

CF20 Japan Configuration Sheet:



Turbine Manufacturer	C&F Green Energy
Model	CF20Japan
Description	Horizontal Axis wind turbine with active blade and pitch control
Rotor Diameter	13.1m
Hub Height	20m
Swept Area	134.8m
IEC 61400-2 SWT Class	III (Vave = 7.5m/s)
Tower Type	Tubular Steel (slip-joint)
Rated Electrical Power	19.5KW (nominal)
Cut-in Wind Speed	2.2 m/s
Cut-out Wind Speed	25 m/s
Rated Wind Speed	9 m/s
Survival Wind Speed	70 m/s
Rotor speed range	0-90 RPM (normal operating range)
Generator Identification	CFGE 20kW @ 85 RPM, 59.5 Hz, 380VAC, Radial Flux
Generator Specification	@85 RPM, 59.5 Hz, 380VAC, Radial Flux
Inverter Identification	El Power TL30 JP
Inverter Specifications	25KW o/p / 200V +/- 15% / 50-60 Hz
Controller Identification	C&F WT Controller
Controller Specification	Input – 85-264Vac, 48-65Hz 1KVA CE, EN 50178, EN 61000-6-2, EN 61000-6-4
Control Software Version	Controller – 1.036
Grid Protection Method	Separate G59 Grid Monitoring Relay
Grid Protection Type	ABB CM-UFD.M33 24-240V AC/DC
Number of Blades	3
Fixed or variable pitch	Variable (active control)
Blade Pitch Angle	Variable
Blade Identification	6m
Blade Specification	Composed of a mix of glass and carbon fibre infused with vinylester, polyurethane foam core with double spar, 16° twist from root to tip, combination of NACA4721, NACA3720, NACA2719, and NACA1818 airfoil geometries
Hub type	Non-intrusion (no entry) Nacelle
Pitch System Components and Identification	Electro-Mechanical Actuator and Head Linkage System
Pitch System Specifications	Active
Yaw System Components and Identification	24Vdc Motor/Gearbox Spur Drive
Yaw System Specifications	Active
Brake System Components and Identification	Hydraulic brake calliper system / spring loaded
Brake System Specifications	Passive

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