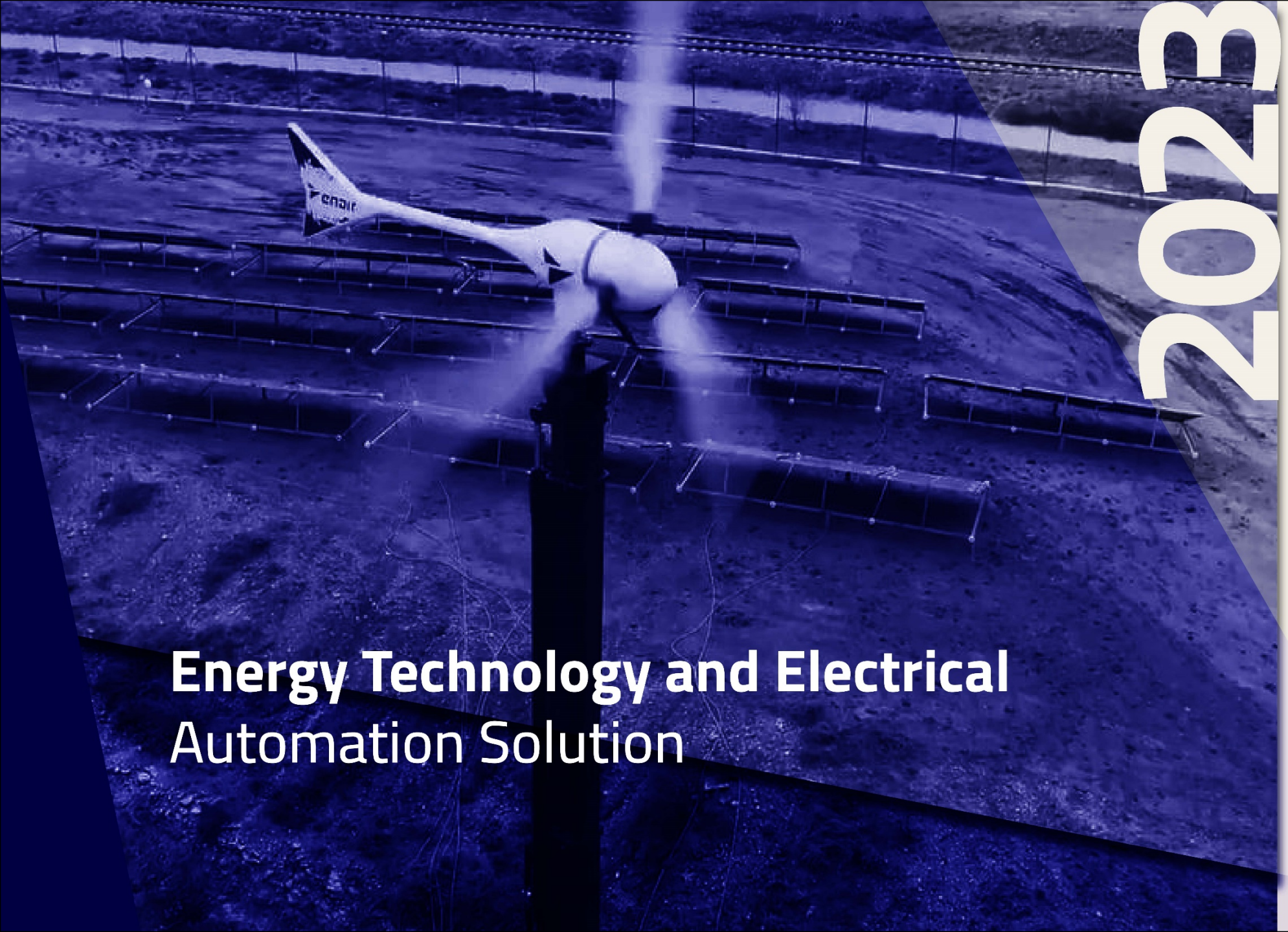


2023

Energy Technology and Electrical Automation Solution

ETEAS

ETAES vision is become a nationally recognized brand by providing customers with valueadded solutions to achieve their business goals in our highly competitive market.

T.C : 06801547
C.R : 203372

ETEAS
Energy Technology and Electrical Automation Solution

WHO WE ARE

WIND TECHNOLOGY

Our core technology is small-scale wind, where we have over 4,000 installations and the most diverse and advanced technology portfolio across the renewables industry

HYBRID CAPABILITY

Our unique capability is bringing hybridized wind, solar PV and battery storage solutions to some of the most challenging rural environments

MOBILE SUSTAINABILITY

Our containerized mobile renewable energy units provide 100% clean energy to remote locations and have the ability to deliver resilient and reliable energy

SERVICING GLOBALLY

Our international service and installation team have decades of experience across all seven continents and ensure project delivery and maintenance

OUR MANAGEMENT

ETEAS Energy team is composed of experienced managers in the field of Renewable Energy

ETEAS
Energy Technology and Electrical Automation Solution

MOUSTAFA ELRAFEI|CHIEFEXECUTIVE

Moustafa is The Founder and CEO of Eteas Energy , with a focus experience of the renerwable energy resources based on the Mechatromics engineering ,

MAHMOUD ABDELLA | TECHNICAL DIRECTOR

Mahmoud is the CO-Founder and the Technical director as he has a real passion for many forms of renewable energy generation , with a focus on utilising technology for decentralised power generation . Over the past 13 years , Mahmoud has gained the required electrical knowledge and business acumen to thrive within the renewable industry ,holding PhD in the Renewable energy resources.

