

Pioneer P750/49

The Premium 750 KW Wind Turbine



Pioneer Wincon



**Pioneer Wincon
P750**



Transforming the Power of Wind

Corporate Profile

Pioneer Wincon (PW) is a member company of the Pioneer Asia Group having diverse interests in safety matches, chemicals, non-ferrous, forgings, textiles, information technology etc. The promoters of Pioneer Asia Group are the first in India to install and connect private wind farms to the state electricity board as early as 1989. PW was incorporated in the year 1996 and has over the last two decades become a trusted name and an emerging market leader in wind energy. The core business consists of design, manufacture, marketing and maintenance of wind power systems that harness the energy of wind to generate green power. PW is an ISO 9001:2008 certified company. The corporate office is in Chennai and the manufacturing facility is in Pondicherry, 160 km from Chennai.

Technical know-how

Pioneer Wincon was formed as a joint venture between Pioneer Asia Group and Wincon West Wind of Denmark (as a division of Vest Frost, A/s Denmark) well known for their turbine's simple and sturdy design and advanced power electronics. Now Pioneer Wincon is fully owned by Pioneer Asia Group and is having 100% worldwide rights for the Technical Know how for the 250KW & 750 KW wind turbines.

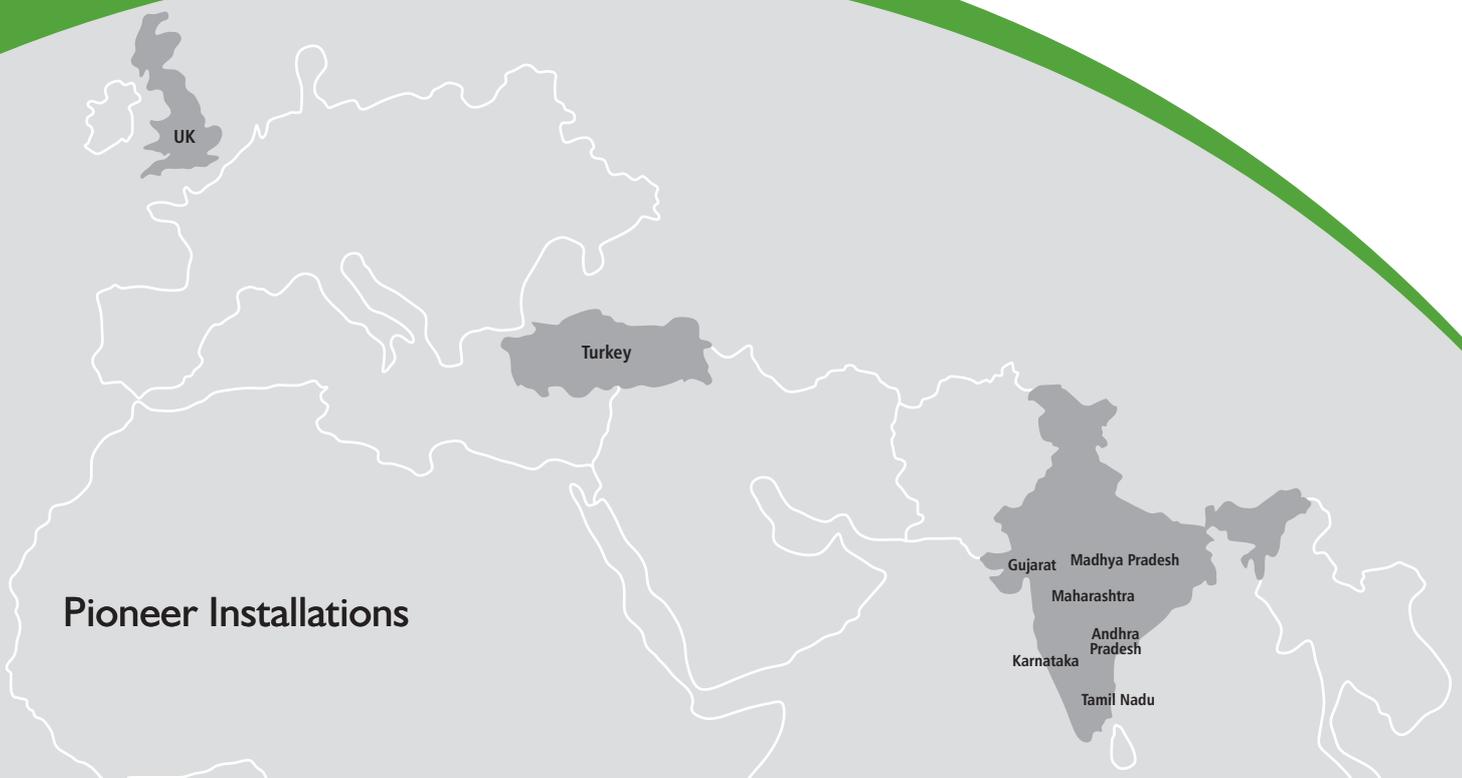
Market Leaders

PW is the market leader in the Indian wind industry with more than two decades of experience and over 1000 numbers of Wind turbines in operation.

Land mark in Exports

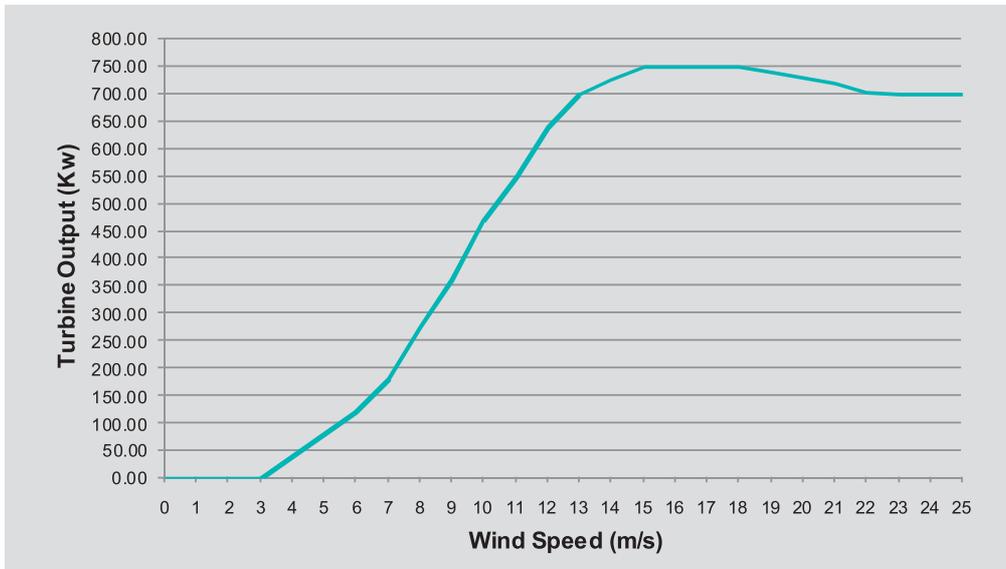
Our 250Kw Wind turbines are running successfully in Turkey and U.K.

