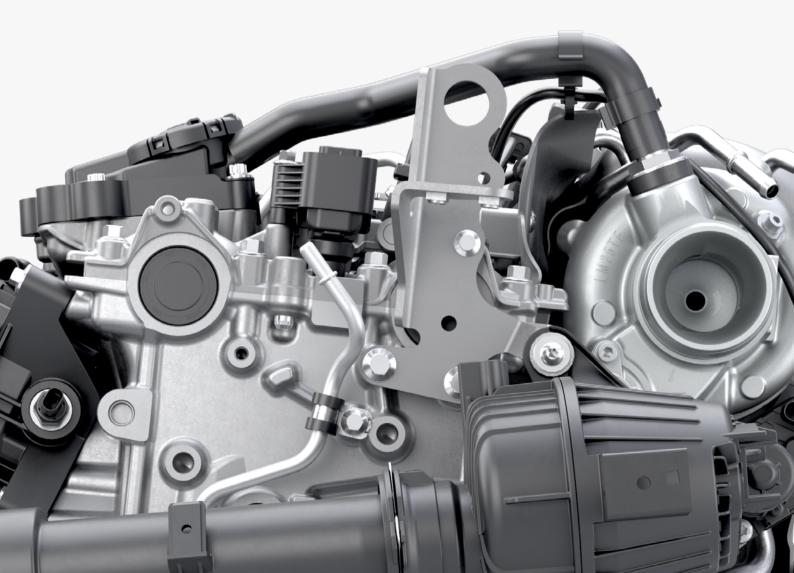


## NEXT-GENERATION POWERTRAIN SOLUTIONS



We offer a range of powertrain solutions to meet the needs of almost every customer, in every region, across every fuel type.

Whatever your need, we have the expertise, scale and innovation to deliver. Solving the biggest challenges together. A global footprint.

Argentin Braz Chi Chin

> Portug Roman

> > Spa

Swede

Türkiy United Kingdor



na	Córdoba
zil	Curitiba
le	Los Andes
na	Zhangjiakou
	Chunxiao
	Hangzhou
	Yiwu
	Baoji
	Guiyang
	Taizhou
	Changxing
al	Aveiro
ia	Mioveni
	Titu
in	Sevilla
	Madrid
	Valladolid
en	Gothenburg
	Skövde
ye	Bursa
m	London

#### A new global leader in powertrain solutions

Units produced

Revenue outlook €

Countries our products are present in

Manufacturing Plants

R&D Centers

17

5

Employees

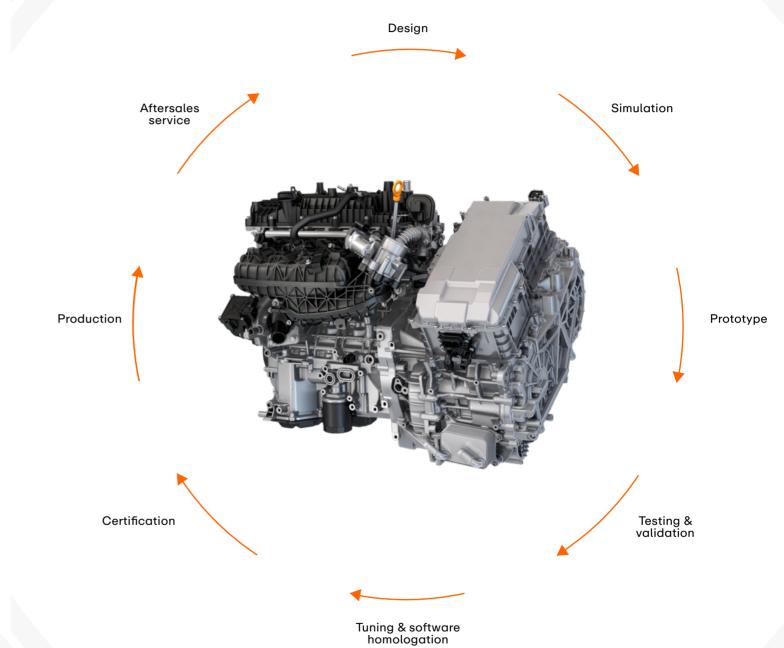
# 15bn +8m130





# END-TO-END SOLUTIONS WITH COMPLETE SERVICE INTEGRATION

We provide a fully-integrated end-to-end approach for the global market, supported by a range of associated services. Together, this allows us to improve efficiency and transparency across the value chain.