MOHAMED MOHSEN| MANAGING DIRECTOR

A former Director of a Middle East Hybrid technology company , having specialized in Computer Science , Mohamed has extensive expertise in renewable energy -based solutions , customer management and sales.

ETEAS ENERGY

Providimg renewable energy system to some of the most challenging urban and rural environments

FOCUS AREAS

Ryse Energy has three core areas it is focused on bringing sustainable decentralized renewable energy to

TACKLING ENERGY POVERTY IN DEVELOPING COMMUNITIES

Where populations require access to affordable, reliable and sustainable energy

DISPLACING FOSSIL-FUEL GENERATION IN REMOTE LOCATIONS

Where the fuel cost is significantly higher than grid power and has a harmful environmental footprint

PROVIDING CLEAN ENERGY FOR COMMERCIALLY-DRIVEN MARKETS

Where companies see the benefits economically and environmentally from utilizing renewable energy

ETEAS
Energy Technology and Electrical Automation Solution

IS THE ONLY OFFICIAL DISTRIBUTOR OF RYSE ENERGY COMPANY IN EGYPT

ETEAS
Energy Technology and Electrical Automation Solution

Ryse Energy

Our Exclusive Investment Advisor

ETEAS
Energy Technology and Electrical Automation Solution

Zilla Capital

WHERE WE MAKE AN IMPACT

ETEAS is bringing off-grid renewables mainstream in businesses across the globe through three key pillars of impact

ETEAS
Energy Technology and Electrical Automation Solution

ECONOMIC

Making a financial and economic impact to the operating costs to each client we engage with.

RESILIENT

Ensuring resilient and reliable renewable energy through a combination of wind, solar PV and energy storage.

ENVIRONMENT

Decarbonizing infrastructure and businesses, reducing greenhouse gas emissions.

NOMBRE D'OR
Art and Construction Agency

INSTALLASIONS AND ALL SEVEN CONTINENTS

Selected ETEAS Energy applicable sectorys across the globe

ETEAS
Energy Technology and Electrical Automation Solution

e

ETEAS electrical solutions & services (ETEAS) is a partnership company established according to the provision of Egyptian law No. 95 for 1992 contained in commercial registration No. 14927. The company has a wide experience in low voltage protection switchgears
manufacturing field and able to manage a heavy projects with a well-studied time schedule and cost.
ETEAS staff are aware of the international codes and standers, safety, with high technical personal skills.
ETEASstaff are able to coordinate between various projects and provide best solutions meets the client requirements, also able to manage and control the job with time schedule and periodic reports.
ETEAS policy in carrying out all its activities, is to pursue a Sound Health, safety andEnvironmental System and Program in order to protect the safety and health of employees, contractors, customers and the community at large.

NOMBRE D'OR
Art and Construction Agency

OVER 4,000 INSTALLS, APPLICABLE SECTORS

Selected Ryse Energy case studies across the globe

ETEAS
Energy Technology and Electrical Automation Solution

Clean decentralized energy in Tonga

Providing access to electricity in Ghana

Wind-to-water in Kenya

Reducing diesel consumption in telecoms industry in Chile

Off-grid wind energy in the Caribbean

Providing clean renewable energy in Spain

Access to off-grid energy for 700 people who did not have previously have access in Cape Verde

Decarbonizing industrial facilities in Mexico with a rooftop wind installation

Providing power to a wave energy generation plant at sea

Providing decentralized renewable energy to a remote pipeline monitoring station in Spain

OUR WIND TURBINE TECHNOLOGY PORTFOLIO

Our distribution of wind generation technology covers the main three classes of wind turbines within the small to medium rang

ETEAS
Energy Technology and Electrical Automation Solution

Rated Power

Up to 10 m/s average wind speed

Class 1*

E-20

- Rated Power: 18kW
- Maximum Power: 20kW
- Primary Applications:
  - Agricultural
  - Industrial
  - Community Power

E-10

- Rated Power: 10kW
- Maximum Power: 20kW
- Primary Applications:
  - Agricultural
  - Industrial
  - Community Power

E-5

- Rated Power: 4kW
- Maximum Power: 5.5kW
- Primary Applications:
  - Telecom
  - IoT & ICT
  - Oil & Gas

E-3

- Rated Power: 1.9kW
- Maximum Power: 3.0kW
- Primary Applications:
  - IoT & ICT
  - Telecom

Up to 8.5 m/s average wind speed

Class 2

E-60

- Rated Power: 60kW
- Maximum Power: 70kW
- Primary Applications:
  - Industrial
  - Community Power

N-55

- Rated Power: 55kW
- Maximum Power: 65kW
- Primary Applications:
  - Urban Environment
  - Community Power
  - Sustainable Advertising

Up to 7.5 m/s average wind speed

Class 3

G-11

- Rated Power: 11kW
- Maximum Power: 13kW
- Primary Applications:
  - Agricultural
  - Community Power
  - Remote Locations

ETEAS Energy has one of the most diverse portfolios of wind technologies in the sector

This enables us to deploy the best suited technology for client -specific requirements, while maximizing energy output.

