POWERTRAIN 48-77

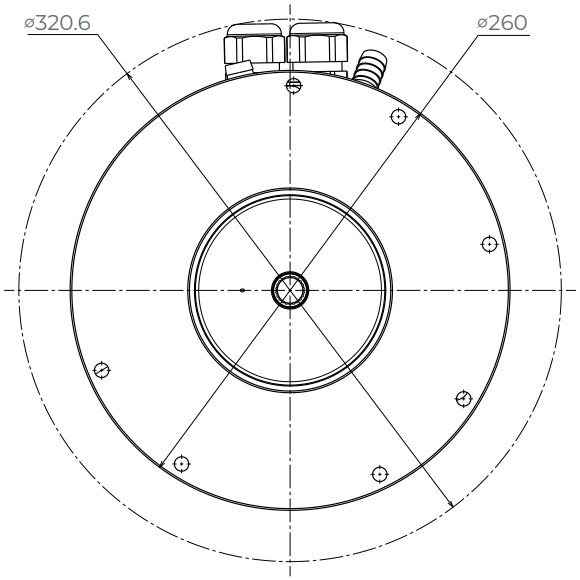
48 V

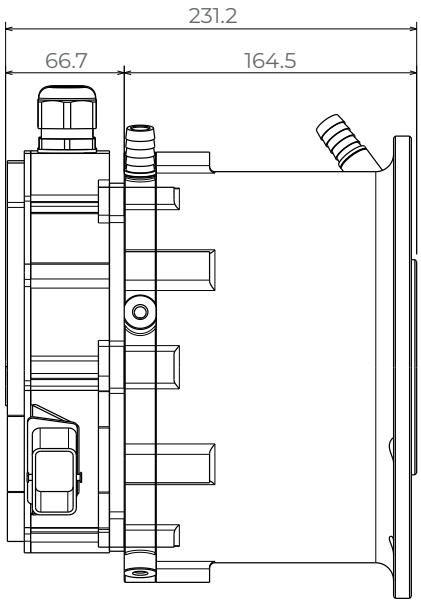
emi
GROUPE GCK

Syncro-reluctant engine with variable reluctance and permanent magnets, with integrated water-cooled 48V high-power inverter.

A low-voltage, high-performance motor produced in collaboration with Solution F. This 48 V powertrain for a large range of vehicles (from family cars to worksite vehicles) is made in France and has been UTAC R85 approved.

- **Inbuilt design**
  motor & inverter
- **Light and compact design with high performances**
  40 kW maximum power
  77Nm maximum torque
  11 000 rpm maximum speed
- **Increased safety**
  58 V maximum voltage
- **Common liquid cooling system**
  between the motor and the inverter
- **Designed and made in France**





