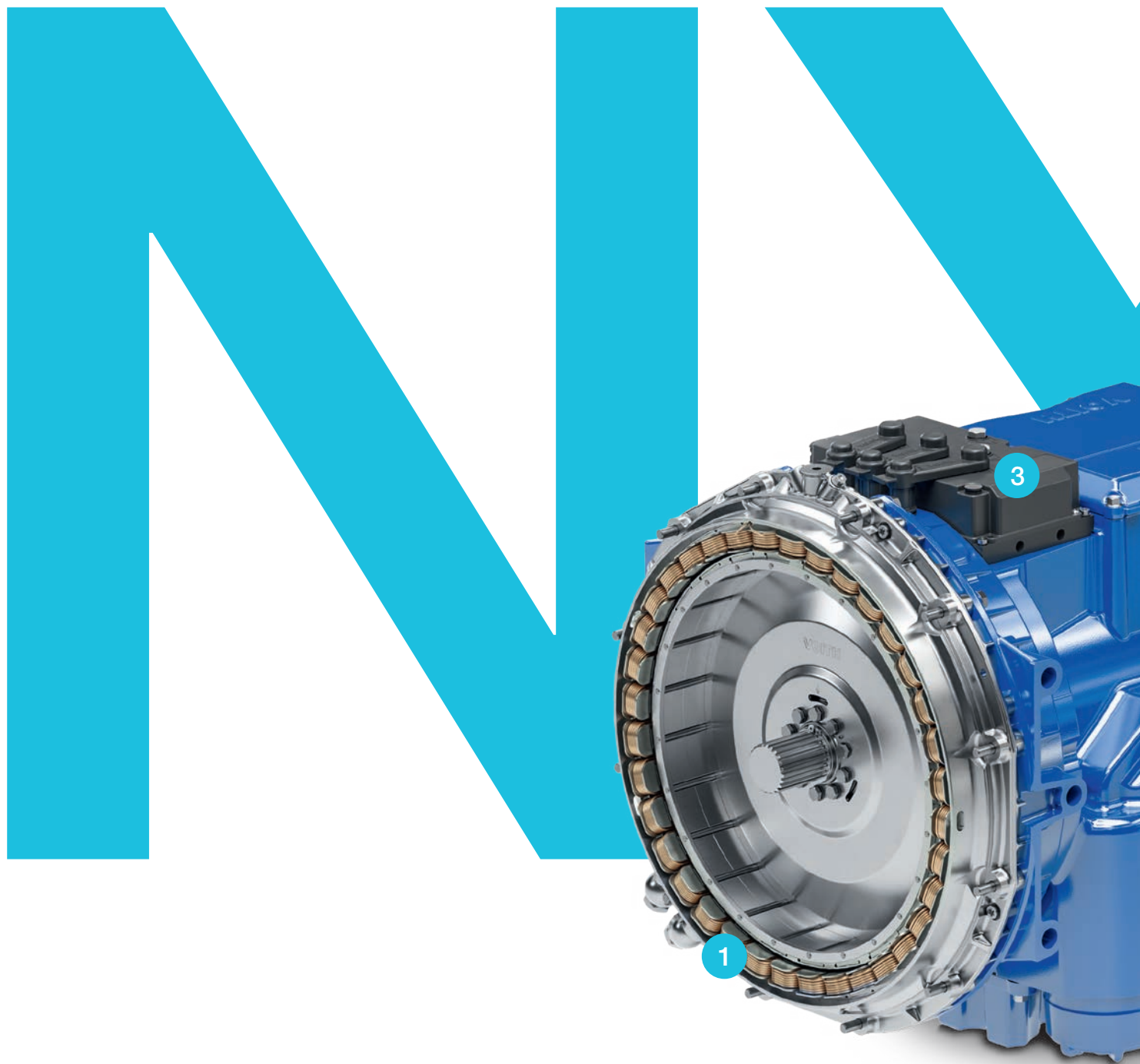


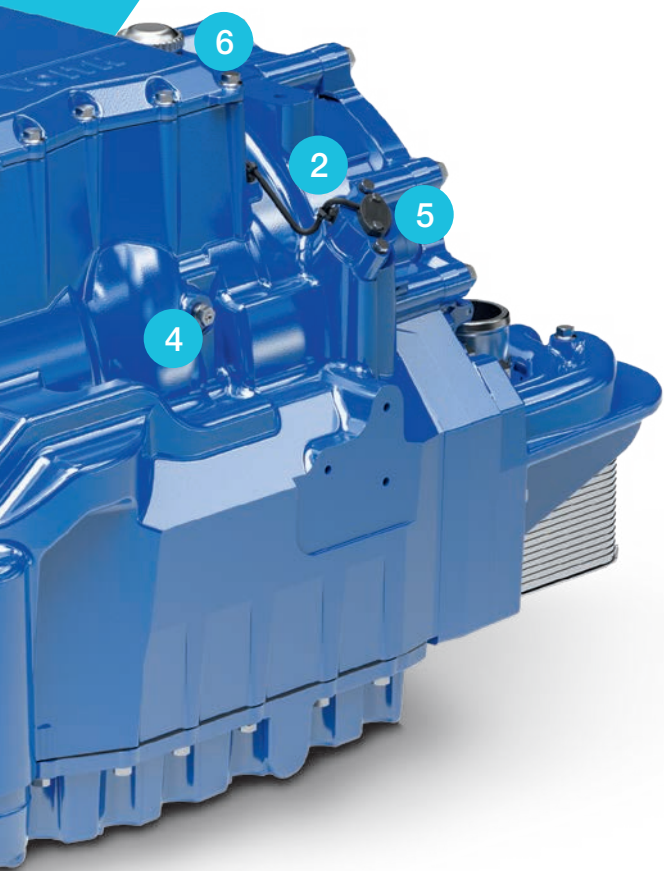
The right transmission.  
At the right time.  
**DIWA NXT**



**DRIVE  
NXT**



It's time for NXT.



### 1. Central Recuperation Unit

- + The CRU is integrated into the flywheel housing
- + It provides 25 kW of continuous power
- + Peak power from energy recovery stands at 35 kW
- + Liquid-cooled system
- + 48 V motor with 300 Nm engine starting torque for all types of combustion engines
- + Integrated system with minimum possible additional axial length
- + CRU can replace up to two alternators
- + The CRU system enables active engine stopping/starting
- + Start-up assistance through active boosting
- + Reduces load on vehicle's on-board electrical system thanks to recovered energy
- + Coasting in development

**DIWA NXT – the main advantages at a glance**

### DIWA NXT automatic transmission for all kinds of bus operations

The DIWA NXT is the latest generation transmission for city, regional, and touring buses. Its standout feature is optimized efficiency – it is equipped with a second overdrive, a separate retarder, and an optionally available central recuperation unit (CRU) that uses 48V technology to keep fuel consumption as low as possible.

### Predictive monitoring of the driveline

SmartMaintenance enables fleet management to permanently monitor the DIWA NXT transmission. The system identifies critical parameters and thus creates the conditions for predictive and optimal maintenance and repair of the transmission, matched to the relevant conditions.

### SmartMaintenance – Benefits

- + High vehicle availability
