INFIMOTION

Wuxi InfiMotion Technology Co., Ltd.

in Linkedin
https://www.linkedin.com/company/InfiMotion-technology

Instagram
https://instagram.com/InfiMotion

InfiMotion Website

InfiMotion Wechat

InfiMotion Tiktok

Inhouse developed solution provider for electric drive system and components

InfiMotion Technology focuses on research & development, manufacturing and supply of high performance Electric Drive Unit (EDU)for fully electric vehicles and hybrid vehicles, covering the whole value chain, including components and software. We are committed to delivering high quality and high efficiency powertrain solutions to our customers.

Innovative, Agile and Reliable are our core values. We are committed to creating values for our customers and contribute to a sustainable and environmental friendly world.

BRAND VALUE

VISION

Infinite Motion For The Future

MISSION

Provide overall electric drive solutions for
a sustainable and environmentally friendly world

CORE VALUE

Innovative /Agile / Reliable

GLOBALIZATION

R&D centers located in China and Sweden
with a complete service system

Global team can provide 24h online support

Headquarter/ R&D Center/ Manufacturing Base:

Wuxi, China

R&D Sub-Center :

Gothenburg, Sweden
Shanghai , China
Ningbo, China

SYSTEM CONSTRUCTION

Professional management system certificates have been awarded

IATF16949:2016
Automotive Quality Management System

ISO 9001:2015
Automotive Quality Management System

ISO 14001:2015
Environmental Management System

ISO 45001:2018
Occupational Health and Safety System

ISO 26262:2018
Functional Safety Product ASIL C

ISO/ICE 27001:2022
Information Security Management System

ISO/IEC 33002:2015
Automotive SPICE Capability Level 3

ISO/IEC 17025:2017
CNAS Certificate

PRODUCTS & SERVICE

E-Motor
- Stator
- Rotor

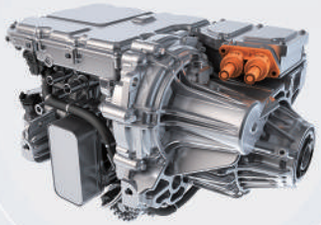
Inverter
- 400V/800V
- N-in-1

Reducer
- 1 Speed
- 2 Speed

EDU

EDU Products

Hybrid Products



OEM/ODM

E-Motor
- Generator
- Traction Motor

Inverter — Dual-Inverter

EDU — Rear Axle

Drivetrain System
- Gear
- Shaft

Drivetrain Component
- Differential/ Differential Lock
- Disconnect
- ELSD

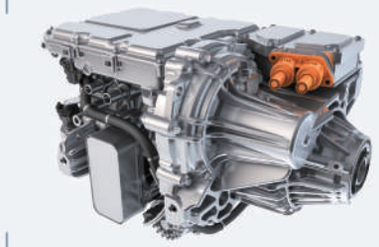
More...

EDU

EDU L300

2023 TMC Innovative Technology Award

- Parallel shaft coaxial compact structure
- 360° high-performance oil cooling system
- Optional modular disconnect mechanism technology
- Intelligent frequency conversion control



Item	Parameter
Peak Power(kW)	156
Peak Torque(Nm)	3012
Max. Speed(rpm)	16000
Efficiency	≥89.5% @WLTC
Weight(kg)	71
Dimension(mm)	521x329x328

EDU L401/L402

11-in-1 highly integrated domain-controlled EDU

2024 TMC Innovative Technology Award

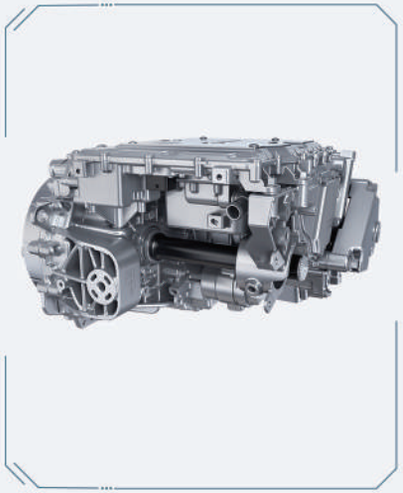
- 11-in-1 highly integrated&lightweight
- CLTC efficiency up to 90.04% @ 400V, ≥92.5%@800V
- Compatible with 400V and 800V
- Functional safety meets the standards of European OEM

Item	400V	800V
Peak Power(kW)	160	220
Peak Torque(Nm)	3200	3200
Max. Speed(rpm)	16500	23000
Efficiency	90.04%@CLTC	≥92.5% @CLTC
Weight(kg)	79.8	≤90
Dimension(mm)	495*507*394	520*505*314

EDU L405

3-in-1 EDU for more flexible layout

- Modular development with short cycle
- Patent 360° deep oil cooling technology
- Ultimate Z-size for more space

