

DATA SHEET

WINDPALM

&

WINDPALM Hybrid

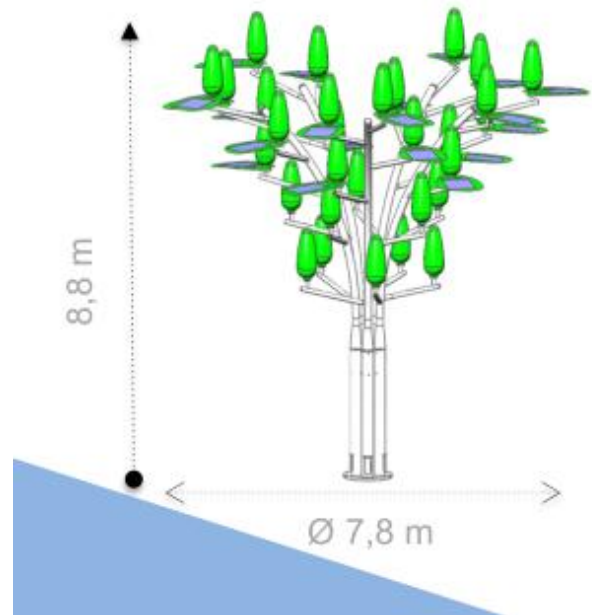
18A / 24A / 30A

Micro-wind + photovoltaic structure


18 / 24 / 30 Aeroleafs

12 / 16 / 20 / 35 PV Petals

5.8 to 32.5 kW installed peak capacity

48 V DC collection bus


Hybrid structure for proximity energy production

8.80 m

height

Ø 7.80 m

diameter

**up to 2,490
kg**

weight

1

PRODUCT OVERVIEW

A clean snapshot of the Hybrid WindPalm range

The Hybrid WindPalm can combine New World Wind's Aeroleaf micro-wind turbines with photovoltaic Petals on a biomorphic palm-like structure designed for local energy production, visual integration and hybrid generation.

Production remains site-dependent. Wind distribution, turbulence, solar irradiation, shading, electrical architecture and local grid rules must be assessed before any energy-yield commitment.

18 / 24 / 30	12 / 16 / 20 / 35	5.8 - 32.5 kW	48 V DC
Aeroleaf configurations	PV Petal configurations	installed peak capacity	collection bus
8.80 m	Ø 7.80 m	300 to 1000 W	36 - 82 and 200 Wc
overall height	overall diameter	reference power per Aeroleaf	reference power per standard Petal

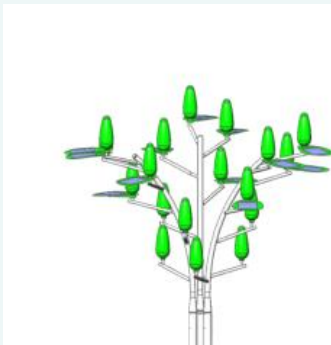
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CONFIGURATIONS

Comparison of the 18A, 24A and 30A Hybrid WindPalm versions

Configuration	Aeroleafs	PV Petals	Wind reference	PV reference	Installed peak capacity	Approx. weight
Hybrid WindPalm 18A	18	12	5.400 kW	0.432 kWc	5.832 kW	1,470 kg
Hybrid WindPalm 24A	24	16	7.200 kW	0.576 kWc	7.776 kW	1,980 kg
Hybrid WindPalm 30A	30	20	9.000 kW	0.720 kWc	9.720 kW	2,490 kg
Hybrid WindPalm 18A	18	12	18 kW	1.1 kWc	19.1 kW	NC kg
Hybrid WindPalm 24A	24	16	24 kW	1.45 kWc	25.45 kW	NC kg
Hybrid WindPalm 30A	30	20	30 kW	1.8 kWc	31.8 kW	NC kg

