

Technical specifications V200 Inverter
Version 1.1



Three Phase

Utility active wind-energy inverter	
Application	Utility active (grid connected) wind-energy inverter
	In combination with V200 EnergyBall
	For stationary, indoor use
Enclosure	Metal
Dimensions	400mm x 400mm x 120mm
Weight	Approx. 12kg
Cooling and protection degree	IP20 Fan cooled (variable speed)
Ambient temperature	-20 – +55°C Ambient 25 °C Typical
Humidity	85% max. non-condensing Place in dust-free, non-humid environment
Efficiency	EU-efficiency 88%, 90% max
Appliance class	I (L, Neutral and PE)
Isolation class	Primary (wind generator) to secondary (grid): Reinforced insulation (acc. To EN60950)
Audible noise	Almost inaudible (temperature controlled 120mm fan, 50% speed at 25°C, 80% speed at 45°C)

Input	
Input	3 phase AC voltage from generator L1, L2, L3
Voltage	0 – 250V (line to line)
Current	20 A
Start-up voltage	20 VAC
Shut-down voltage	15 VAC
Start-up power	± 1W

Output	
Output	240V, 60Hz
Output power	0 to 2500W
Current	10,8 A
Stand-by power consumption	< 1W

LED and monitoring	
LED indication	Wind LED, 3 color
	Grid LED, 3 color
	Status and flashing power indicator, see manual

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Enclosure and connectors	
Enclosure	Metal
Wind connector	4-pole, 'Bulgin'
Grid connector	1,5 mtr cable

Mounting	
Position	To a vertical, dry and clean wall
	Mounting materials included

General protections	
Galvanic isolation	Yes, class II
Overload	Through derating windpower
Input over voltage	Yes (450 VAC max) (in compliance with UL 1741)
Manual break	Yes
Over temperature	Switch-off, reset through input
Disconnect devices	Input: manual disconnect through connector

Anti-islanding protections	
Galvanic isolation	Yes, reinforced insulation (EN60950 = fail-safe insulation)
Voltage and frequency monitoring	Yes, detection levels, reaction time (10ms to 1 s), reconnect time (10-300s). (complies w/1741 & IEEE 1547, 5.7.1)

Certifications	
CE UL Pending	Low voltage directive (safety) In compliance with EN60950 EMC directives (EMI - IEEE 1547 sect. 5.5.1)
EMC emission; EN61000-6-3:2001 General standard for light industrial environment	EN55011:1998 Emission Standard for ISM equipment Complies with UL 1741 section 39, meets or exceeds IEEE 1547, IEEE 1547.1 sect. 5.2.1, 5.2.1.3, 5.2.2, 5.2.2.3, 5.3.1, 5.3.1.3, 5.3.2, 5.4, Sect. 4.4.3. ANSI C37.06.
EMC immunity; EN61000-6-2:1999 General immunity standard for light industrial environment	EN61000-4-2:1995 electrostatic discharge (ESD) immunity EN61000-4-3:1996 Radiated electromagnetic field immunity ENV 50204:1995 Radiated EM field immunity from digital telephones (GSM) EN61000-4-4: 1995 Electrical fast transient (EFT) / Burst immunity EN61000-4-5:1995 Surge transient immunity EN61000-4-6:1996 Immunity to RF conducted disturbances EN61000-4-8:1993 Power frequency magnetic field immunity test EN61000-4-11:1994 Voltage dips, short interruptions and voltage variations