

Motor Horsepower From Torque Calculator

Convert entered torque and speed into mechanical horsepower and kilowatts for the motor formula family.

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<https://www.elecatrrix.com/motors-starters/motor-horsepower-from-torque-calculator/>

Inputs

Input	Value	Unit
Torque	100	lb-ft
Speed	1750	rpm

Results

Result	Value	Unit
Torque	100	lb-ft
Speed	1750	rpm
Power	33.3206	hp
Power	24.8472	kW

Calculation details

Detail	Value	Unit
Calculation basis	Mechanical horsepower uses entered torque and speed with the 5252 conversion constant.	
Planning boundary	Formula conversion only; verify motor nameplate, speed, efficiency, duty, drive, and manufacturer data separately.	

Formulas

horsepower = torque lb-ft x speed rpm / 5252

kilowatts = horsepower x 0.745699872

Warnings and limitations

This conversion is limited to torque-to-power arithmetic. It does not select a motor, drive, protection, or operating duty.