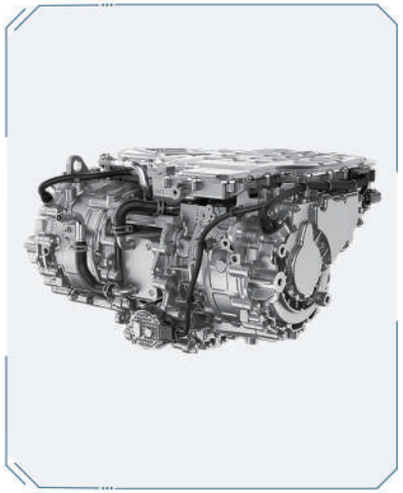


Item	Parameter
Peak Power(kW)	175
Peak Torque(Nm)	2980
Max. Speed(rpm)	16500
Efficiency	89.3% @CLTC
Weight(kg)	79.7
Dimension(mm)	476*503*316

EDU TL300

High-performance 11-in-1 dual motor system

- The industry's first dual-motor with a magnesium-aluminum alloy housing, reducing weight system by 25%
- Self-developed patented 360° bidirectional oil cooling technology
- High-efficiency motor design and control algorithms achieve an overall efficiency of over 89.5%
- Millisecond torque distribution and vector control enabling a waltz-style U-turn

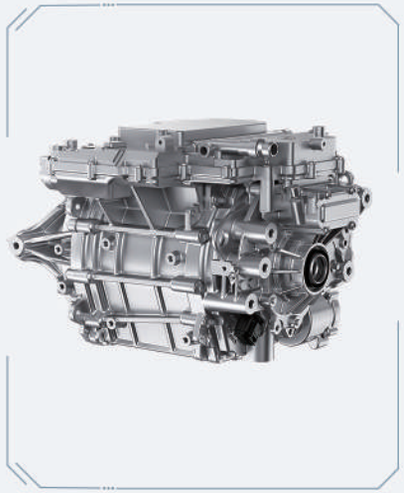


Item	Parameter
Peak Power(kW)	2*170
Peak Torque(Nm)	2*3400
Max. Speed(rpm)	18000
System Efficiency	89.5%
Weight(kg)	109.5
Dimension(mm)	538*586*353

EDU P400

800V 3-in-1 EDU system with high power and torque density

- Planetary configuration gearbox with smaller size
- Power density:4.05kW/kg
- Torque density:47Nm/kg
- WLTC efficiency≥92%



Item	Parameter
Peak Power(kW)	320
Peak Torque(Nm)	3719
Max. Speed(rpm)	19000-22000
Efficiency	≥92%@WLTC
Weight(kg)	79
Dimension(mm)	408*454*343

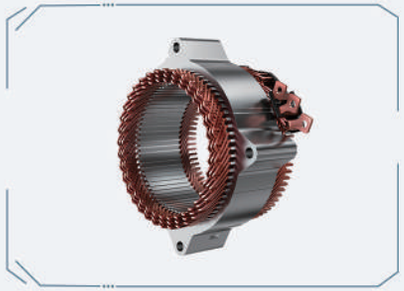
E-Motor

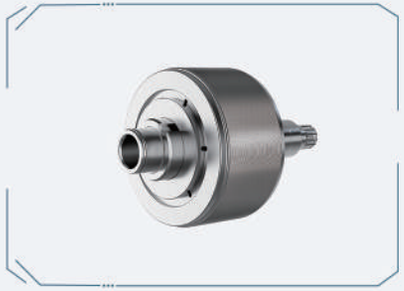
OD180

70kW Hair-pin Oil-cooled Motors

400V Hair-pin oil-cooled motor, excellent NVH performance

- 10-20% of coil height reduction
- Excellent NVH performance with 12 poles 72 slots stator design
- High cost-performance ratio





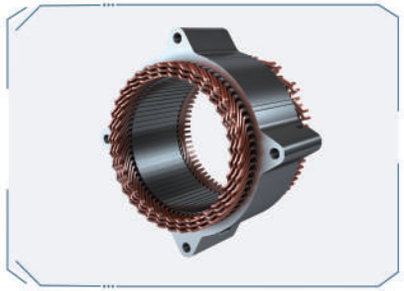
Item	Parameter
Peak Power(kW)	70
Peak Torque(Nm)	100
Max. Speed(rpm)	≥12000
Max. Efficiency	≥96%
Stator OD(mm)	180

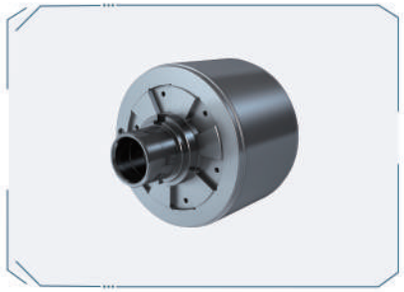
OD180

100kW Hair-pin Oil-cooled Motors

400V high performance flat wire oil-cooled motors with high power density, high efficiency, excellent NVH performance

