

**SIEMENS**

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by

**Omniflow**

# Omniflow

Smart energy platform powered  
by wind and solar with built-in  
energy storage

[siemens.pt/omniflow](https://siemens.pt/omniflow)



# Omniflow

## Smart energy platform

When energy availability is a challenge and energy costs are a crucial factor; when all you need is a single element which ensures full integration of all functionalities and components whilst enabling connecting your devices to a central platform – Omniflow addresses specific problems and needs in Smart Cities and IoT.











### What is Omniflow

Omniflow is a Smart Energy Platform powered by wind and solar with built-in energy storage.

It turns renewable energy into IoT, smart lighting, surveillance or telecom services.

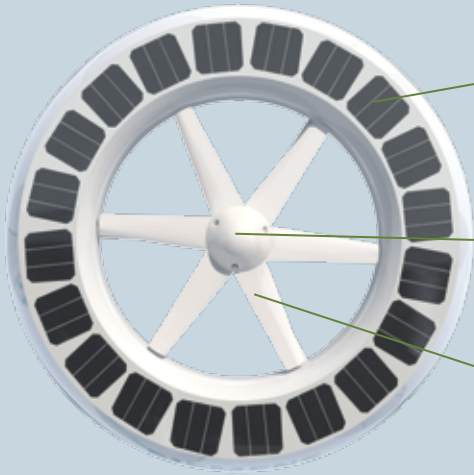
Its unique design blends advanced aerodynamics with a simple geometry allowing continuous operation even in urban scenarios. PV cells cover the top surface of the design-patented shroud, while its distinctive geometry based on an inverted wing shaped airfoil directs the free wind stream from any direction to a diffuser hence promoting a speed up effect into a central wind turbine. Sourced energy is stored in a shroud-enclosed battery bank that serves as a platform for a number of additional services. All functionalities are remotely accessible via Omniflow's web based Monitor and Control platform.

### Possible Applications

 E-Bike Charging Station	 Smart Parking
 Traffic Intersection	 Surveillance
 Weather Station	 USB Charging
 Video Analytics	 Advertising
 Street Lighting	 Wifi



# Main features



## Solar Power

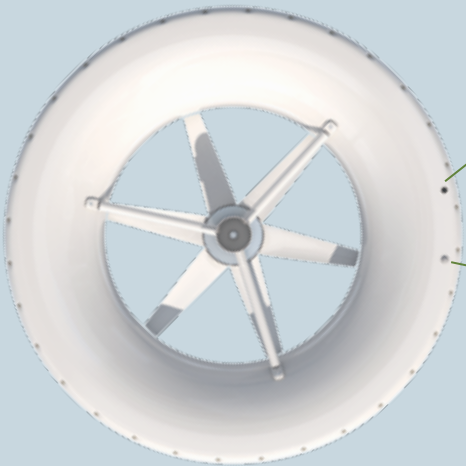
60W High Efficiency Solar Cells  
23,5 % Efficiency

## Direct Drive Generator

Ironless Stator Permanent Magnet

## Wind Power

100W (rated @11 m/s, steady)

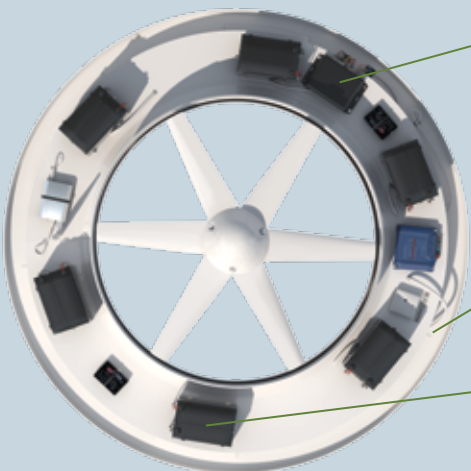


## IP Security Camera

Integrated Design  
Autonomous Security  
Enables Smart Analytics for:  
Smart Parking, People Counter, etc.

## Motion Sensor

Infrared sensor enables  
dimming feature



## Omnibrain

Connectivity to internet  
monitoring and control

## LED Lighting

State of the Art LED 170 lm/w

## Built in Battery Pack

6x 12V 14 Ah Lead Crystal,  
Up to 1,400 Wh Storage,  
Up to 6,000 Cycles & 12 year Life Span

# Global experience



- |                |           |         |          |
|----------------|-----------|---------|----------|
| Portugal       | Belgium   | Germany | Italy    |
| United Kingdom | Turkey    | U.A.E.  | India    |
| Bangladesh     | Australia | China   | Mongolia |
| Brazil         | Colombia  | U.S.A.  | Angola   |
| Morocco        |           |         |          |



