



# Solar Installation

Tatale Community House

*Tatale / Ghana February, 2019*



## Installation Description

The solar system is a DC coupled system with an inverter to power the basic need of the House. The system is also able to power the water pump at day time. In the night the pump should not be used to avoid deep discharging of the batteries. All the air conditioners are connected directly to the grid, in case of grid failure; there is no air conditioner available. The inverter is connected to the grid. In case of any problems with the solar system the electric system of the house can be manually connected back to the grid via a change over switch.

The special problem in Tatale is the hot climate of more than 40°C. The first charge controller we installed got spoilt after a few hours in this hot environment and we had to exchange it to a type which is able to endure this hot temperature.

# Facts

## Location

Tatale in the Northern Region of Ghana, about three hours drive in the eastern direction from the Regional Capital Tamale, close to the border to Togo.

## Installation Date

January 2019

## End Users

The community of the Salesians of Don Bosco in Tatale Catholic Church.

## Technical Data

- Victron Inverter 48V / 3000VA
- Solar modules with, 240Wp each, 8pcs, Total 1920Wp
- Battery 48V / 200Ah, AGM (8 batteries, 12V / 200Ah), 9,600Wh
- Charge Controller MPPT; 48V / 40A