- 10-20% of coil height reduction
- Excellent NVH performance with 12 poles 72 slots stator design
- Up to 7.04kW/kg of power density
- Product passing rate ≥99%





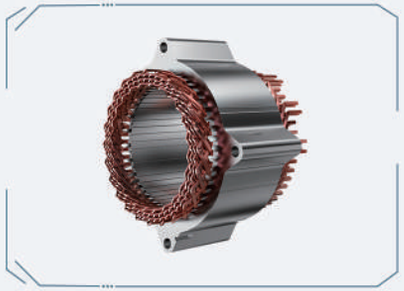
Item	Parameter
Peak Power(kW)	100
Peak Torque(Nm)	140
Max. Speed(rpm)	≥12000
Max. Efficiency	≥97.5%
Stator OD(mm)	180

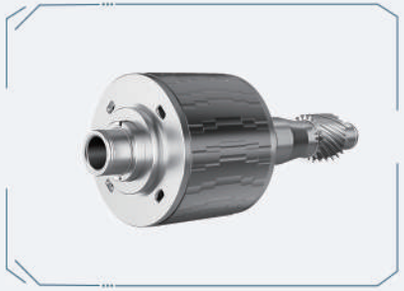
OD180

120kW Hair-pin Oil-cooled Motors

400V compact flat wire oil-cooled drive motor

- Umini Pin design with 50%+ lower coil height
- Self-developed deep oil cooling technology
- Compact structure&lightweight





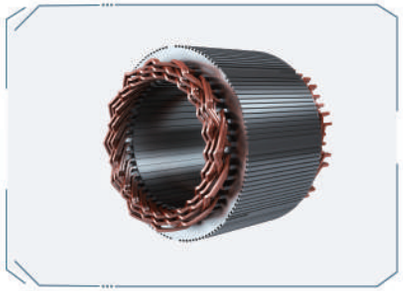
Item	Parameter
Peak Power(kW)	120
Peak Torque(Nm)	220
Max. Speed(rpm)	≥16000
Max. Efficiency	≥97.25%
Stator OD(mm)	180

OD180

160kW Hair-pin Oil-cooled Motors

400V Hair-pin Oil-cooled motor, high power density, high efficiency, excellent NVH performance

- High-performance oil-cooled PMSM
- Advanced hair-pin winding process
- Rotor designed with high torque density topology and an asymmetrical inclined design



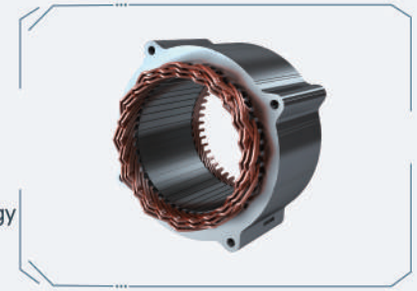
Item	Parameter
Peak Power(kW)	160
Peak Torque(Nm)	320
Max. Speed(rpm)	≥16000
Max. Efficiency	≥97.5%
Stator OD(mm)	180

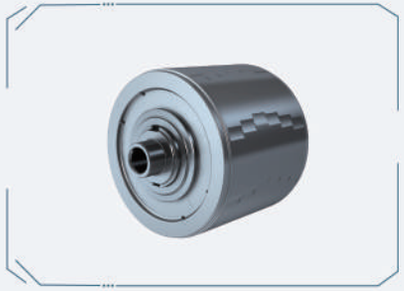
OD220

160kW Hair-pin Oil-cooled Motors

400V Hair-pin Oil-cooled motor, high power density, high efficiency, excellent NVH performance

- 0il-cooled synchronous motors
- Advanced hair-pin winding technology
- Up to 4.92kW/kg of power density
- Rotor designed with high torque density topology and an asymmetrical inclined design





Item	Parameter
Peak Power(kW)	160
Peak Torque(Nm)	360
Max. Speed(rpm)	≥16000
Max. Efficiency	≥97.5%
Stator OD(mm)	220

OD220

200kW Hair-pin Motors

72-slot flat wire motor compatible with water cooling and oil cooling, featuring high power density

- Power density up to 6.97kW/kg
- Modular development, short R&D cycle
- Excellent NVH performance

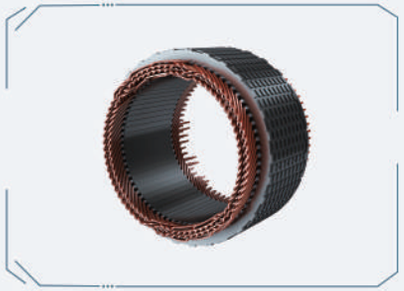
Item	Parameter
Peak Power(kW)	200
Peak Torque(Nm)	330
Max. Speed(rpm)	≥16000
Max. Efficiency	≥97.95%
Stator OD(mm)	220