18A HYBRID



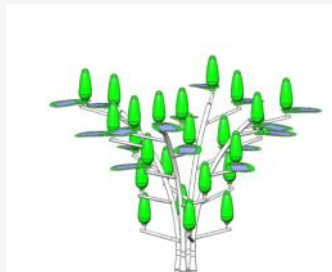
18 Aeroleafs

12 PV Petals

5.8 kW

1,470 kg

24A HYBRID



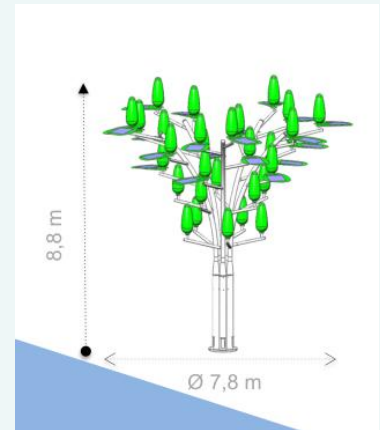
24 Aeroleafs

16 PV Petals

7.8 kW

1,980 kg

30A HYBRID



30 Aeroleafs

20 PV Petals

9.7 kW

2,490 kg

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HYBRID ARCHITECTURE

Wind, photovoltaic and protected electrical collection

1

Hybrid WindPalm

Aeroleafs + PV Petals

DC 48 V collection

2

Electrical cabinet

Protections

Regulation

Buffer battery

3

Inverter

AC output

110 V / 230 V

Project-specific

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Loads / grid

Customer facilities

Local compliance

required

Wind and PV subsystem

- 18, 24 or 30 Aeroleafs mounted on the WindPalm structure.
- 300 - 1000 W reference value per Aeroleaf.
- 12, 16 or 20 standard PV Petals depending on the configuration.
- 36 - 82 - 200 Wc reference value per standard Petal.

Control, output and compliance

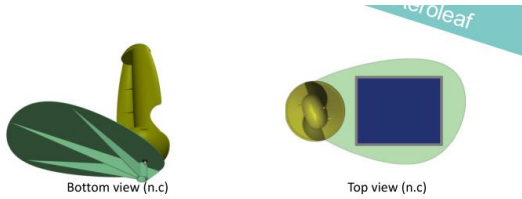
- 48 V DC collection to the electrical cabinet.
- Protection devices, regulation and short-duration buffer battery.
- AC output depends on inverter selection and local requirements.
- Grid export or grid-parallel operation requires local approval.

Important: autonomy, critical loads, storage capacity and grid export must be calculated from the real load profile and local climate data.

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AEROLEAF AND PV PETAL

Technology reference values and cautious performance wording



Parameter	Retained wording / value
Technology	Proprietary vertical-axis micro-wind turbine with embedded electronic regulation.
Aeroleaf reference	300 – 1000 W per Aeroleaf under reference conditions.
Starting speed	2.5 m/s, subject to installation and turbulence conditions.
High-wind behaviour	36 m/s continuous and 43 m/s in gusts retained from legacy sheet.
PV Petal reference	36 to 200 Wc per Petal.
Petal construction	Light, waterproof and robust; legacy sheet mentions less than 800 g and about 3 mm thickness.



Performance wording

- The PV Petal is treated as an energy-producing and visual integration element.
- Any airflow-guidance effect depends on final geometry and site conditions.

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PRODUCTION EXAMPLE

Corrected simulation for 30 Aeroleafs of 300 W + 3.5 kWp solar

Corrected annual values for the requested example: 30 Aeroleafs rated at 300 W each, combined with 3.5 kWp of photovoltaic panels.

