

# Turbofan DS Project – Variable Glossary

Table of features and target for predicting HPC isentropic efficiency.

Variable	Type	Description
NetThrust_kN	float	Net thrust produced by the engine (overall propulsive force), in kN.
CoreNozzleGrossThrust_kN	float	Gross thrust contribution from the core (hot) nozzle, in kN.
BypassNozzleGrossThrust_kN	float	Gross thrust contribution from the bypass (cold) nozzle, in kN.
Sp.FuelConsumption_g/(kN*s)	float	Thrust specific fuel consumption (TSFC): fuel mass per unit thrust, in g/(kN*s).
SpecificThrust_m/s	float	Specific thrust: net thrust per unit air mass flow, expressed in m/s.
CoreNozzleVel.V8_m/s	float	Exhaust jet velocity at the core nozzle exit (station V8), in m/s.
CoreNozzlePressureRatio	float	Pressure ratio across the core nozzle (nozzle pressure ratio).
BypassNozzleVel.V18_m/s	float	Exhaust jet velocity at the bypass nozzle exit (station V18), in m/s.
BypassNozzlePressureRatio	float	Pressure ratio across the bypass nozzle (nozzle pressure ratio).
BurnerEfficiency	float	Combustor (burner) efficiency: fraction of fuel energy converted into flow enthalpy rise.
EnginePressureRatioP5/P2	float	Engine pressure ratio (EPR): pressure at P5 divided by pressure at P2.
HPSpoolSpeed_RPM	float	High-pressure spool rotational speed, in RPM.
LPSpoolSpeed_RPM	float	Low-pressure spool rotational speed, in RPM.
FuelFlow_kg/s	float	Fuel mass flow rate, in kg/s.
LPTExitPressureP5_kPa	float	Pressure at the low-pressure turbine exit (station P5), in kPa.
LPTExitTemperatureT5_K	float	Temperature at the low-pressure turbine exit (station T5), in K.
Isentr.HPCEfficiency	float	Isentropic efficiency of the high-pressure compressor (HPC) (prediction target).