Time Unit Converter (seconds, minutes, hours, days, years)

Convert a time or duration between seconds, milliseconds, minutes, hours, days and years, for running hours, cycle times and payback periods.

Method: Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Input parameters

Unit system: SI

Parameter	Value	Unit
Time (choose its unit)	8,766.0	h

Calculated results

Parameter	Value	Unit
Seconds	3.1558e+07	s
Milliseconds	3.1558e+10	ms
Minutes	525,960	min
Hours	8,766.0	h
Days	365.25	d
Years (365.25 days)	1.0000	a

Notes for this case

• A minute is 60 s, an hour 3,600 s and a day 86,400 s. The year used here is the Julian year of 365.25 days (31,557,600 s), so 8,766 hours; plant availability is often quoted on 8,760 hours (365 days). For hours and minutes, 1.5 h is 1 h 30 min, not 1 h 50 min.

Formula and method

$$1\ \mathrm{h} = 60\ \mathrm{min} = 3600\ \mathrm{s}, \quad 1\ \mathrm{a} = 365.25\ \mathrm{d}$$

Variables

t	Time (choose its unit)	s

Method and standards

Time units.

Assumptions and limits

- Julian year.

References

Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Report details

Report reference	FCC-FPF8-7862 (the same inputs always give the same reference)
Generated	23 November 2026, 18:01 UTC
Calculator	Time Unit Converter (seconds, minutes, hours, days, years)
Method last reviewed	17 November 2026
Software release	FireCAD Calc, release of 22 November 2026
Release checks	2 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/general/unit-conversions/time-unit-converter

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.