

# MC3336 Series Low Volt AC Controller Instruction



## Description

MC3336 series controller is an AC motor driver for low volt electric vehicle which is designed by Zhuhai Inpower Electric Co.,Ltd. Because of adopting world class calculation for AC motor rotating speed control, it can get an accurate value of torque output on a widely range of motor rotating speed .

Compared with the DC driving system, the AC system has a wider range of motor speed output which will make the vehicle speed large increase generally. AC motor has no carbon brush, full enclosed and maintenance free which characteristics make the AC

motor more reliable than DC. AC system has better efficiency and more flexible energy regeneration controlling which can improve the travelling distance obviously.

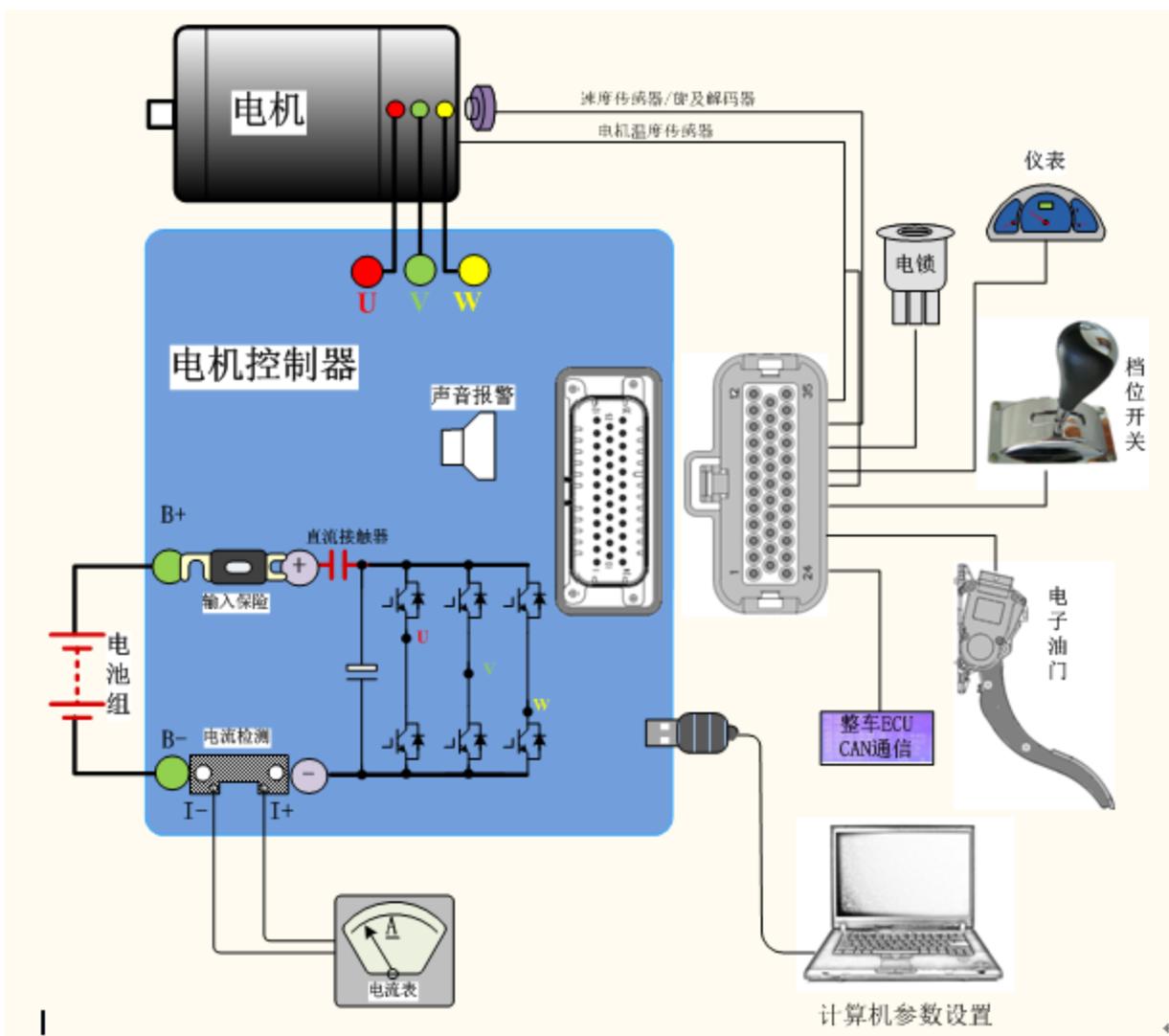
MC3336 series low volt AC controller are designed for widely applications in golf cars, sightseeing vehicles, hunting buggies, electric vehicles, heavy-duty trucks, electric yachts and other kinds of utility vehicles.

## Specifications and Technical Parameters

Technical Parameter				
Specifications		MC3336-7250	MC3336-9650	MC3336-A850
			72V	96V
Electrical performance	Input volt range (DCV)	60~90	80~120	80~125
	Max. Output current (AC/A)	500	500	500
	Rated output current (AC/A)	120	120	120
	Controller starting volt (DCV)	50	50	55
	Max. Output power (KW)	36	50	55
Operating temperature		-30 ℃----- 55 ℃		
Protection Grade		IP65		
INS. Class		Between Input Circuit or Output Circuit and Main Case:DC 1000V,Leakage Current: 0.05mA,Insulation Resistance:20M Ω		
Ambient Temperature		-40 ℃-----70 ℃		

Efficiency	98%
Cooling	Air-cooling
Shock and Vibration	GB/T2423
The Control Method of The Motor	The Vector Control Algorithm with Speed Sensor
Communication protocol	CAN
Weight	5.7KG
Cooling requirement	The Controller Must be Installed in The Place of Good Ventilation ,or Forced Cooling Must be Added.

