

Kilopond – Newton Newton – Kilopond Umrechnungstabellen

DIN
66 034

Kilogramme-force — newton, newton — kilogramme-force; conversion tables

Diese Norm kann benutzt werden für die Umrechnung der Zahlenwerte von Größen, mit der Einheit Kilopond in Newton, oder umgekehrt. Sie kann auch verwendet werden für die Umrechnung der Zahlenwerte abgeleiteter Größen, z. B. mit der Einheit kp m in N m.

Kilopond (kp) ist nach ISO-Empfehlung ISO/R 31/Teil III „Größen und Einheiten der Mechanik“, Ausgabe Dezember 1960, gleichbedeutend mit der Einheit, die im Englischen und Französischen kilogramme-force (kgf) genannt wird.

1. Umrechnung von Kilopond (kp) in Newton (N)

Einheitengleichung: $1 \text{ kp} = 9,80665 \text{ kg m/s}^2 = 9,80665 \text{ N}$ (Bezugswert ist der international vereinbarte Wert für die Normfallbeschleunigung $g_n = 9,80665 \text{ m/s}^2$).

Die Zahlenwerte der Tabelle 1 sind Genauwerte. Reicht eine geringere Stellenzahl aus, ist nach DIN 1333 zu runden.

Tabelle 1.

kp	0,0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9
	N									
0	0,000000	0,980665	1,961330	2,941995	3,922660	4,903325	5,883990	6,864655	7,845320	8,825985
1	9,806650	10,787315	11,767980	12,748645	13,729310	14,709975	15,690640	16,671305	17,651970	18,632635
2	19,613300	20,593965	21,574630	22,555295	23,535960	24,516625	25,497290	26,477955	27,458620	28,439285
3	29,419950	30,400615	31,381280	32,361945	33,342610	34,323275	35,303940	36,284605	37,265270	38,245935
4	39,226600	40,207265	41,187930	42,168595	43,149260	44,129925	45,110590	46,091255	47,071920	48,052585
5	49,033250	50,013915	50,994580	51,975245	52,955910	53,936575	54,917240	55,897905	56,878570	57,859235
6	58,839900	59,820565	60,801230	61,781895	62,762560	63,743225	64,723890	65,704555	66,685220	67,665885
7	68,646550	69,627215	70,607880	71,588545	72,569210	73,549875	74,530540	75,511205	76,491870	77,472535
8	78,453200	79,433865	80,414530	81,395195	82,375860	83,356525	84,337190	85,317855	86,298520	87,279185
9	88,259850	89,240515	90,221180	91,201845	92,182510	93,163175	94,143840	95,124505	96,105170	97,085835
10	98,066500	99,047165	100,027830	101,008495	101,989160	102,969825	103,950490	104,931155	105,911820	106,892485
11	107,873150	108,853815	109,834480	110,815145	111,795810	112,776475	113,757140	114,737805	115,718470	116,699135
12	117,679800	118,660465	119,641130	120,621795	121,602460	122,583125	123,563790	124,544455	125,525120	126,505785
13	127,486450	128,467115	129,447780	130,428445	131,409110	132,389775	133,370440	134,351105	135,331770	136,312435
14	137,293100	138,273765	139,254430	140,235095	141,215760	142,196425	143,177090	144,157755	145,138420	146,119085
15	147,099750	148,080415	149,061080	150,041745	151,022410	152,003075	152,983740	153,964405	154,945070	155,925735
16	156,906400	157,887065	158,867730	159,848395	160,829060	161,809725	162,790390	163,771055	164,751720	165,732385
17	166,713050	167,693715	168,674380	169,655045	170,635710	171,616375	172,597040	173,577705	174,558370	175,539035
18	176,519700	177,500365	178,481030	179,461695	180,442360	181,423025	182,403690	183,384355	184,365020	185,345685
19	186,326350	187,307015	188,287680	189,268345	190,249010	191,229675	192,210340	193,191005	194,171670	195,152335
20	196,133000	197,113665	198,094330	199,074995	200,055660	201,036325	202,016990	202,997655	203,978320	204,958985
21	205,939650	206,920315	207,900980	208,881645	209,862310	210,842975	211,823640	212,804305	213,784970	214,765635
22	215,746300	216,726965	217,707630	218,688295	219,668960	220,649625	221,630290	222,610955	223,591620	224,572285
23	225,552950	226,533615	227,514280	228,494945	229,475610	230,456275	231,436940	232,417605	233,398270	234,378935
24	235,359600	236,340265	237,320930	238,301595	239,282260	240,262925	241,243590	242,224255	243,204920	244,185585
25	245,166250	246,146915	247,127580	248,108245	249,088910	250,069575	251,050240	252,030905	253,011570	253,992235
26	254,972900	255,953565	256,934230	257,914895	258,895560	259,876225	260,856890	261,837555	262,818220	263,798885
27	264,779550	265,760215	266,740880	267,721545	268,702210	269,682875	270,663540	271,644205	272,624870	273,605535
28	274,586200	275,566865	276,547530	277,528195	278,508860	279,489525	280,470190	281,450855	282,431520	283,412185
29	284,392850	285,373515	286,354180	287,334845	288,315510	289,296175	290,276840	291,257505	292,238170	293,218835
30	294,199500	295,180165	296,160830	297,141495	298,122160	299,102825	300,083490	301,064155	302,044820	303,025485
31	304,006150	304,986815	305,967480	306,948145	307,928810	308,909475	309,890140	310,870805	311,851470	312,832135
32	313,812800	314,793465	315,774130	316,754795	317,735460	318,716125	319,696790	320,677455	321,658120	322,638785
33	323,619450	324,600115	325,580780	326,561445	327,542110	328,522775	329,503440	330,484105	331,464770	332,445435
34	333,426100	334,406765	335,387430	336,368095	337,348760	338,329425	339,310090	340,290755	341,271420	342,252085
35	343,232750	344,213415	345,194080	346,174745	347,155410	348,136075	349,116740	350,097405	351,078070	352,058735
36	353,039400	354,020065	355,000730	355,981395	356,962060	357,942725	358,923390	359,904055	360,884720	361,865385
37	362,846050	363,826715	364,807380	365,788045	366,768710	367,749375	368,730040	369,710705	370,691370	371,672035
38	372,652700	373,633365	374,614030	375,594695	376,575360	377,556025	378,536690	379,517355	380,498020	381,478685
39	382,459350	383,440015	384,420680	385,401345	386,382010	387,362675	388,343340	389,324005	390,304670	391,285335
40	392,266000									

