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INORAIL
MINING PUMPS & MONORAILS

SCHARF



BATTERY

Light Electric Vehicle

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SMT SCHARF BATTERY LEV

- + 100% Electric – Zero Emissions
- + 150 km range (NEDC), 2 hours charge time
- + High Safety Standard due to immersion Cooled battery cells



- + Reduces your carbon footprint and improves overall sustainability of your operations
Less energy consumption of vehicle, reduced mine ventilation
- + Improves the working conditions of your employees due to reduced noise level, emissions free operation, more comfortable ride and an immersion cooled battery
Less fatigue and safer operation
- + Reduces operating costs by significantly reducing maintenance
Lower OPEX, improved running time

High Safety Standard:

- + Battery cells are immersion cooled by means of a dielectric coolant. Each single cell is always kept within optimal operating temperature.

Prime Quality:

- + Highest quality of the basic vehicle
- + Proven electric drive components by automotive Tier 1 suppliers and seamless integration of all system components



BATTERY LIGHT ELECTRIC VEHICLE

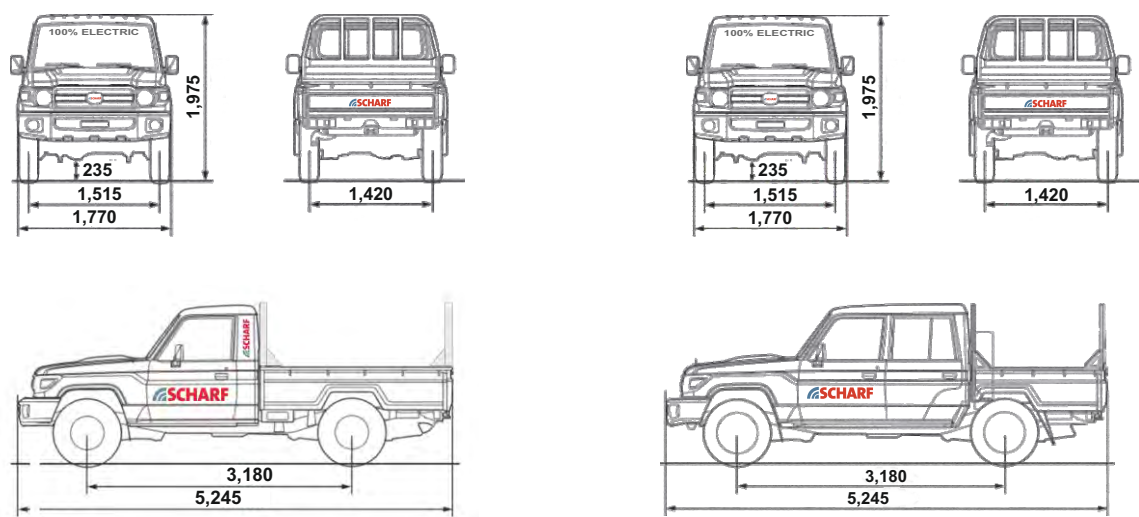
- + Highest overall energy efficiency – energy recuperation on descent
- + Emissions free operation and significantly reduced heat emission – considerable reduction in mine ventilation cost
- + Substantially reduced overall maintenance efforts and cost
- + Reduced operator noise level



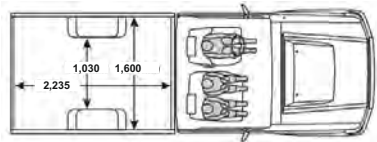
PRIME QUALITY

- + Highest quality of the basic vehicle
- + Electric drive components by automotive Tier 1 suppliers

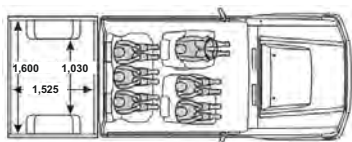
TECHNICAL DATA



2-Door



4-Door



Weights (kg)

Kerb weight	2,140	2,280
Gross Vehicle Weight	3,200	3,200
Payload	1,060	920

Dimensions (mm)

Length	5,245	5,245
Width	1,770 (1,790)	1,770 (1,790)
Height	1,975	1,975
Wheelbase	3,180	3,180
Ground clearance	235	235

Gradeability	45° in low gear	45° in low gear
Maximum speed	120 km/h in high gear	120 km/h in high gear
Range (NEDC)	150 km	150 km

Drive/Electric Powertrain:

Liquid Cooled Electric Motor:
Nominal Voltage 300 V AC, Nominal Power 90 kW,
Nominal Torque 655 Nm, Maximum speed: 3 600 rpm

HV-Battery Package:	40.24 kWh energy storage ,Dielectrically liquid cooled, Power Distribution Unit Battery Management System, High Voltage Safety Circuit, Master Disconnect Switch
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On-Board Charging Device:	22 kW On-Board fast charger, charger liquid-cooled, high voltage safety circuit CCS type 2 with locking actuator CCS 2 – CEE 5pin 32A Charging cable, 5m
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System Management: High Performance CANBus Platform, 32-Bit Power designed for safety-critical applications Vehicle Control, Energy- Power- & Safety Management for HV- and LV	Thermal Management System: 44000 BTU Cooling System rated up to 40 °C ambient temperature to cool the battery-, powertrain- and electronics during operation and charging.	Safety: High voltage protection: Over Voltage, Under Voltage, Over Current, Thermal Monitoring, Arc Flash Detection, Fire Detection.Insulation monitoring. EndToEnd Communication (CANBus monitoring), HV Interlock System (high voltage safety in case of mechanical interruption)
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Performance

- + On-board Charger (Three Phase) 2 hours
- + On-board Charger (Single Phase) 6 hours
- + Gradeability (Max) 45° (Low Range)
- + Top Speed 145kn/h

Battery

- + Chemistry – Li-Lon Nmc
- + Cooling Method – Liquid Cooled
- + Capacity 106 Ah 40.24kWh

Drive

- + Invertor Peak Current 400 A
- + Motor Type – Permanent Magnet Synchronises with Resolver
- + Continues Power 60 kW
- + Peak Power 100 kW
- + Continues Torque 655 Nm
- + Peak Torque 1000 Nm
- + Transfer Box 2-High, 4-High, 4-Low
- + Diff Lock – Front and Rear

Standards

Safety

- + Airbags
- + ABS

Charge Interface

- + CCS type 2

Interior

- + Aircon

Machine Intelligence

- + Fully Electronic Control equipped with CAN Bus
- + On-board Machine Diagnostic
- + Data Logging

Optional Extras

Tick for Optional extra to be included in quote

Performance

- ☐ DC Fast Charger 43min

Safety

- ☐ SAHR Safety Brake
- ☐ Rear View Camera
- ☐ ROPS & FOPS
- ☐ Reverse Alarm
- ☐ Sealed Wet Brake System

Charge Interface

- ☐ CCS Type 1
- ☐ Other (On Request)

Machine Intelligence

- ☐ Customised Date Logging
- ☐ CAS (Collision Avoidance System) compliant ISO-21815
- ☐ Automatic Decline Speed Control (ADSC)
- ☐ Door – Brake Interlock
- ☐ Automatic Emergency Brake Protection
- ☐ Mine Communication Network Connectivity
- ☐ Automatic Brake Test

Registration

- ☐ Road Registered

Phone or Email for a Quote

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