APPLICATIONS

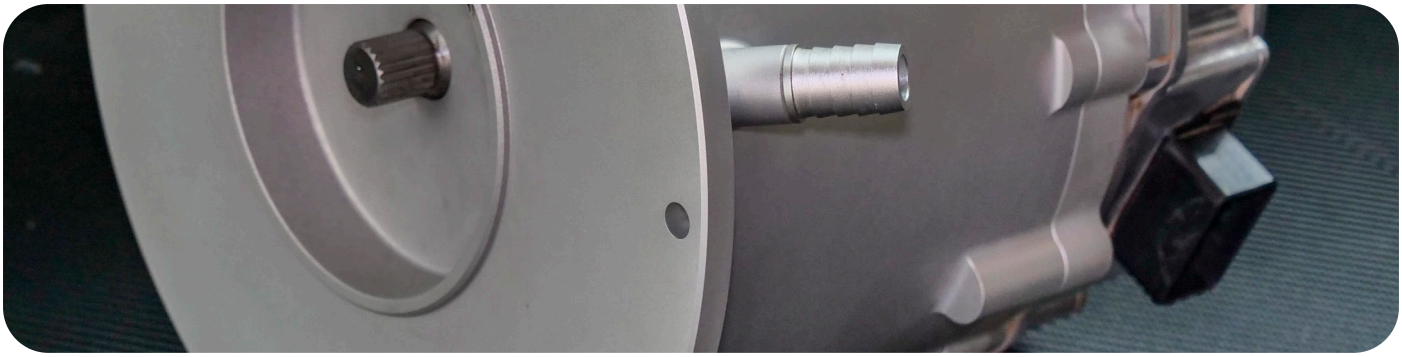
Hybrid and electric cars

Racing car

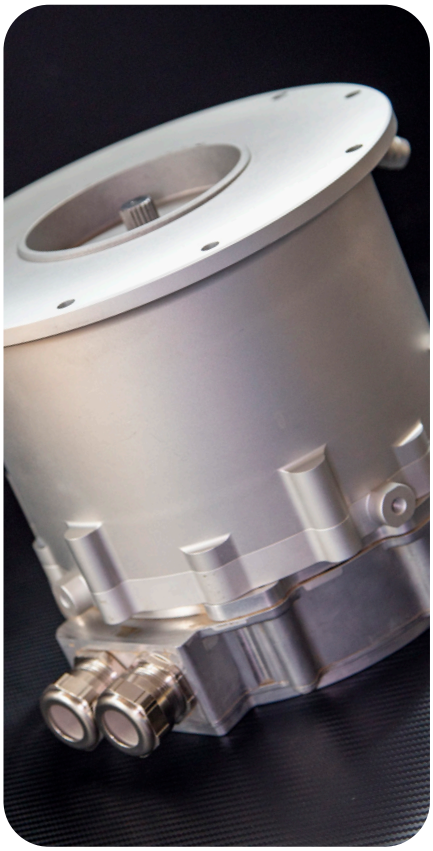
Off-road vehicle

Marine

Small commercial vehicle



TECHNICAL CARACTERISTICS



TECHNOLOGY

Motor technology
Permanent magnets synchro-reluctant electric motor

Cooling type
Liquid cooling - Glycol water

Number of phases
6 phases

Number of motor poles
8 poles (4 pairs)

Rated voltage
48 V (36 V min – 60 V max)

Continuous max. power
22 kW

Maximum power
40 kW

Maximum speed
11 000 rpm

Maximum peak torque
77 Nm @ 500 rpm

Torque @ 0 speed
42 Nm

Motor interface
ISO 4156 - 2005 Z22 M 0.75 45 deg

Gear length
18.3 mm

Ingress protection
IP67

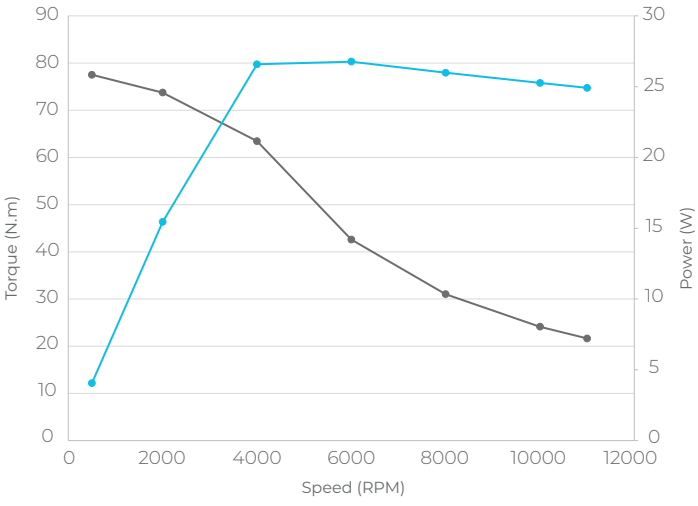
Coolant max. temperature
65° C

Total weight (motor + inverter)
23.5 kg

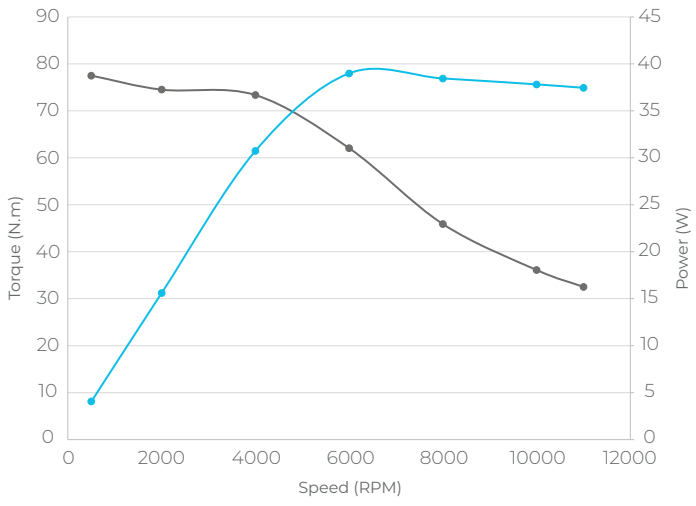
Communication
CAN

POWER & TORQUE VS. SPEED

@42VDC



@58VDC



Torque (N.m) Power (kW)

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