**Designed to Class 1 standards. Class 1 wind turbine technologies can operate across all three classes but are robust enough to operate in the harshest of wind conditions*
Refer to appendix for data sheets

NOMBRE D'OR
Art and Construction Agency

TECHNOLOGY | E-RANGE

Advanced and innovative small wind turbines, using big wind technology

Our E -Range includes 3 -blade horizontal axis turbines of 3-60 kW use big wind technology to provide a superior, more efficient performance against competitors.

The turbines are designed to IEC 61400 -2 Class I specifications, in order to safely operate in high wind speed environments with the potential for extreme gusts.

AI Storm Detection algorithms and safety lock mechanisms protect the turbine in extreme weather conditions, whilst intelligent Ryse Energy software manages up to 700 variables to optimize and improve performance.

In total, several thousand of these turbines have been deployed throughout the world, in a range of applications and environments.

The E -Range's Class I design specifications, combined with a low start-up wind speed of 2 m/s, allows these turbines to be able to efficiently generate power over a wide range of site conditions.

E -5 HAWT (1/2)

5kW Small Wind Turbine for On -Grid & Off - Grid Applications

ANNUAL MEAN WIND SPEED (M/S)	ESTIMATED ANNUAL OUTPUT (KWH)
2	290
3	1,900
4	3,900
5	6,900
6	10,900
7	14,300
8	17,700
9	20,000
10	22,500

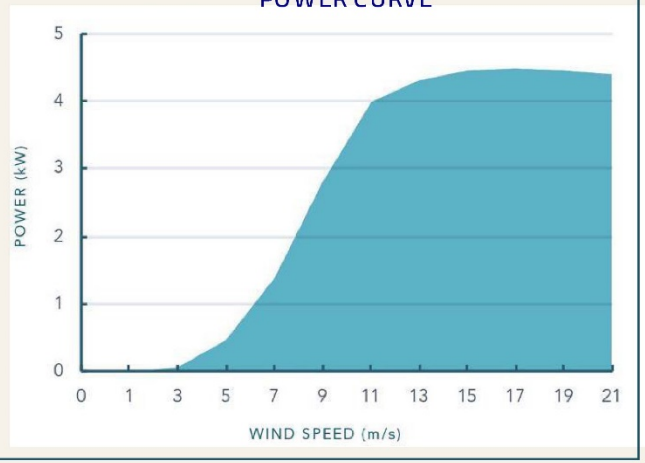
APPLICATIONS

- Telecoms
- Pipeline/Security Monitoring
- Oil & Gas
- Off -Grid
- Micro -Grid
- Residential
- Cold Weather Environments

FEATURES

- Active Blade Pitch Control
- Advanced safety mechanisms
- Remote Control
- Storm detection
- Anti-Corrosive Blades

POWER CURVE



E -60 HAWT (1/2)

60 kW Medium Wind Turbine for On Grid & Off Grid Applications

e

- -

ANNUAL MEAN WIND SPEED (M/S)	ESTIMATED ANNUAL OUTPUT (KWH)
5	119,121
5.5	145,580
6	171,886
6.5	202,278
7	221,466
7.5	243,979
8	264,856

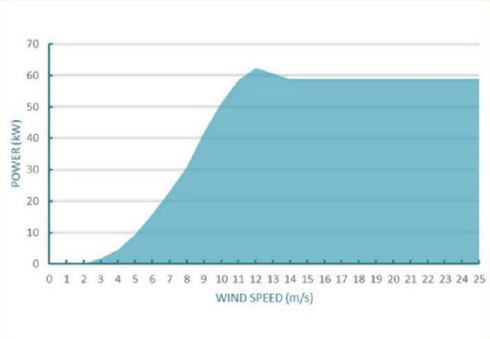
APPLICATIONS

- Industrial & Commercial
- Agricultural
- On -Grid
- Off -Grid
- Micro -Grid
- Remote & Island Communities
- Built -Up Environments

FEATURES

- Active Blade Pitch Control
- Advanced safety mechanisms
- Remote Control
- Storm detection
- Anti -Corrosive Blades

