

Jacob's 31-20

Model 20kW *Jacobs*[®] Wind Turbine

- Model 31-20
- 31 ft. (9.45 m) Diameter
- 20,000 watts



Turbine Systems:

Models	31-20
Kilowatt Output	20
Cut-In Wind Speed (mph)	8 mph
Rated Wind Speed (mph)	26
Rated Rotor Speed (rpm)	175
Survival Wind Speed	120 mph
Weight (lbs.)	2500
Height (ft.) (less Rotor)	9 feet

Turbine Rotor:

Number of Blades	3
Orientation	Upwind
Axis (nominal)	Horizontal
Rotation	Counter Clockwise
Blade Material	Fiberglass
Rotor Diameter (ft.)	31
Swept Area (ft.)	660
Speed Control	1. Centrifugal variable pitch governor (Loaded 25 - 30 mph, Unloaded 15 - 20 mph).
	2. Automatic furling - hypoid gear drive (40 - 45 mph)
Yaw Control	Passive Tailvane

Generator:

Type	Brushless, Synchronous, Three phase AC 12 lead reconnectable with outbound exciter.
Exciter Field	60 ohm, 2 amps. DC
Power Rating (kVA)	23 (Onan)
	25 (Winco)
Voltage	40 - 180 VAC
Speed (rpm)	450-1050
Frequency (Hz)	0 - 40

Transmission:

Type	Offset Hypoid Gear Drive
Ratio	1:6.1

Brake System:

Type	Manual Disc (service/maintenance)
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Support Towers:

Type & Material	Three legged free standing lattice (no welds).
Corrosion Protection	Hot dipped galvanized.
Height & Weight	80 ft. = 4300 lbs.
	100 ft. = 6200 lbs.
	120 ft. = 8200 lbs.
Base Width	80 ft. = 9 ft.
	100 ft. = 11 ft.
	120 ft. = 13 ft.
Options	Tilting Hinges