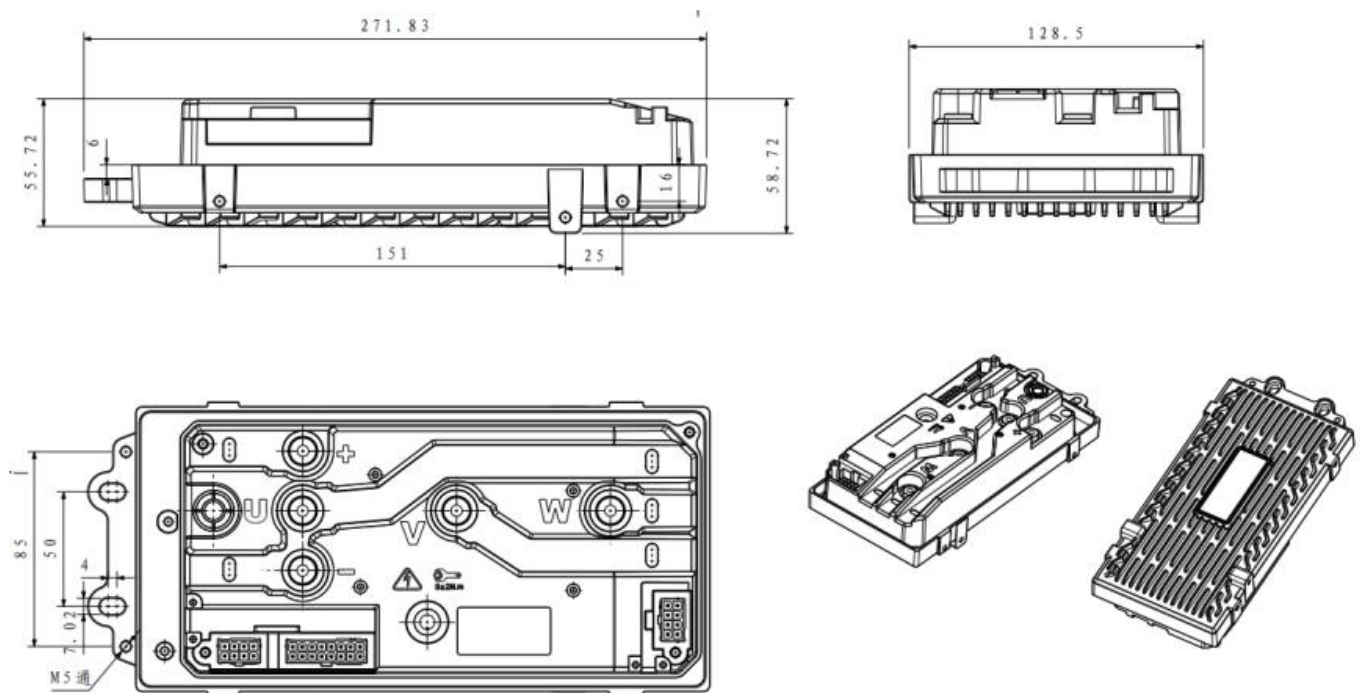




- IP67
- Input Voltage 36~88V
- Non-Isolated Type
- Built-in Bluetooth
- Built-in 6-Axis Gyroscope

## ■ Dimensions & Installation Instructions

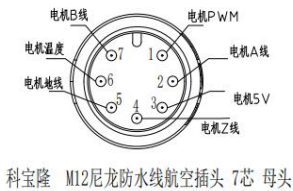


Terminal screws: M6×14 (tightening torque 8~10 N • m)



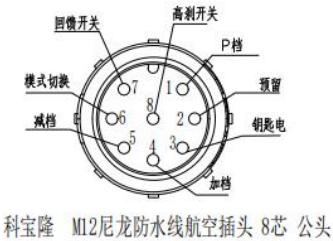
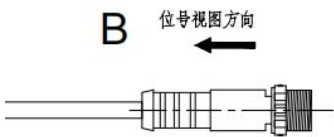
■ Wiring Definitions

Motor Terminals

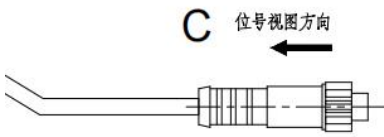


| 接插件编号 | A 科宝隆 M12 7芯 母头 |       |
|-------|-----------------|-------|
| 接插件位号 | 颜色              | 默认功能  |
| 1     | 白               | PWM   |
| 2     | 黄               | A     |
| 3     | 红               | 磁编12V |
| 4     | 蓝               | Z     |
| 5     | 黑               | GND   |
| 6     | 棕               | 电机温度  |
| 7     | 绿               | B     |