## NO SINGLE PATH TO NET ZERO

#### Improving combustion

- High-efficiency engines
- Modular and lightweight



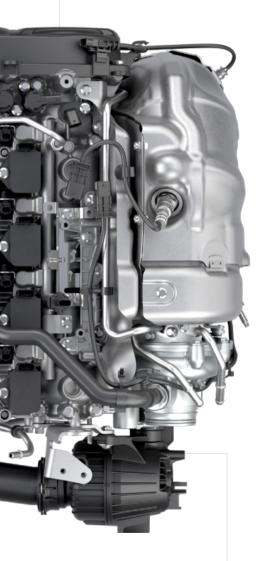
- Plug-in hybrids
- Hybrids
- Range Extenders

#### Intelligent Controls

- Al integration for faster learning
- Software Over The Air updates

#### Alternative fuels

- Methanol blends
- Zero-carbon Hydrogen
- Synthetic fuels



Zero Emission Engine Project

• Tailpipe emissions as much as 90% lower than EU7 legislation

Continuous improvements with

## LINE-UP

Wide range of combustion and mild-hybrid engines, and manual transmissions

Hybrid engines and automatic transmissions for everyday use

High-performance engines for everyday driving

Reliable and versatile range extenders

CORE

EFFICIENCY

PERFORMANCE

X-RANGE



CORE



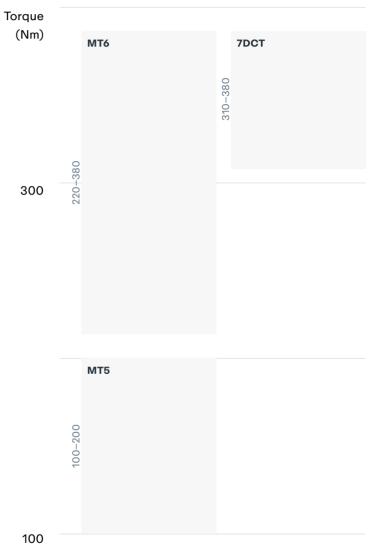
Cost-efficient solutions for regions with no or limited electric infrastructure. Balanced attribute delivery across all applications.

