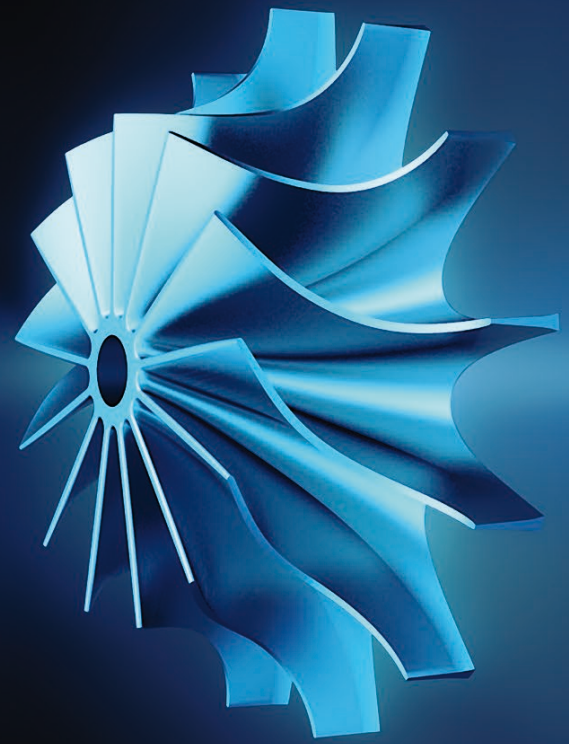
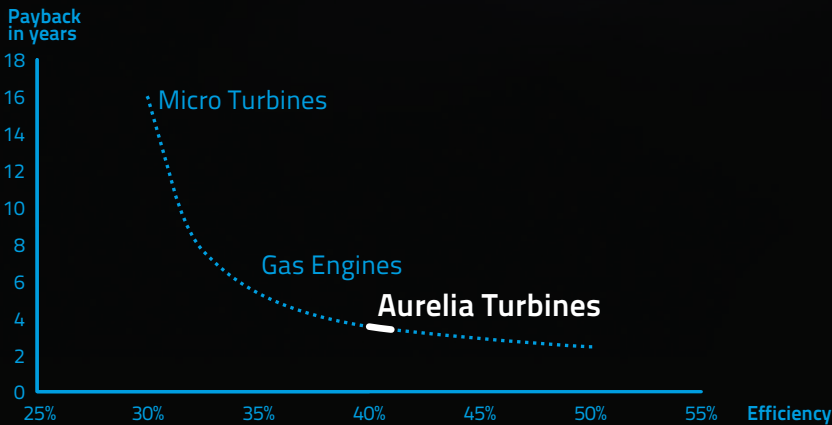


Aurelia Turbines

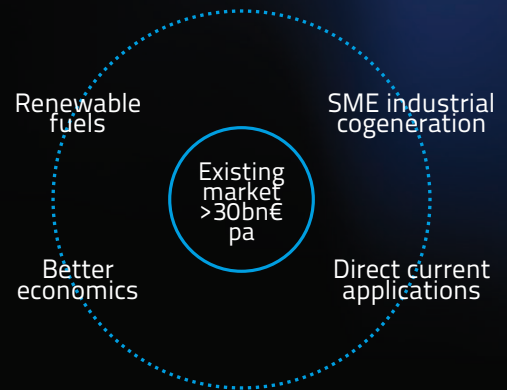
The most efficient small gas turbines in the world



Why efficiency is important?



Efficiency opens markets



Advanced Technology

- > 400 kWe over 40 % efficient
- > Active magnetic bearings
- > Twin turbine shafts
- > Permanent magnet generators

Turbine Features

- > No lubrication fluids required
- > Fuel flexibility, low emissions
- > Low maintenance, long life
- > High part load efficiency

Benefits for the Customer

- > Low operating & maintenance costs
- > Greater process control
- > Certainty of energy costs & supply
- > Faster payback



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Datasheet

Dimensions



Basic facts

- Enclosure protection IP34 & indoor/outdoor installation
- Weight 25 000 kg
- Acoustic emissions < 75 dB(A) @ 10 meters
- Easily transportable
- Manipulation at site as achieved

Temperature limitations

Cooling air relative humidity

RH 0–95 % (Non-condensing, non-corrosive)

Operating temperature

-20...+40 °C (Below 0 °C cold weather starting procedure)

Storage temperature

-10...+50 °C

Electrical performance & network

Electrical efficiency LHV	40.2 %
Electrical output to net	400 kW _e
Output voltage	362–440 V
Output frequency	48–63 Hz
Maximum output current at 400VAC	597 A
Electrical connection	3 phases, 4 wires
EMC level	IEC 61800-3 for IT networks

Exhaust characteristics

NO _x emissions at 15 % O ₂	< 15 ppmV
CO emissions at 15 % O ₂	< 15 ppmV
Exhaust gas flow at full power	2.2 kg/s
Exhaust gas temperature at full power	185 °C
Exhaust energy at full power	1 188 MJ/h
Heat recovery from intercooler	278 kW
Heat recovery from exhaust gas	240 kW
Exhaust gas O ₂ level	17.5 %

Fuels

Due to the modular design the combustion chamber is easily adjustable to meet the requirements of different fuels. The turbine is designed to use all standard liquid and gaseous fuels and gives options for non-standard fuels.

Fuel flow LHV	3 582 MJ/h
Maximum allowed H ₂ S content	< 5 000 ppm
Net heat rate LHV	8 955 kJ/kWh
Gaseous fuel inlet pressure min/max	700–800 kPa(g)
Liquid fuel inlet pressure min/max	0–50 kPa(g)

Partial load efficiency

