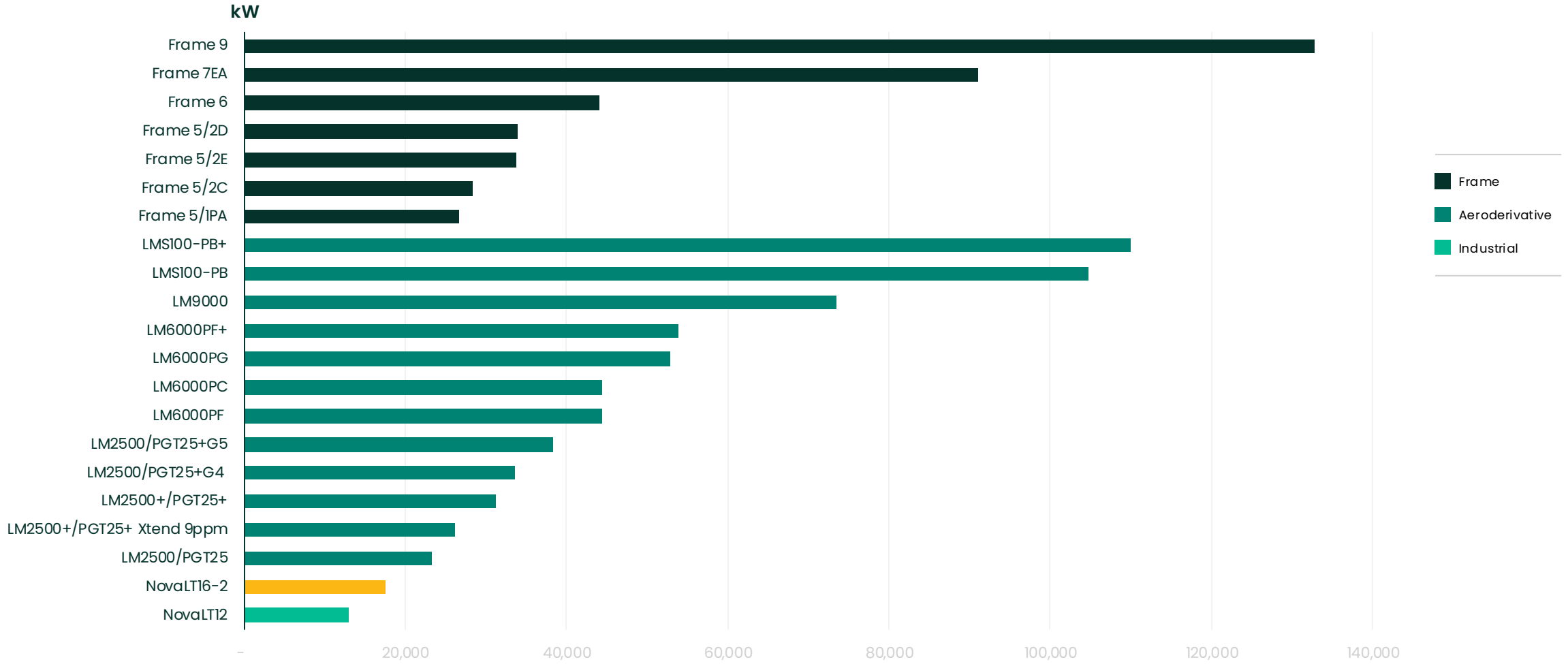
NovaLT16 gas turbine (17.5 MW, 50/60 Hz)

High efficiency and availability with low total cost in power generation and mechanical drive

Industry leader in gas turbine technology



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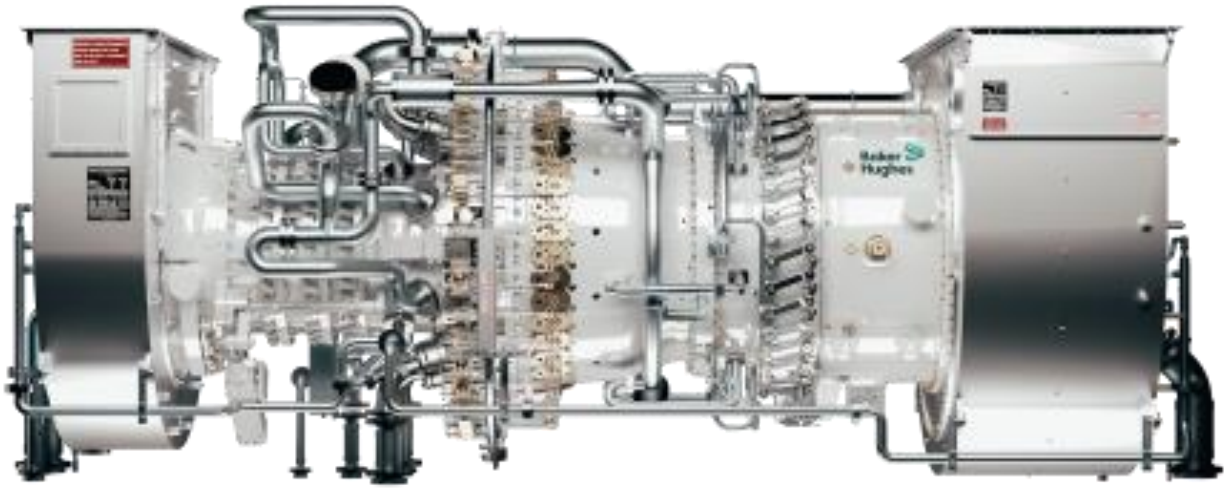
NovaLT16

