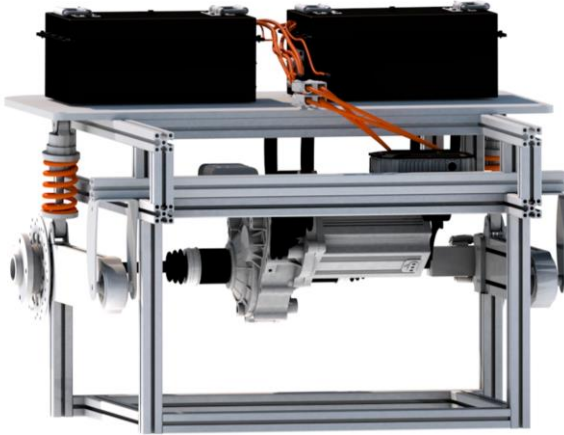


Product Specification

SEVS 4kW Conversion Kits
For Tuktuk Electrification



Innovative & Complete Electrify Solution for Classic Tuktuk



Electrify & Intelligentize by Powertrain of 4kW and CAN Bus 2.0
Integrated Gear Box of Speed Reduction Rate 1:8.34, Customizable
Max. Speed 55-60 km/h, Mileage >120 km with 8.3 kWh
Highly Tailor-Made Complete Solution for Easy Conversion Operation
Over 85% Energy Cost Saved after Electric Conversion
Power Transmission Efficiency >98%

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4kW Electric Motor with Gear Box Integrated

