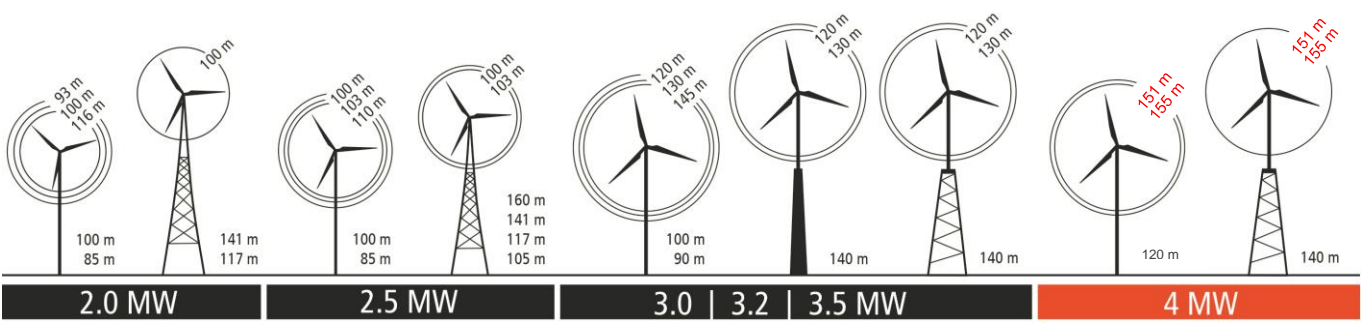
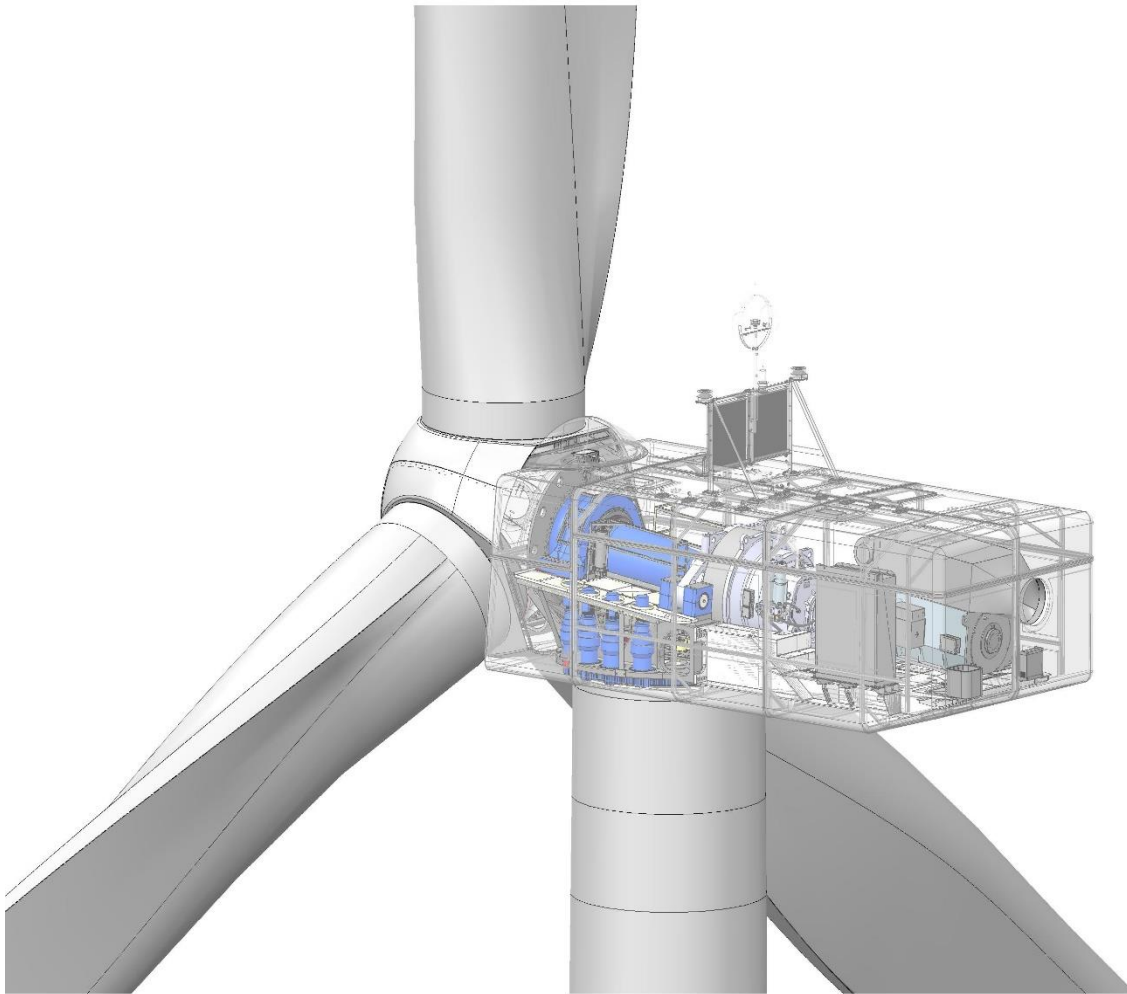


