

WB 3000TL-21 / WB 3600TL-21 / WB 4000TL-21 / WB 5000TL-21



**Economical**

- Maximum efficiency of 97%
- Improved yields via polynomial curves

**Flexible**

- Unit can be mounted virtually anywhere due to high protection class IP65
- Integrated grid management functions and reactive power provision

**Easy to use**

- Without fan
- Simplified wall mounting
- Fast connection, no tools required thanks to the SUNCLIX DC connector

**Communicative**

- Simple country configuration
- Bluetooth® technology as standard

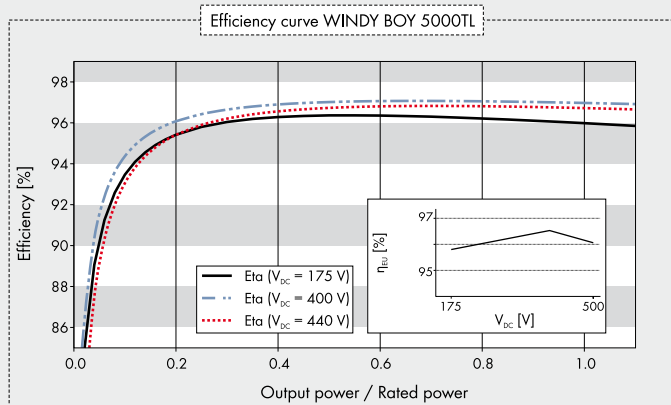
**WINDY BOY 3000TL / 3600TL / 4000TL / 5000TL  
with Reactive Power Control**

The same. Only better. The universally usable Windy Boy

One for all: the new transformerless Windy Boy is the perfect solution for horizontal and vertical axis small wind turbine systems. The two additional power classes provide even more options to design your plant. The programmable polynomial curve and broad input voltage range ensure the best possible yields. They make it easier to design plants and allow the curve to be ideally adjusted to the turbine. The integrated grid management functions make the devices suitable for universal applications and allow them to actively support the grid with the reactive power supply function. The practical solution: the inverter is compatible with the Windy Boy Protection Box 500. The device also allows you to easily operate additional permanent magnet generators, such as hydroelectric power plants or combined heat and power plants.

# WINDY BOY 3000TL / 3600TL / 4000TL / 5000TL with Reactive Power Control

Technical data	Windy Boy 3000TL	Windy Boy 3600TL
<b>Input (DC)</b>		
Max. DC power (@ $\cos \varphi = 1$ )	3200 W	3880 W
Max. input voltage	550 V	550 V
"Turbine Mode" voltage range / rated input voltage	80 V - 500 V/400 V	80 V - 500 V/400 V
Min. open-circuit voltage for "Turbine Mode" activation	125 V	125 V
Max. input current	30 A	30 A
<b>Output (AC)</b>		
Rated power (@ 230 V, 50 Hz)	3000 W	3680 W
Max. apparent AC power	3000 VA	3680 VA
Nominal AC voltage / range	220 V, 230 V, 240 V / 180 V - 280 V	220 V, 230 V, 240 V / 180 V - 280 V
AC power frequency / range	50 Hz, 60 Hz / -5 Hz ... +5 Hz	50 Hz, 60 Hz / -5 Hz ... +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	16 A	16 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
<b>Efficiency</b>		
Max. efficiency / European weighted efficiency	97% / 96%	97% / 96.3%
<b>Protective devices</b>		
Ground fault monitoring / grid monitoring	● / ●	● / ●
DC reverse polarity protection / AC short-circuit current capability	● / ●	● / ●
All-pole-sensitive residual-current monitoring unit	●	●
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
<b>General data</b>		
Dimensions (W/H/D)	490 / 519 / 185 mm (19.3 / 20.4 / 7.3 inches)	490 / 519 / 185 mm (19.3 / 20.4 / 7.3 inches)
Weight	26 kg / 57.3 lb	26 kg / 57.3 lb
Operating temperature range	-25 °C ... +60 °C / -13 °F ... +140 °F	-25 °C ... +60 °C / -13 °F ... +140 °F
Noise emission (typical)	25 dB(A)	25 dB(A)
Self-consumption (at night)	1 W	1 W
Topology	Transformerless	Transformerless
Cooling concept	Convection	Convection
Degree of protection (according to IEC 60529)	IP65	IP65
Climatic class (as per IEC 60721-3-4)	4K4H	4K4H
Maximum permissible value for relative humidity (non-condensing)	100%	100%
<b>Features</b>		
DC connection	SUNCLIX	SUNCLIX
AC connection	Spring clamp terminal	Spring clamp terminal
Display	graphic	graphic
Interface: RS485 / Bluetooth / multi-function relay	○ / ● / ○	○ / ● / ○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○
Certificates and approvals (more available upon request)	CE, VDE0126-1-1, VDE-AR-N 4105	
Certificates and approvals (planned)	G83/1-1, EN 50438 <sup>3)</sup> , UTE C15-712-1	
Type designation	WB 3000TL-21	WB 3600TL-21