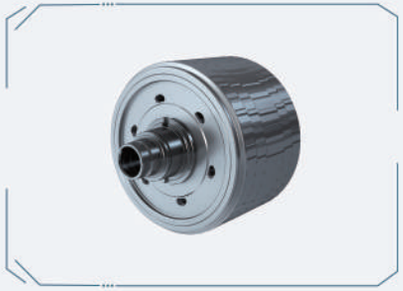
OD270

450kW Hair-pin Oil-cooled Motors

800V ultra-high performance oil-cooled driving motor, with ultra-high power density, ultra-high torque density, excellent NVH performance

- Ultra-high performance oil-cooled synchronous motor
- Unique composite oil-way design for stators and rotors
- Advanced hair-pin stator winding technology
- Rotor designed with high torque density topology and an asymmetrical inclined design





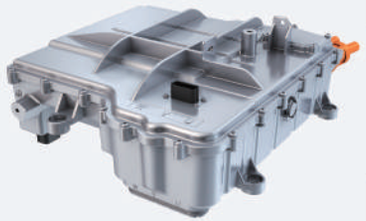
Item	Parameter
Peak Power(kW)	450
Peak Torque(Nm)	630
Max. Speed(rpm)	≥14000
Max. Efficiency	≥97%
Stator OD(mm)	270

Inverter

800V Inverter

High efficiency, safe&reliable, compact design with excellent NVH performance

- SiC power module with dual parallel technology
- Vortex flow and flow sharing design for cooling water channel
- AUTOSAR architecture for software development
- Fulfill ASPICE Level3 and ISO26262 development process
- Functional safety ASIL D

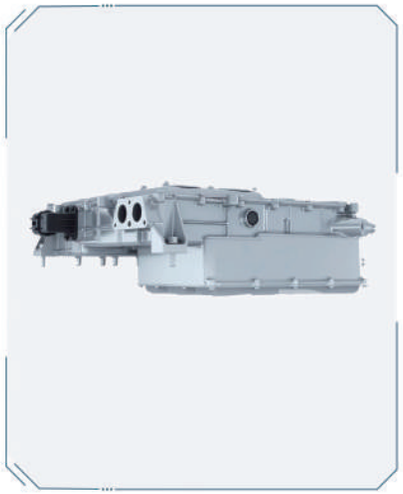


Item	Parameter
Working Voltage(V)	510~900
Peak Current(A)	900
Power Density(kVA/L)	≥47
Max. Efficiency	≥99.8%
EMC Class	Class 3
Functional Safety	ASIL D
Dimension(mm)	361*325*110

Intelligent X-in-1 Inverter

9-in-1 highly integrated intelligent inverter with high efficiency and excellent EMC

- X-in-1 highly integrated inverter with domain control function
- Intelligent DPWVM control technology for lower switching times and losses
- Magnetic integration technology
- Lightweight and more space for vehicle

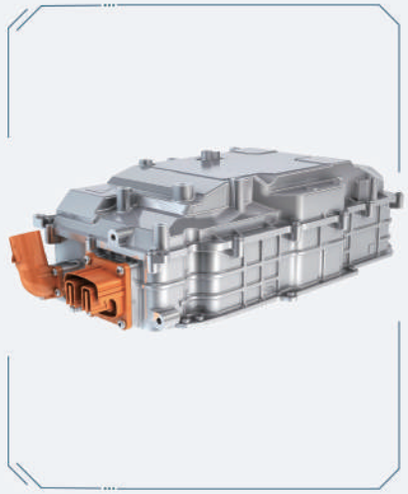


Item	Parameter
Working Voltage(V)	200-490
Peak Current(A)	≥500
Power Density(kVA/L)	23.5
Max. Efficiency	≥98.5%
EMC Class	Class 3
OBC Power(kW)	China: 6.6 Global: 11
Dimension(mm)	507*421*157

Dual Motor Inverter

Intelligent dual-motor integrated inverter with high efficiency and reliability

- Integrated dual motors inverter design for generator and drive motor
- Intelligent pulse width modulation control(PWM) can maximize the system efficiency
- Enabling power configurability
- AUTOSAR architecture for software development
- Lead-free assembly of power modules via Press FIT technology



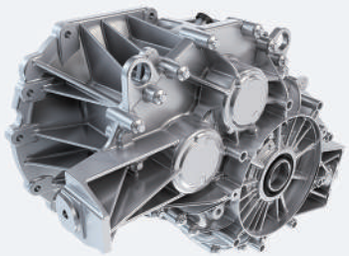
Item	Parameter
Working Voltage(V)	200~450
Peak Current(A)	350~500
Power Density(kVA/L)	25.5
Max. Efficiency	≥98.5%
EMC Class	Class 3
Dimension(mm)	540*260*162

