MOVELASER

Tower Clearance Lidar Molas CL

Molas CL tower clearance lidar is a kind of lidar that monitors the clearance distance of blade tip in real time. When the monitored blade clearance value is close to the specified minimum clearance value,the main controller of the fan unit can take protective measures immediately,Such as deceleration, retraction, etc. The application of tower clearance lidar on the existing units can prevent tower sweeping, lifting the power limit of dangerous units and increasing power generation.The application of tower clearance lidar on the future units can reduce the blade cost and the design pressure of the units.

Parameters

Ranging Indicator

Ranging Method	ToF
Detection Distance	200m@90% reflectivity / 140m@10% reflectivity
Distance Resolution	⩽0.1m
Measurement Accuracy	±0.2m
Repeated Measurement Accuracy	±0.2m
Ambient Light Resistance	100Klux

Optical Index

Wavelength	905nm
Repeat Frequency	20KHz per channel
Laser Safety Level	Class 1

Environmental Adaptability

Range Of Working Temperature	-40°C~+60°C
Survival Temperature Range	-45°C~+65°C
Operating Humidity Range	0%~100% RH
Enclosure Rating	IP65 (or according to specific needs)
Working Acceleration Range	-0.5g ～ 0.5g

Beam Pointing

Beam 1	0°
Beam 2	2.05°±0.2°
Beam 3	4.09°±0.2°

Output Measurement Results

Real-time Data Products	Device ID, direct measurement distance, return light intensity,Data valid flag, system status
Fieldbus	Profibus DP / Modbus RTU / CANopen Three fieldbus protocols, and customizable RS485 communication

Other

Running Power Consumption	Within 60W
Supply Voltage And Maximum Current	DC 24V, 3A
Size	200×200×250mm
Weight	⩽2 kg (host weight) ⩽10kg (weight of the host and cable, depending on the length of the cable)

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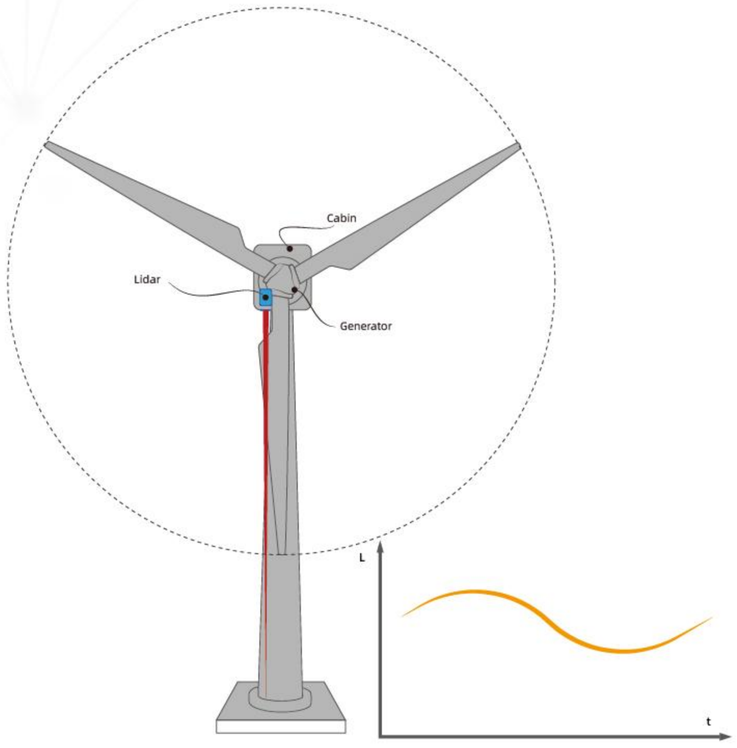
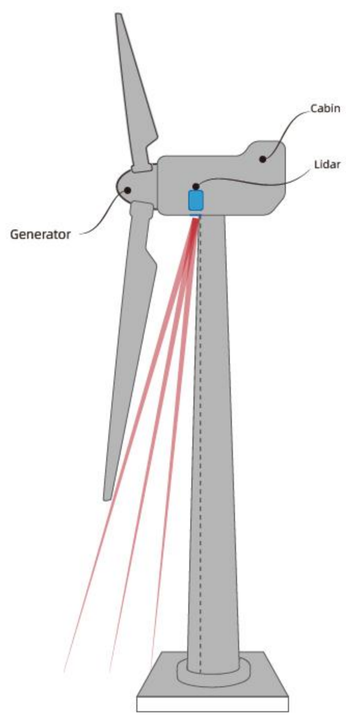
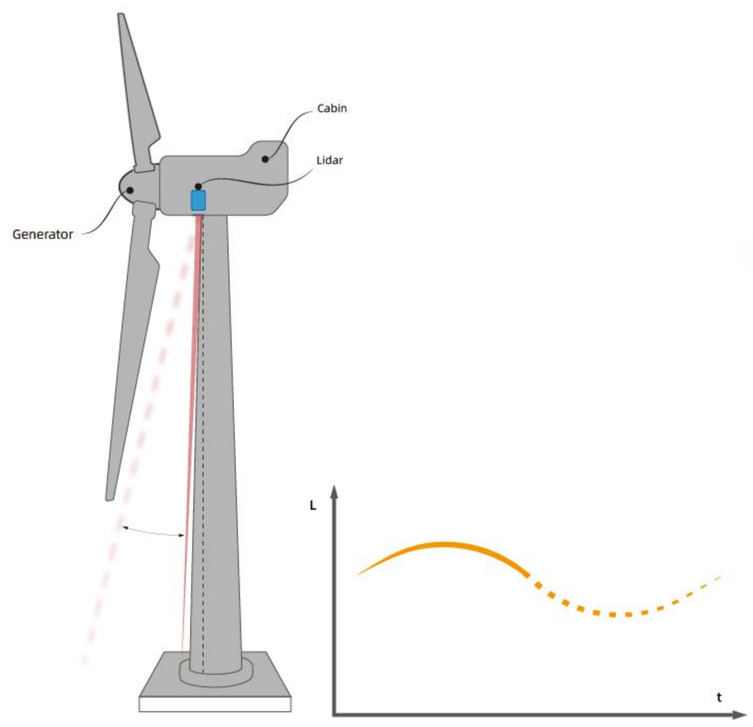
Application Scenario



Single point precise feedback



Threshold detection



Trend detection