- + No unscheduled service
- + Minimize time in workshops

## 2. Second Overdrive (7th Gear)

- + Can now also be used for intercity and long-distance buses thanks to the second overdrive gear
- + Highest overall gear efficiency on the market
- + Best TCO thanks to lowest fuel consumption and maintenance costs
- + Additional comfort for passengers thanks to smoother engine speed adjustment to the driving situation
- + Lower noise emissions due to reduced average engine speed
- + Lower carbon and pollutant emissions thanks to optimized engine speed adjustment

## 3. Built-In Frequency Converter

- + The frequency converter is integrated into the transmission housing. No additional space required for installation
- + High efficiency due to short cable lengths
- + Liquid cooled with water-based coolant
- + IP6K9K
- + ISO 26262

## 5. Electrical System

- + Wiring harness outside the transmission for easier access and reduced maintenance costs
- + Heavy-duty cables specially designed and suitable for the conditions in the engine compartment
- + Sensors easily accessible from the outside of the transmission
- + Hardwired sensors ensure perfect quality of electrical signals

## 4. Optimized Torque Converter

- + Optimized torque converter for the start-up phase
- + Enhanced starting and climbing performance
- + Fully functional reverse gear mode
- + Independent of retarder function

## 6. Built-In Secondary Retarder

- + Retarder functionality almost up to a complete standstill
- + Better retarder control
- + Faster torque ramp-up
- + Optimized for cruise control