Key Technical Data



Model: S-T-MT3000/4000/5000

Rated Power: 4.0kW

Rated Rotating Speed: 3000rpm

Nominal Torque: 12.7N.m

Rated Phase Current: 60A

Efficiency: >89%

Insulation Grade: H

Sensor Type: Hall Sensor

Rated Voltage: 60V/72V

IP Rate: IP65/67

Peak Power(10min): 8.0kW

Max Rotating Speed: 6000rpm

Peak Torque: 82N.m

Peak Phase Current: 280A

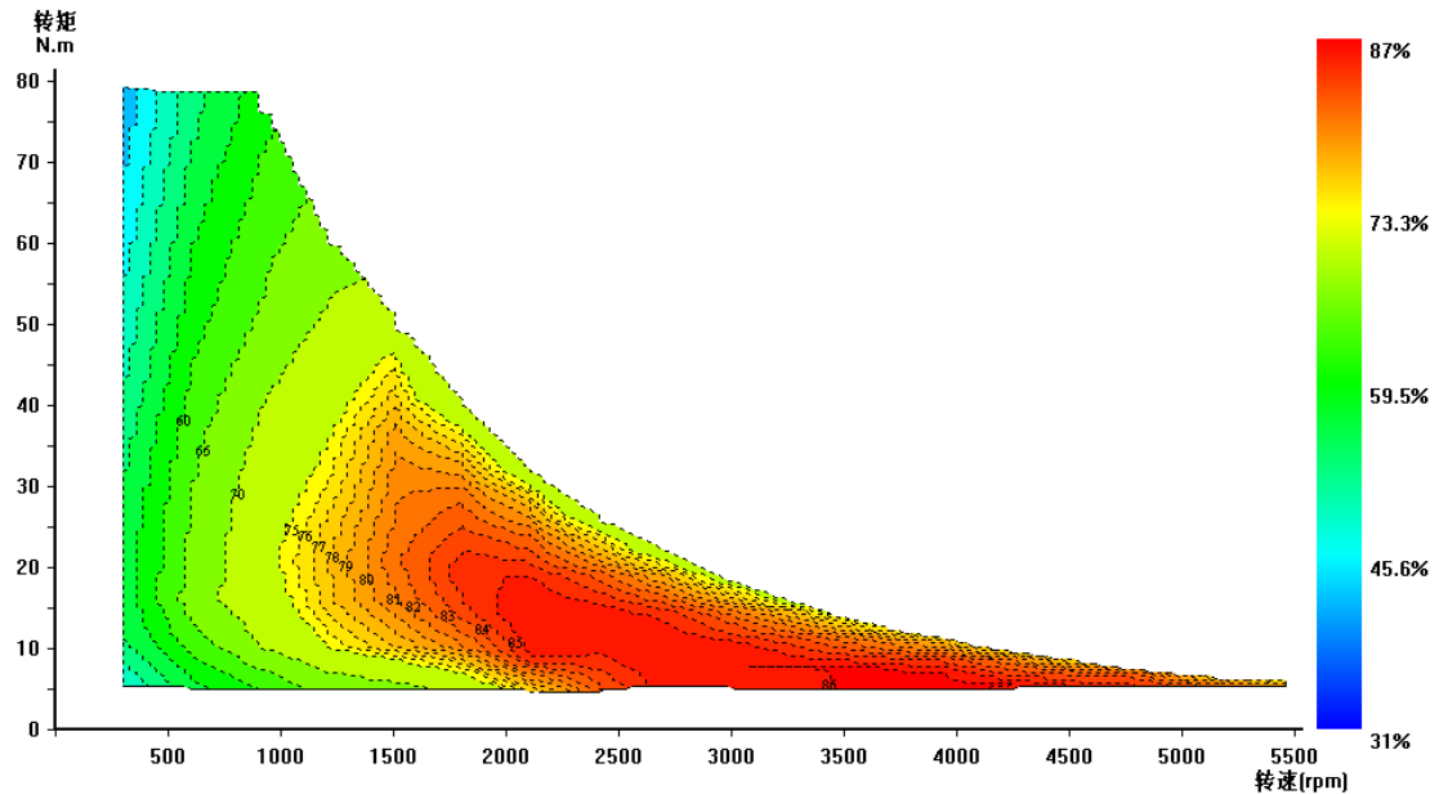
Cooling Mode: Air cooling

Net Weight: 23.0KG

Operating Mode: S9

4kW Electric Motor with Gear Box Integrated

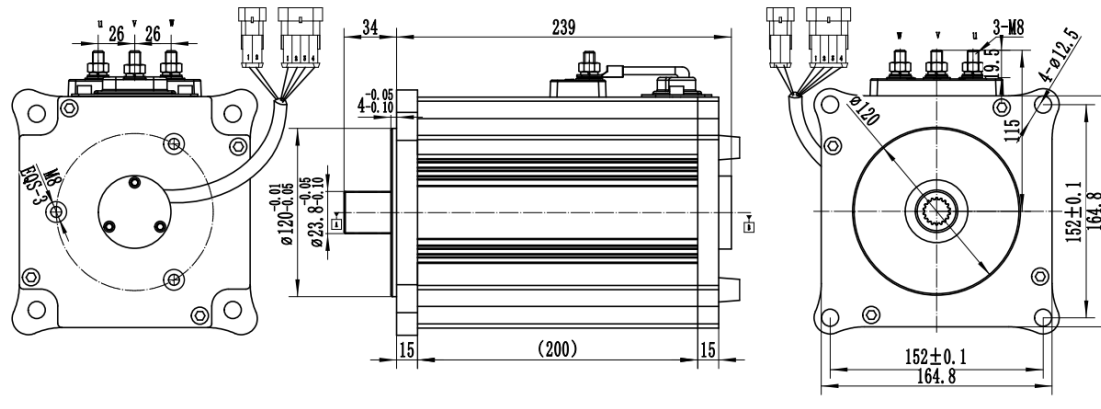
Motor Features Map



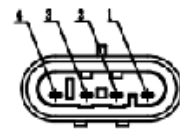
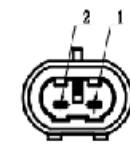
4kW Electric Motor with Gear Box Integrated

