

E.H.S TECH Ltd-simply the best idea for your business

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EHS-TECH LTD.



Wind/Solar Hybrid Lighting Power Supply System

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EHS-TECH Profile

E.H.S TECH is the exclusive representative and manufacture of devices which are manufactured in North American and European companies who specialize in the field of energy saving.

The company has been operating for over a three years, and has achieved a large number of business successes in the field.

E.H.S TECH deals with a wide range of complex fields, giving special attention to the quality of its service and technical support, which calls on leading engineers in the field.

The company is managed by:

- Mr. Savion Eliran – CEO.
- Mr. Elizach Dembinski- Business Development Manager.

In the last few months, the company has completed a number of projects for leading companies in the Israeli market who operate in different fields.

Among those companies are:

Ready-Mix – Imported cement

Paz – Convenience stores

Tiv Ta'am Chains – Supermarket chains

Strauss - Elite – Food production

The company vision is to planning and execution of full turn key projects that includes all the plants consumers.

While our plans are after erection, start-up and full operation of conditions, we evaluate and present the new data of performance and study of saving figures on different stations or processing lines.

Wind/Solar Hybrid Lighting Power Supply System

Background

Magnetic drive technology was invented by HMD Company, England, in 1947, with separated magnetic drive technology.

The basic theory of the separated magnetic circuit drive technology, i.e: variation permeance, believe that the magnetic system try to make the permeance bigger and magnetic resistance smaller, and to synchronize the driven, magnetic circuit and driving magnetic circuit, to realize non-touch drive across the non-magnetic materials, that has great advantage in dynamic sealing.

The Characteristics

The wind turbine is characterized by small friction with the air that enables the turbine to work under moderate wind speed. Some other characteristics that can be observed in the system are as followed:

- Micro-friction full permanent suspension bears not only balance the horizontal wind pressure and vertical main load, but also have perfect stabilizing effect on axial direction of rotor system.
- Small start-Rotating torque: The start- Rotating torque is 28% of that of the preview same size unit.
- High rotating speed: the rotating speed is increased 10% under the same wind speed.
- High power output: the power output actual is raised evenly 20% under the same wind speed.

EHS-TECH LTD. has the capability to provide horizontal and vertical Wind/Solar hybrid lighting power supply systems between 250W~5KW.

The off-grid series to produce electricity with wind which EHS-TECH provides is shown in the table and the pictures below.

Wind/Solar Hybrid Lighting Power Specification:



**300W Full Permanent
Magnetic Suspension
Horizontal Wind Driven
Generator.**



**300W General Upgrade-type
Wind Driven Horizontal**



**350W New-type Horizontal Wind
Driven Generator.**

Off-grid wind Power generator series:

	Full permanent magnetic suspension horizontal generator	new-type horizontal wind driven generator	general upgrade-type horizontal generator	Horizontal Boat-Wind Generator
Rated output power	300W	350W	300W	400W
Starting wind speed	1.8m/s	2.0m/s	2.5m/s	3.0m/s
Cut-in wind speed	2.5m/s	2.8m/s	3.0m/s	3.5m/s
Rated wind speed	10m/s	12m/s	11m/s	12m/s
Safe wind speed	50m/s	50m/s	50m/s	50m/s
Rated DC voltage	12V/24V	12V/24V	12V/24V	12V/24V
Rated AC out voltage	220V/50Hz 110V/60Hz	220V/50Hz 110V/60Hz	220V/50Hz 110V/60Hz	220V/50Hz 110V/60Hz

Projects that were done in China

Bio-island



Roadside Wind/Solar Hybrid Lighting Power Supply System, International Bio-island



Night Scene, Roadside Wind/Solar Hybrid Lighting Power Supply System, International Bio-island.

Royal View Residency



Residential Lighting Power Supply System, Royal View Residency,



**Actual Field Picture, Residential Lighting Power Supply System Installed
on the Top of the Building, Royal View Residency.**

The System and Environment Protection

These hybrid systems are operating independently by clean energy from renewable resources wind and sun without any support from the electricity supplier. The independency of these systems has far reaching consequences in everything concerning manufacturing clean electricity. This system does not distribute harmful compounds to the air which are increasing the air pollution and indirectly to the global warming.

The avoided damage with the use of this technology is illustrated by the following calculation:

For producing 1KW:

0.59 kg of CO₂ is not released to the air

1.923 gr of SO₂ is not released to the air

1.623 gr of NO is not released to the air

For annual Production (One street light pillar of 0.3KW that is lighting 12 hours per day):

$12 \text{ hours} * 365 \text{ days} * 0.3 \text{ KW} * 0.59 \text{ Kg} = \sim 775 \text{ Kg CO}_2$

$12 \text{ hours} * 365 \text{ days} * 0.3 \text{ KW} * 1.923 \text{ gr} = \sim 2530 \text{ gr} = \sim 2.53 \text{ Kg SO}_2$

$12 \text{ hours} * 365 \text{ days} * 0.3 \text{ KW} * 1.623 \text{ gr} = \sim 2130 \text{ gr} = \sim 2.13 \text{ Kg NO}$

These are the quantities of the pollutants that are not released to the air because of manufacturing of clean energy.