POWER CURVE



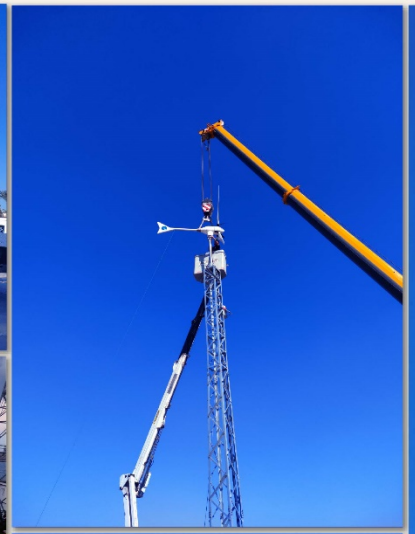
CONSULTATION , INSTALLATION , OPERATION AND MAINTENACE

in addition to our full trurnkey installation service on a worldwide basis , ETEAS with Ryse energy offers renewable energy consultation services and feasibility studies .we offer in-house planning and grid-connection expertise for assistance with your project

our experienced planning team host a wealth of experience within the renewable energy sector and can offer you support or full service your planning requrements

We also have an international network of service and mantence capabilities from service teams located in north america, Europe and middle east. Our service teams offer a wealth of knowledge and experience in servicing and maintaing .small- medium scale wind turbines

We arenot limited to our own products and can offer competitive rates and service packages to suit customer needs



MEMBERSHIPS AND ACCREDITATIONS

e

INTERNATIONAL RENEWBLE ENERGY AGENCY	RENEWABLE ENERGY COSUMER CODE	ALLIANCE FOR RURAL ELECTIFICATION	ELECTRICAL CONTRACTORS ASSOCIATION	MICROGENERATION CERTIFICATION SCHEME
The IRENA coalition action is a key international network to discuss industry trends, determine actions, share knowleddge and exchange best practices with the vision to drive the global energy transition in line with the United Nations Sustainable development goal on energy	set out high consumer protection standards for businesses who are selling or leasing renewable energy generation systems to domestic consumers	the international business association tht promotes asustanable decentralized renewable energy industry for the 21st centuty	the UKs leanding trade association resenting and supporting the interests of electrotechnical and building engineering services contractors	Ryse energy is an MCS approved installer solar and wind technologies

ON LINE REMOTE MONITORING AND CONTROL OF GENSET, ATS PANELS, PH.SEQ. AND FUEL CONSUMPTION

ETEAS
Energy Technology and Electrical Automation Solution

KEY INDUSTRIES

WORKS ACROSS MULTIPLE PLATFORMS

Download on the App Store

GET IT ON Google Play

ADVANCED REMOTE MONITORING OF GENSETS, PUMPS & COMPRESSORS.

Welcome to DSE WebNet ® - the industry-leading online management tool for remote control and monitoring of generators, pumps and compressors.

Allows 24/7 access to multiple applications from anywhere in the world, and offers a range of outstanding features suitable for multiple applications. Available in desktop and mobile versions, DSE WebNet ® is both powerful and versatile.

"Our maintenance engineers were regularly required to go to site to fix issues with our generator fleet. Very often they arrived to find that the E Stop had been pressed or they did not have the right part to fix the problem. Now, with DSE WebNet ® in place, we can see the live system status allowing us to diagnose problems in advance, saving us a considerable amount of time and money".

"Many of our generators are in unsupervised sites and were continually running out of fuel. Since we installed DSE WebNet ® we automatically receive emails when the fuel level is low, so timely refuelling can be arranged".

"As a rental company one of the key benefits of DSE WebNet ® to us is the remote engine reporting. This allows us to effectively manage the contracted running hours of our entire rental fleet".

User Configurable Access
Allocate different user privileges, giving admin users the ability to provide full control or read only access, to prevent accidental system changes.

Single User or Organisational Accounts
Operate as a single user with full control or create an organisational account allowing access to multiple users with fiexible permissions.

Configurable Reporting
Choose the reports you want to see and send automatically by email or SMS to a maximum of 25 users.

Configurable User Interfaces
Create bespoke user interfaces using configurable widgets and templates to allow quick and easy access to key equipment and site data.

Customisable Branding
Organisational accounts allow custom branded backgrounds and logos to be used, producing screens with a bespoke corporate identity.

App for Mobile & Tablet
Available for iOS and Android devices. The App can be linked to sites pre-configured using a desktop connection.

Geo-Fencing & Asset Tracking
Protect against theft or movement by creating a virtual geographic boundary around your equipment using GPS.

Maintenance Scheduling & Logging
Plan and customise essential maintenance schedules and keep logs of previous maintenance work for all users to view.

Event Triggers
Set up event triggers to email or message users when specific conditions occur, including active alarms, low fuel levels and genset status.

Works across any phone network
Compatible with SIM cards from any network provider, allowing our DSE 890 and DSE 891 to be used globally.