Mechanical Characteristics

Overall Dimension

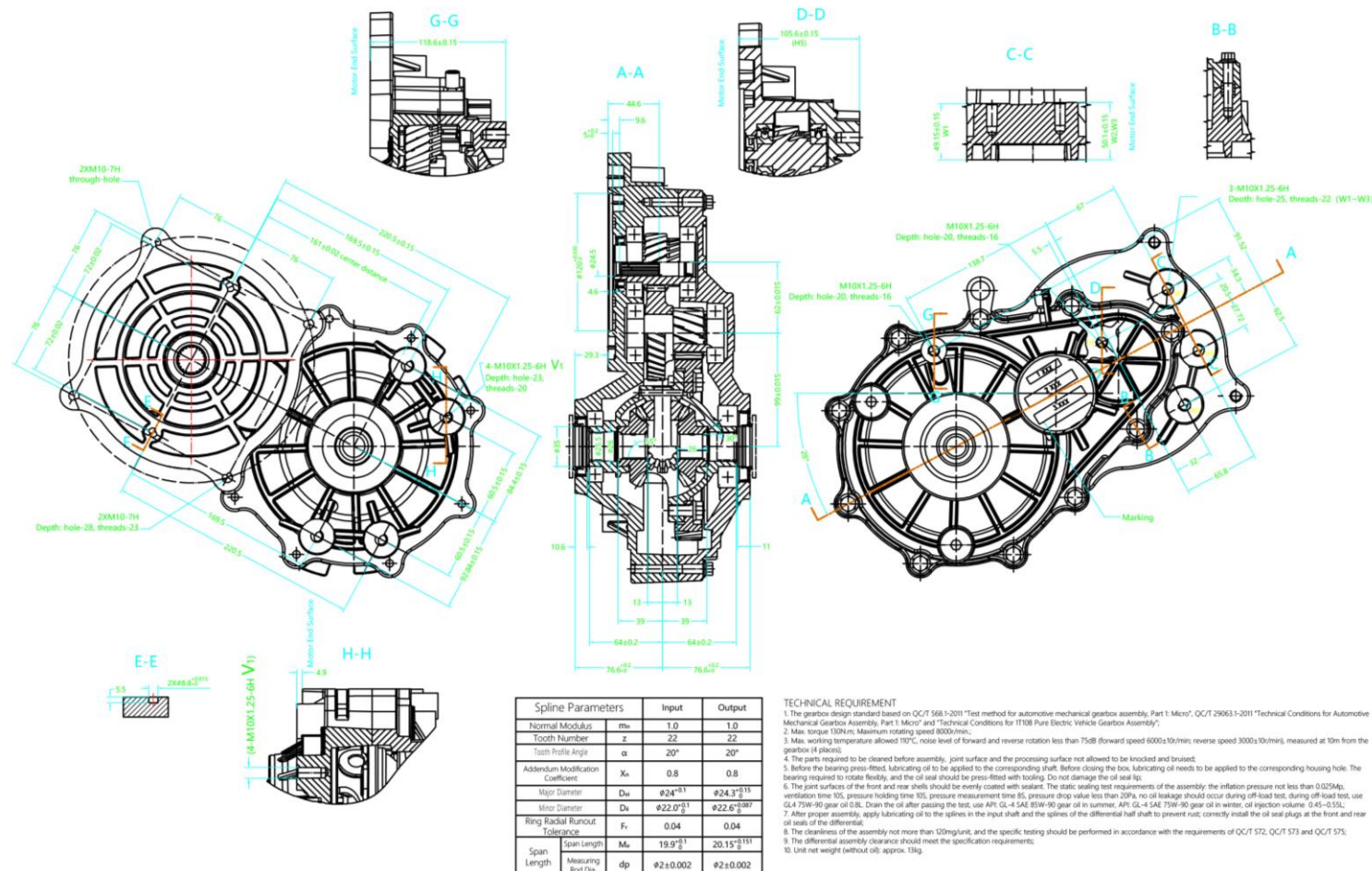


Pin Definition of Connector

Connector Type	Drawing	NO.	Definition	Wire Color	Wires Gauge
DJ7041-1.5-11		1	5V	Red	0.3mm ²
		2	Encoder A	Yellow	
		3	Encoder B	Green	
		4	GND	Black	
DJ7021-1.5-11		1	KTY84-150 Temp	White	0.3mm ²
		2	KTY84-150 Temp	Blue	

Automotive Gear Box

Speed Reduction Ratio Customizable



Motor Control Unit

Key Technical Data



Model: S-T-MC4000

Nominal Voltage: DC 60V/72V

Rated. Output Current: AC 120A

Dimension: 195 x 165 x 100mm

Weight: 2.3kg

IP Rate: IP65

Cooling System: Air Cooling

Max. Output Current: AC 320A

Working Mode: FOC/Torque control

Communication: CAN2.0B

Controller Functions



Regenerative Braking

Over Current Cut Off

Bus Line Overvoltage Cut

Bus Line Low-Temp Protection

Bus Line Current Limit

Soft Start

Anti Slip Down Protection

Short Circuit Cut Off

Bus Line Undervoltage Cut

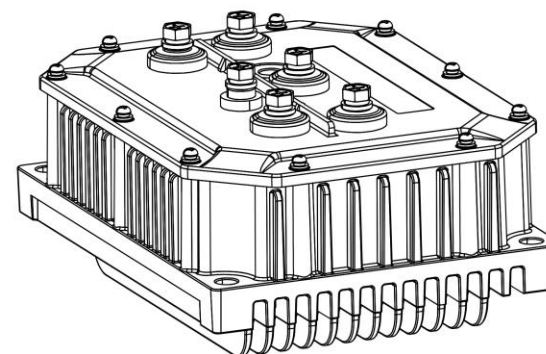
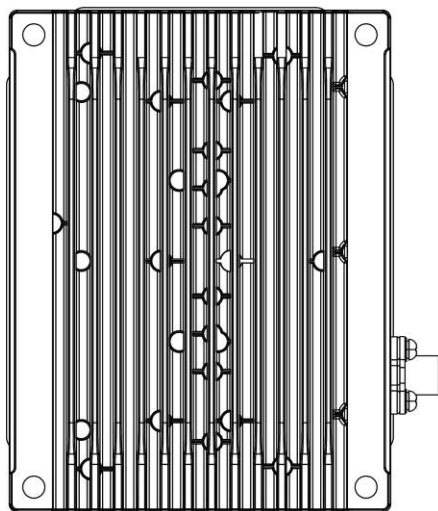
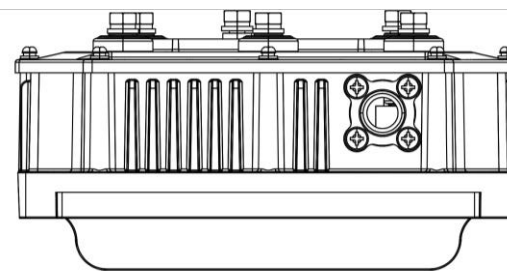
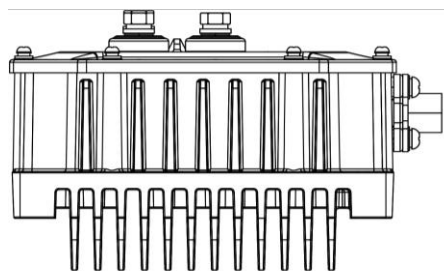
Bus Line Over-Temp Protection

