

## SolarTech Power Solutions

# Tunisia communication base station grid-connected solar power generation parameters



## Overview

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The photovoltaic modules are of 580Wp type, with photoelectric conversion efficiency  $\geq 22.5\%$ , warranty period of not less than 25 years, and attenuation in the first year of  $\leq 2.5\%$ . N+1N+m redundant configuration can be achieved, and the number of interfaces and modules can be different. What are Tunisia's energy projects?

One third of the projects will be for wind farms and two thirds for solar photovoltaics. Tunisia's national grid is connected to those of Algeria and Libya which together helped supply about 12% of Tunisia's power consumption in the first half of 2023.

Does Tunisia have a power grid?

Tunisia's national grid is connected to those of Algeria and Libya which together helped supply about 12% of Tunisia's power consumption in the first half of 2023. Moreover, in August 2023, Tunisia's sub-sea connection project with Italy, called ELMED, was approved for \$337 million funding from the European Commission.

Can a control technique improve power system quality based on Tunisian grid code?

Simulation results are added to demonstrate the efficiency of the proposed control technique for enhancing the power system quality based on the Tunisian grid code. Investigation of voltage stability shows that the dynamic behavior of the voltage depends strongly on the short circuit capacity of the power network at the point of PVs integration. 1.

Where is a large-scale PV distribution network located in Tunisia?

The distribution network located in the state of Hammam-Lif which is in the north of Tunisia near the Mediterranean coast, having a PV penetration of 12 MW was studied. A large-scale PV penetration including STATCOM is connected to the power system as shown in Fig. 5 respectively to buses 13, 18 and 46.

What is the energy sector in Tunisia?

The sector also offers opportunities for possible Build-Own-Operate (BOO) or Build-Operate-Transfer (BOT) projects. Much of Tunisia's electricity production comes from gas turbines. Major players in this sector include General Electric (USA), Mitsubishi (Japan), Ansaldo (Italy), and Siemens (Germany).

Does the Tunisian grid have a faulty bus?

We have analyzed the performance of the grid for agreement with the Tunisian requirement grid codes . For this, we applied three-phase, short-circuit at one transmission regular grid bus '52'. Also, we chose the network bus-52, as a faulty bus, because it is the main bus to distribute the power to the rest of grid.

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