## USA, NY - New York Power Authority, City of Yonkers

### Functionality:

- Autonomous street lighting 30W
- Wi-Fi
- Video surveillance

Units: 170

104 MWh energy saved

78 tons less of CO<sub>2</sub> \*

\*1 year savings: equivalent to the consumption of 1.511 people working on a laptop



## Turkey, Istanbul - ISBAK

### Functionality:

- Video surveillance
- Road traffic control

Units: 10

1.752MWh energy saved

1 tons less of CO<sub>2</sub>

\*1 year savings: equivalent to the consumption of 25 people working on a laptop



## Portugal, Cascais – Parking lot

### Functionality:

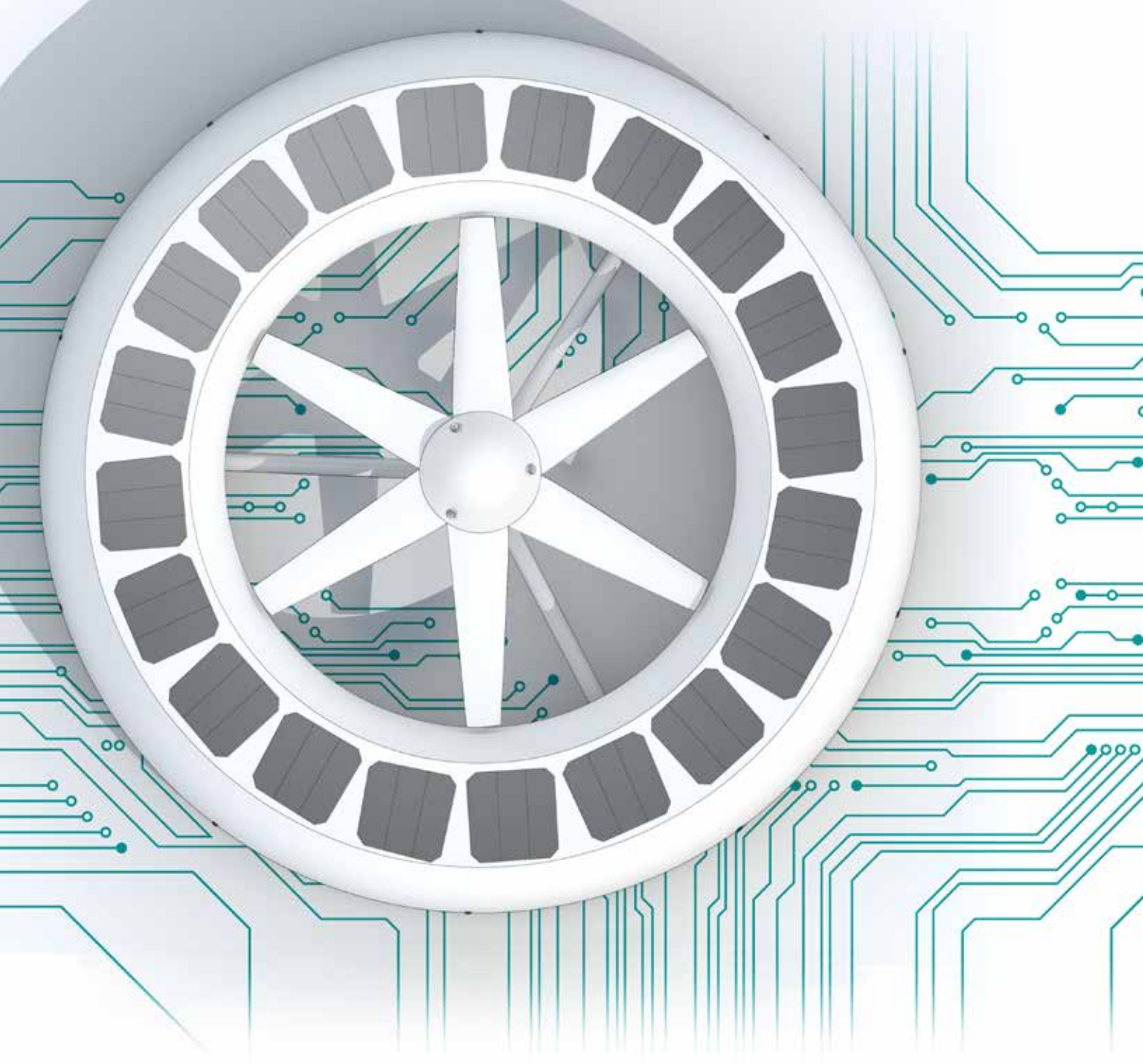
- Autonomous high power lighting system 30W

Units: 19

8.322 MWh energy saved

6 tons less of CO<sub>2</sub> \*

\*1 year savings: equivalent to the consumption of 121 people working on a laptop



**1** Go to  
[siemens.pt/omniflow](https://www.siemens.pt/omniflow)

**2** Download the  
**Augmented Reality**  
application

**3** Install it and  
**place your phone**  
over the image above