Vehicle Signal Terminals



| 接插件编号 | B 科宝隆 M12 8芯 公头 |      | 对应针座接插件位号 | 备注      |
|-------|-----------------|------|-----------|---------|
| 接插件位号 | 颜色              | 默认功能 | 位号        |         |
| 1     | 棕黑              | P档   | P2-11     | I07低有效  |
| 2     | 黑色              | 负极   | P2-15     |         |
| 3     | 红黑              | 钥匙电  | P3-5      | 25~120V |
| 4     | 橙白              | 加档   | P2-4      | I03低有效  |
| 5     | 棕白              | 减档   | P2-3      | I05低有效  |
| 6     | 绿黑              | 模式切换 | P3-3      | I08低有效  |
| 7     | 绿蓝              | 回馈开关 | P2-5      | I02低有效  |
| 8     | 绿黄              | 高刹开关 | P3-6      | I06高有效  |



| 接插件编号 | C 科宝隆 M12 8芯 母头 |       | 对应针座接插件位号 | 备注     |
|-------|-----------------|-------|-----------|--------|
| 接插件位号 | 颜色              | 默认功能  | 位号        |        |
| 1     | 紫白              | CAN L | P3-1      |        |
| 2     | 黄白              | CAN H | P3-2      |        |
| 3     | 黑白              | 转把地   | P3-8      | 单独接地   |
| 4     | 绿白              | 转把信号  | P3-7      |        |
| 5     | 红白              | 转把正极  | P3-4      | 5V30mA |
| 6     | 绿白              | 转把信号2 | P2-10     |        |
| 7     | 棕绿              | READY | P2-8      | I01低有效 |
| 8     | 棕蓝              | 倒车    | P2-13     | I04低有效 |

- Default external cable length is 15cm; default magnetic encoder supply voltage is 12V. Please specify in advance if 5V is required.
- Throttle GND can be used as signal reference ground but not for power wiring (e.g. lights).
- External supply capability 30mA; consult the factory for higher current.

■ **Technical Specifications**

| Model                                     | DEMCT3000                                           | DEMCT3001 |
|-------------------------------------------|-----------------------------------------------------|-----------|
| Rated Input Voltage (DC-V)                | 72                                                  | 96        |
| Rated Input Current (DC-A)                | 120                                                 | 110       |
| Rated Output Current (AC-<br>PEAK@30min)  | 180                                                 | 150       |
| Input Voltage Range (DC-V)                | 36~88                                               | 60~125    |
| Maximum Input Current (DC-A, 60s)         | 350                                                 | 350       |
| Maximum Output Current (AC-A<br>peak@10s) | 750                                                 | 700       |
| Operating Ambient Temperature (°C)        | -20~+65                                             |           |
| Motor Type                                | PMSM / SynRM / Induction Motor                      |           |
| Motor Control Method                      | FOC/MTPA/SVPWM/Flux Weakening                       |           |
| Motor Sensor Type                         | ABZ+PWM                                             |           |
| Efficiency                                | 98%                                                 |           |
| Protection                                | OverCurrent / OverVoltage / OverTemperature / Stall |           |
| Dimensions (mm)                           | 278*119*54                                          |           |
| Weight (kg)                               | <2.3                                                |           |
| Communication                             | CAN2.0 / 1-Wire                                     |           |
| Cooling Method                            | Forced Air Cooling                                  |           |
| Protection Rating                         | IP67                                                |           |

## ■ Product Features

T30 is a motor controller for electric off-road vehicles, featuring compact size, low heat loss and strong overload capability.

- High-power MOSFETs with high current rating, low internal resistance and fast switching speed are used as the power devices.
- An advanced vector control algorithm provides precise control of motor torque and speed.
- Energy regenerative control extends vehicle driving range and meets the needs of different customers.
- Optional anti-rollback function on slopes improves driving safety.
- Built-in 6-axis gyroscope enables wheelie control.
- Built-in Bluetooth enables commissioning and upgrades via mobile phone.
- Software can be customized to meet the different requirements of individual customers.
- OBD function included.
- Customizable waterproof wiring harness.

## ■ Important Notes

- Always tighten the terminal screws to the required torque.
- The vehicle must be equipped with reliable short-circuit protection such as circuit breakers and fuses.
- Use connectors of the same brand to ensure male/female mating compatibility.
- The controller assumes the throttle signal drops to zero when the ground line is disconnected. If not, please confirm suitability in advance.
- When the controller is controlled via instrument communication, if instrument communication is lost after power-on, the vehicle is allowed to run normally.
- The controller defaults to derated power operation when battery communication is lost.