

WINDY BOY PROTECTION BOX

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Reliability

- Highly dynamic overvoltage protection
- Optimal start-up performance of the wind turbine

High Yields

- High efficiency of the integrated inverter
- Feeding-in even at excessive generator voltage

Easy to Use

- Easy installation
- 3-phase generator connection
- Available in three voltage classes: 400 V, 500 V and 600 V

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Optimal protection for small wind power plants

A rectifier and overvoltage protection in one – SMA's Windy Boy Protection Box can do it all: it protects the inverter from excess generator voltage by feeding excess generator voltage to a load resistor, which slows down the turbine. In addition, the Windy Boy Protection Box features a three-phase rectifier. It is delivered as turnkey unit and can be used with nearly all types of generators made by different manufacturers in various performance classes. The box is thus suited for use with wind plants as well as for other permanent magnet generators such as small water power plants and CHP systems.

Technical data	Windy Boy Protection Box 400	Windy Boy Protection Box 500		Windy Boy Protection Box 600
General				
Suitable for	WB1200, WB 1700	WB 3300, WB 3800	WB 3600TL, WB 5000TL	WB 2500, WB 3000, WB 5000A, WB 6000A
Rectifier	Integrated	Integrated		Integrated
Size (W / H / D) in mm	280 / 220 / 130	280 / 220 / 130		280 / 220 / 130
Weight	5 kg	5 kg		5 kg
Generator connection				
Quantity	1 x 3-phase	1 x 3-phase		1 x 3-phase
AC voltage	3 x 0 V - 500 V	3 x 0 - 500 V		3 x 0 - 500 V
AC current	3 x 0 A - 11.5 A	3 x 0 - 11.5 A		3 x 0 - 11.5 A
Generator frequency	0 Hz - 400 Hz	0 Hz - 400 Hz		0 Hz - 400 Hz
Nominal power	1 kW - 3 kW	3 kW - 5 kW		2 kW - 7 kW
Windy Boy connection				
Quantity	3	3		3
Voltage limitation (DC)	400 V	500 V	550 V	600 V
Total power	3 kW	4 kW	5 kW	7 kW
Load resistance connection				
Quantity	1	1		1
Nominal voltage (DC)	400 V	500 V		600 V
Continuous power	3 kW	4.5 kW		6 kW
Efficiency				
Max. efficiency	> 99.95 %	> 99.95 %		> 99.95 %
Conduction 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
Protection class (according IEC 60529)	IP54	IP54		IP54
Accessories				
Load resistance	Optional	Optional		Optional
Type designation	WBP-Box 400-11	WBP-Box 500-11		WBP-Box 600-11