Reducer

Parallel Shaft Offset Reducer

Powerful output

- Parallel shaft offset compact structure
- Powerful output, torque density over 165.4Nm/kg
- Profiling housing design, ultra-low oil chuming loss
- High overlap ratio and low gear transfer error
- Integrated water cooling design on housing

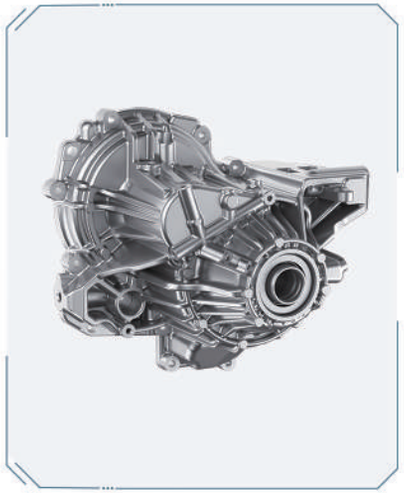


Item	Parameter
Weight(kg)	39.3
Torque(Nm)	6500
Max. Input Speed(rpm)	20000
Max. Efficiency	≥98%
System Efficiency-WLTC	≥97%

Parallel Shaft Coaxial Reducer

Small size with strong output

- Unique power output, match with auxiliary drive
- Co-axial Input and output power
- Small volume, compact structure
- Mature process, stable performance



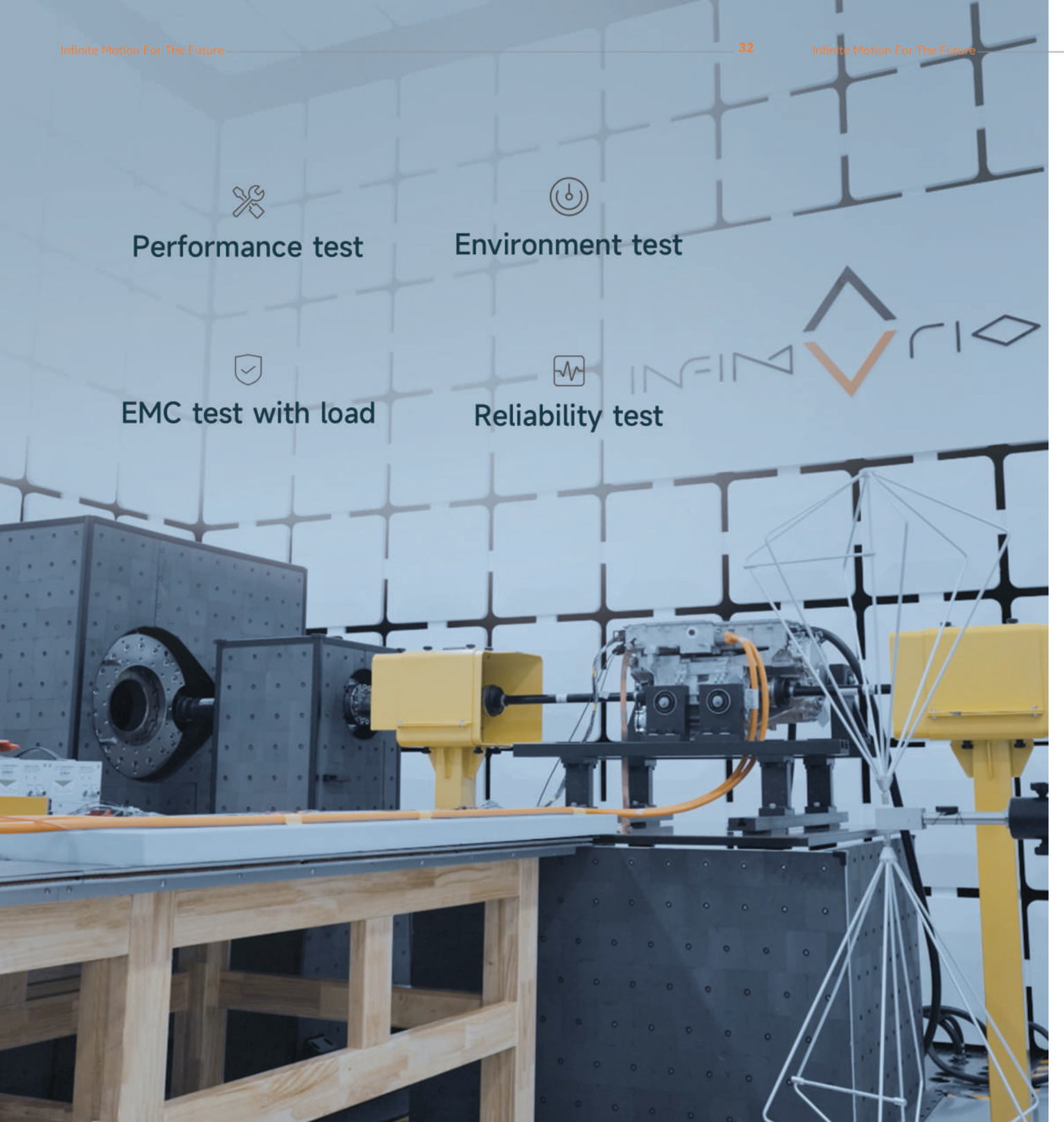
Item	Parameter
Weight(kg)	20
Torque(Nm)	2920
Max. Input Speed(rpm)	16000
Max. Efficiency	≥98.3%
System Efficiency-WLTC	≥97.8%

