

WINDY BOY 5000A / 6000A

WB 5000A / WB 6000A



Economical

- Up to 96.1% efficiency
- Can be combined to form three-phase units with up to 50 kW output
- Integrated SMA Power Balancer
- OptiCool: Continuous operation even at high temperatures

Simple

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

Secure

- Galvanic isolation
- Compatible with Windy Boy Protection Box 600
- Integrated grid management functions through reactive power provision

Reliable

- Worldwide SMA Service including Service Line
- Comprehensive SMA warranty program

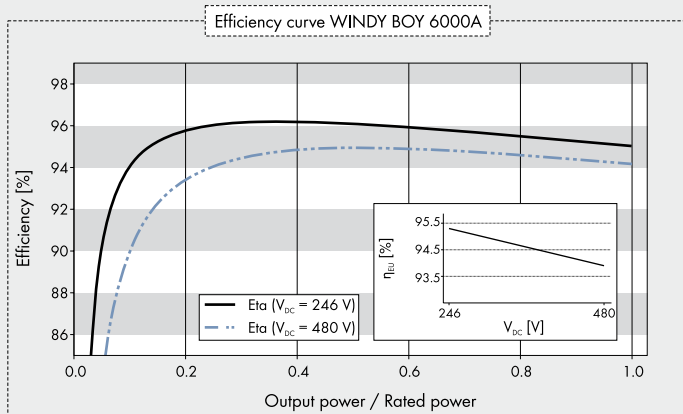
WINDY BOY 5000A / 6000A

The power class up to 50 kW

The Windy Boy 5000A and 6000A feature a peak efficiency of 96.1 percent and are also suited for a three-phase grid feed-in. The integrated SMA Power Balancer prevents undue unbalanced load, and the plant is also able to feed in even if individual line conductors fail. Thanks to the reactive power provision the inverters add to the grid stability and can be used flexibly in plants of different sizes. The weatherproof enclosure and the wide temperature range allow for installation at almost any location. Thanks to OptiCool, the equipment works at outside temperature of up to 45 °C with maximum output.

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Accessories



¹ Does not apply to all national appendices of EN 50438

Technical data	Windy Boy 5000A	Windy Boy 6000A
Input (DC)		
Max. DC power (@ cos φ = 1)	5750 W	6300 W
Recommended array power at 2500 / 5000 full-load hours per year	4600 W / 4200 W	5500 W / 5100 W
Max. input voltage / rated input voltage	600 V / 246 V	600 V / 246 V
Min. open-circuit voltage for "Turbine Mode" activation	250 V	250 V
"Turbine Mode" voltage range	246 V - 600 V	246 V - 600 V
Max. input current	26 A	26 A
Output (AC)		
Rated power (@ 230 V, 50 Hz)	5000 W	6000 W
Max. apparent AC power	5500 VA	6000 VA
Nominal AC voltages / range	220 V, 230 V, 240 V / 160 V - 265 V	220 V, 230 V, 240 V / 160 V - 265 V
AC power frequency / range	50 Hz, 60 Hz / -6 Hz ... +5 Hz	50 Hz, 60 Hz / -6 Hz ... +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	26 A	26 A
Power factor at rated power	1	1
Displacement power factor, adjustable	0.8 overexcited ... 0.8 underexcited	0.8 overexcited ... 0.8 underexcited
Feed-in phases / connection phases	1 / 1	1 / 1
Power balancing	●	●
Efficiency		
Max. efficiency / European weighted efficiency	96.1 % / 95.3 %	96.1 % / 95.3 %
Protective devices		
Ground fault monitoring / grid monitoring	● / ●	● / ●
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated	● / ● / ●	● / ● / ●
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
General data		
Dimensions (W / H / D)	468 / 613 / 242 mm (18.4 / 24.1 / 9.5 inch)	468 / 613 / 242 mm (18.4 / 24.1 / 9.5 inch)
Weight	62 kg / 136.7 lb	63 kg / 139 lb
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F
Noise emission (typical)	42 db(A)	42 db(A)
Topology	LF transformer	LF transformer
Cooling concept	OptiCool	OptiCool
Protection of electronics / connection area (according to IEC 60529)	IP65 / IP65	IP65 / IP65
Climatic category (as per IEC 60721-3-4)	4K4H	4K4H
Max. permissible value for relative humidity (non-condensing)	100 %	100 %
Features		
DC terminal	SUNCLIX	SUNCLIX
AC coupling	Screw terminal	Screw terminal
Display	Text line	Text line
Interfaces: RS485 / Bluetooth	○ / ○	○ / ○
Warranty: 5 / 10 years	● / ○	● / ○
Certificates and approvals (more available upon request)	CE, VDE0126-1-1, G59/2, EN 50438 ¹ , C10/C11, VDE-AR-N 4105	CE, VDE0126-1-1, G59/2, EN 50438 ¹ , C10/C11, VDE-AR-N 4105
● Standard feature ○ Optional feature – Not available		
Type designation	WB 5000A-11	WB 6000A-11

WINDY BOY PROTECTION BOX

Optimal overvoltage protection for your inverter

