NovaLT12 gas turbine
(13 MW, 50/60 Hz)

Delivering high efficiency and low total cost of ownership in power generation or mechanical drive
Industry leader in gas turbine technology
NovaLT12

Maximum availability and lowest total cost

NovaLT™12 combines innovation with the best technology of our gas turbine experience with more than 900 units installed and ~80 millions fleet hours.

Designed to minimize environmental impact, the combustion system is capable of reducing CO₂ 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 CO₂ footprint.

Key features

- 36.8% 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
**Package**

**Power generation**

**Main skids**
- Gas turbine and main auxiliary systems
- Lube oil system
- Electric generator
- Total footprint: 15.7 x 2.5 m

**Upper deck**
- Filter house, ventilation system and ducting above gas turbine skid
- Mineral oil cooler and oil mist separator on lube oil skid
- 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)
  - 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
Datasheet

### Power generation

<table>
<thead>
<tr>
<th>Power</th>
<th>MWe</th>
<th>12.5</th>
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<tbody>
<tr>
<td>Efficiency</td>
<td>%</td>
<td>35.3</td>
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<tr>
<td>NOx</td>
<td>ppm</td>
<td>15</td>
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<tr>
<td>Exhaust</td>
<td>°C</td>
<td>496</td>
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<tr>
<td>Speed</td>
<td>RPM</td>
<td>8,900</td>
</tr>
</tbody>
</table>

- Single annular combustor technology
- Dry low emission combustion system, capable of <15 ppm NOX at 15% O₂, from 50% to 100% load
- Max availability: engine swap in less than 3 days, no intermediate boroscope 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
- 44–57 MWI fuel flexibility, experience recorded outside these limits
- Up to 100% vol H₂ capability, tested on combustion chamber

### Mechanical drive

<table>
<thead>
<tr>
<th>Power</th>
<th>MWe</th>
<th>13</th>
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<tbody>
<tr>
<td>Efficiency</td>
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<td>36.8</td>
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<tr>
<td>NOx</td>
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<td>Exhaust</td>
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<td>496</td>
</tr>
<tr>
<td>Speed</td>
<td>RPM</td>
<td>8,900</td>
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### Package—power gen

<table>
<thead>
<tr>
<th>LxWxH</th>
<th>m</th>
<th>14.3x2.5x6.4</th>
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<tr>
<td>Weight</td>
<td>tons</td>
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### Package—mech drive

<table>
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<th>LxWxH</th>
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<th>7.2x2.5x3.5</th>
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<tr>
<td>Weight</td>
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### Main inspections

<table>
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<tr>
<th>HGP</th>
<th>hrs</th>
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<tbody>
<tr>
<td>Major insp.</td>
<td>hrs</td>
<td>70,000</td>
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</tbody>
</table>

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.