Maximum availability and lowest total cost

NovaLT™16 combines innovation with the best technology of our gas turbine experience, with more than 900 units installed and ~80 million fleet hours.

Designed to minimize environmental impact, the combustion system is capable of reducing CO_2 and NOx emissions down to 15 ppm—and single-digit NOx emissions are available on request.

The engine architecture is equipped with variable nozzle guide vanes, which eliminates bleeding and enables the highest efficiency at part load, reducing CO_2 footprint.



Key features

- 37.5% efficiency in mechanical drive; up to 84% thermal efficiency in combined heat and power
- Flexible operation to 50% of rated speed; ideal in mechanical drive —can start with fully pressurized compressor
- 35,000 hours maintenance interval drives lower costs—automapping eliminates seasonal DLN tuning and intermediate boroscopic inspections

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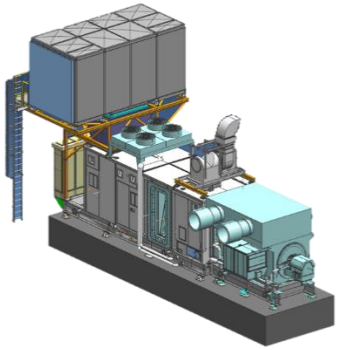
Package

Power generation



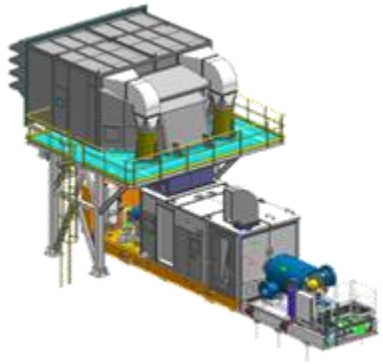
Main skids

- Gas turbine and main auxiliary systems
- Electric generator and gearbox
  - Total footprint: 15.62 x 3.15 m
  - Total weight: GT skid + EG skid: 134.2 tons

Upper deck

- Filter house, ventilation system, and ducting
- Negative pressure ventilation: 1 x 100% fan

Mechanical drive



Main skids

- Gas turbine and main auxiliary systems
- Centrifugal compressor and seal gas panel
  - Total footprint: 18.2 x 3.15 m

Upper deck

- Filter house, ventilation system, and ducting
- Positive pressure ventilation:
  2 x 100% AC motor-driven axial fans
  (1 main + 1 standby)

Applications

- Onshore and offshore
- Pipeline, gas storage
- Industrial, and combined heat and power
- Referenced in:
  - Extreme environments (artic and desert)
  - Single and dual fuel
  - Pipeline, industrial power generation, gas compression

Fast installation and commissioning

- Single-lift package
- Train loop-checks and flushing performed at factory (with UCS job software)
- Shipping standard
- Multi-skills on site

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Datasheet

Power generation

Power	MWe	16.9
Efficiency	%	36.4
NOx	ppm	15*
Exhaust	°C	495
Speed	RPM	7,800

Mechanical drive

Power	MWe	17.5
Efficiency	%	37.4
NOx	ppm	15*
Exhaust	°C	495
Speed	RPM	7,800

- Single annular combustor technology
- Dry low emission combustion system, capable of <15 ppm NOx at 15% O_2, from 50% to 100% load (9ppm NOx available)
- Max availability: engine swap in 3 days, no intermediate boroscopic inspections
- No seasonal DLN tuning: initial DLN tuning during commissioning (90% shorter than traditional system) and on a four-year basis thereafter (via remote connection)
- No need for gas composition analysis system
- Gas only and dual fuel (gas + liquid) capability
- 44–57 MWI fuel flexibility, experience recorded outside these limits
- Up to 100% vol H_2 capability, tested on combustion chamber

Package—power gen

LxWxH	m	15.62x3.15x9.52
Weight	tons	134

Package—mech drive

LxWxH	m	12.5x3.15x4.1
Weight	tons	52.9

Main inspections

HGP	hrs	35,000
Major insp.	hrs	70,000

* 9ppm upon request

ISO conditions with natural gas fuel, ambient temperature 15°C, no inlet or exhaust losses, sea level, 60% relative humidity.
Mechanical Package dimensions driven equipment excluded.

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