

“HANUMAN –The Mighty” - Steam Turbine Generators

Technical Data Sheet

Turbine Model	HANUMAN HG 1000 - 3500
Prime Mover for	1250 - 4400 KVA Alternator
Design	A.P.I. Standard – balanced Mounting
Type	Three Stage each Single Wheel
Casing	Horizontally Split
Rotor Shaft	Solid Forged, Machined, Hard Chrome Plated at the Gland area & Dynamically Balanced Rotor with Curtis Wheel keyed to the shaft.
Seals	Labyrinth Seals each with 6 grooves
Bearing	Babitt Bearing with forced lubrication
Lubrication	Forced Lubrication by 200 LPM oil Pump
Speed Governor	Electronic Throttle Control
Turbine Speed	6750 RPM
Gearbox Output speed	1500 RPM for 50 Hz or 1800 RPM for 60 Hz
Gearbox Lubrication	Forced lubrication by 200 LPM oil Pump
Inlet Steam Pressure	45 BarG
Inlet Steam Temperature	236°C (Dry Saturated) – Minimum 450°C (Super heated) - Maximum
Inlet Steam Flow	6 Kg per KW per Hour
Steam Discharge Pressure	1.0 BarG
Steam Discharge Temperature	10 5°C
Turbine Efficiency	
Thermal	≈ 47%
Mechanical	≈ 33%
Overall	≈ 36% assuming Mech. eff. of 84% for the AC Generator.
Inlet & Discharge Connections	200 mm & 450 mm – Flanges provided
Approximate dimensions	3000 x 2000 x 2000 mm - Approximate
Approximate weight	4500 Kg

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Turbine Model	HANUMAN HG 1000 - 3500
Prime Mover for	1250 - 4400 KVA Alternator
Design	A.P.I. 611 Standard
Type	Three Stage each Single Wheel
Casing	Horizontally Split
Rotor Shaft	100 mm Ø
Bearing	Babbitt Bearing 67 mm Ø
Turbine Wheel	470 mm Ø
Turbine Blade	Stainless Steel - 410 Grade
No of Blades	240 on each wheel
Steam Inlet	200 mm Ø – Flange supplied
Steam Outlet	450 mm Ø – Flange supplied
Speed Governor	Woodward UG-40
Turbine Speed	6750 RPM
Gearbox Output speed	1500 RPM for 50 Hz or 1800 RPM for 60 Hz
Lubrication	Initially by Auxiliary and by Main Oil Pump
Main Oil Pump	Driven by the Gearbox
Auxiliary Oil Pump	Driven by Steam Turbine / Electric Motor
Oil Cooler	ONE – Shell & Tube Type
Oil Filter	One in Operation / One as Stand-by
Dimension	3000 x 2000 x 2000 mm - Approximate
Weight	4,500 Kg - Approximate