5,950 kWh/year

solar photovoltaic | 3.5 kWp x 1,700

16,500 kWh/year

wind Aeroleafs | 30 x 550

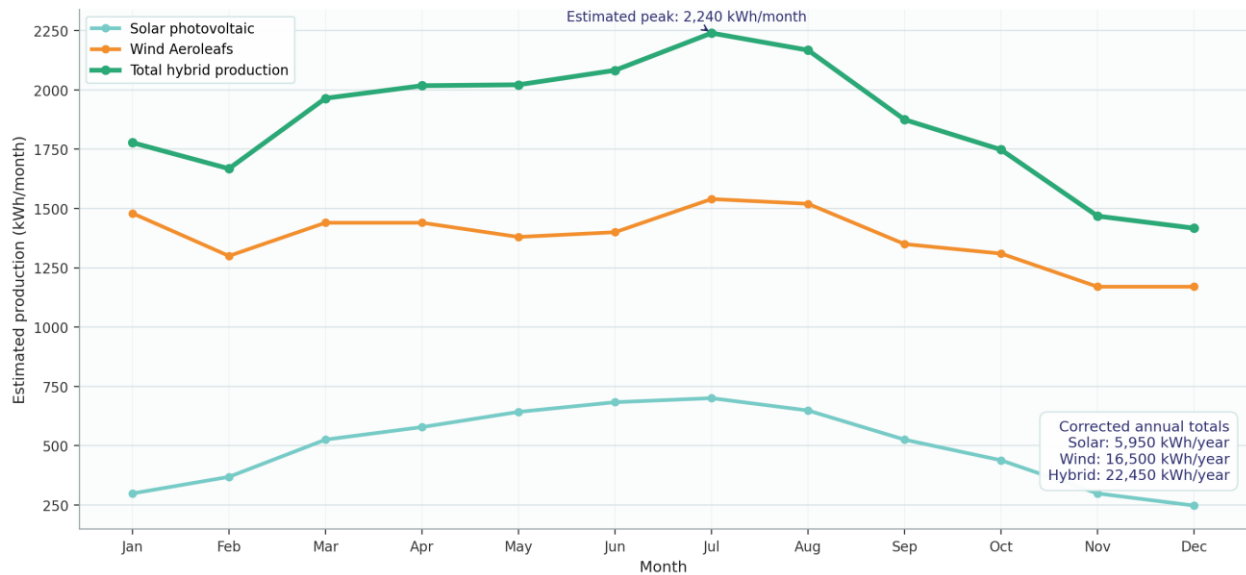
22,450 kWh/year

total indicative hybrid production

2,240 kWh/month

estimated monthly peak

Indicative annual production simulation - Hybrid WindPalm 30A



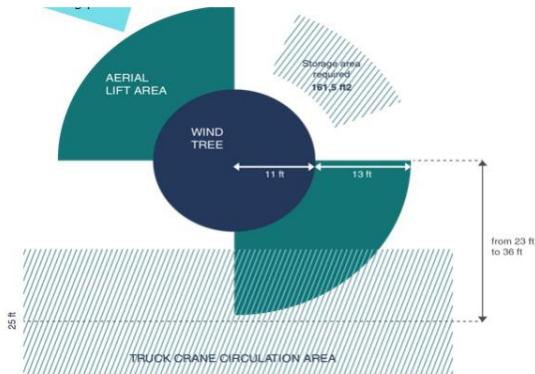
Assumptions: 30 Aeroleafs of 300 W + 3.5 kWp PV | Solar: 1,700 kWh/kWp/year | Wind: approx. 550 kWh/year per Aeroleaf at 10 m/s average wind speed | Indicative values only.

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INSTALLATION AND CIVIL ENGINEERING

Site readiness, access conditions and scope split

required for handling parts



Site preparation retained

- Typical installation timeframe: 3 to 5 days after site readiness.
- Site access to lifting equipment; the legacy sheet mentions a 12 t crane truck and telescopic platforms.
- Civil works, anchoring and sleeves remain under the client / local contractor scope unless otherwise agreed.
- Safe access, temporary storage and lifting zone to be ensured before installation.

Item	Minimum requirement / wording
Foundation / anchoring	Civil works according to NWW guidelines, soil conditions and local rules must be fixed by builder.
Sleeves / conduits	Cable sleeve between the WindPalm and electrical cabinet to be prepared before installation.
Cabinet area	Dedicated cabinet space to be prepared where required. Maximum distance 20 m from structure.
Secured site	Safe access, storage area and lifting zone to be ensured by the client.

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ELECTRICAL CONNECTION

Self-consumption architecture and customer interface

Electrical principle

- On-site generation and self-consumption concept.
- Hybrid WindPalm connected through the NWW electrical cabinet.
- Customer-side connection must comply with local electrical compagny and facility rules.

New World Wind scope

- Hybrid WindPalm assembly and Aeroleaf/PV Petal installation when included.
- Electrical cabinet installation when included in the supply scope.
- Connection between the WindPalm and the NWW electrical cabinet.

Client / local electrician scope

- Cable sleeves and civil preparation before installation.
- Connection from cabinet to customer facilities / main switchboard.
- Local approvals, grid-code compliance and facility-specific protections.

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SUMMARY AND RESPONSIBILITIES

Final client-facing technical snapshot

Parameter	Retained value
Height	8.80 m
Overall diameter	7.80 m
Aeroleaf height	0.97 m retained from legacy summary
Weight	1,470 to 2,490 kg depending on configuration
Aeroleafs	18 / 24 / 30
Standard PV Petals	12 / 16 / 20
Starting speed	2.5 m/s (9 km/h) reference
Maximum wind	36 m/s continuous, 43 m/s gusts retained from legacy sheet
Installed capacity	5.8 kW to 32.5 kW
Output voltage	110 V or 230 V, 50 Hz or 60 Hz depending on inverter and project

Item	Standard responsibility	Notes
Civil engineering / foundation	Client / local contractor	Validated against drawings, soil and local rules.
Anchoring works	Client / local contractor	Based on the NWW reservation template / interface.
Electrical sleeves / conduits	Client / local contractor	Prepared before installation.
Hybrid WindPalm assembly	NWW or approved installer	Subject to supply scope and local agreement.
Electrical cabinet installation	NWW or approved installer	When included in the NWW scope.
Connection WindPalm to cabinet	NWW or approved installer	Cable distance and sizing checked by project.
Connection cabinet to customer facilities	Client / local electrician	Must comply with local electrical code and facility rules.
Permits / grid approval	Client with local specialists	Requirements vary by country and municipality.