Up to

9%

Fuel savings due to hybrid system

+

Up to

7%

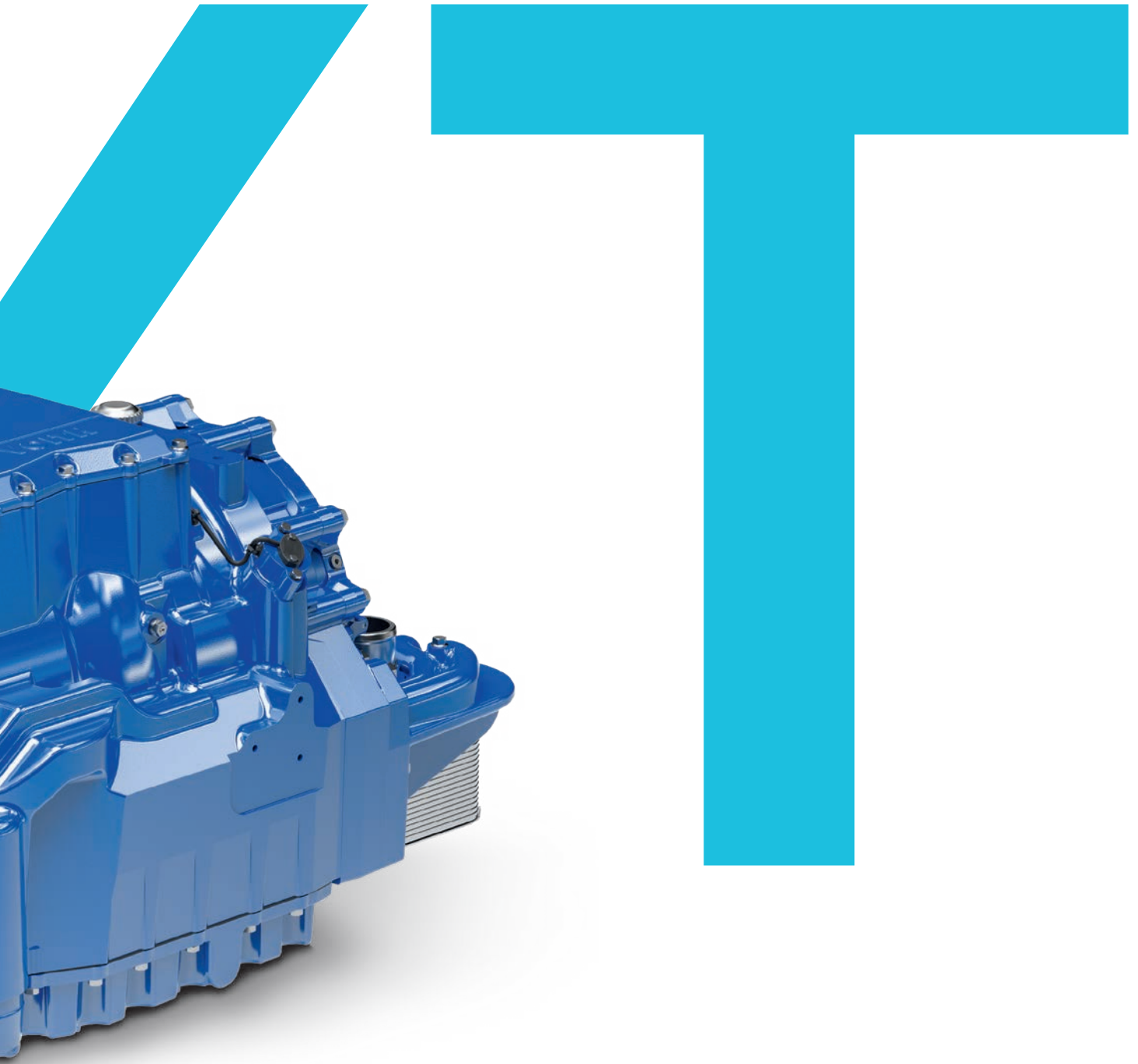
Fuel savings due to transmission

=

Up to

16%

Reduced fuel consumption



The DIWA NXT is much more than the latest generation of Voith's tried-and-true automatic transmission. With its recuperation unit, it offers bus manufacturers a simple and fully comprehensive way to hybridize their vehicles. By using the system, operators can help make public transportation more environmentally friendly – and greatly reduce their operating costs in the process thanks to fuel savings of up to 16 percent.



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# VOITH