Throttle Fault Detection

Boost Mode

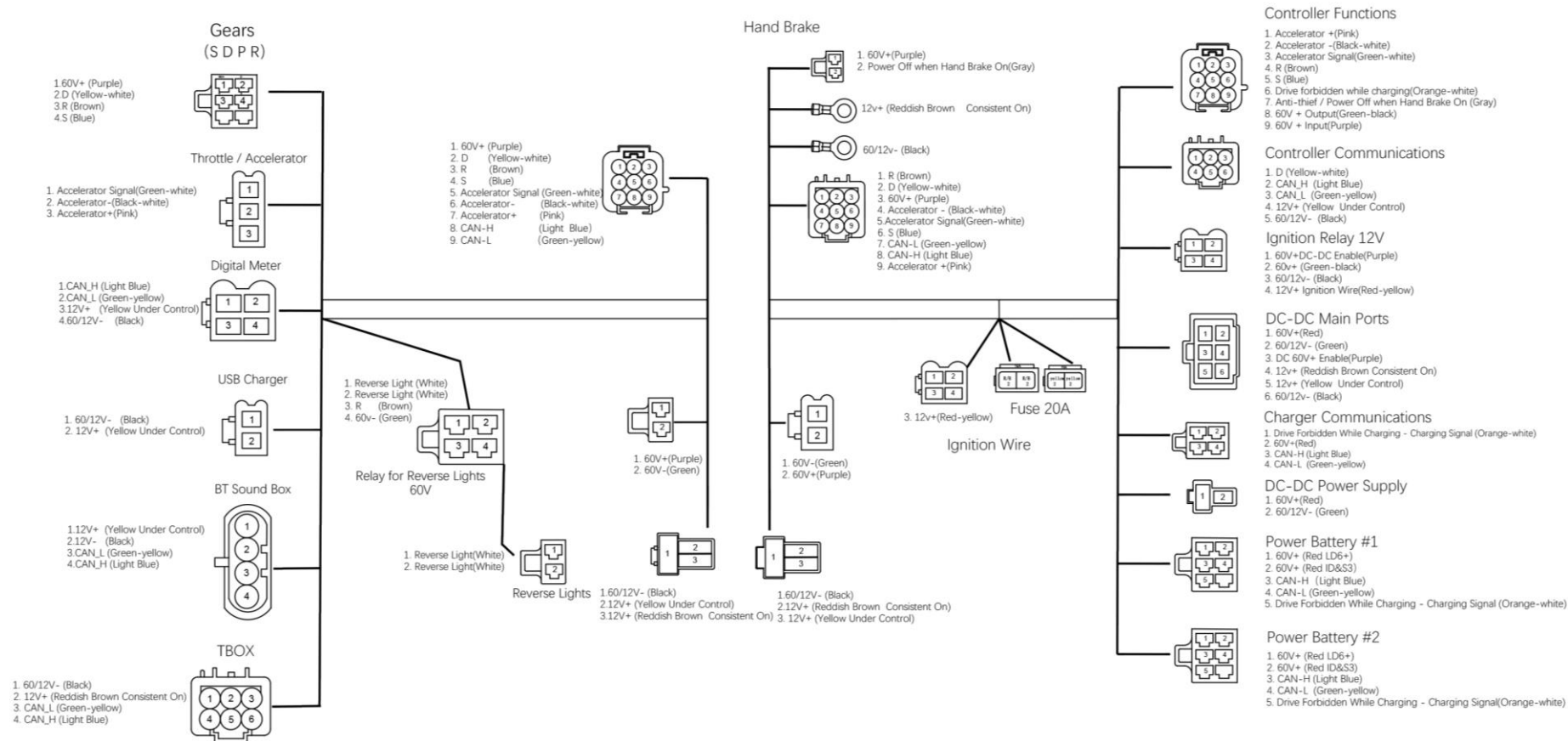
Motor Control Unit

Overall View



Motor Control Unit

Wiring Diagram



Digital Display

Key Features

Battery Level Indication

Speed Display

Gear Status Display

Fault Alert

Switchable to Night Mode

Communication: CANBus 2.0B



Option A
Original Mechanical
Meter Replacement



Option B
Advanced
Alternative Model

DC-DC Converter



Key Technical Data

Input Voltage: 42~86V

Output Voltage: 13.8v~14.3v $\pm$ 0.3V

Input Current: <6A(full loading)

