

ROPATEC SA40



DESIGNED AND
MADE IN ITALY

TECHNICAL DATA

Turbine and generator manufacturer	ROPATEC						
Model	SA-40						
Power	10 kW						
Swept area	39,9 m ²						
Wind speed	<table border="1"> <tr> <td>Cut-in</td> <td>ca. 3 m/s</td> </tr> <tr> <td>Cut-out</td> <td>26 m/s</td> </tr> <tr> <td>Wind class according to IEC61400-2</td> <td>Class III</td> </tr> </table>	Cut-in	ca. 3 m/s	Cut-out	26 m/s	Wind class according to IEC61400-2	Class III
Cut-in	ca. 3 m/s						
Cut-out	26 m/s						
Wind class according to IEC61400-2	Class III						
Generator	Permanent magnet						
Transmission system	Direct drive						
Blade material	Fiberglass						
Rotor diameter	7 m						
Blade length	5,7 m						
Overspeed control	Safety PLC Controller SIL-3 (electrical and hydraulic brake)						
Noisiness	<table border="1"> <tr> <td>Value</td> <td>42 dB</td> </tr> <tr> <td>Wind speed</td> <td>8 m/s</td> </tr> <tr> <td>Distance from mast</td> <td>30 m</td> </tr> </table>	Value	42 dB	Wind speed	8 m/s	Distance from mast	30 m
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Distance from mast	30 m						
Mast	<table border="1"> <tr> <td>Height</td> <td>12 m / 18 m</td> </tr> </table>	Height	12 m / 18 m				
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Weights	<table border="1"> <tr> <td>Turbine</td> <td>1900 kg</td> </tr> <tr> <td>Mast</td> <td>1600 kg / 2350 kg</td> </tr> </table>	Turbine	1900 kg	Mast	1600 kg / 2350 kg		
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Mast	1600 kg / 2350 kg						
Monitoring system	SDMR based on SCADA						
Operating temperature	-20°C/+55°C (can be adapted to extreme temperatures upon request)						



SILENT



INDEPENDENT OF WIND DIRECTION



APAS
ACTIVE PERFORMANCE ADAPTING SYSTEM



PRODUCTION AT HIGH WIND SPEED



HIGH EFFICIENCY AND RELIABILITY



LOW MAINTENANCE



MONITORING AND REMOTE CONTROL



PLUG AND PLAY



VERSATILE APPLICATIONS

APAS

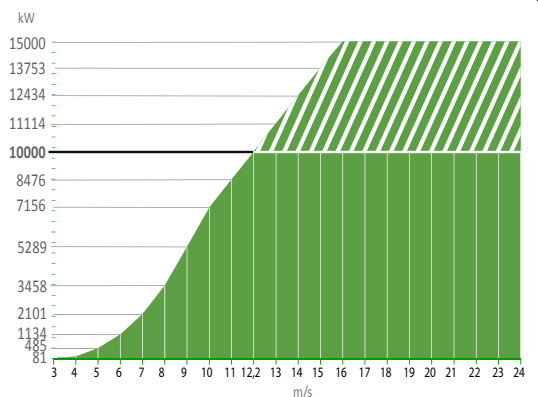
ACTIVE PERFORMANCE ADAPTING SYSTEM

The power curve is constantly trimmed to maximize efficiency in accordance with local wind conditions

AEP - Annual Energy Production*

Average annual wind speed [m/s]	[kWh] per year	Self-consumption coverage per household	CO ₂ EMISSION ANNUAL SAVING***
4,5	8350		3,7 t
5	11850		5,3 t
5,5	15700		7,0 t
6	19750		8,9 t
6,5	23850		10,7 t
7	27900		12,5 t

Nominal power curve**



The data reported reflect ideal work conditions and are subject to change due to external factors such as temperature, altitude, atmospheric pressure, turbulence level, humidity and presence of obstructions.

3500 kWh correspond to average annual consumption of a family of four.

* Production at sea level with laminar wind speed and Weibull distribution shape parameter k=2.

** The power curve is indicative and not explicative. It is set in accordance with site characteristics. The data correspond to laminar wind.

*** Calculated approximately on the basis of average European (EU-27) CO₂ benchmark of 0,45 t/MWh. This value may vary from country to country.