

TYPE 2 ELECTRIC VEHICLE CHARGER COMPATIBLE FOR SINGLE PHASE AND THREE PHASE

INVENTOR: CHIAM TAT MING
FACULTY: KOLEJ KEJURUTERAAN
UNIVERSITY: UNIVERSITI MALAYSIA PAHANG
EMAIL: chiamming6363@gmail.com
SUPERVISOR : MR.MUHAMMAD IKRAM BIN MOHD RASHID



Background

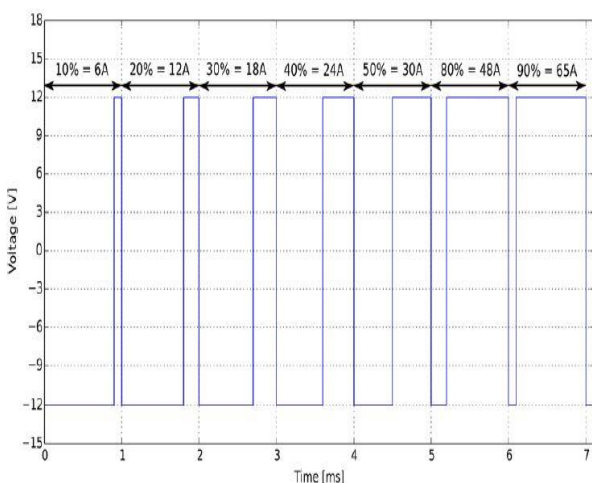
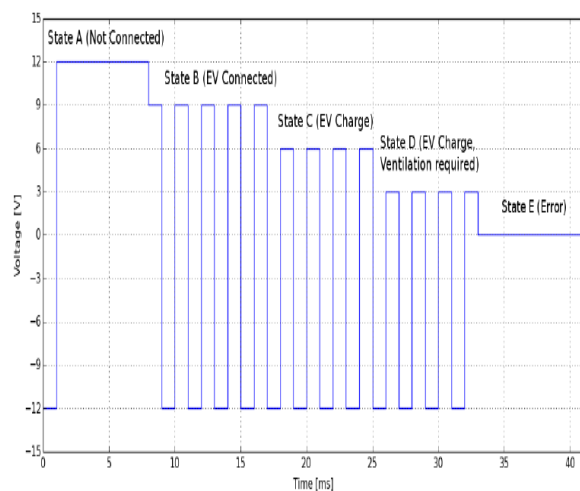
Design and development of a type 2 Electric Vehicle charger that is compatible for single phase and 3 phase that is cost effective.

- The Electric Vehicle charger are able to charge electric vehicle in both single phase and three phase.
- The Electric Vehicle charger are able to stop the charging automatically once the electric vehicle and been fully charged.
- The cost of the Electric Vehicle charger is low as compared to other commercial electric vehicle charger in the market.
- The Electric Vehicle charger is compliance to IEC62196.

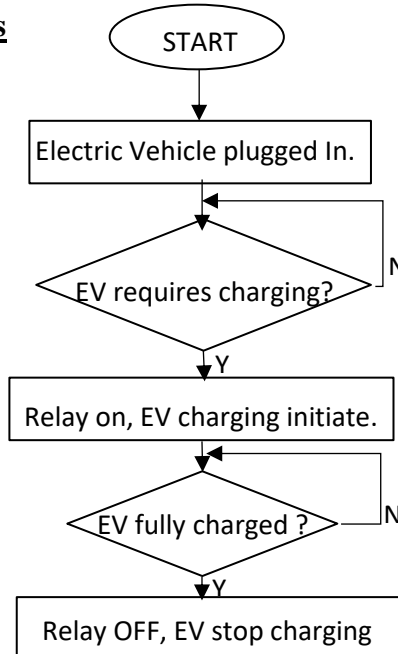


Charging State of Electric Vehicle

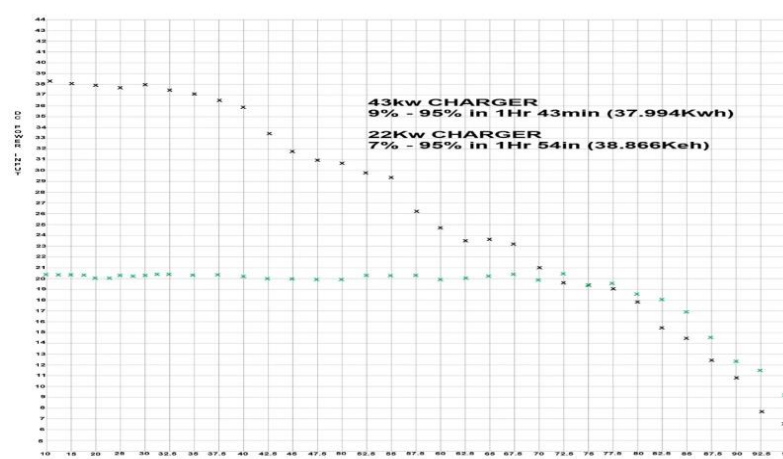
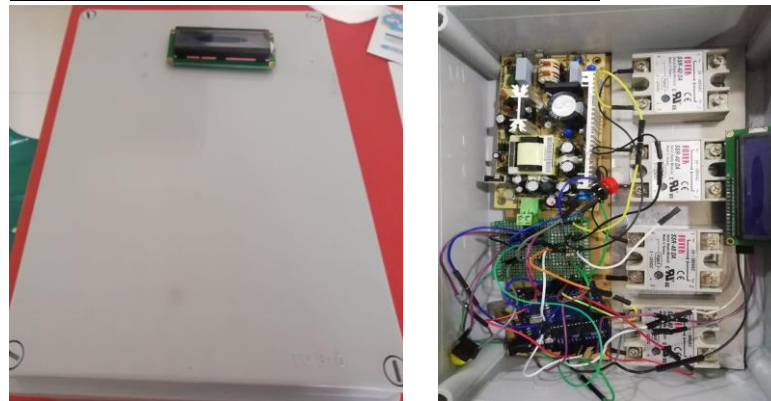
When the electric vehicle charger is plugged into the electric vehicle, A pilot signal is used to allow communication between the electric vehicle and the charger to determine the percentage of battery in electric vehicle and the charging state that will be carry out by the electric vehicle charger. Figure below shows the signal in terms of voltage and current in terms of Pulse Width Modulated signal that is used in the communication between electric vehicle and electric vehicle charger.



Methods



Appearance of the Electric Vehicle charger



Results



Total Cost
RM138