Output Current: 0~30A

Operating Frequency: 50kHz

Max. Power: 360W

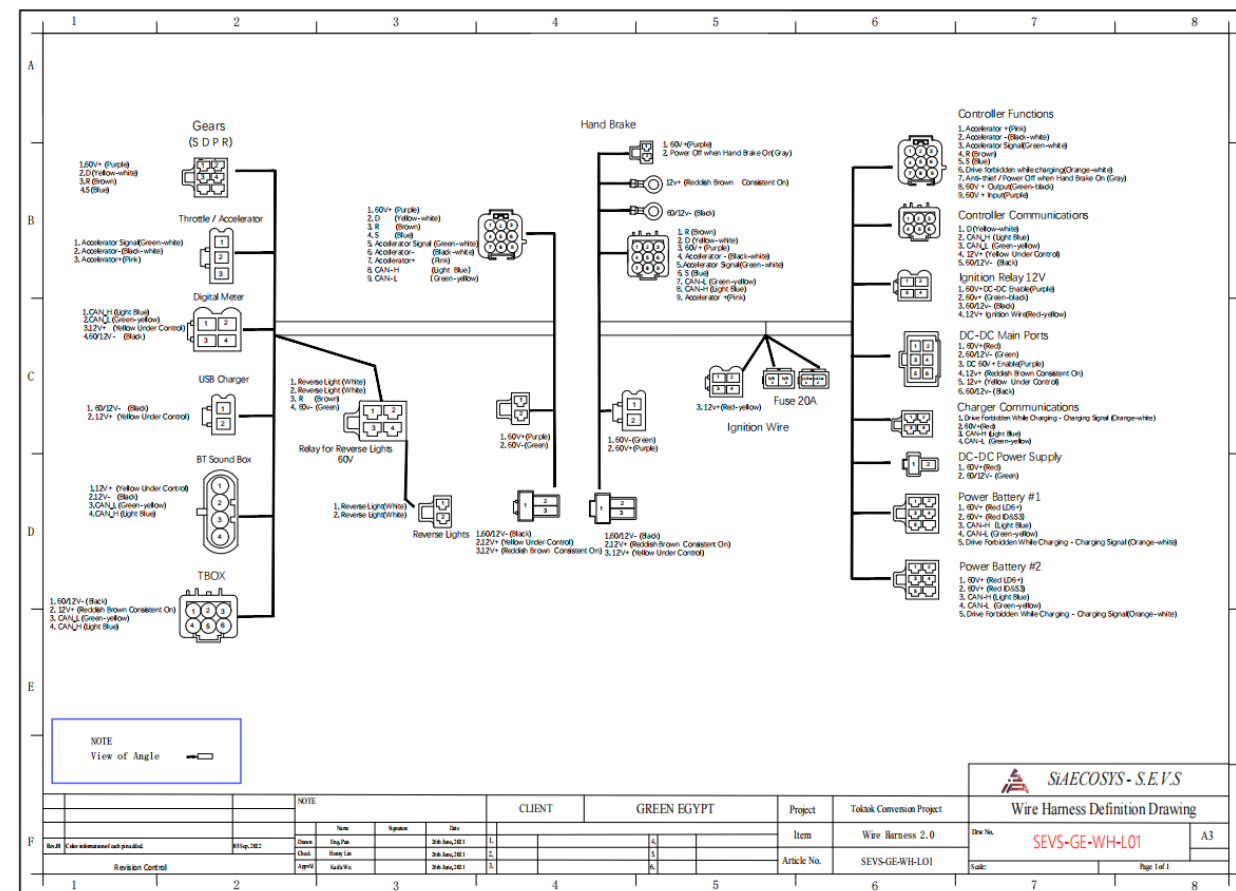
Efficiency: >85%

Waterproof level: IP67

Operating Temp: <80 degrees

Wiring Harness

Wiring Diagram



76.8V54Ah Li-ion Battery Pack

Key Technical Data

Type of Battery: LFP

Type of Cell: IFP17/119/129(27)EA, 3.2V

Capacity Each Pack: 54Ah, 4.15kWh

Nominal Voltage: 76.8V (3.2V x24)

Rated Working Voltage: 72V

Maximum Charging Voltage: 87.6V (3.65V x24)

Rated Charging Current: 10.8A

Maximum Charging Current: 54A

Maximum Continuous Discharging Current: 100A (<5min)

