



Quality Management
ISO 9001:2008
▶ Voluntary participation
in regular monitoring



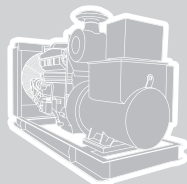
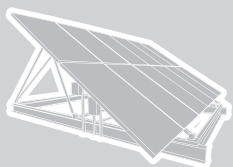
SYSTEMS AUTOMATION & MANAGEMENT PTY LTD.

HYBRID-WORX®

For an optimised system solution, high fuel saving potential
and real industry know-how, use Hybrid-Worx®.



Over 25 Years of Service Excellence in the Technology Industry.

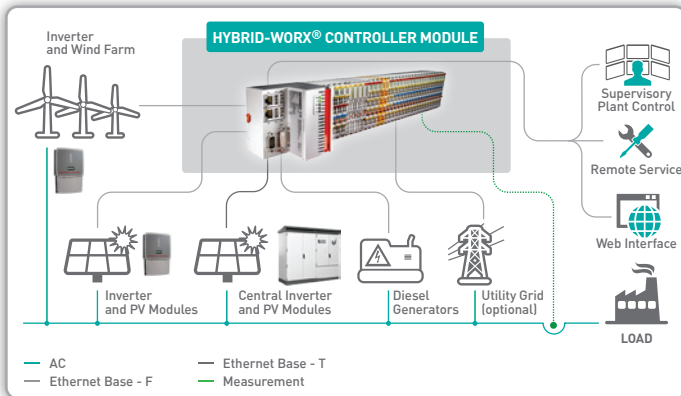


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HYBRID-WORX®

HybridWorx® is a micro-processor based product that utilises solar and wind energy in conjunction with diesel generators to reduce diesel fuel consumption as well as maintenance costs.

HYBRID-WORX® SYSTEM OFFERING:



With the Hybrid-Worx® Controller and Inverters, we can achieve PV penetration levels¹ up to 60% while still securing overall system stability and smooth Genset control².

1. Ratio between nominal PV power and nominal Genset power (of Gensets running simultaneously)
2. Accounting e.g. for minimum Genset load and spinning reserve

Basic System Includes:

- PV Panels complete with mounting brackets and connecting wiring.
- PV Inverters.
- Interfaces to the diesel generator controller.
- Interfaces to the switchgear.
- Various sensors.
- HybridWorx® Controller Unit

Plants with the following criteria are eligible:

- Significant running of the diesel generators.
- Available area for the installation of PV plant.
- High fuel costs.
- Unreliable electrical grid.
- Plants located in remote areas.

Advantages of including solar and or wind energy with diesel generators:

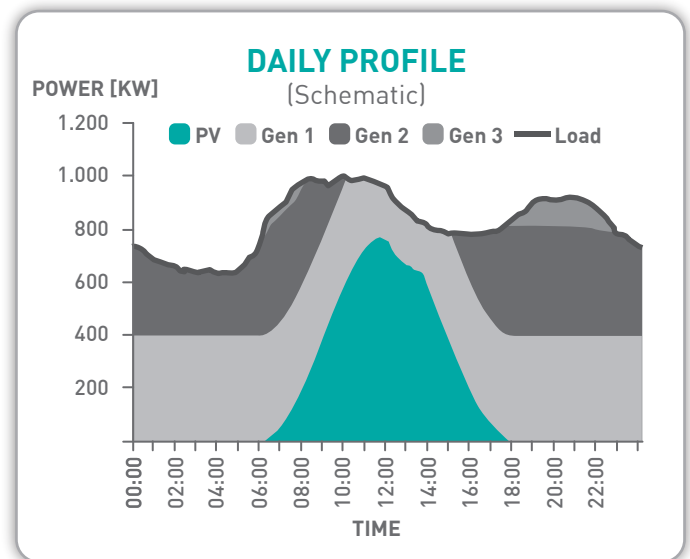
- Significant fuel saving.
- No annual fuel costs increase from the solar/wind plant.
- Increase in genset efficiency.
- Longer maintenance intervals of the gensets.

- Typical payback times of approx. 4 years.
- Remote monitoring of the plant.
- Robust design for harsh environments.
- Integrated management functions for weak grids.
- Up to 120% PV penetration.
- Storage integration to substitute spinning reserves.
- Intelligent and fast interface between load, genset and PV inverter.
- Auto start/control of gensets.
- 20 year OEM guarantee on the components supplied.

HybridWorx® Suitable for:

- **Industrial Plants:** (off-grid/weak-grids)
- **Remote Industries:** (Mining, Oil, Gas, Cement etc.)
- **Agriculture:** (Irrigation, etc.)
- **Tourism:** (Hotel, Resorts etc.)
- **Real Estate:** (Offices, Warehouses, etc.)
- **Green Buildings**

Load profile determines PV usability:



- PV power might be throttled down in some situations. (accounted for by the Hybrid-Worx® Controller)
- Therefore, the load profile must be known to avoid over-dimensioning of PV capacity.

Today, we see the significant cost advantage of changing to HybridWorx® compared to conventional Diesel Gensets. This cost gap will become ever increasing in the future.

FOR A OPTIMISED SYSTEM SOLUTION, HIGH FUEL SAVING POTENTIAL AND REAL INDUSTRY KNOW-HOW, USE SAM'S HYBRID-WORX® SYSTEM.



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