Pioneer Installations

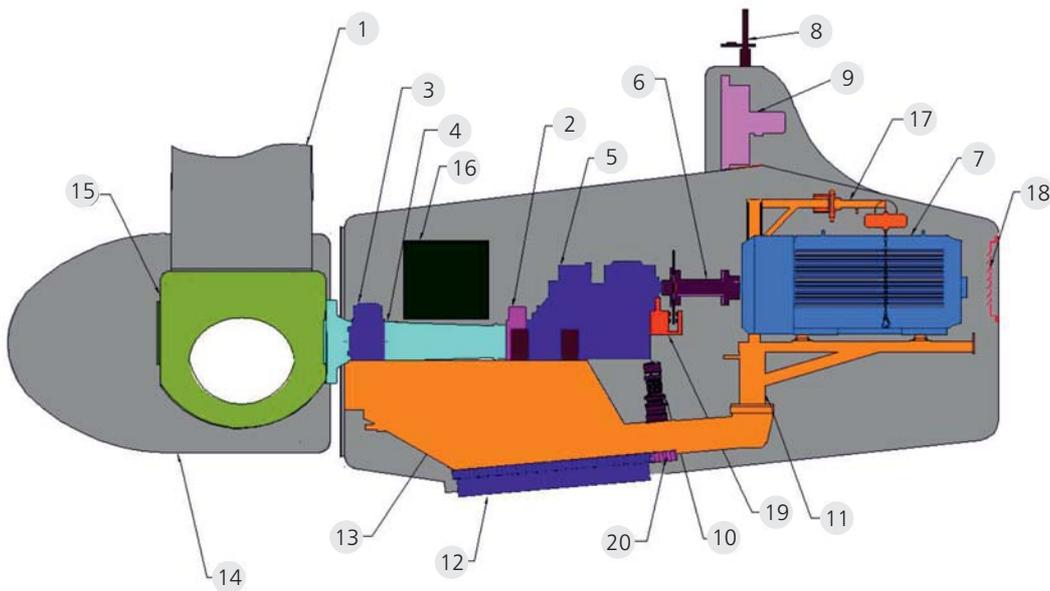




Power curve chart for P750/49 WTG



Nacelle diagram with components



- | | | |
|--------------------|--------------------------|----------------------------|
| 1. Blade | 8. Anemometer & Windvane | 15. Hub |
| 2. Shrink Disc | 9. Gear Box Cooler | 16. Top Panel |
| 3. Bearing Housing | 10. Yaw Motor | 17. Material Lifting Crane |
| 4. Main Shaft | 11. Generator Console | 18. Rear Louver |
| 5. Gear Box | 12. Yaw Flange | 19. Mechanical Brake Unit |
| 6. CD Coupling | 13. Bottom Frame | 20. Yaw Pinion |
| 7. Generator | 14. Nose Cone | |



Technical Specifications* - P750/49 WTG

1. General Data

Nominal power _____ 750 KW
Rotor diameter _____ 49.0 m
Swept area _____ 1886.5 m²

2. Operational Data

Cut-in, wind speed _____ 3.0 m/s
Rated wind speed _____ 15.0 m/s
Cut- out, wind speed _____ 25.0 m/s
Survival, wind speed for 2 sec max _____ >52.5 m/s

3. Rotor

No. of blades _____ 3
Rotor position _____ Up wind
Rotor speed _____ 22.36 RPM
Rotor diameter _____ 49 m
Swept area _____ 1886.5 m²
Tip speed, blade _____ 58.0 m/s
Weight, rotor _____ 14000 Kg.

4. Blade

Type _____ HT24
Profile data _____ NACA 63-4xx y FFA-W3
Length _____ 24.0 m
Material _____ Fibre glass reinforced polyester
Weight _____ 3400 kg

5. Gearbox

Type _____ Helical-Cum-Planetary
Ratio _____ 1:67.68
Lubrication _____ Forced Circulation
Oil volume _____ 157 lts.

6. Generator

Type _____ 6 - pole / 4 - pole induction
Rated power _____ 200 KW / 750 KW
Voltage _____ 690 V, 3 phase, AC
Frequency _____ 50 / 60 Hz
Synchronous speed _____ 1000 / 1500 RPM
Insulation class _____ H
Protection class _____ IP 55
Weight _____ 4500 Kgs.

7. Wind Turbine Controller

Type _____ Microprocessor
Power factor _____ Cos phi > 0.95
Control and monitoring of: _____ Imbalance
_____ Generator overload
_____ Yaw drives overload
_____ Automatic cable untwisting
_____ Activation of brake systems
_____ Voltage fluctuations, grid
_____ Grid failure
_____ Generator overspeed
_____ Rotor overspeed
_____ Automatic adjustment of power factor

Temp. measurements on: _____ Control panel, Gear oil
_____ High-speed shaft bearings
_____ Generator windings & Bearings

Optional _____ Temp, main bearings
_____ Transformer windings

8. Tower

Type _____ Lattice / Tubular
Height _____ 50/60/73 Mtr.
Surface treatment _____ Hot dip Galvanized

9. Nacelle

Weight, excl. rotor _____ 25000 kgs.

10. SCADA

Type: 1) GPRS based remote monitoring, real time
2) SMS based monitoring of all turbine functions

* In view of continuous product improvement, specifications are subject to change without prior notice.





Pioneer Wincon

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Pioneer Wincon

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