Variable Inlet Guide Vane (VIGV) for LM6000 aeroderivative gas turbines

Product Description
Variable inlet air vanes for LM6000 aeroderivative gas turbines help guide inlet airflow to greatly enhance engine performance.

Product Details
- The assembly is located in front of the Low Pressure Compressor (LPC) and consists of 43 stationary leading-edge vanes and variable trailing flaps (rotate -10 to +60 degrees)
- Variable Differential Transformers (LVDTs) on the actuator ring drive twin hydraulic actuators
- LVDTs and VIGV positions are controlled by continuous measurement of LPC inlet temperature and HPC discharge static pressure
- If the turbine has Fixed Inlet Guide Vanes (FIGV), the upgrade involves adding VIGVs, a Hydraulic Control Unit (HCU, if applicable), off-engine cables and hydraulic lines, as well as updating the software

Customer Benefits
- Increases generator power output by up to 3.25 MW
- Improves performance for simple and heat recovery cycles at less than full load; reduces engine waste heat
- Lessens variable bypass valve (VBV) flow and pressure levels, thereby reducing associated flow noise
- LM6000PC SPRINT gas turbine with EFS has an average power increase of 2 MW, greater than 2 percent fuel efficiency increase at 70 percent power, and an exhaust energy increase of 3 percent
- Flaps close during large power reductions to quickly reduce LPC flow rate, helping maintain LPC stall margin

Applicable Units:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
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<tbody>
<tr>
<td>LM6000</td>
<td>-</td>
</tr>
<tr>
<td>LM2500</td>
<td>-</td>
</tr>
<tr>
<td>LMS100</td>
<td>Configured for LM6000 PC units only</td>
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<tr>
<td>LM5000</td>
<td>-</td>
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<tr>
<td>LM1600</td>
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<td>TM2500</td>
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SPRINT power output increase with VIGVs

GE’s global service network provides life cycle support for more than 3,500 aeroderivative gas turbines worldwide to help you meet your business challenges and success metrics – anywhere and anytime. Our global service network connects with you locally for rapid response to your service needs.

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