Generator air outlet temperature range

How many air cooled generators are there?
More than 130 generators of these new designs have been shipped through the end of 1992, with approximately on -half in service. Theair-cooled generator product line iscontin-uing to evolve. The generator that is being applied with the LM6000 aeroderivative gas tur-bine (Figure 13) was tested and shipped in 1992.

Can a 12 MW gas turbine generator operate at sea level?
A 12 MW gas turbine generator is required to operate at sea levelwith an ambient temperature T1 of 20oC and a combustion temperature T3 of 950oC. The following data apply. Assume constant specific heat Cp Cpc,and ? = = ?c. Ignore the losses in the ducting,gear box and generator.

What DBA should a GE generator have?
Extensive prototype testing ofeach of the new designs,both in the factory and under load at a customer's site,has proven that the designs dBA,which is very satisfactory,and compares favorably with the design target of85 dBA. matchthe GE Frame 5,6 and '7 gas turbines. More than 130 generators of these new designs have

How does air filtration affect a gas generator?
moist air (due to humidity) to the allowable temperature. This fuel increase will increase the gas generator speed and compensate for the loss in air density. Inserting air filtration,silencing,evaporative coolers or chillers into the inlet or heat recov-ery devices in the exhaust causes pressure losses in the system.

Should GE standardize a manufac-generator?
(about 10%) with a minimal increase in cost. To Standardization of the product line has signifi-capitalize on this technical capability, GE designed cantbenefits both to the user and to the manufac-generators with Class F insulation and Class F rises. turer.

What are the insulating materials used in a generator?
The insulating materials arethose used since the arly 1930s thus maintaining the proven reliability record. The materials are all Class F temperatures for the life ofthe machine. The stator bar copperis stranded and insulated beenused. The designs are based on proven tech-nology used in generators already

The typical operating range of an air compressor is between 40°F (4.4°C) and a little over 100°F (38°C). ... If the ambient temperature in the room was instead 100°F (38°C), the outlet temperature would then be 115°F ...

The electrical load and engine generator nominal load capacity are used to compute the part load ratio. P L R = E l e c t r i c e n e r g y o u t p u t n o m i n a l g e n e r a t i n g c a p a c i t y. The ...

Inlet air temperature: T = 273K + 45 = 318K (45 ° C is ... Rotor vent air volume 0.95 m3/s Motor inlet

and outlet wind pressure 2220Pa ... Table 3.Generator temperature field simulation results

The results shown in Fig. 7 and 8 are the inlet and outlet air temperatures of 250 MW SG with rated and 20% overloading conditions. ... This implies the good uniformity of hot air ...

The air velocity, air temperature, nonuniformity coefficient, and energy efficiency coefficient were adopted to evaluate both the air distribution and the ventilation performance ...

If the generator passage is too large it will allow entrainment of some of the surrounding warm air and raise the cold outlet temperature. Therefore for any given vortex tube of a fixed total flow, there is an ideal opening size for every ...

1 ??· Here"s a worked example for my home where the return air was 70°F, and the supply AC blow air was 53°F: Return air temperature - supply air temperature = Delta T (?T) 70 - 53 = 17. ...

ECOSTAR direct and indirect type hot air generators are provided an outlet temperature up to 1000 ºC, and designed to operate with natural gas, fuel oil and light oil with a capacity range ...

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The generator is built with internal air compressors as standard, and is extremely quiet in operation. ... inlet / outlet pressure, N2/Air Flow and status of the system with remote access for diagnostic control. ... Temperature range. From 5 - ...

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