Internal Resistance: $\leq 120\text{m}\Omega$

Peak Current: $110 \pm 10\text{A}$ (4-6s Protect and cut output)

External Dimension: 500mm*270mm*150mm

Battery Pack Weight: 37.5kg $\pm$ 0.5kg

BMS Model: Intelligent BMS, CAN2.0

Cycle Life: >2000 cycles

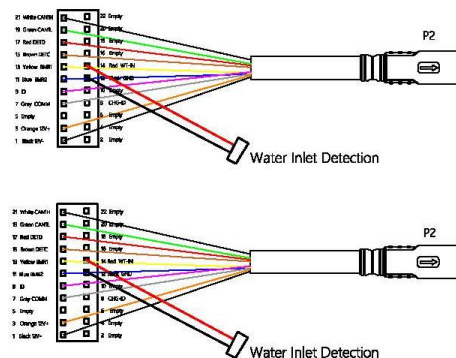
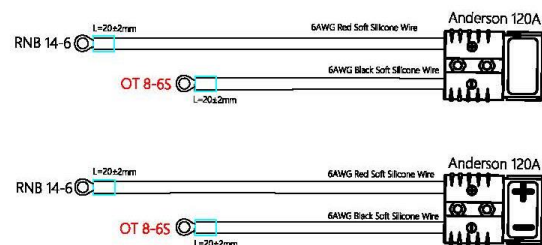


