

IEC/EN IA (STRONG)

IEC/EN IIA (MEDIUM)

IEC/EN IIIA (LOW)

# ENERCON PRODUCT PORTFOLIO

TECHNICAL DATA SHEETS (LAST UPDATED 08/2019)

EP5	<b>E-136 EP5</b>	<b>E-147 EP5 E2</b>	<b>E-160 EP5</b>
EP3	<b>E-115 EP3</b>	<b>E-126 EP3</b> <b>E-115 E2</b>	<b>E-138 EP3</b>
EP2	<b>E-82 E4</b> <b>E-70</b>	<b>E-92</b> <b>E-82 E2</b>	<b>E-103</b>
EP1	<b>E-44</b>	<b>E-48</b>	<b>E-53</b>



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# 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: 08/2019. 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 * - 10.5 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>	15,085 m <sup>2</sup>
<b>Type</b>	upwind rotor with active pitch control

### TOWER

<b>Hub height</b>	<b>IEC IA</b>	<b>IEC IIA</b>	<b>IEC IIIA</b>
			80 m
			81 m
			110 m
			111 m
			130 m
			148 m
			160 m

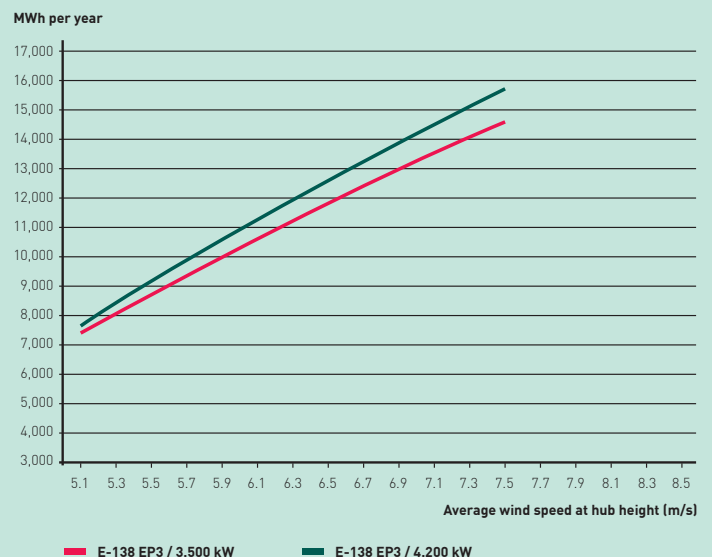
### GENERATOR

<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



\* dependent on hub height