DATA CENTER

ON LINE REMOTE MONITORING AND CONTROL OF GENSET, ATS PANELS, PH.SEQ. AND FUEL CONSUMPTION

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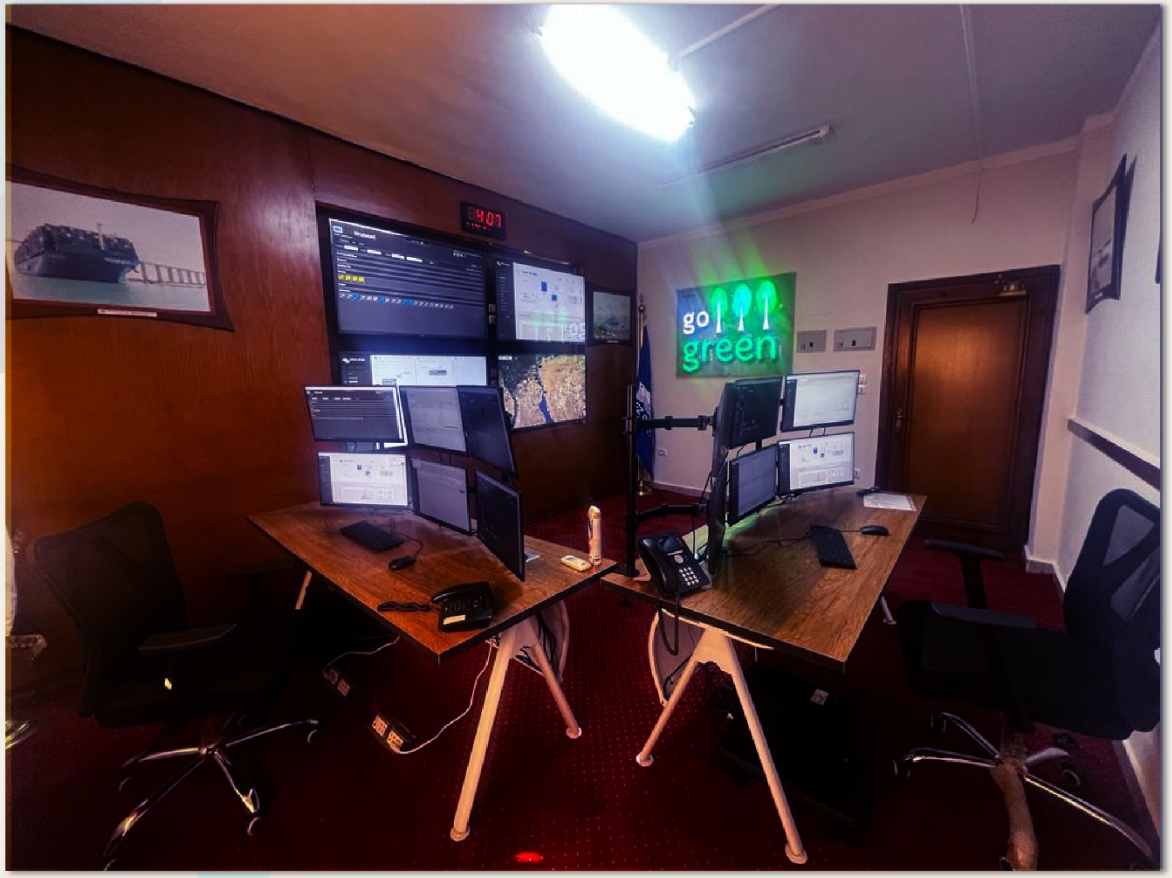
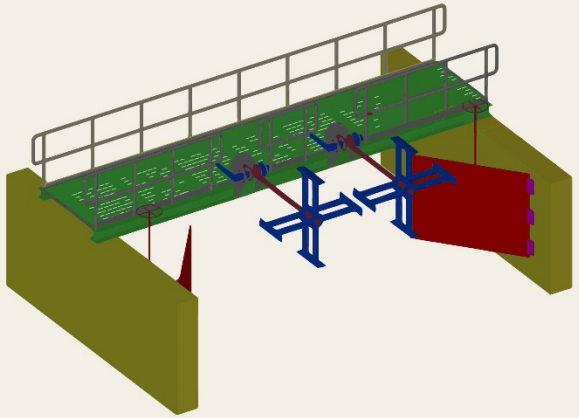
Energy Technology and Electrical Automation Solution

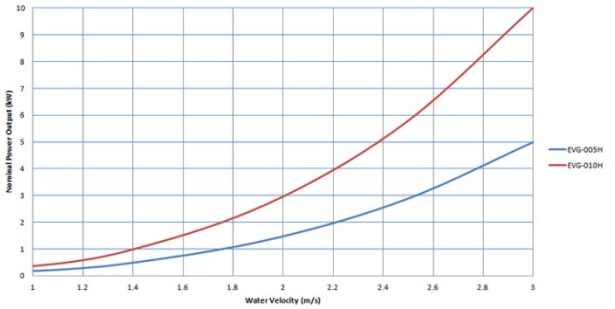


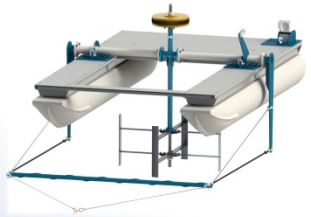
HYDROKINETIC POWER FOR THE LOW VELOCITIES

ETEAS
Energy Technology and Electrical Automation Solution



Power Curves





EVG—005L

- Maximum Power Output - **5 kW** @ 2.4m/s flow velocity
- Rotor Width - **1.5 m**
- Rotor Height - **1.5 m**
- Extended Height - **2.45 m**
- Designed Water Velocity - **3 m/s**
- Generator Output - **3φ, 300V**

FREE COOLING FOR ELECTRONICS

FLEXIBOX 900, INDOOR
FREE COOLING FOR ELECTRONICS

Dantherm Flexibox Free Cooling is cost-effective controlled ventilation. The solution cools by means of ambient air without using a compressor, generating significant savings in all climates.

