

Kilokalorie – Wattstunde Wattstunde – Kilokalorie Umrechnungstabellen

DIN
66039

Kilocalorie – watt hour, watt hour – kilocalorie; conversion tables

Diese Norm kann benutzt werden zum Umrechnen der Zahlenwerte von Größen mit der Einheit Kilokalorie in Wattstunde oder umgekehrt. Sie kann auch angewendet werden zum Umrechnen der Zahlenwerte anderer abgeleiteter Größen, z. B. mit der Einheit Kilokalorie in Wattsekunde.

1. Umrechnung von Kilokalorie (kcal) in Wattstunde (Wh)

Einheitengleichung: $1 \text{ kcal} = \frac{4186,8}{3600} \text{ Wh} = 1,163000 \text{ Wh}$

Die Zahlenwerte der Tabelle 1 sind nach DIN 1333 auf sechs Stellen hinter dem Komma gerundet.

Tabelle 1.

kcal	0,0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9
	Wh									
0	0,000000	0,116300	0,232600	0,348900	0,465200	0,581500	0,697800	0,814100	0,930400	1,046700
1	1,163000	1,279300	1,395600	1,511900	1,628200	1,744500	1,860800	1,977100	2,093400	2,209700
2	2,326000	2,442300	2,558600	2,674900	2,791200	2,907500	3,023800	3,140100	3,256400	3,372700
3	3,489000	3,605300	3,721600	3,837900	3,954200	4,070500	4,186800	4,303100	4,419400	4,535700
4	4,652000	4,768300	4,884600	5,000900	5,117200	5,233500	5,349800	5,466100	5,582400	5,698700
5	5,815000	5,931300	6,047600	6,163900	6,280200	6,396500	6,512800	6,629100	6,745400	6,861700
6	6,978000	7,094300	7,210600	7,326900	7,443200	7,559500	7,675800	7,792100	7,908400	8,024700
7	8,141000	8,257300	8,373600	8,489900	8,606200	8,722500	8,838800	8,955100	9,071400	9,187700
8	9,304000	9,420300	9,536600	9,652900	9,769200	9,885500	10,001800	10,118100	10,234400	10,350700
9	10,467000	10,583300	10,699600	10,815900	10,932200	11,048500	11,164800	11,281100	11,397400	11,513700
10	11,630000	11,746300	11,862600	11,978900	12,095200	12,211500	12,327800	12,444100	12,560400	12,676700
11	12,793000	12,909300	13,025600	13,141900	13,258200	13,374500	13,490800	13,607100	13,723400	13,839700
12	13,956000	14,072300	14,188600	14,304900	14,421200	14,537500	14,653800	14,770100	14,886400	15,002700
13	15,119000	15,235300	15,351600	15,467900	15,584200	15,700500	15,816800	15,933100	16,049400	16,165700
14	16,282000	16,398300	16,514600	16,630900	16,747200	16,863500	16,979800	17,096100	17,212400	17,328700
15	17,445000	17,561300	17,677600	17,793900	17,910200	18,026500	18,142800	18,259100	18,375400	18,491700
16	18,608000	18,724300	18,840600	18,956900	19,073200	19,189500	19,305800	19,422100	19,538400	19,654700
17	19,771000	19,887300	20,003600	20,119900	20,236200	20,352500	20,468800	20,585100	20,701400	20,817700
18	20,934000	21,050300	21,166600	21,282900	21,399200	21,515500	21,631800	21,748100	21,864400	21,980700
19	22,097000	22,213300	22,329600	22,445900	22,562200	22,678500	22,794800	22,911100	23,027400	23,143700
20	23,260000	23,376300	23,492600	23,608900	23,725200	23,841500	23,957800	24,074100	24,190400	24,306700
21	24,423000	24,539300	24,655600	24,771900	24,888200	25,004500	25,120800	25,237100	25,353400	25,469700
22	25,586000	25,702300	25,818600	25,934900	26,051200	26,167500	26,283800	26,400100	26,516400	26,632700
23	26,749000	26,865300	26,981600	27,097900	27,214200	27,330500	27,446800	27,563100	27,679400	27,795700
24	27,912000	28,028300	28,144600	28,260900	28,377200	28,493500	28,609800	28,726100	28,842400	28,958700
25	29,075000	29,191300	29,307600	29,423900	29,540200	29,656500	29,772800	29,889100	30,005400	30,121700
26	30,238000	30,354300	30,470600	30,586900	30,703200	30,819500	30,935800	31,052100	31,168400	31,284700
27	31,401000	31,517300	31,633600	31,749900	31,866200	31,982500	32,098800	32,215100	32,331400	32,447700
28	32,564000	32,680300	32,796600	32,912900	33,029200	33,145500	33,261800	33,378100	33,494400	33,610700
29	33,727000	33,843300	33,959600	34,075900	34,192200	34,308500	34,424800	34,541100	34,657400	34,773700
30	34,890000	35,006300	35,122600	35,238900	35,355200	35,471500	35,587800	35,704100	35,820400	35,936700
31	36,053000	36,169300	36,285600	36,401900	36,518200	36,634500	36,750800	36,867100	36,983400	37,099700
32	37,216000	37,332300	37,448600	37,564900	37,681200	37,797500	37,913800	38,030100	38,146400	38,262700
33	38,379000	38,495300	38,611600	38,727900	38,844200	38,960500	39,076800	39,193100	39,309400	39,425700
34	39,542000	39,658300	39,774600	39,890900	40,007200	40,123500	40,239800	40,356100	40,472400	40,588700
35	40,705000	40,821300	40,937600	41,053900	41,170200	41,286500	41,402800	41,519100	41,635400	41,751700
36	41,868000	41,984300	42,100600	42,216900	42,333200	42,449500	42,565800	42,682100	42,798400	42,914700
37	43,031000	43,147300	43,263600	43,379900	43,496200	43,612500	43,728800	43,845100	43,961400	44,077700
38	44,194000	44,310300	44,426600	44,542900	44,659200	44,775500	44,891800	45,008100	45,124400	45,240700
39	45,357000	45,473300	45,589600	45,705900	45,822200	45,938500	46,054800	46,171100	46,287400	46,403700
40	46,520000									