### Accessories



RS485 interface  
DM-485CB-10



Additional fan kit  
FANKIT01-10



Multi-function relay  
MFR01-10

- 1) 4825 W with VDE-AR-N 4105
- 2) 4600 VA with VDE-AR-N 4105
- 3) EN 50438\* does not apply to all national appendices of EN 50438

● Standard features   ○ Optional features   – Not available  
Preliminary information, dated April 2012  
Data at nominal conditions

Technical data	Windy Boy 4000TL	Windy Boy 5000TL
<b>Input (DC)</b>		
Max. DC power (@ $\cos \varphi = 1$ )	4200 W	5250 W <sup>1)</sup>
Max. input voltage	550 V	550 V
"Turbine Mode" voltage range / rated input voltage	80 V - 500 V/400 V	80 V - 500 V/400 V
Min. open-circuit voltage for "Turbine Mode" activation	125 V	125 V
Max. input current	30 A	30 A
<b>Output (AC)</b>		
Rated power (@ 230 V, 50 Hz)	4000 W	4600 W
Max. apparent AC power	4000 VA	5000 VA <sup>2)</sup>
Nominal AC voltage / range	220 V, 230 V, 240 V / 180 V - 280 V	220 V, 230 V, 240 V / 180 V - 280 V
AC power frequency / range	50 Hz, 60 Hz / -5 Hz ... +5 Hz	50 Hz, 60 Hz / -5 Hz ... +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V	50 Hz / 230 V
Max. output current	22 A	22 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
<b>Efficiency</b>		
Max. efficiency / European weighted efficiency	97% / 96.4%	97% / 96.5%
<b>Protective devices</b>		
Ground fault monitoring / grid monitoring	● / ●	● / ●
DC reverse polarity protection / AC short-circuit current capability	● / ●	● / ●
All-pole-sensitive residual-current monitoring unit	●	●
Protection class (according to IEC 62103) / overvoltage category (according to IEC 60664-1)	I / III	I / III
<b>General Data</b>		
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Climatic class (as per IEC 60721-3-4)	4K4H	4K4H
Maximum permissible value for relative humidity (non-condensing)	100%	100%
<b>Features</b>		
DC connection	SUNCLIX	SUNCLIX
AC connection	Spring clamp terminal	Spring clamp terminal
Display	graphic	graphic
Interface: RS485 / Bluetooth / multi-function relay	○ / ● / ○	○ / ● / ○
Warranty: 5 / 10 / 15 / 20 / 25 years	● / ○ / ○ / ○ / ○ / ○	● / ○ / ○ / ○ / ○ / ○
Certificates and approvals (more available upon request)	CE, VDE0126-1-1, VDE-AR-N 4105	
Certificates and approvals (planned)	EN 50438 <sup>3)</sup> , G59/2, UTE C15-712-1	
Type designation	WB 4000TL-21	WB 5000TL-21

# WINDY BOY PROTECTION BOX

Optimal overvoltage protection for your inverter