Flexibox Free Cooling 900 is designed with the Dantherm -developed CC3000 cooling controller, which allows settings configuration and live operation monitoring on any standard browser.

Free Cooling can be used stand-alone or combined with e.g. existing air conditioning. This ensures maximum use of passive cooling, prolongs the air conditioner service life and generates significant OPEX savings.

Contact Dantherm for non-binding, site-specific energy savings counselling in your network.

FEATURES ANDBENEFITS
450

Benefits of Flexibox 900, indoor

- Significant energy savings: Most energy-efficient cooling method within electronics cooling
- Total climate control: Controls several external units
- Clean internal environment: Overpressure system ensures no ingress of outside contaminants
- Long service life: High-quality components
- Pollution ratio adaption: Easy change of multiple filter types
- Prolongs service life of existing units: Free Cooling operation reduces wear of other installed cooling units
- Operational safety: Emergency cooling
- Wide geographical usage: Ambient temperature operating range from -40 to +55 °C
- Extended air inlet protection: Ready for Dantherm AirMaze pat.pend.

Installation and operation

- Flexible installation: Plug-and-play, new and legacy sites
- Minimum installation costs: No need for cooling technician
- Anti-theft security: No accessible screws, nuts or bolts

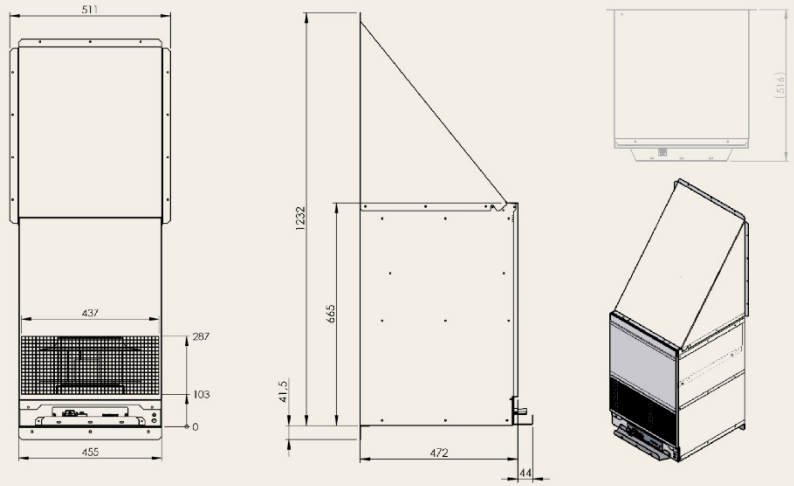
Controller

- Solution-specific controller: Dantherm-developed, wall-mounted
- Flexible configuration: Live monitoring and configuration on any standard browser
- Energy-saving strategy: Max. use of controlled ventilation
- Intelligent climate control: Automated change of cooling mode
- Stable operation: Stepless fan speed control
- User-friendly configuration: Built-in SD card reader and digital colour display
- Service minimization: Digital filter status detector
- Strategy evaluation/planning: Complete data logging

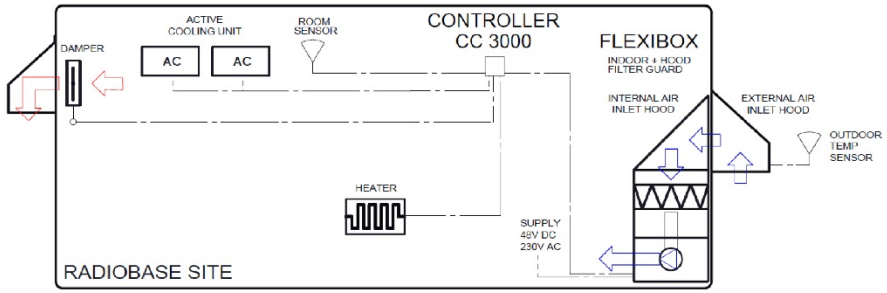
Application

- Telecom shelters, enclosures and rooms
- Drive stations
- Automation control cabinets
- Hybrid Telecom sites
- DC-powered sites
- Regions with extreme temperature fluctuations

