

Windy Boy 2500U Technical Data

Input Values (240V)

Recommended max PV Power	P_{PV}	2800 to 3000 Wp STC
Max DC Power	$P_{DC, max}$	2500 Wp PTC
Max DC Voltage	$V_{DC, max}$	600 Vdc
PV Voltage range, MPP	V_{PV}	250V to 550V
Max input current	$I_{PV, max}$	12 A
DC Voltage ripple	V_{PP}	< 10%
DC Disconnectors		Optional external DC Disconnect/Breaker
Pole confusion protection		Short Circuit diode
Ground fault protection	I_{Dif}	> 1000 mA

Input Values (208V)

Recommended max PV Power	P_{PV}	2300 to 2500 Wp STC*
Max DC Power	$P_{DC, max}$	2100 Wp PTC**
Max DC Voltage	$V_{DC, max}$	600 Vdc
PV Voltage range, MPP	V_{PV}	225V to 550V
Max input current	$I_{PV, max}$	12 A
DC Voltage ripple	V_{PP}	< 10%
DC Disconnectors		Optional external DC Disconnect/Breaker
Pole confusion protection		Short Circuit diode
Ground fault protection	I_{Dif}	> 1000 mA

Output Values (240V)

Max AC Power	P_{AC}	2500 W
Nominal AC Power	P_{AC}	2200 W
Total Harmonic Distortion	THD_{IAC}	< 4% (With $K_{V_{grid}} < 2\%$ and $P_{AC} > 0.5 P_{ACnom}$)
Operating Range, Grid Voltage	V_{AC}	211 V to 264 V
Operating Range, Grid Frequency	f_{AC}	59.3 Hz - 60.5 Hz
Phase Shift (Ref. Fundamental)	$\cos(\phi)$	0°

Output Values (208V)

Max AC Power	P_{AC}	2100 W
Nominal AC Power	P_{AC}	1850 W
Total Harmonic Distortion	THD_{IAC}	< 4% (With $K_{V_{grid}} < 2\%$ and $P_{AC} > 0.5 P_{ACnom}$)
Operating Range, Grid Voltage	V_{AC}	183 V to 229 V

Operating Range, Grid Frequency	f_{AC}	59.3 Hz - 60.5 Hz
Phase Shift (Ref. Fundamental)	$\cos(\phi)$	0°
Output Protection		
Islanding Protection		V_{AC} ; f_{AC} in accordance with UL 1741
Ground Fault Protection		I_{DIF} ; In accordance with UL 1741
A C Disconnect		External AC Breaker
Short Circuit Protection		Current Controlled
Oversvoltage Classification		III
Testing voltage (50 Hz)		2.88 kV (1s)
Testing voltage for surge		4 kV (serial interface 6 kV) (1.2/50 us)
Efficiency		
Peak Efficiency		94.10 % (Rebate Efficiency)
Euro - ETA Efficiency		93.20 % (Nominal Efficiency)
Power Consumption		
Internal consumption in operation		< 7 W
Internal consumption at night		0.25 W
American Standards		
Hardware Safety		UL 1741
Firmware Safely		UL 1998
Power Quality		IEEE 519
Anti-Islanding		IEEE 929
Surge Testing		ANSI C62.41, C1 & C3
Electro-Magnetic Interference		FCC Part 15 A & B
European Standards		
EMC		EN 50081,T.1 & EN 50082,T.1
Grid Interference		EN 61000-3-2
Grid Monitoring		DIN VDE 126
Low-Voltage regulation		EN 50178
CE Conformity		EN 60146, Teil 1-1
Size and Weight		
Width		434 mm
Height		295 mm
Depth		214 mm
Weight		ca.30 kg

Enclosure Ratings		
DIN EN 60529		IP 65
NEMA Rating		NEMA 4X
Ambient Conditions		
Ambient Temperature Range		-13°F to +140°F or -25°C to +60°C
Relative Humidity Level		0 to 100%