

Rack Unit Conversion Chart

U to millimeters and inches — mounting heights, not cabinet exteriors

1U

= 1.75 in = 44.45 mm

mm ÷ 44.45

converts any height to rack units —
round down to fit

20–35

servers a 42U rack realistically
holds after switches, PDUs, cabling

Rack unit to millimeter and inch chart

Rack units	Millimeters	Inches	Rack units	Millimeters	Inches
1 U	44.45	1.75	15 U	666.75	26.25
2 U	88.90	3.50	18 U	800.10	31.50
3 U	133.35	5.25	20 U	889.00	35.00
4 U	177.80	7.00	24 U	1066.80	42.00
5 U	222.25	8.75	30 U	1333.50	52.50
6 U	266.70	10.50	36 U	1600.20	63.00
8 U	355.60	14.00	42 U	1866.90	73.50
10 U	444.50	17.50	45 U	2000.25	78.75
12 U	533.40	21.00	48 U	2133.60	84.00

Usable mounting heights — a 42U or 45U enclosure stands taller once frame, castors, and roof panel are counted (a typical 42U cabinet is roughly 2 m overall).

Space is rarely what fills first

- A 42U rack has room for 42U of gear — but its power circuit and cooling envelope usually saturate long before the space does
- Check power headroom (volts × amps, redundancy scheme), not just free U
- Watch per-rack thermal limits alongside space
- Reserve U space for switches, PDUs, cable management, and blanking panels

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Source: sensaka.com/resources/rack-unit-calculator

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