

# WIND POWER GENERATION TRAINER

Model Number : GOTT-WPGT-P01



## WIND POWER GENERATION TRAINER

### DESCRIPTION

This trainer is a small independent stand-alone system with energy storage for use anytime day or night, the trainer will provide for student understanding of wind systems basic models are proposed.

Each trainer comprises a complete energy system including wind turbines, generators, support towers, typical control modules, and energy storage modules. Manuals covering student exercises, instructor operating notes and technical documentation are provided. Systems are comprised of commercially available components, enhanced instrumentation for improved student understanding and with custom designed training module. Note that these trainers are real working systems intended for the wind turbines to be mounted outside.

### WIND GENERATOR SPECIFICATION



#### Technical Data

Model No.	GOTT-600	Rated Wind Speed	10 m/s
Turbine Type	Horizontal axis	Braking Wind Speed	13 m/s
Generator Type	Permanent Magnet	Max. Safe Wind Speed	35 m/s
Blades Number	3	Rotor Speed	up to 600 rpm
Material of Blades	Aluminum Alloy	Insulating Level	B
Work Type	SI	Protection Level	IP64
Rotor Diameter	2.4m	Noise	≤55dB
Rotor Power coefficient	0.30	Ambient Temperature	-20°C~55°C
Rotor Swept Area	4.52m <sup>2</sup>	Braking System	Mechanical & Electronic
Radial Runout	≤0.04	Life Expectancy	10 Years
Rated Power	600W	Net Weight	34.5KG
Rated Voltage	DC 24V	Packaging	Carton with styrofoam
Star-up Wind Speed	2.5 m/s	Packaging Size	1240 x 470 x 290mm

### BATTERY SPECIFICATION

Nominal Voltage	12V	
Nominal capacity(10 hour rate)	100Ah	
Dimensions	Length	330mm
	Width	172mm
	Height	216mm
	Total Height	222mm
Weight Approx	31Kg	

#### SPECIFICATIONS

Capacity (25°C)	20HR	108Ah
	10HR	100Ah
	5HR	91Ah
	1HR	68Ah
Internal Resistance(25°C)	After Full Charged	3.6mΩ
Capacity affected by Temperature (20 hour rate)	40°C	102%
	25°C	100%
	0°C	83%
	-15°C	64%
Capacity after different months storage	After 3 month	91%
	After 6 month	82%
	After 9 month	63%

#### CHARACTERISTICS

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PRODUCT MODULES							
WIND GENERATOR	CODE 444-101	BATTERY	CODE 444-103	INVERTER UNIT	CODE 444-112	LOAD	CODE 444-104
							
CIRCUIT BREAKER	CODE 444-105	LED SIMULATION	CODE 444-106	RECTIFIER	CODE 444-107	AC METER	CODE 444-108
							
DC METER	CODE 444-109	WIND CIRCUIT BREAKER UNIT	CODE 444-110	WIND CHARGE CONTROLLER	CODE 444-111	SAFETY CONNECTING LEAD	CODE
						4mm connecting leads 	
U-LINK	CODE 159-019	VERTICAL FRAME	CODE 297-000	EXPERIMENT MANUAL	CODE 444-113		
A unit which is wed to link the unit together 		High Level: Din Standard A4 with two shelves Material: Aluminium Side Frame: T shape Size: 3-Layer 1450mm Length 					

### EXPERIMENTS TOPICS :

- Learn the working principle of wind generator
- Command the experiment method to measure the working character of a wind generator
- Learn the basic structure of wind generator
- Command the experiment method to measure the working character of wind generator
- Design a practical application with wind generator
- Understand the working principle of the controller
- Learn the working mode of the controller
- Understand the control of charging and discharging to the battery with the controller
- Understand the control of input and output of the battery when the input power and output load changes

### Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

### General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manual & Training will be provided where applicable.
- (3) Design & specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

### Warranty :

2 Years

### ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
WIND POWER GENERATION TRAINER	GOTT-WPGT-P01	924-100

\* Proposed design only, subject to changes without any notice.