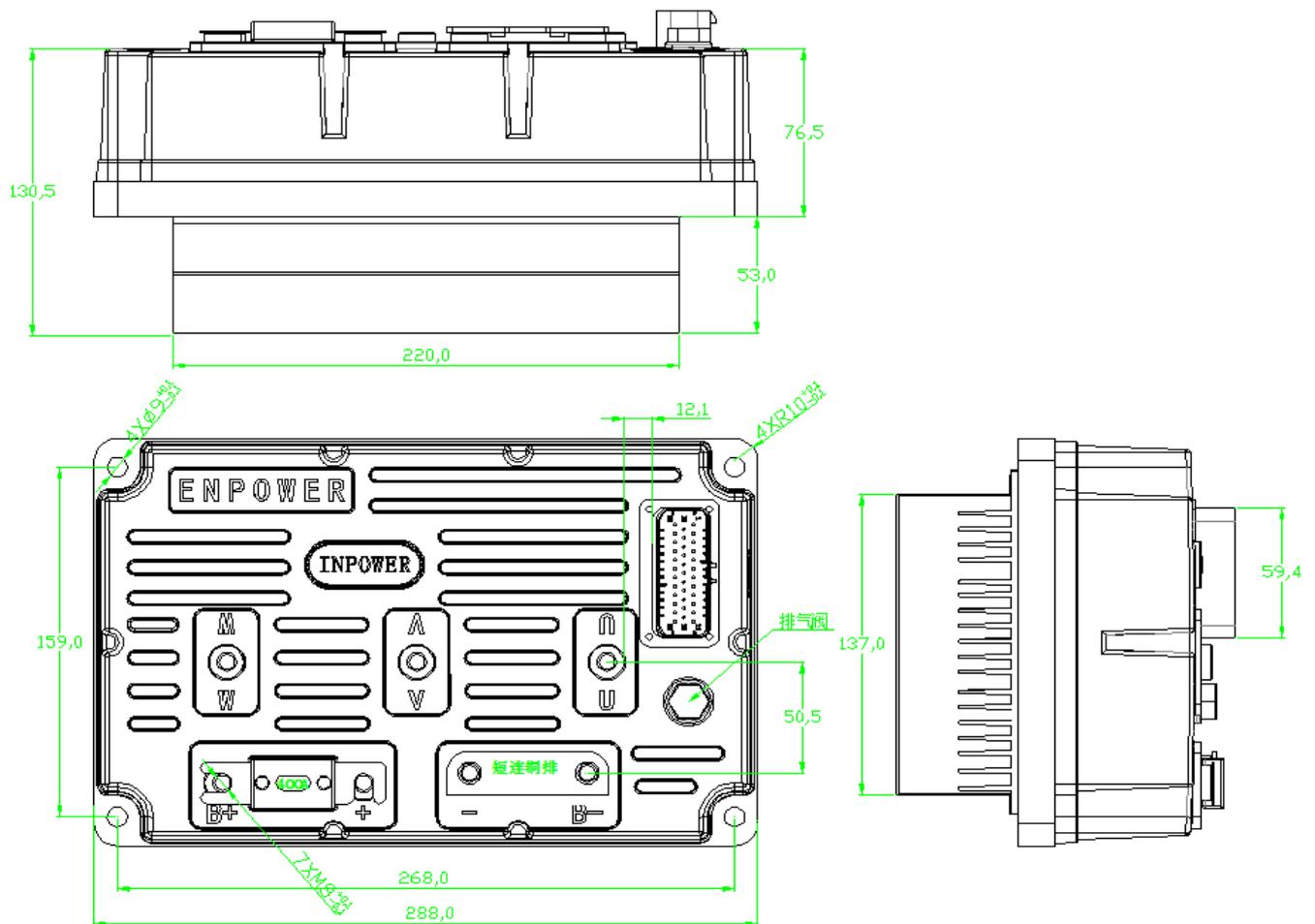
## Power Wiring of AC Motor Controller



## Application Example:

Voltage	72V	96V
the weight of the car with full load	1.2T	1.5T
Tyre Radius	0.25m	0.36m
Gear Ratio	8.0:1	6.0:1
Max Speed	75km/h	80-100km/h
The output current with Max Speed	115A	120A
Normal Speed	55km/h	60-80km/h
The output current with Normal Speed	60A	80A
Climbing Ability(loaded)	25%	25%
0~50km/h Accelerate	9s	9s

## Installation size(mm):



## Fault List and Trouble Shooting:

Fault Code	sound	Possible causes
0	No sound	No fault at present or controller doesn't work
1	continual beep	There is signal output when push the pedal and turn on the KSI ; Pedal connection badly, wrong or signal mismatching with controller
2	1 long 2 short	Ignition failed (restart)
3	1 long 3 short	Over current (motor wire connection short circuit, loosened or encoder signal wrong)
4	1 long 4 short	Controller overheat( stop and cooling)
5	1 long 5 short	Relay doesn't work or unconnected on B+(check volt between B+ and B- which should be battery volt)
6	1 long 6 short	Current detectors fault (return to depot repair)
7	1 long 7 short	encoder fault( check whether signal output ok)
8	1 long 8 short	BMS fault (which is just for lithium Battery system)
9	1 long 9 short	Low volt(Check the battery voltage)
10	1 long 10 short	Over volt(Check the battery voltage )t
11	1 long 11 short	Motor overheat (stop for cooling or check the thermistor)
13	1 long 13 short	Pedal fault