



CF25 – 25kW

CF25 General Data

Supplier/ Manufacturer	C&F Green Energy
Configuration	Horizontal Axis
Life Expectancy	20 Years
Drive Train	Direct Drive
Service Maintenance	Annually
Rated Power	25kW @ 9.0m/s
Cut In Wind Speed	2.2m/sec.
Cut Out Wind Speed	25 m/sec.
Rated Wind Speed	9.5 m/sec.
Survival Wind Speed	60 m/sec.
Passive Power Regulation	Active pitching (blade-angle adjustment)
Active Power Regulation	Fully variable back-to-back IGBT system
Noise Emissions	45dB(a) at 60 _{LP} , 60m
Ambient Temperatures	From -10°C UP TO 40°C
Electrical Configuration	Inverter Connected
CE Compliant	Yes

Applied Standards

Degree of Protection	IP55
Standards	IEC 61400-1

Rotor

Rotor Diameter	13.1m
Rotor Speed	75rpm
Rotor Weight	545kg
Power Regulation	Active Blade Pitch

Blades

Number of Blades	3
Length	6m
Swept Area	134.8m ²
Position	Upwind
Direction	Clockwise
Material	Fiberglass/ Vinyl-ester
Colour	Matt White. Ral 9018

Weight 246kg per set of 3

Shaft Assembly

Shaft Material	EN24T
Bearing Housing Type	Ductile Cast Iron
Bearing Type	Dual Spherical Roller
Bearing Lubrication	Grease

Fairing

Nacelle	2 Part - Fiberglass
Spinner	4 Part - Fiberglass

Electrical Output

Rated Turbine Output	25kW, 26.3 kVA
Maximum Continuous Turbine Output	25kW, 26.3 kVA
Maximum 1 Minute Turbine Output	25kW, 26.3 kVA
Maximum 1 Minute Reactive Requirement	0.25 kVARS
Maximum Feeder Current	400V-40A – 220V 125A
Design Power Factor	0.95

Brake System

Primary Brake System	Full Blade Pitching
Back Up Brake System	1 Passive Spring Applied, Hydraulically Released + 1 Hydraulic Active
Primary Brake Compressor	Piston Type – AC Motor

Yaw System

Type	Active Yaw
Signal From	Anemometer
Yaw Slew Ring	4 Point Ball Bearing
Yaw Drive Type	Double AC Motor with Planetary Gearbox
Damping Device Resisters	Active & Passive Yaw Brake
Electrical Connection	Twist Cable
Yaw Locking Device	Hydraulic Brake & Electric Brake on Motor

Generator

Manufacturer	C&F Green Energy
Type	Permanent Magnet (Radial)
Voltage	380V

Frequency	50Hz
Winding	Star
Rated Power	25kW
Rated Current	38A
Rated Rotation Speed	75

Nacelle

Nacelle Frame	Welded Structure
Nacelle Frame Finish	Shot blast, Primer & Paint
Nacelle Cover	ABS Cap Acrylic UV Stable
Dimensions	2900mm x1100mm
Weight	2.2 Tonne Approx.
Colour	RAL 9018

Tower

Type	Tubular Steel Monopole
Sections	4
Weight	3.6 Tonne
Hub Height	20m
Blade Tip Heights	27.1m
Location Ladder	None
Turbine Access	Hydraulic Pivot Tower
Colour	Galvanised Steel

Controller

Manufacturer	Phoenix Contact
Model	PLC-ILC-150-GSM
Remote Monitoring	Bespoke SCADA
Data Logging	Yes