

WINDY BOY 5000A / 6000A / 7000HV

WB 5000A / WB 6000A / WB 7000HV-11



Efficiency

- Up to 96.1 % efficiency
- Can be combined to form three-phase units with up to 21 kW output
- Integrated SMA Power Balancer
- OptiCool: Continuous operation even at high temperatures

Easy to use

- Free choice of installation site
- Programmable polynomial curve enables free selection of turbines
- Certified for the most countries (SMA Grid Guard)

Safe

- Galvanic Isolation
- Compatible with Windy Boy Protection Box 600

Reliable

- Worldwide SMA Service including Serviceline
- Comprehensive SMA warranty program

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The performance class up to 21 kW

The Windy Boy 5000A, 6000A and 7000 HV not only feature a maximum efficiency of 96.1 percent, but are also suited for the development of three-phase grid-feeding wind energy plants. The integrated SMA Power Balancer prevents undue load unbalance, and the plant is also able to feed-in even if individual phases fail. The weather-proof enclosure and the wide temperature range allow for installation at almost any location. Thanks to the OptiCool ventilation system, the equipment works at outdoor temperatures of up to 45 °C with maximum output. And in case of a problem: the worldwide SMA Service and comprehensive warranty program provide maximum security.

Technical data	Windy Boy 5000A	Windy Boy 6000A	Windy Boy 7000HV
Input (DC)			
Max. DC power	5750 W	6300 W	7500 W
Recommended generator power at 2500 / 5000 full-load hours per year	4600 W / 4200 W	5500 W / 5100 W	6500 W / 6000 W
Max. DC voltage	600 V	600 V	800 V
DC nominal voltage	270 V	270 V	340 V
Min. open circuit voltage for activating "Turbine Mode"	300 V	300 V	400 V
Operating range "Turbine Mode"	250 V - 600 V	250 V - 600 V	335 V - 800 V
Max. input current	26.0 A	26.0 A	23.0 A
Output (AC)			
AC nominal power	5000 W	6000 W	6650 W
Max. AC power	5500 W	6000 W	7000 W
Max. output current	26.0 A	26.0 A	31.0 A
Nominal AC voltage / AC operating range	220 V, 230 V, 240 V / 180 V - 260 V		
AC grid frequency / range	50 Hz, 60 Hz / ± 4.5 Hz	50 Hz, 60 Hz / ± 4.5 Hz	50 Hz, 60 Hz / ± 4.5 Hz
Power factor (cos φ)	1	1	1
Phase conductors / connection phases	1 / 1	1 / 1	1 / 1
Efficiency			
Max. efficiency / Euro-Eta	96.1 % / 95.3 %	96.1 % / 95.3 %	96.2 % / 95.5 %
Protective devices			
DC reverse-polarity protection	●	●	●
AC short-circuit protection	●	●	●
Ground fault monitoring	●	●	●
Grid monitoring (SMA Grid Guard)	●	●	●
Galvanically isolated	●	●	●
Protection class / overvoltage category	I / III	I / III	I / III
General data			
Dimensions (W / H / D) in mm	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242
Weight	62 kg	63 kg	65 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤ 42 dB(A)	≤ 42 dB(A)	≤ 41 dB(A)
Internal consumption: operation / standby	< 7 W / 0.25 W	< 7 W / 0.25 W	< 7 W / 0.25 W
Topology	LF transformer	LF transformer	LF transformer
Cooling concept	OptiCool	OptiCool	OptiCool
Electronics protection rating / connection area (per IEC 60529)	IP65 / IP65	IP65 / IP65	IP65 / IP65
Climatic category (per IEC 60721)	4K4H	4K4H	4K4H
Features			
DC connection: SUNCLIX	●	●	●
AC connection: screw terminal	●	●	●
Display: text line / graphic	●/-	●/-	●/-
Interfaces: RS485 / Bluetooth®	○/○	○/○	○/○
Warranty: 5 years / 10 years	●/○	●/○	●/○
Certificates and permits	CE, VDE0126-1-1, G83/1, CER/06/190, DK 5940 ED2.2*, RD 1663, AS4777, EN 50438		
* applies only to IT variant			
● Standard features ○ Optional features – Not available / Data at nominal conditions			
Type name	WB 5000A	WB 6000A	WB 7000HV-11