Mileage 110~120 kM with 2 Packs in Parrel

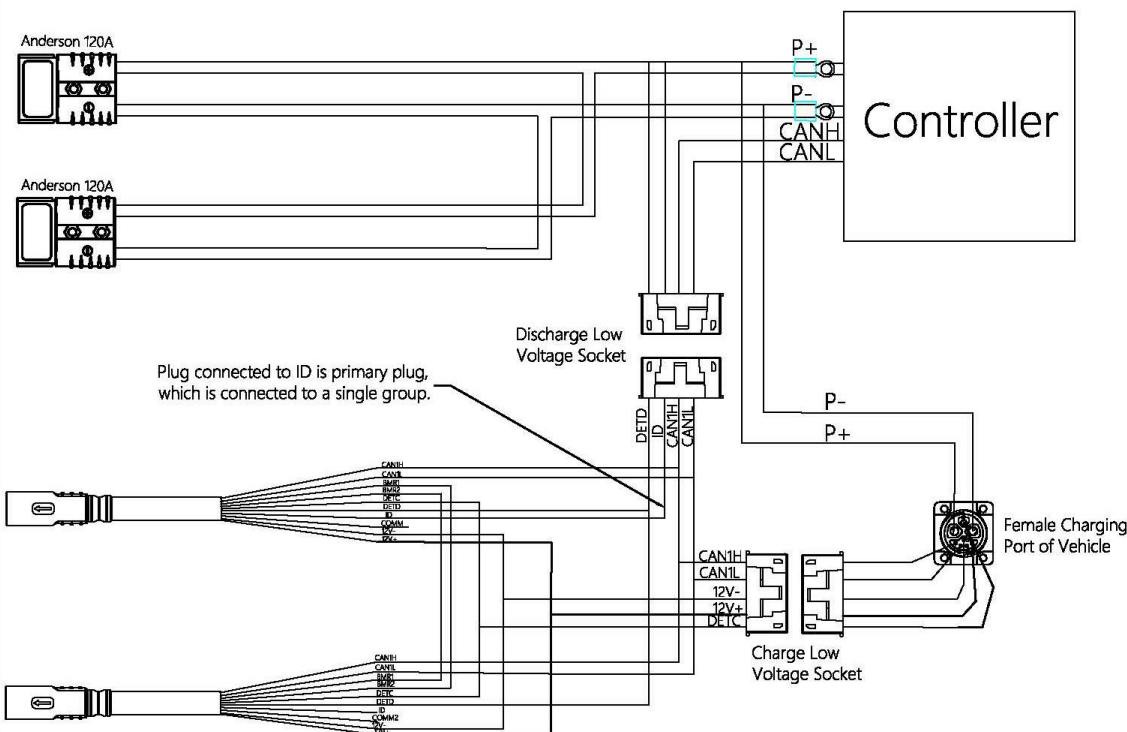
76.8V54Ah Li-ion Battery Pack

Battery Pack Wiring Diagram

Diagram of Battery Pack Reserved Wire

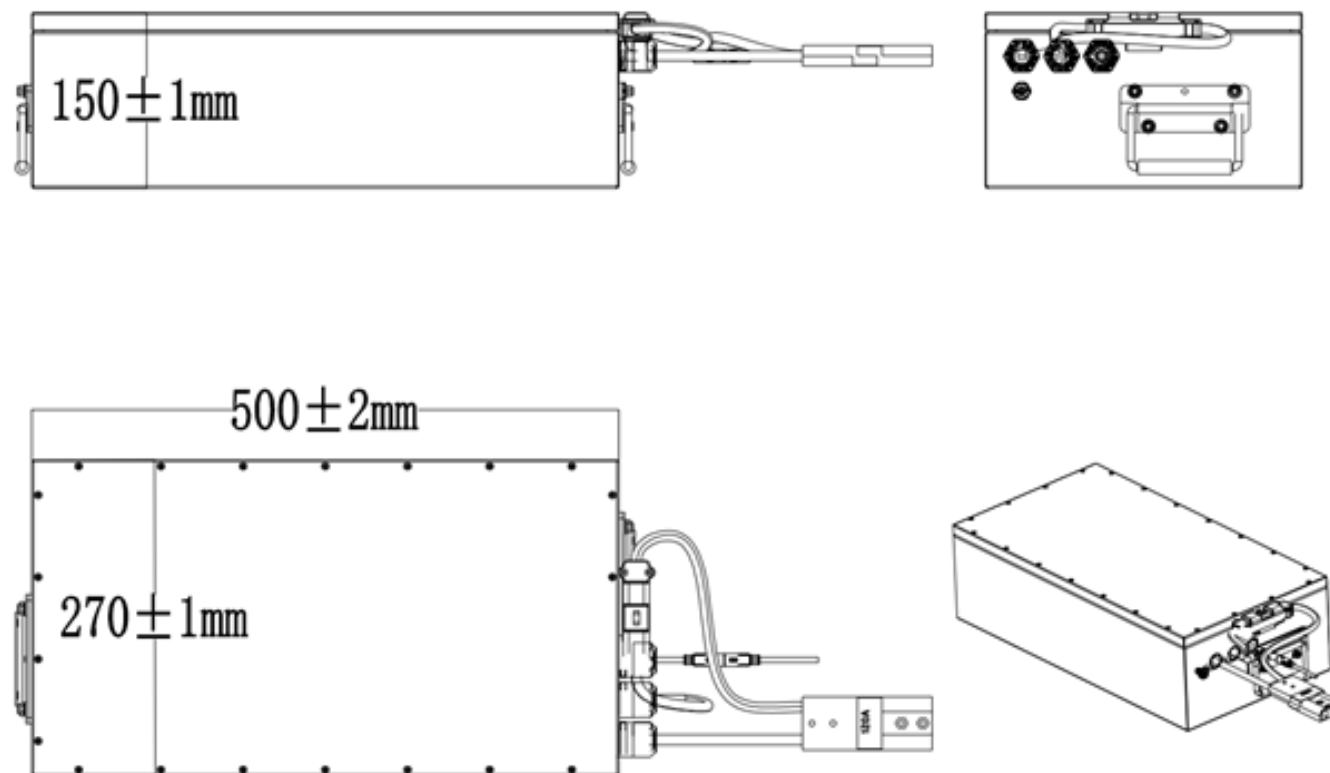


Vehicle Harness Wiring Diagram



76.8V54Ah Li-ion Battery Pack

Battery Pack Dimensions Diagram



Fast Electric Charger



Functions

- CAN BUS Interface is compatible
- Triple Colors Indicator is compatible
- Vehicle Charging Lock System is compatible
- Integrated with an auxiliary power supply for 12V

Key Technical Data

AC Input Voltage Range: 85~264VAC/45-65Hz

Optional Power Rates: 1800W/25A (4.5hours)

3300W/40A (2.5 hours)