Rated power: 4.5 MW
 Rotor diameter: 155 m
 Wind class: IEC 3a / 2c



TECHNOLOGY ON DEMAND



TECHNICAL DATA

| | |
|------------------------------|---|
| Rated power | 4.5 MW |
| Rotor | 155 m |
| Wind class | IEC 3a / 2c |
| Cut-in wind speed | 3 m/s |
| Rated wind speed | 13.0 m/s |
| Cut-out wind speed | 22 m/s |
| Sound power | 110.2 db(A) / -2.0 dB(A) with serrations |
| Hub height | 120 m tubular tower |
| Drive train concept | 3-point suspension |
| Electrical configuration | Squirrel cage induction generator / full-size converter |
| Power control - LARUS Smart® | Triple independent pitch system |
| Safety System - LARUS Safe® | Matrix safety system acc. to GL guideline, ed. 2010 |

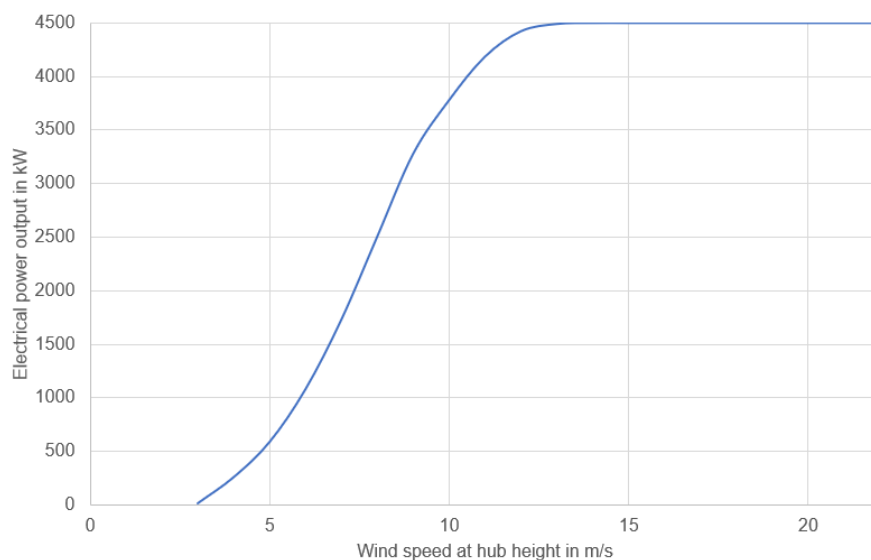
POWER CURVES*

| V _{WIND} [m/s] | Power [kW] |
|-------------------------|------------|
| 3 | 13 |
| 4 | 257 |
| 5 | 586 |
| 6 | 1,078 |
| 7 | 1,728 |
| 8 | 2,504 |
| 9 | 3,278 |
| 10 | 3,778 |
| 11 | 4,185 |
| 12 | 4,422 |
| 13 | 4,491 |
| 14 | 4,500 |
| 15 | 4,500 |
| 22 | 4,500 |

ANNUAL YIELD*

| V _{WIND} [m/s] | Yield [MWh] |
|-------------------------|-------------|
| 5.0 | 8,608 |
| 5.5 | 10,616 |
| 6.0 | 12,602 |
| 6.5 | 14,514 |
| 7.0 | 16,307 |
| 7.5 | 17,949 |
| 8.0 | 19,416 |
| 8.5 | 20,691 |

* Standard conditions and calculations acc. to IEC 61400-12



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