

Heat Flux Unit Conversion Table

To convert, multiply by
value in table

From To →

↓	W/cm ²	W/m ²	kW/m ²	W/in ²	W/ft ²	BTU/ft ² sec	BTU/ft ² hr	BTU/in ² sec	BTU/in ² hr	Cal/cm ² sec	Cal/cm ² hr	kCal/cm ² hr
W/cm²	1	10000	10	6.46	930.27	0.88	3186	0.000615	22.12	0.24	863	0.863
W/m²	0.0001	1	0.001	0.000646	0.093	0.000088	0.319	6.15E-08	0.00221	0.000024	0.0863	8.63E-05
KW/m²	0.1	1000	1	0.646	93.03	0.088	318.6	6.15E-05	2.21	0.024	86.3	0.0863
W/in²	0.155	1548	1.55	1	144	0.138	490.15	0.000929	3.38	0.0369	132.77	0.133
W/ft²	0.00108	10.75	0.0107	0.00694	1	0.000967	3.42	6.45E-06	0.0236	0.000258	0.928	0.000928
BTU/ft² sec	1.14	11364	11.36	7.22	1034	1	3600	0.00694	25	0.267	958.9	0.959
BTU/ft² hr	0.000314	3.14	0.00314	0.00204	0.292	0.000278	1	1.88E-06	0.00694	7.53E-05	0.271	0.000271
BTU/in² sec	1626	16270745	16271	1077	155044	144	530973	1	3600	40	143894	143.89
BTU/in² hr	0.045	452.08	0.452	0.295	42.29	0.04	144	0.000271	1	0.0108	39.02	0.039
Cal/cm² sec	4.17	41667	41.67	27.08	3876	3.75	13274	0.025	92.19	1	3600	3.6
Cal/cm² hr	0.00116	11.59	0.0116	0.00753	1.078	0.00104	3.69	6.95E-06	0.0256	0.000278	1	0.001
kCal/cm² hr	1.63	11587	11.59	7.53	1078	1.043	3690	0.00695	25.63	0.278	1000	1

Table should be used for reference only. Rounding errors may cause table values to vary from absolute values.

Example:

$$15 \text{ kW/m}^2 \times 0.088 = 1.32 \text{ BTU/ft}^2 \text{ sec}$$



SETTING THE STANDARD IN HEAT FLUX MEASUREMENT