

CP-WS350

Wind Energy Training System



FEATURES

- See-thru inner structure equipped with a generator, a rotor and a motor
- Hands-on wind power training system designed to help understand the course of electrical production
- Wind speed sensor installed in front of the rotor for measuring the RPM and wind speed
- Real-time data monitoring and control

EXPERIMENTAL CONTENTS

- Principles of wind power generation system
- V-characteristics according to wind power generator's speed
- How to measure the rectified DC voltage
- Charging and discharging batteries
- Voltage and current of DC load
- Voltage and current of AC load
- Manual break system for the wind power generator

SPECIFICATIONS

AC Power Source Module	<ul style="list-style-type: none"> • ELCB (AC220V 60Hz, 15A/15mA) • AC power inlet (fuse built-in, 5A) • AC power indicator lamp • AC output connector (4-pin) 	Inverter	<ul style="list-style-type: none"> • 3-phase inverter <ol style="list-style-type: none"> 1) Motor : 1HP (0.75kW) 2) Rated output <ul style="list-style-type: none"> - Rated capacity: 1.9kVA - Rated current: 5A - Rated frequency: 0 ~ 400Hz - Output voltage: 3-phase 220V • Rated input <ol style="list-style-type: none"> 1) Voltage: 3-phase 220V (±10%) 2) Frequency: 50 ~ 60Hz (±5%) • Cooling : forcibly cooling type • Control <ol style="list-style-type: none"> 1) Type of control: V/F and sensorless 2) Frequency setting resolution • Digital: 0.01Hz (below 100Hz) • Analog: 0.06Hz / 60Hz • Frequency <ol style="list-style-type: none"> 1) Digital : 0.01 % of a maximum frequency 2) Analog : 0.01 % of a maximum frequency • V/F ratio: linear and user V/F • Overload withstand: 150% (1 minute) • Torque boost: manual (0 ~ 15% setting) and automatic
Wind Generator (400W)	<ul style="list-style-type: none"> • Rotor : Permanent magnet type • Stator : Coreless type • Rectified DC voltage : 24V • Output voltage : 3-phase AC • Output power : 400W • Rate speed : 450 RPM • Diameter : 245mm • Length : 61mm • Weight : 8kg 		<ul style="list-style-type: none"> • 3-phase induction motor <ol style="list-style-type: none"> 1) Power : 3-phase AC 220V 2) Type : 4 poles, Y-Δ Starting 3) Sensor (rotational detection) : 2ea
Wind Controller	<ul style="list-style-type: none"> • Operation switch • Emergency switch • Control : 0~100% 		
Multimeter	<ul style="list-style-type: none"> • Voltmeter • Ampere meter • Wind speed meter • RPM meter 		
Wind Power Output & Communication	<ul style="list-style-type: none"> • 4mm insulated output terminal • RS-485 communication • RS-232C communication • AC output connector (4-pin) • Toggle switch 		

STANDARD ACCESSORIES

- Power cord: 1ea
- Connection cable (3/4 pins): 1ea
- Wind power generation examples CD: 1ea
- User's guide manual: 1ea