Planetary Reducer

First self-developed and mass produced coaxial planetary dual-motor reducer in China

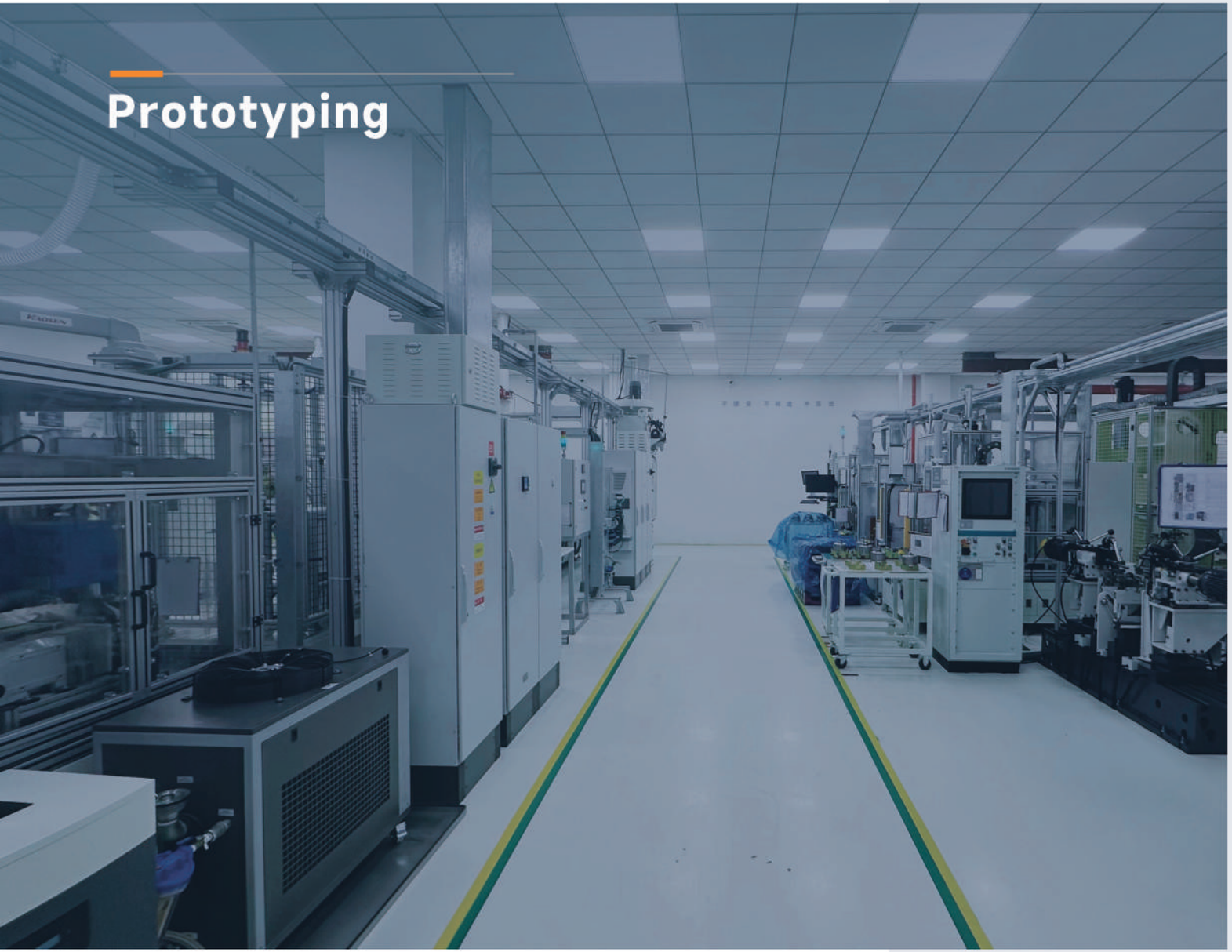
- NW planetary structure
- Innovative, delicate, compact structure
- Adopt four-point angular contact ball bearing
- Max.efficiency ≥98.5%, torque density up to 296Nm/kg
- Without separate active lubrication

