

# L100 2.5MW



The L100 is a 2.5 MW wind turbine designed for IEC class IIIa locations. The smart and slim design, particularly in combination with our Modular Steel Mast (MST), make this turbine highly profitable. The modular structure of this tower is able to reach a 135 metre shaft height, which significantly improves the wind conditions, resulting in better yields. In addition, the L100-2.5MW is highly suitable for placement on difficult to reach locations with limited space on site. Due to Lagerwey's experience and expertise, single blade lifting is also not a problem.

## Experience

Lagerwey is a Dutch manufacturer of direct drive wind turbines. We are building on 37 years of experience in the development of innovative wind turbines. More than 1,200 Lagerwey turbines have been installed world-wide and various technological spin-offs can be found in other products on the market. Our objective is to continuously reduce the cost price per kWh of wind energy.

## Tower/crane - combination

The L100-2.5MW can be built at great height (135m) by using our smart modular tower, the MST. This system consisting of steel plates that are assembled on site, makes it possible to create ever higher towers against low additional costs. The modular tower is also expanded with a unique crane. This Lagerwey crane will simplify the wind turbine's installation and reduce the cost price per kilowatt hour even more. The L100 is also available with a Tubular Steel Tower, by means of which a shaft height of 99 metres can be achieved.

## Generator

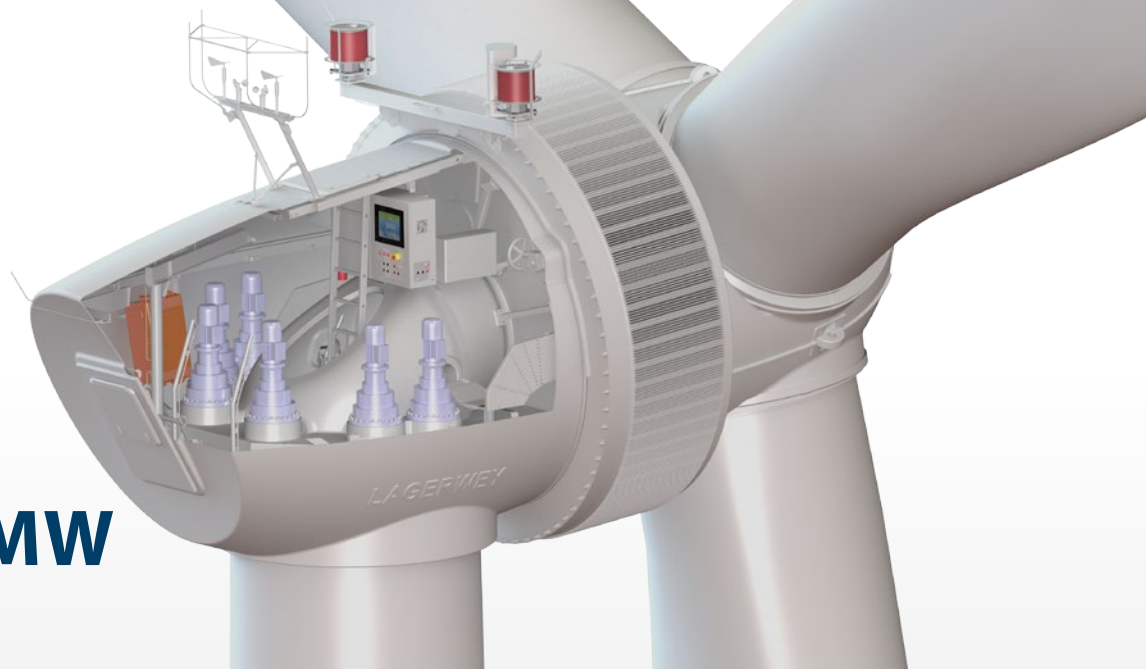
Thanks to smart design, our 'Direct Drive Permanent Magnet' generator no longer requires large cooling systems and gear boxes. The efficiency of the generator is very high, approximately 97% at both full and partial load. As our generator contains few moving parts, significantly less wear takes place in comparison to other wind turbines. This will make the generator very robust and highly suitable for demanding circumstances in both warm and cold climates.

## We unburden our customers

Our wind turbines are delivered turn-key and are manufactured at our own factory in the Netherlands. Our engineering, production and service departments ensure high quality in design and production, great reliability and optimum performances. We unburden our customers and will offer you a unique approach in which we will work together at a successful wind energy project.

**ADVANTAGE** THROUGH SIMPLICITY





# L100 2.5MW

## Technical data

### GENERAL

Nominal power	2.5 MW
Rotor diameter	100 m
IEC class	IIIA
Turbine concept	Direct drive, variable speed, variable blade angle adjustment, full power converter

### ROTOR

Type	3 blades, upwind rotor
Rotor surface	7.845 m <sup>2</sup>
Power control	Electric pitch control
Blade material	Glass fibre/Epoxy
Lightning protection	Integrated in the blade, in direct contact with construction

### GENERATOR

Type	Lagerwey multi pool synchronous
Field generation	Permanent magnet
Main bearing	Double row of conical bearings
Cooling	Based on air flow around the outside of generator (cooling fins)

### SAFETY SYSTEM

Type	3 independent systems with emergency power provision
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### CONVERTER

Type	Full power AC-DC-AC
Control system	IGBT-Control
Cooling	Water-cooled

### OPERATIONAL DATA

Cut in wind speed	2.5 m/s
Cut out wind speed	25 m/s
Power factor	Regulated

### OTHER

Service brake system	Standard
Safeguard	Rotor blade, yaw motor and drive
Lubrication system	Automatically controlled bearing and gear lubrication

### TOWER

Type	MST - Modular Steel Tower or TST - Tubular Steel Tower
Shaft height	MST - 99 / 135 m TST - 75 / 99 m

### OPTIONS

Service lift	Standard
Rescue module gondola	Standard
Noise reduction	Optional
Obstacle light/markings	Optional
Ice management system	Optional
Cast shade regulation	Optional