#### Product overview

CORE engines and transmissions



#### Transmissions





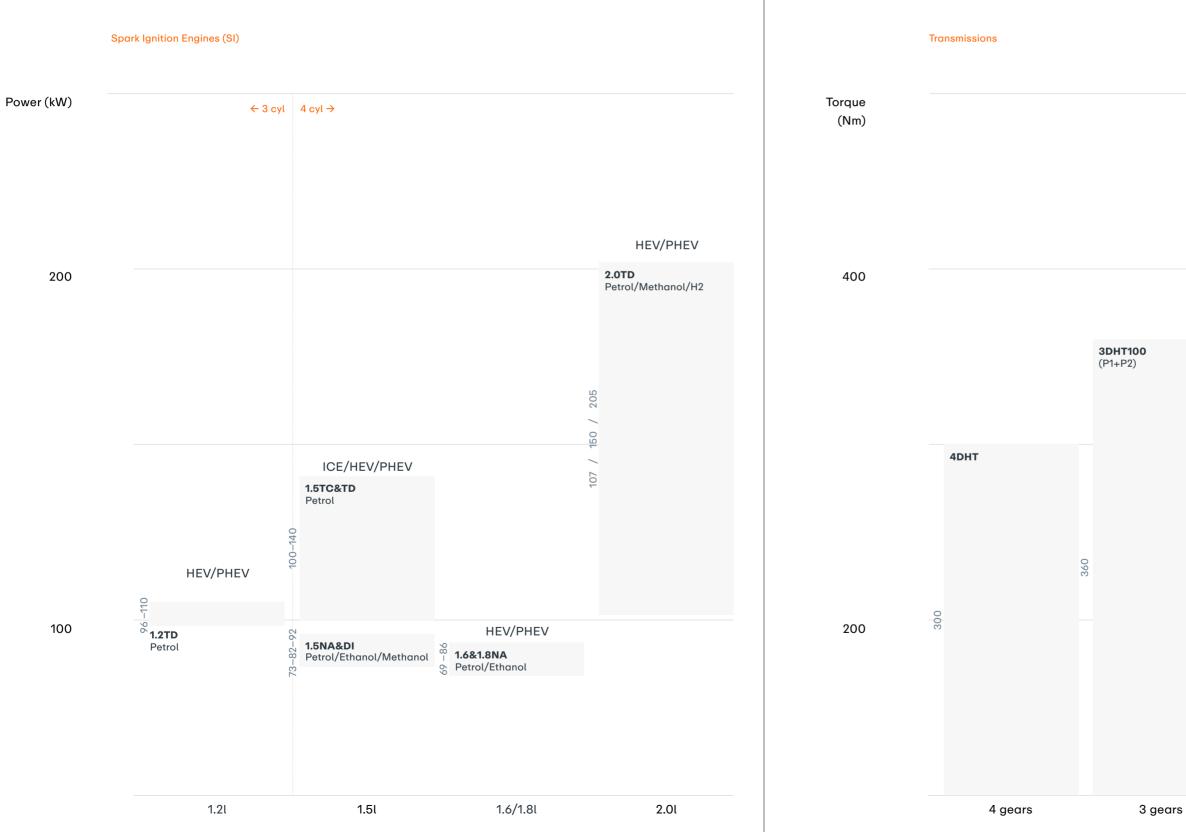
EFFICIENCY

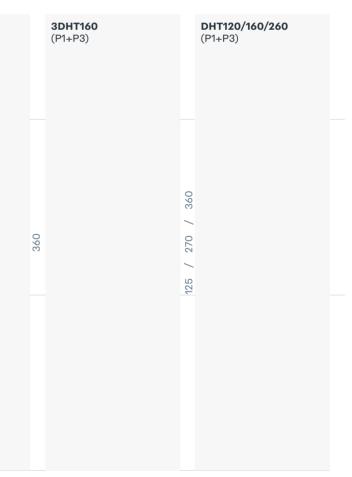


#### Outstanding fuel economy in the real world. Designed to push the boundaries of thermal and mechanical efficiency

