

# e-GoKart Powertrain Young Star



- ▶ Ready to use solution
- ▶ Lowest maintenance costs due to highly reliable electrical powertrain
- ▶ Advanced software and permanent software monitoring
- ▶ Excellent drivability in all applications

The e-GoKart System combines traditional karting and future-oriented technology. High energy and power density of the air-cooled system components are ideal for small and lightweight vehicles like e-GoKarts. With high torque, the e-GoKart System supports convincing driving behavior and fun-to-drive. The e-GoKart System provides high power over a wide range for maximum vehicle speed. By intelligent software, the e-GoKart System gets the best out of the vehicle at any time and any driving profile, energy recuperation included. The system is safe and reliable based on automotive qualified components and a development approach according to automotive standards. The e-GoKart System is a platform for easy scalability over different vehicle classes and types.

## Application

System weight	41 kg
Nominal voltage	48 V (no special safety precautions are required)
Power modes	Reverse, boost, 3 different power maps (can be calibrated according to customer requirements)
Network	Optional external remote control with speed limitation to 5 km/h
Switches	At steering wheel: reverse and boost At body for system: On/Off, neutral/drive, key switch for 3 different power maps

## Technical Specifications

### Power Unit PU 5-10 Component specification

Technology	Claw pole electric motor with integrated inverter and $\mu$ C
Maximum engine power	8.0 kW
Scalable power maps	3 available
Maximum engine torque	50 Nm
Maximum speed	10.000 rpm
Weight	9,8 kg
Thermal system	Air cooled with integrated fans

### Energy Storage ES 5-2.4 Component specification

Technology	Lithium-Ion with Battery Management System
Capacity	2 to 4 x 2.4 kWh
Driving time under racing conditions with 4.8 kW	More than 1 hour
Total charging time	4 hours (2 hours per battery)
Charge connector	230 V
Weight	2 to 4 x 15 kg
Thermal system	Passive cooled

### Content of kit

Power Unit PU 5-10
2 to 4 x Energy Storage ES 5-2.4
Vehicle Control Unit VCU MS 40
Display Unit DDU 18
DC/DC converter

Charger Energy Storage CH 5-1.2	
Wiring harness with switches	
Acceleration Pedal Sensor	F 02U V02 691-01
Brake Inductive Sensor	F 02U V02 690-01
Pressure Sensor	0 261 545 030

### Installation Notes

Typical lifetime Battery: 80 % battery capacity after 2,200 h / 1,500 cycles according to Bosch standard validation program

Typical lifetime PU and VCU: max. 3,000 h

For application with severe conditions and/or high volume, please contact your Bosch Motorsport counterpart in order to define the most appropriate validation program

### Ordering Information

**e-GoKart Powertrain Young Star**  
Order number **F 02U V02 649-02**

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