Item	Parameter
Weight(kg)	14.4
Torque(Nm)	4275
Max. Input Speed(rpm)	21000
Max. Efficiency	≥98.5%
System Efficiency-WLTC	≥97.62%



Testing & Verification

- Obtained CNAS authoritative certification
- The world first use case of **30000rpm E-Motor test bench**
- Test bench parameters covering testing requirements of electric drive systems for conventional passenger cars and performance vehicles, covering up to 550kW high-performance E-motor testing
- Compatible with 400V/800V/925V
- Industry leading EMC test with load capabilities, compatible with EDU, motors, battery packs, static and dynamic EMC test requirements



Prototyping

› EDU System

› Hair Pin E-Motor

› Inverter

› Reducer

› PCBA

Intelligent Manufacturing

Stator line

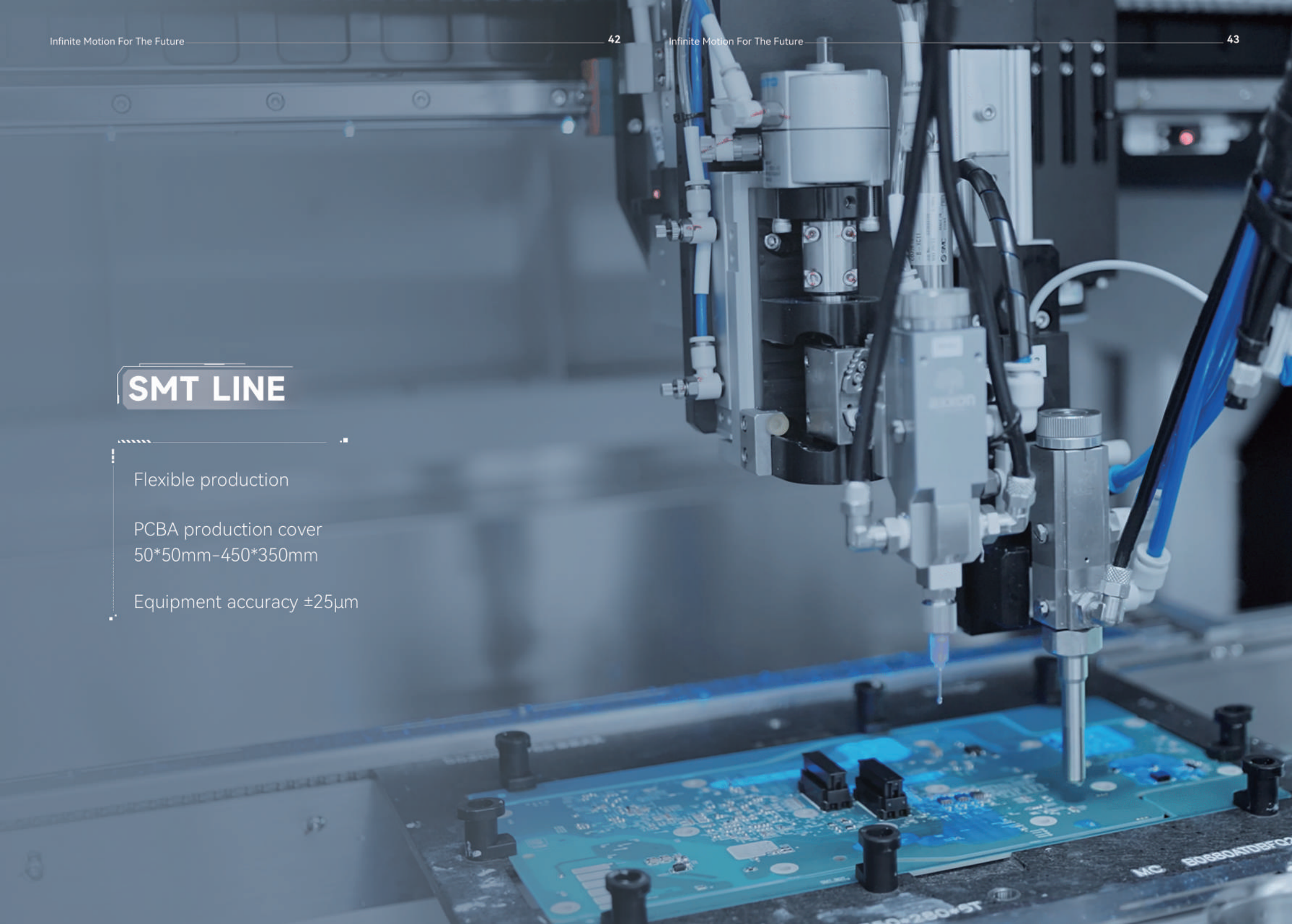
Automation rate 88%

100% fully automatic wire forming and insertion

Rotor Line

Automation rate 95%+

Dynamic balance accuracy
0.1g * mm/kg



SMT LINE

Flexible production

