Table 1. Technical data of each component.

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| --- | --- |
| **Designations** | **Data** |
| **PV**  Model  Number of panels Connection Mode Number of cells *ns* maximum power *Pmp* in STC\* Short current –Circuit *Iscn* in STC\* Open circuit voltage *Vocn* in STC\* current at maximum power *Imp* in STC\*  voltage at maximum power *Vmp* in STC\* Temperature coefficient of Isc *ki* Temperature coefficient of Voc *kv*  **Batteries** electromotive force E number of series cells  C10 capacity Rated voltage Vbatn initial State Of Charge SOC  **Generator** Rated power Pn fuel **Inverter**  Inverter rated power Pinv Maxeff  **Load**  average load | BP-3125  12  6 of 2 series  36  125W  7.54A  22.1 V  7.1A  17.6 V  0.065%/°C  -80mV/°C  2 V  12  1000 Ah  24V  100%  6.6 kW  Diesel  2.3 kW  95 %  4600Wh/d. |

\*The Standard testing conditions to measure photovoltaic cells or modules nominal output power. Irradiation level is 1000W/m2, with the reference air mass 1.5 solar spectral irradiation distribution and cell or module junction temperature of 25°C.