Fortsetzung Seite 2 bis 4

Ausschuß Normungstechnik (ANT) im Deutschen Normenausschuß (DNA)

Tabelle 1 (Fortsetzung von Seite 1)

kcal	0,0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9
	Wh									
40	46,520000	46,636300	46,752600	46,868900	46,985200	47,101500	47,217800	47,334100	47,450400	47,566700
41	47,683000	47,799300	47,915600	48,031900	48,148200	48,264500	48,380800	48,497100	48,613400	48,729700
42	48,846000	48,962300	49,078600	49,194900	49,311200	49,427500	49,543800	49,660100	49,776400	49,892700
43	50,009000	50,125300	50,241600	50,357900	50,474200	50,590500	50,706800	50,823100	50,939400	51,055700
44	51,172000	51,288300	51,404600	51,520900	51,637200	51,753500	51,869800	51,986100	52,102400	52,218700
45	52,335000	52,451300	52,567600	52,683900	52,800200	52,916500	53,032800	53,149100	53,265400	53,381700
46	53,498000	53,614300	53,730600	53,846900	53,963200	54,079500	54,195800	54,312100	54,428400	54,544700
47	54,661000	54,777300	54,893600	55,009900	55,126200	55,242500	55,358800	55,475100	55,591400	55,707700
48	55,824000	55,940300	56,056600	56,172900	56,289200	56,405500	56,521800	56,638100	56,754400	56,870700
49	56,987000	57,103300	57,219600	57,335900	57,452200	57,568500	57,684800	57,801100	57,917400	58,033700
50	58,150000	58,266300	58,382600	58,498900	58,615200	58,731500	58,847800	58,964100	59,080400	59,196700
51	59,313000	59,429300	59,545600	59,661900	59,778200	59,894500	60,010800	60,127100	60,243400	60,359700
52	60,476000	60,592300	60,708600	60,824900	60,941200	61,057500	61,173800	61,290100	61,406400	61,522700
53	61,639000	61,755300	61,871600	61,987900	62,104200	62,220500	62,336800	62,453100	62,569400	62,685700
54	62,802000	62,918300	63,034600	63,150900	63,267200	63,383500	63,499800	63,616100	63,732400	63,848700
55	63,965000	64,081300	64,197600	64,313900	64,430200	64,546500	64,662800	64,779100	64,895400	65,011700
56	65,128000	65,244300	65,360600	65,476900	65,593200	65,709500	65,825800	65,942100	66,058400	66,174700
57	66,291000	66,407300	66,523600	66,639900	66,756200	66,872500	66,988800	67,105100	67,221400	67,337700
58	67,454000	67,570300	67,686600	67,802900	67,919200	68,035500	68,151800	68,268100	68,384400	68,500700
59	68,617000	68,733300	68,849600	68,965900	69,082200	69,198500	69,314800	69,431100	69,547400	69,663700
60	69,780000	69,896300	70,012600	70,128900	70,245200	70,361500	70,477800	70,594100	70,710400	70,826700
61	70,943000	71,059300	71,175600	71,291900	71,408200	71,524500	71,640800	71,757100	71,873400	71,989700
62	72,106000	72,222300	72,338600	72,454900	72,571200	72,687500	72,803800	72,920100	73,036400	73,152700
63	73,269000	73,385300	73,501600	73,617900	73,734200	73,850500	73,966800	74,083100	74,199400	74,315700
64	74,432000	74,548300	74,664600	74,780900	74,897200	75,013500	75,129800	75,246100	75,362400	75,478700
65	75,595000	75,711300	75,827600	75,943900	76,060200	76,176500	76,292800	76,409100	76,525400	76,641700
66	76,758000	76,874300	76,990600	77,106900	77,223200	77,339500	77,455800	77,572100	77,688400	77,804700
67	77,921000	78,037300	78,153600	78,269900	78,386200	78,502500	78,618800	78,735100	78,851400	78,967700
68	79,084000	79,200300	79,316600	79,432900	79,549200	79,665500	79,781800	79,898100	80,014400	80,130700
69	80,247000	80,363300	80,479600	80,595900	80,712200	80,828500	80,944800	81,061100	81,177400	81,293700
70	81,410000	81,526300	81,642600	81,758900	81,875200	81,991500	82,107800	82,224100	82,340400	82,456700