PCBA production cover
50*50mm-450*350mm

Equipment accuracy ±25μm

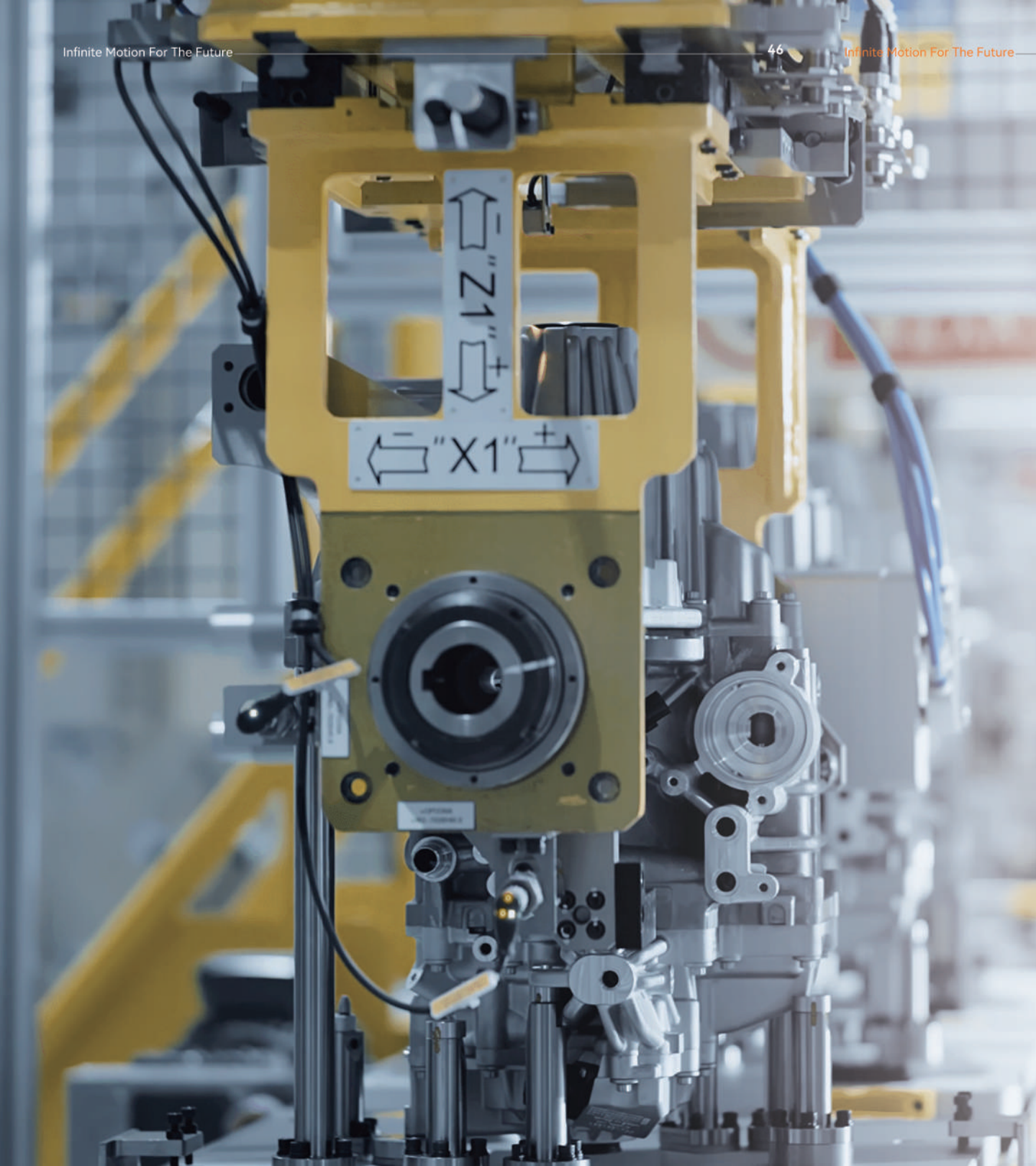
Infinite Motion For The Future 45

INVERTER ASSEMBLY LINE

100,000 level clean workshop

Flexible production

Fully automatic on-load aging test line



EDU LINE

MES system production data traceability

Displacement accuracy 0.01 mm

Equipment accuracy 0.1μm & measurement accuracy 3μm

Gear & Shaft Line

High-efficiency intelligent equipment

Accuracy up to grade 5

Complete inspection system ensures high quality control

Intelligent Measurement System

International advanced equipment

Accuracy 0.1μm

Ensuring every detail quality

SUSTAINABILITY

I Green operation

- Green Factory
- Photovoltaic Power Generation 500k kWh /Month
- 0 discharge of industrial wastewater
- 0 carbon emission target

I Low carbon production

- Recycled Materials
- Facilitating in decarbonizing the supply chain
- Green Logistics
- Delivery of low-carbon emission products