TrackSo

Solar PV Monitoring & Analytics

PV-DG SYNCHRONIZATION

- Real-time Monitoring
- Secure & Reliable Data

A product of
Free Spirits Green Labs Pvt. Ltd.
A Renewable Energy Company

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01 PV-DG Sync Overview

On-grid inverters typically rely on the grid for reference voltage. But when the grid fails, a diesel generator can step in. However, a DG & Solar plant can't be set up without synchronization.

This is where a TrackSo's PV-DG Synchronizer comes in!

A controller that synchronizes a solar inverter with a DG based on your load requirement is called a PV-DG Synchronizer.

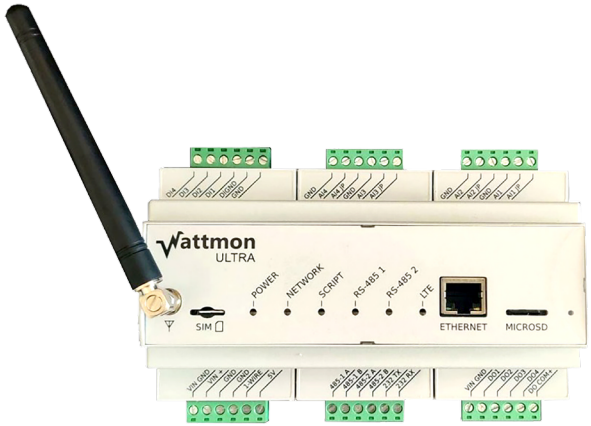
TrackSo PV-DG controller seamlessly integrates your solar system with the diesel generator, ensuring

- Minimum load requirement (usually 30%) for generators for optimal performance and fuel efficiency.
- No back-feeding of the excess solar power to the DG.

02 TrackSo PV-DG Product Range

LAN Only

LAN & 4G Combo



LAN, 4G & WIFI

[Checkout the detailed datasheets here]

03 Working Mechanism

The primary goal of these systems is to keep your DG running at minimum load and your solar at its maximum capacity while ensuring no reverse feed to the DG.

When the TrackSo PV-DG controller is connected to the solar plantand the DG MFM via RS485 cables (as shown in the diagram) here ishow it functions:

Step 1:

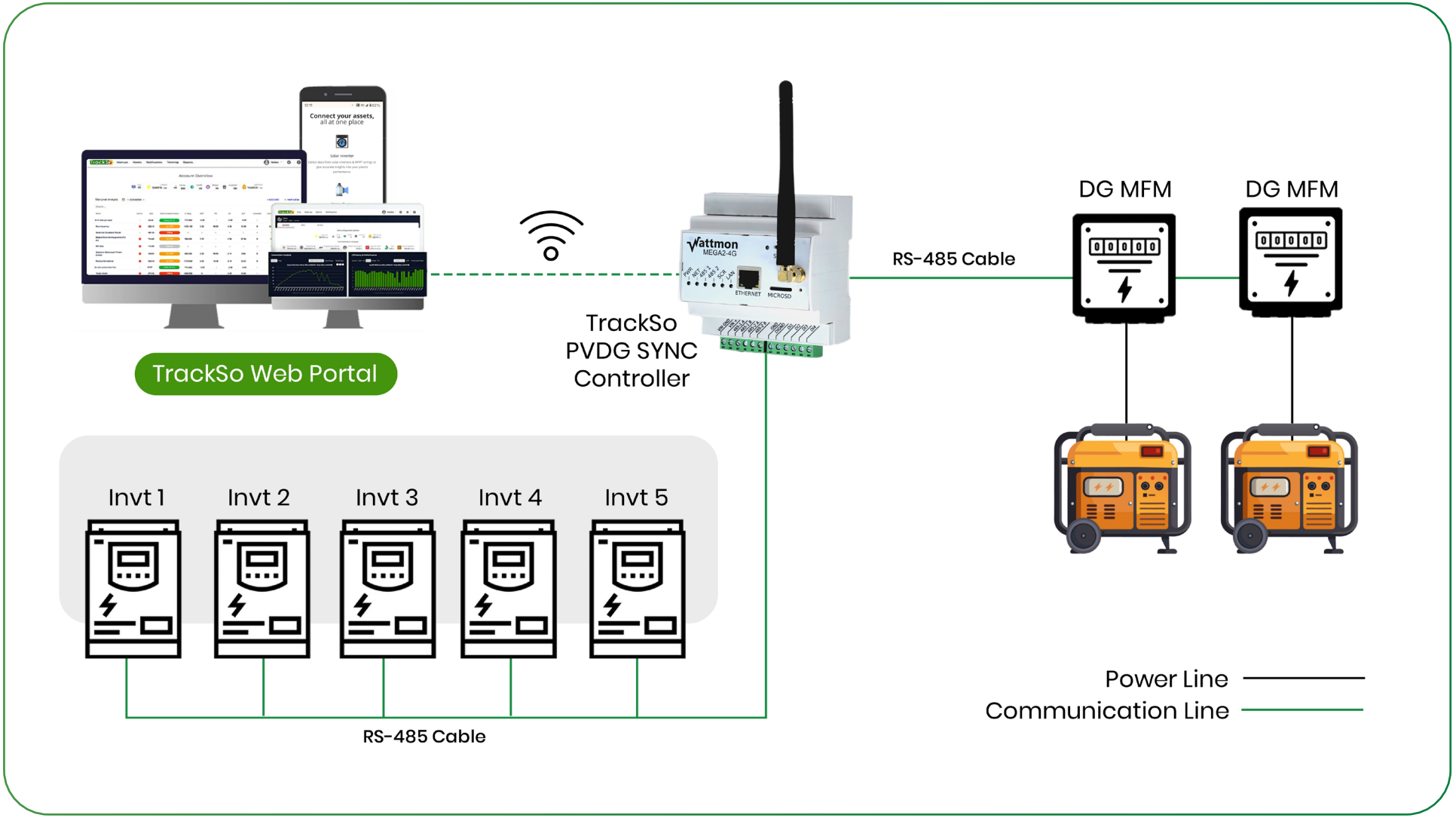
The controller continuously checks the power produced by DG (via DGMFM) and until the reading reaches 30% of the DG capacity, the controller sends the Modbus-based commands to solar inverters for zero production.

Step 2:

When the controller checks the DG production going beyond 30% of DG capacity, due to a surge in the load it sends the command to theinverters to ramp up generation to meet the excess load requirement until it reaches the maximum solar capacity.

For example, your site needs 30kW. TrackSo controller will work in away that the DG runs at, 9 kW, and the solar system provides 21 kW of energy.

Diagram


Connect your assets,
all at one place
TrackSo Web Portal
Wattmon
MEGA2-4G
TrackSo
PVDG SYNC
Controller
RS-485 Cable
DG MFM
DG MFM
Invt 1
Invt 2
Invt 3
Invt 4
Invt 5
RS-485 Cable
Power Line
Communication Line

04 Features & Benefits

- Ensures minimum DG utilization and maximum solar output.
- Prevents reverse feed into the DG.
- Reduces fuel consumption by ensuring DG works at 25-30%efficiency.
- Saves cost for monitoring & controlling same device.
- Connects upto 32 Modbus slaves.
- Remotely configurable.
- Local storage & visualization.
- Optional battery backup.

05 100+ Compatible Brands

THANK YOU

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