71	82,573000	82,689300	82,805600	82,921900	83,038200	83,154500	83,270800	83,387100	83,503400	83,619700
72	83,736000	83,852300	83,968600	84,084900	84,201200	84,317500	84,433800	84,550100	84,666400	84,782700
73	84,899000	85,015300	85,131600	85,247900	85,364200	85,480500	85,596800	85,713100	85,829400	85,945700
74	86,062000	86,178300	86,294600	86,410900	86,527200	86,643500	86,759800	86,876100	86,992400	87,108700
75	87,225000	87,341300	87,457600	87,573900	87,690200	87,806500	87,922800	88,039100	88,155400	88,271700
76	88,388000	88,504300	88,620600	88,736900	88,853200	88,969500	89,085800	89,202100	89,318400	89,434700
77	89,551000	89,667300	89,783600	89,899900	90,016200	90,132500	90,248800	90,365100	90,481400	90,597700
78	90,714000	90,830300	90,946600	91,062900	91,179200	91,295500	91,411800	91,528100	91,644400	91,760700
79	91,877000	91,993300	92,109600	92,225900	92,342200	92,458500	92,574800	92,691100	92,807400	92,923700
80	93,040000	93,156300	93,272600	93,388900	93,505200	93,621500	93,737800	93,854100	93,970400	94,086700
81	94,203000	94,319300	94,435600	94,551900	94,668200	94,784500	94,900800	95,017100	95,133400	95,249700
82	95,366000	95,482300	95,598600	95,714900	95,831200	95,947500	96,063800	96,180100	96,296400	96,412700
83	96,529000	96,645300	96,761600	96,877900	96,994200	97,110500	97,226800	97,343100	97,459400	97,575700
84	97,692000	97,808300	97,924600	98,040900	98,157200	98,273500	98,389800	98,506100	98,622400	98,738700
85	98,855000	98,971300	99,087600	99,203900	99,320200	99,436500	99,552800	99,669100	99,785400	99,901700
86	100,018000	100,134300	100,250600	100,366900	100,483200	100,599500	100,715800	100,832100	100,948400	101,064700
87	101,181000	101,297300	101,413600	101,529900	101,646200	101,762500	101,878800	101,995100	102,111400	102,227700
88	102,344000	102,460300	102,576600	102,692900	102,809200	102,925500	103,041800	103,158100	103,274400	103,390700
89	103,507000	103,623300	103,739600	103,855900	103,972200	104,088500	104,204800	104,321100	104,437400	104,553700
90	104,670000	104,786300	104,902600	105,018900	105,135200	105,251500	105,367800	105,484100	105,600400	105,716700
91	105,833000	105,949300	106,065600	106,181900	106,298200	106,414500	106,530800	106,647100	106,763400	106,879700
92	106,996000	107,112300	107,228600	107,344900	107,461200	107,577500	107,693800	107,810100	107,926400	108,042700
93	108,159000	108,275300	108,391600	108,507900	108,624200	108,740500	108,856800	108,973100	109,089400	109,205700
94	109,322000	109,438300	109,554600	109,670900	109,787200	109,903500	110,019800	110,136100	110,252400	110,368700
95	110,485000	110,601300	110,717600	110,833900	110,950200	111,066500	111,182800	111,299100	111,415400	111,531700
96	111,648000	111,764300	111,880600	111,996900	112,113200	112,229500	112,345800	112,462100	112,578400	112,694700
97	112,811000	112,927300	113,043600	113,159900	113,276200	113,392500	113,508800	113,625100	113,741400	113,857700
98	113,974000	114,090300	114,206600	114,322900	114,439200	114,555500	114,671800	114,788100	114,904400	115,020700
99	115,137000	115,253300	115,369600	115,485900	115,602200	115,718500	115,834800	115,951100	116,067400	116,183700
100	116,300000									

Anwendungsbeispiele unter Aufrechterhalten der Genauigkeit der Werte in Tabelle 1:

0,3 kcal = 0,348900 Wh
 5,4 kcal = 6,280200 Wh
 54 kcal = 62,802000 Wh

4868 kcal = ? Wh
 4860 kcal = 5652,1800 Wh
 8 kcal = 9,3040 Wh
 4868 kcal = 5661,4840 Wh



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