DIMENSIONS



FLOW - & CONNECTION CHART



FREE COOLING FOR ELECTRONICS

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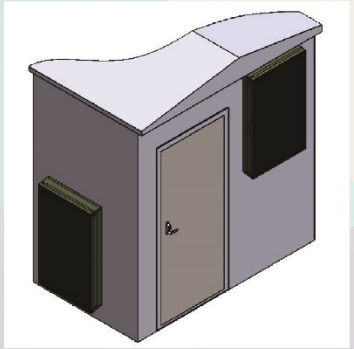
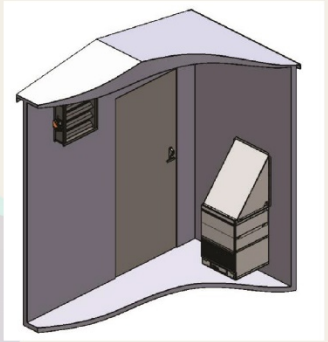
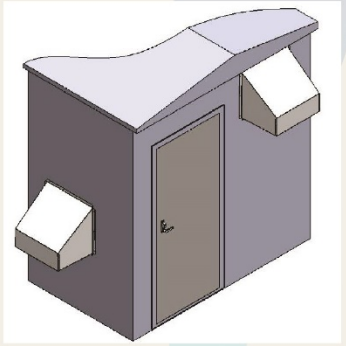
MOUNTING ALTERNATIVES

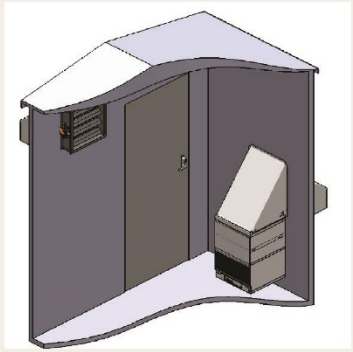




Mounting type	accessories	air inlet
AirMaze, unpainted		075575
	or	
AirMaze, painted, with bug screen		086924

Mounting type	accessories	air outlet
Motorized damper Opening: [400 x 411mm]		074603
Gravity Damper (ABS plastic) Opening: [407 x 407mm		086964
Gravity damper (Aluminium) Opening: [400 x 400mm]		299943
AirMaze, unpainted		075575
	or	
AirMaze, painted, with bug screen		086924





Mounting type	accessories	air inlet
External rain hood Opening: [400 x 400]		299653

Mounting type	accessories	air outlet
Motorized damper Opening: [400 x 411mm]		074603
Gravity damper (ABS plastic) Opening: [407 x 407mm		086964
Gravity damper (Aluminum) Opening: [400 x 400mm]		299943
External rain hood Opening: [400 x 400]		299653

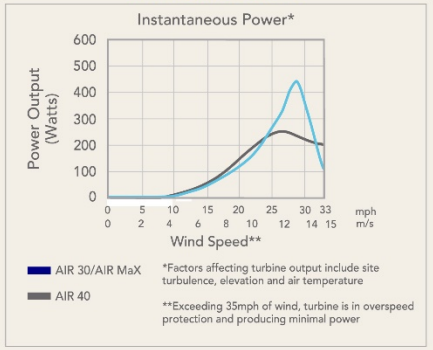
COMPLETES ANY OFF GRID SYSTEM

- SIMPLE, AFFORDABLE, RELIABLE POWER
- EASILY INTEGRATES WITH SOLAR
- NEW CARBON FIBER MULTICOLOR BLADE-HUB DESIGN
- NIGHT TIME POWER PRODUCTION
- OVER 180,000 UNITS INSTALLED SINCE 1995
- MADE IN THE USA

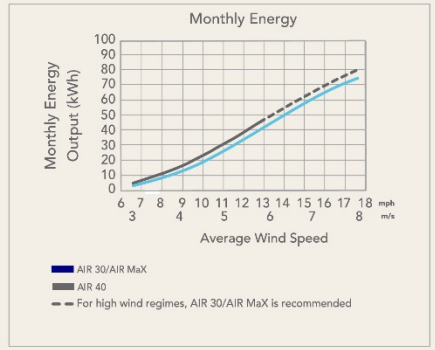
AIR 40
AIR 30
AIR MAX

TURBINE SPECIFICATIONS

AIR POWER CURVE



AIR ENERGY CURVE



TECHNICAL SPECIFICATIONS

AIR 40/ AIR 30 / AIR MAXI	
ENERGY	AIR 40: Approx. 40 kWh/mo at 5.5 m/s (12 mph) AIR 30/AIR MaX: Approx. 30 kWh/mo at 5.5 m/s (12 mph)
OPTIMAL OPERATING ENVIRONMENT	AIR 40: Quiet operation in low to moderate wind regimes AIR 30: Industrial application in moderate to high wind regimes AIR MaX:Very quiet operation in moderate to high wind regimes
SWEPT AREA	1.07 m2 (11.5 ft2)
ROTOR DIAMETER	1.17 m (46 in)
WEIGHT	5.9 kg (13 lb)
SHIPPING DIMENSIONS	686 x 318 x 229 mm (27 x 12.5 x 9 in) 7.7 kg (17 lb)
STARTUP WIND SPEED	AIR 40: 3.13 m/s (7 mph) AIR 30/AIR MaX: 3.59 m/s (8 mph)
VOLTAGE	12, 24 and 48 VDC
TURBINE CONTROLLER	Mircoprocessor-based smart controller
BODY	Grey cast aluminum housing with a basic finish
BLADES	AIR 40/30: (3) Injection-molded composite black AIR MaX: (3) Hand laminated, carbon fiber (with low sound emissions) - Multicolor with new precision fit hub design
ALTERNATOR	Permanent magnet brushless
OVERSPEED PROTECTION	Electronic torque control
SURVIVAL WIND SPEED	40.2 m/s (90 mph)
MOUNT	1.5 in schedule 40 pipe 48 mm (1.9 in) outer diameter
WARRANTY	5 year limited warranty
CERTIFICTIONS	CE

3 AIR TURBINES - 3 BLADE SET TYPES

TURBINE	LOCATION	APPLICATION	WIND	SOUND
AIR 30	Land	Industrial O&G - Telecom	High	High
AIR MaX	Land	Residential - Educational	High	Very Low (CF Blades)
AIR 40	Land	Residential - Educational	Mod.	Low

* All AIR Models are 12/24/48V - Turbine is voltage specific per the battery bank. Not field adjustable.

