



GRID TIED CONVERTERS FOR WIND TURBINES

Maximising the performance of Medium Scale Systems

BENEFITS

- Back to back converter design and software control achieves best Annual Energy Production (AEP)
- Weather proof enclosure enables outdoor setup to minimise electrical installation costs
- All necessary protections and filters included to achieve one box “Plug & Play” approach
- Modular design for ease of maintenance and service
- Flexible range of control and monitoring options to achieve full turbine integration
- Remote programming aid setup and upgrade
- Advanced Smart Grid power control options improve local grid to aid connection applications

FEATURES

- Active Rectifier Design
- IP56 rated Outdoor Enclosure
- Turbine start-up assist
- Low Speed Energy Capture
- Full Grid and Turbine side Protection
- Automatic Over Voltage Protection
- Generator load angle optimisation
- Dynamic Ramp Rate Control
- Wide range of control options available:

- ✓ Programmable Logic Controller
- ✓ Control Inputs/Outputs
- ✓ Smart Grid Ready Power Control
- ✓ Wireless Health & Performance Monitoring
- ✓ Communication Protocols – CANopen, Modbus, PROFIBUS



GRID (NETWORK)	
Power Rating	250 kVA
Voltage	380-415V
Grid Connection	3 Phase
Power Factor (With Power Factor Correction)	1.0 (0.7 pf lagging to 0.7 pf leading)
Frequency	50/60 Hz
TURBINE	
Max Voltage	520 V line to line
Max Current	345 A
Turbine Cut In Voltage	90 V line to line
PROTECTIONS	
EMC	BSEN 61000-6-2/4
Grid Compliance	G59/3, IEEE 1547, VDE-AR-N 4105, CEI 0-21
Isolation	Physical Device
GENERAL	
Weight	1,010 kg
Dimensions (HxWxD)	1415 x 1200 x 800 (mm)
Maximum Efficiency	97%
ENVIRONMENT	
Operating Temperature Range	-25°C to +50°C
Enclosure Ingress Protection Rating	IP56
Cooling Method	Air Cooled (Self-contained)

TPS' unique inverters are designed for outdoor use with features that simplify installation and minimise capital costs. With over 40 years' experience, a team of highly skilled engineers and technicians, and a track record in creating world-class power electronics, why go anywhere else? To [discuss your project](#) or for any further information please contact our marketing department at marketing@turbopowersystems.com or +44 (0) 0191 482 9288.



Turbo Power Systems Ltd

1 Queens Park | Queensway North | Team Valley Trading Estate | Gateshead | NE11 0QD | United Kingdom

T: +44 (0) 191 482 9200 | F: +44 (0) 191 482 9201

E: marketing@turbopowersystems.com | W: www.turbopowersystems.com