

- > Highly dynamic overvoltage protection
- > Yield protection: Grid feeding even with excessive input voltage
- > Optimal start-up performance of the wind turbine
- > Three-phase generator connection
- > High efficiency of the rectifier
- > Easy installation
- > Available in three different voltage ranges: 400, 500, and 600 V



WINDY BOY PROTECTION BOX

Optimal Protection for Small Wind Power Plants

Rectifier and overvoltage protection – the Windy Boy Protection Box from SMA is multitalented: The WBP-Box limits excessive voltage and power from the generator and redirects it to a load resistor without limiting the power of your small wind energy plant. This reliably protects the inverter from high input voltages and ensures trouble-free operation.

The Windy Boy Protection Box is equipped with a three-phase rectifier. It is delivered as turnkey unit and can be used with nearly all types of generators from various manufacturers and with different power classes. This makes the Windy Boy Protection Box the optimal solution for wind power plants, but also provides the perfect link between permanent magnet generators and the inverter.

Technical Data

WINDY BOY PROTECTION BOX

	WBP-Box 400	WBP-Box 500	WBP-Box 600
General Information			
Suitable for	WB 1100, WB 1700	WB 3300, WB 3800	WB 2500, WB 2800i, WB 3000, WB 5000A, WB 6000A
Rectifier	integrated	integrated	integrated
Dimensions (width x height x depth)	280 x 220 x 130 mm	280 x 220 x 130 mm	280 x 220 x 130 mm
Weight	5 kg	5 kg	5 kg
Generator connection			
Number	1 x 3-phase	1 x 3-phase	1 x 3-phase
AC voltage	3 x 0 ... 500 V _{AC}	3 x 0 ... 500 V _{AC}	3 x 0 ... 500 V _{AC}
AC current	3 x 0 ... 11.5 A _{AC}	3 x 0 ... 11.5 A _{AC}	3 x 0 ... 11.5 A _{AC}
Generator frequency	0 ... 400 Hz	0 ... 400 Hz	0 ... 400 Hz
Rated power	1 ... 2 kW	3 ... 4 kW	2 ... 6 kW
Windy Boy connection			
Number	3	3	3
Voltage limitation	400 V _{DC}	500 V _{DC}	600 V _{DC}
Total output	3 kW	4 kW	6 kW
Load resistor Connection			
Number	1	1	1
Nominal voltage	400 V _{DC}	500 V _{DC}	600 V _{DC}
Continuous power	3 kW	4.5 kW	6 kW
Efficiency			
Max. efficiency	> 99.95%	> 99.95%	> 99.95%
Losses at continuous power	15 W	20 W	30 W
Ambient conditions			
Ambient temperature	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Enclosure rating (DIN EN 60529)	IP 54	IP 54	IP 54
Accessories			
Load resistor	optional	optional	optional