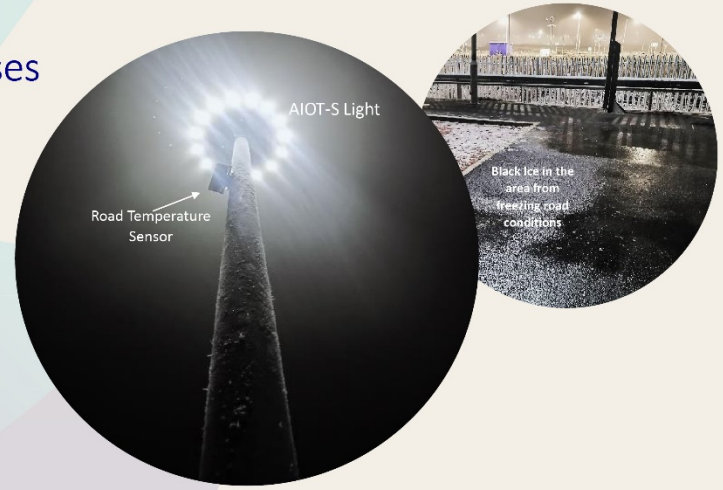
** All 2021 AIR turbines are Lithium-Ion Battey compatible.

INTELLIGENT HYBRID SMART LED LIGHTING

ETEAS
Energy Technology and Electrical Automation Solution

Use Case Proposition

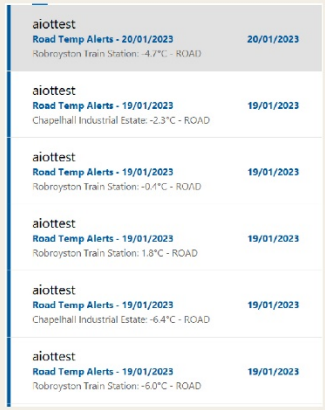
Sensor Use Cases

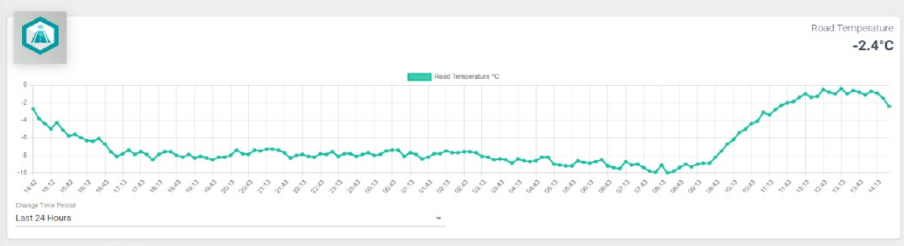


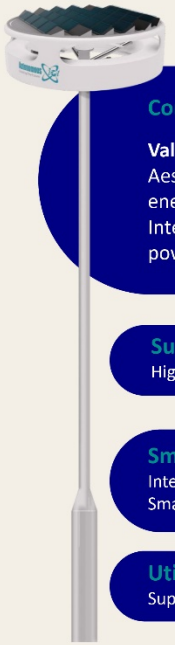
Site: **Robroyston Train Station**
Owner: **ScotRail**
Unit: **AIOT-S-070 - Robroyston**
Sensor ID: **807d3ac25ed4**

Status: **ROAD TEMPERATURE FREEZING**

Road Temp	Time
-4.7 °C	20 Jan, 2023 00:30
-4.7 °C	20 Jan, 2023 00:20
-4.1 °C	20 Jan, 2023 00:10
-4.9 °C	19 Jan, 2023 23:50
-4.6 °C	19 Jan, 2023 23:40







Commercial Lighting

Value Proposition
Aesthetically pleasing cost saving, energy efficient, carbon reducing, Intelligent Hybrid Lighting Platform powered by reusable energy

Communication
LoRaWAN, Wireless, SIM, 4/5G

Analytics
Monitoring pollution, speed etc. using intelligent sensors

Surveillance
High-definition CCTV

Smart City
Internet of Things in a Smart City
Smart parking

Emergency Alert
Help Points/ Early warning system

Natural Disasters
Off-grid Emergency lighting and power in event of natural disasters (floods, earthquakes...)

Utility Power
Supplemental Power using meshing technology and intelligent management software

ETEAS

Energy Technology and Electrical
Automation Solution

Thank you for Watching

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