#### Product overview

**EFFICIENCY** engines and transmissions





# 

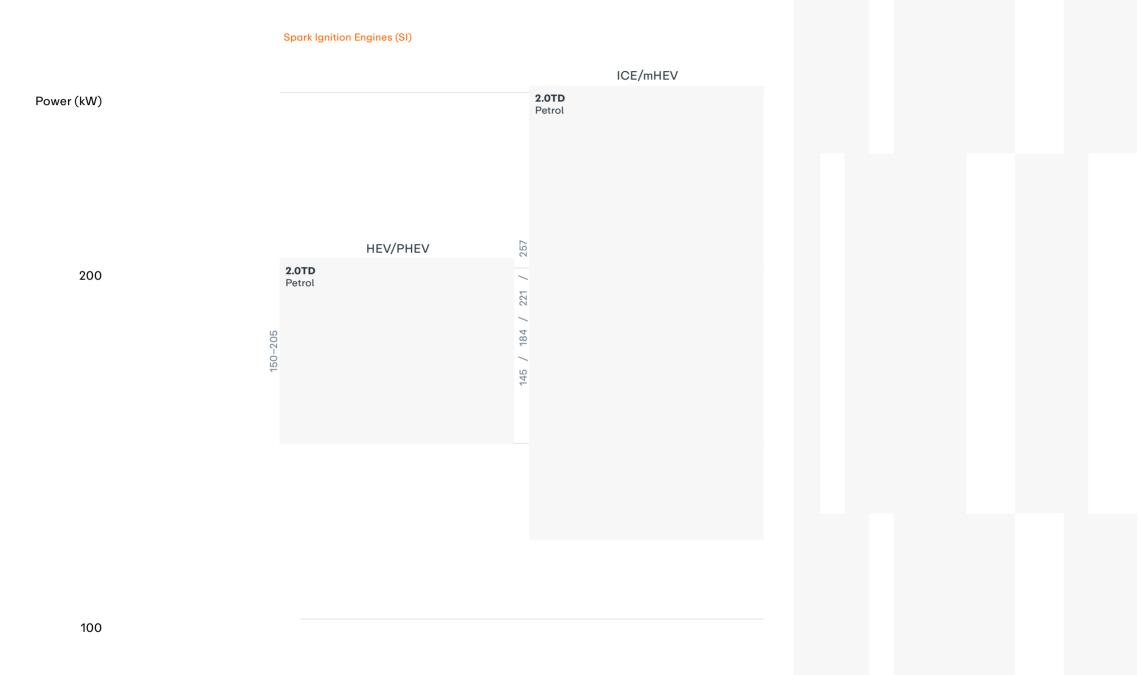


PERFORMANCE



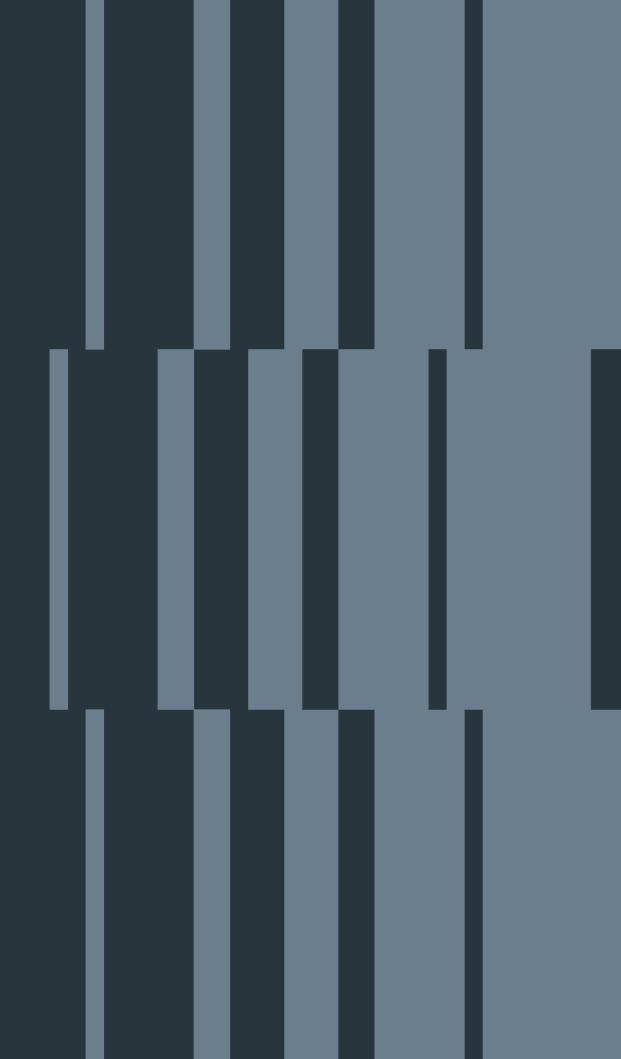
#### Delivering leading driveability and performance. Lightweight and durable, with market-leading power to weight ratio.