Power Factor: ≥ 0.99

Efficiency: $\geq 95.0\%$

Noise: $\leq 45\text{dB}$

Protection level: IP67



Smart Electric Charger

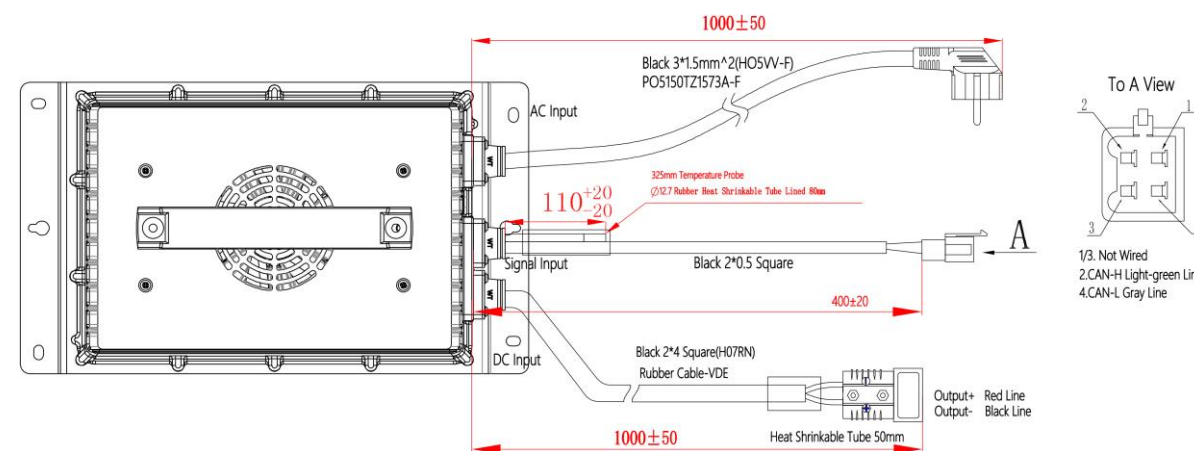
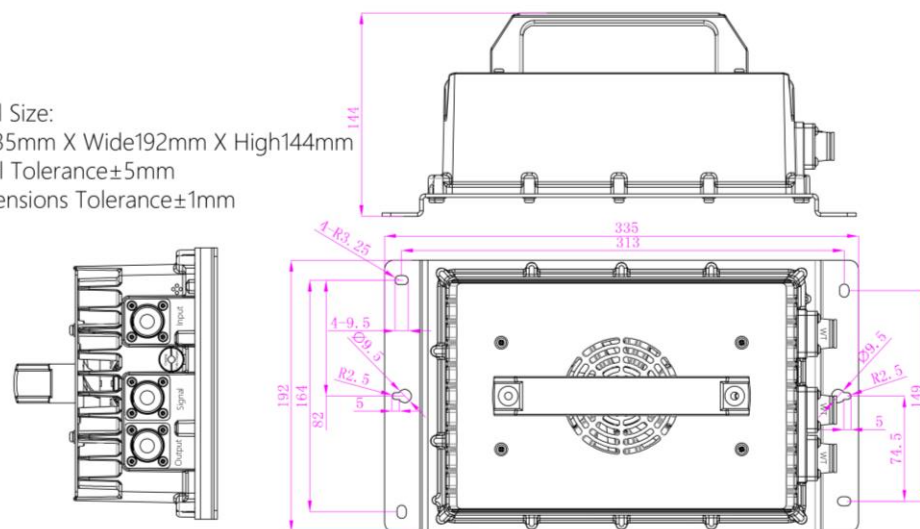
Overall View

Maximum Peripheral Size:

Flat Stitching Long 335mm X Wide 192mm X High 144mm

External Dimensional Tolerance $\pm 5\text{mm}$

Mounting Hole Dimensions Tolerance $\pm 1\text{mm}$



NOTE-Example drawing, dimensions for reference, varies for different models.

Other Components



Semi Axle & Vibration Reducer



Throttle with Gear Switch



Bluetooth Speaker



USB Port



VCU for IoT Solution



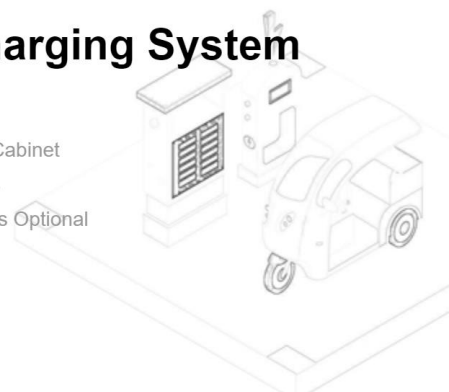
Emergency Stop Button

Extra Solution - Battery Swapping & IoT

Support Business Modes of Installment

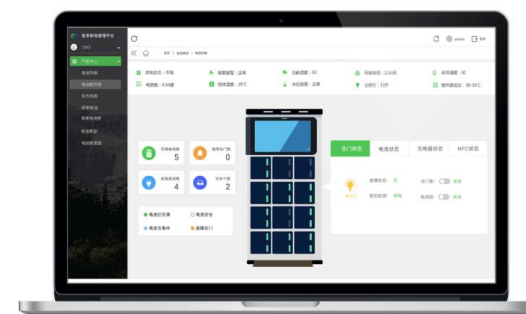
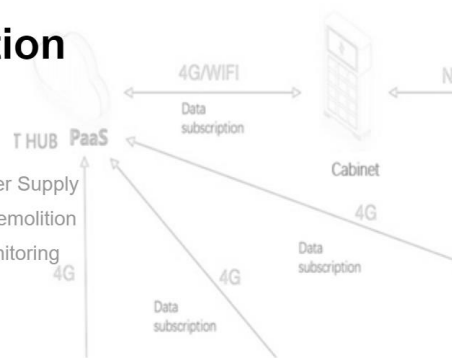
Smart Charging System

Intelligent Charging Cabinet
Fast Single Chargers
Different Power Rates Optional



IoT Solution

VCU or T-Box
with Integrated Power Supply
Prevent Malicious Demolition
Central Control&Monitoring



Package & Transportation



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