POWERTEC

ELECTRIC STARTER SYSTEM

CHALLENGE

An engineering integrator needed to replace the traditional hydraulic start system on gas turbine generators with a more compact efficient solution. Traditional pneumatic/hydraulic starter systems are complex and demand comprehensive maintenance due to the presence of filters, valves, solenoids, reservoirs, pumps/compressors, gauges, heat exchangers, piping/hoses and fittings.

SOLUTION

Custom Designed Permanent Magnet AC Motors

- Performance: Performance 335 lb-ft torque intermittent duty
- Weight: 145.5 lbs.
- Dimensions: 12.28” l by 12.13” h
- Liquid cooled

Benefits:

- 80% reduction in package weight and physical dimensions
- Exceptional performance.
- Efficiency improved from 92% to 97% with POWERTEC’s solution
- Extended service life, engineered solution rated for 40-year life expectancy

RESULTS

POWERTEC partnered with the customer to design and manufacture a heavy-duty PMAC motor interacting with an overrunning clutch.

- The electric motor was designed to ¬t in a compact physical space and weight restrictions.
- The motor enclosure was designed to meet UL, ATEX, and IECEx Class 1 div 2, zone 2.

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