## Product overview PERFORMANCE engines

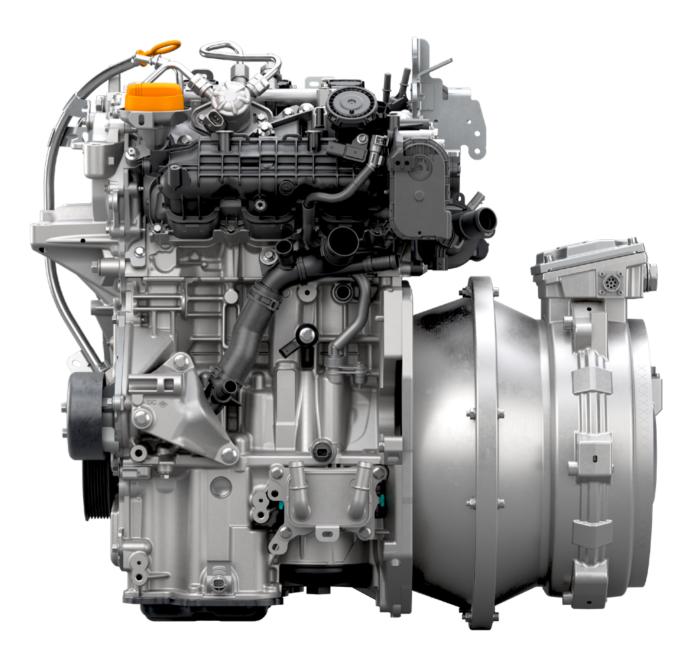








X-RANGE



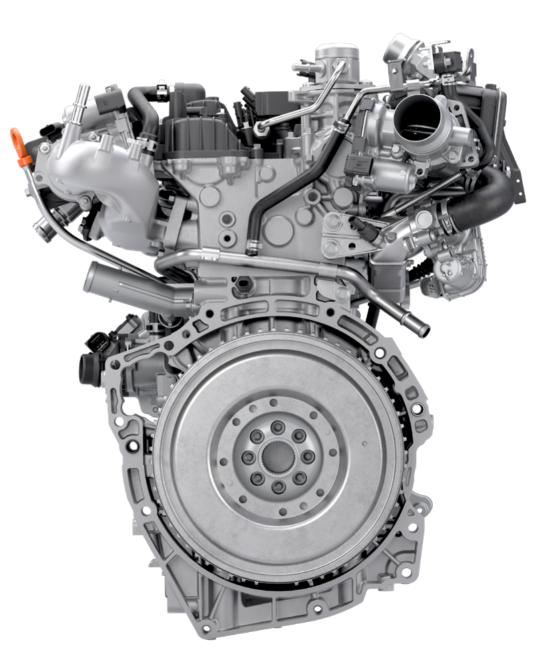
#### Extending the range for many different vehicle types. Lightweight, compact and efficient; compatible with multiple fuel types.



# $\mathbf{O}$

#### 1.5L T/C DI GASOLINE HEV/PHEV/REV

Max output power: Max output torque: 106kW@5500rpm 230Nm@2500-4000rpm



- High-performance turbo
- Miller Cycle
- High-Compression ratio
- Integrated Manifold
- Low-friction design
- Variable Oil Pump
- Silent IT Chain
- E-Water Pump
- Multi-Split Flow Cooling
- WCAC
- LP-EGR

#### 3DHT160 HEV/PHEV/REV

Max output torque: Toque mass ratio: Axial length:

4920Nm 41Nm/kg 354mm

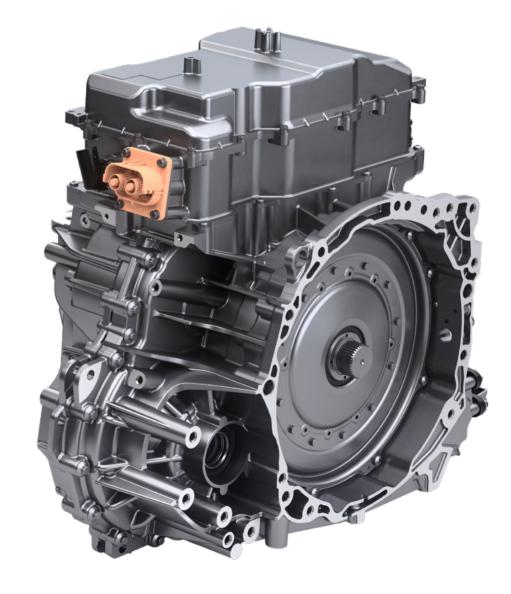
- High accuracy double clutch
- Double brake system
- Two planetary gearsets
- Eddy Current Sensor
- High-low pressure ETP
- 60Bar HCM
- Cooler system
- PCM
- 120Kg with oil
- Self-sealing differential
- Ultra-thin wall thickness housing
- High tech two E-motor system



Max output torque: EV Max output torque: 4000Nm P3 peak power:

4920Nm 160kW@380V





- P1/P3 Motor
- Electric shifting System
- Parallel gear
- Eddy Current Sensor
- BLDC motor & pump
- Integrated PCM
- Low-viscosity oil
- Self-sealing differential



NEXT-GEN

#### horse-powertrain.com

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