-SYSTEMS FOR:

- trams
- trolleybuses
- electric buses
- buses



**BATTERY
MANAGEMENT
SYSTEM**



LOCATION 

- **CONCERN ELECTRON** is located in Lviv, Ukraine.

**60 KM
TO EU BORDER**

- **LVIV REGION** is considered to be an "entry" to Ukraine for the EU countries due to its geographical location, it is located at the crossroad of trade routes between Europe and Asia



“ELECTRON” CONCERN

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**THANK YOU
FOR YOUR
ATTENTION!**

