

# E-138 EP3

3,500 kW / 4,200 kW



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 **ENERCON**  
ENERGY FOR THE WORLD



## TECHNICAL DATA

# E-138 EP3

Last updated: 02/2020. Technical information subject to change.

The new EP3 range represents a radical cut in ENERCON's wind energy converter design. Compact and efficient with consistently optimised processes from production, transport and logistics to installation – these are the key characteristics of this WEC generation and ENERCON's response to new market requirements.

NEW WEC GENERATION

### GENERAL

<b>Nominal power</b>	3,500 kW / 4,200 kW [E2]
<b>Wind class (IEC)</b>	IEC IIIA
<b>Wind zone (DIBt)</b>	WZ 2 GK II
<b>Turbine concept</b>	gearless, variable speed, full power converter
<b>Design service life</b>	25 years
<b>Cut in wind speed</b>	2.5 m/s
<b>Cut out wind speed</b>	28 m/s
<b>Extreme wind speed at hub height (3-second gust)</b>	52.5 m/s
<b>Rotational speed</b>	4.4 / 5 * - 10.8 rpm (3,500 kW) 4.4 / 5 * - 10.8 rpm (4,200 kW)
<b>Ambient temperature for normal operation</b>	-10 °C to +40 °C
<b>Extreme temperature range</b>	-20 °C to +50 °C
<b>Grid feed / control system</b>	ENERCON inverter
<b>Grid frequency</b>	50 Hz / 60 Hz
<b>Sound power level</b>	93.4 - 106.0 dB(A)* Yield and noise-optimised operation. Further modes on request.

### ROTOR

<b>Rotor diameter</b>	138.25 m
<b>Swept area</b>	15,011 m²
<b>Type</b>	upwind rotor with active pitch control

### TOWER

Hub height	IEC SA	IEC IA	IEC IIA	IEC IIIA
	81 m			149 m
	96 m			160 m
	111 m			
	131 m			

### ENVIRONMENTAL KEY FACTORS\*

<b>Carbon footprint</b>	6.24 g CO <sub>2</sub> -e/kWh
<b>Harvest factor</b>	37.5
<b>Energy payback time</b>	8.0 month

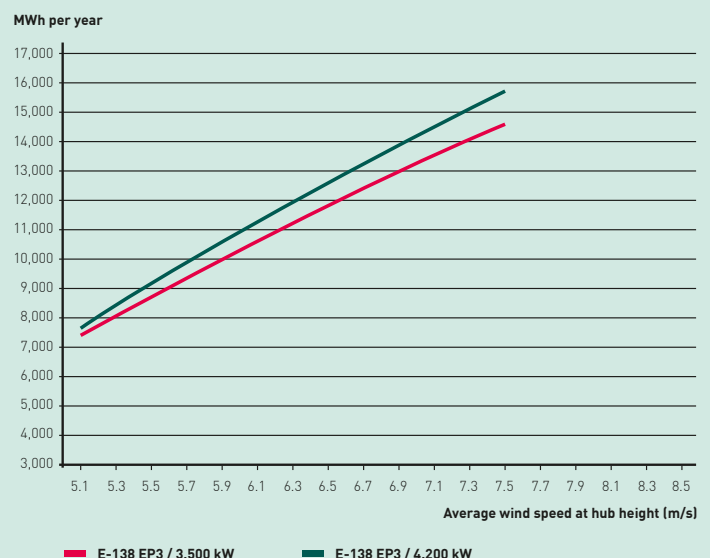
### GENERATOR

<b>Type</b>	directly driven, separately excited annular generator
<b>Cooling system</b>	air cooling system

### FEATURES

	STANDARD	OPTIONAL
FACTS and transmission	X	
ENERCON SCADA	X	
ENERCON storm control	X	
Low radar reflectivity rotor blades	X	
Ice detection system Power curve method	X	
Additional ice detection system		X
Blade heating system		X
Hot-Climate		X
Shadow shutdown		X
ENERCON SCADA bat protection		X
STATCOM		X
Inertia Emulation		X
Sector management for wind farms		X
Beacon management for wind farms		X

### ANNUAL ENERGY YIELD



\* 3,500 kW nominal power / HH 111 m ST