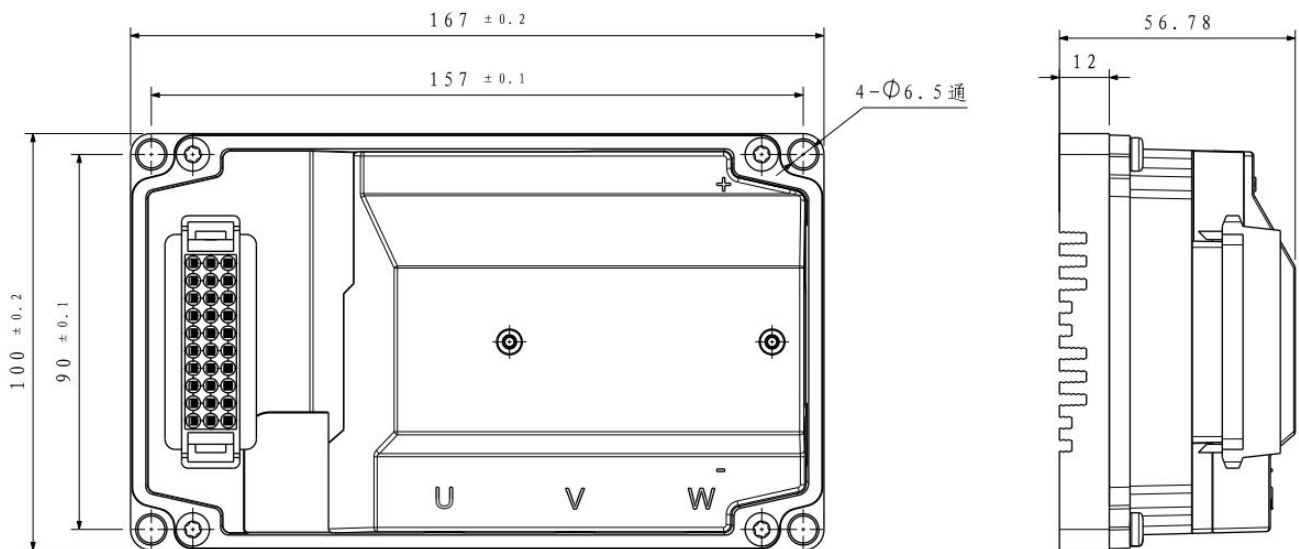




- IP66
- Input Voltage 36~88V
- Non-Isolated Type

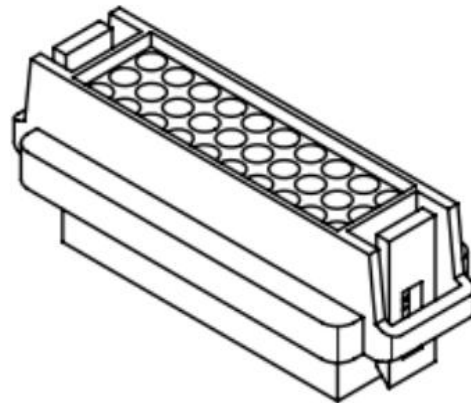
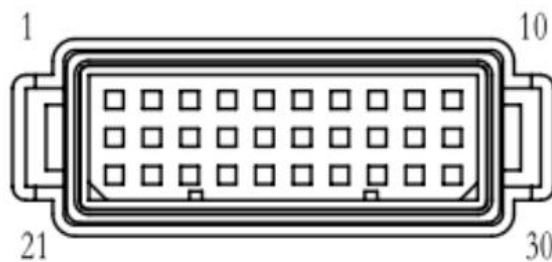
■ Dimensions & Installation Instructions



Mount Screws: M6
Terminal screws: M5×12 (tightening torque 5~8 N·m)

■ Wiring Definitions

Controller Interface Definitions (30Pin, ZT2023 1.1 × 1.1 × 19.3) (female end ZT2024-A)



Pin	Function definition	Signal Range	Pin	Function definition	Signal Range
1	HALL A	0~5	16	Ground	/
2	Low speed gear IO_EX5	Active low	17	One-key repair IO_EX2	Active low
3	High speed gear IO_EX3	Active low	18	P gear	0~12V
4	Mag-Enc power supply	5V	19	Wheel rotation signal	0~5V
5	CAN_L	/	20	Encoder PWM	Active when 12V applied
6	Encoder negative	GND	21	\	Active low
7	Alarm negative	GND	22	HALL_C	HALL_C
8	Reverse IO_EX4	Active low	23	485/RX	485/RX
9	Motor temperature	0~3.3V	24	Forward	Active low
10	Key switch line	25~88V	25	Kickstand power-off	/
11	High brake IO_EX6	Active when 12V applied	26	Throttle negative	Throttle negative
12	HALL_B	0~5V	27	Throttle signal	Throttle signal
13	1-Wire	0~12V	28	Throttle positive	Throttle positive
14	Alarm signal IO_EX1	Active low	29	Bluetooth +12V	Bluetooth +12V
15	CAN_H	/	30	Alarm power B+	Alarm power B+

■ **Technical Specifications**

Model	DEMCL1281
Rated Input Voltage (DC-V)	36~72
Rated Input Current (DC-A)	30
Rated Output Current (AC-A@30min)	40
Input Voltage Range (DC-V)	36~88
Maximum Input Current (DC-A, 60s)	60
Maximum Output Current (AC-A@10s)	220
Operating Ambient Temperature (°C)	-20~+65
Motor Type	PMSM / SynRM / Induction Motor
Motor Control Method	FOC/MTPA/SVPWM/Flux Weakening
Motor Sensor Type	SinCos / ABZ(+PWM) / HALL ABC (select one of three)
Efficiency	97%
Protection	OverCurrent / OverVoltage / OverTemperature / Stall
Dimensions (mm)	167*100*58.5
Weight (kg)	<1.2
Communication	CAN2.0 / 1-Wire / 485
Cooling Method	Forced Air Cooling
Protection Rating	IP66

■ Product Features

- Mainstream ARM is used as the main control chip.
- 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.
- Software can be customized to meet the different requirements of individual customers.

■ 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.