Fortsetzung Seite 2 bis 4

Ausschuß Normungstechnik (ANT) im Deutschen Normenausschuß (DNA)

Tabelle 1. (Fortsetzung von Seite 1)

kp	0,0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9
	N									
40	392,266000	393,246665	394,227330	395,207995	396,188660	397,169325	398,149990	399,130655	400,111320	401,091985
41	402,072650	403,053315	404,033980	405,014645	406,995310	407,975975	408,956640	409,937305	410,917970	411,898635
42	411,879300	412,859965	413,840630	414,821295	415,801960	416,782625	417,763290	418,743955	419,724620	420,705285
43	421,685950	422,666615	423,647280	424,627945	425,608610	426,589275	427,569940	428,550605	429,531270	430,511935
44	431,492600	432,473265	433,453930	434,434595	435,415260	436,395925	437,376590	438,357255	439,337920	440,318585
45	441,299250	442,279915	443,260580	444,241245	445,221910	446,202575	447,183240	448,163905	449,144570	450,125235
46	451,105900	452,086565	453,067230	454,047895	455,028560	456,009225	457,989890	458,970555	459,951220	460,931885
47	460,912550	461,893215	462,873880	463,854545	464,835210	465,815875	466,796540	467,777205	468,757870	469,738535
48	470,719200	471,699865	472,680530	473,661195	474,641860	475,622525	476,603190	477,583855	478,564520	479,545185
49	480,525850	481,506515	482,487180	483,467845	484,448510	485,429175	486,409840	487,390505	488,371170	489,351835
50	490,332500	491,313165	492,293830	493,274495	494,255160	495,235825	496,216490	497,197155	498,177820	499,158485
51	500,139150	501,119815	502,100480	503,081145	504,061810	505,042475	506,023140	507,003805	508,984470	509,965135
52	509,945800	510,926465	511,907130	512,887795	513,868460	514,849125	515,829790	516,810455	517,791120	518,771785
53	519,752450	520,733115	521,713780	522,694445	523,675110	524,655775	525,636440	526,617105	527,597770	528,578435
54	529,559100	530,539765	531,520430	532,501095	533,481760	534,462425	535,443090	536,423755	537,404420	538,385085
55	539,365750	540,346415	541,327080	542,307745	543,288410	544,269075	545,249740	546,230405	547,211070	548,191735
56	549,172400	550,153065	551,133730	552,114395	553,095060	554,075725	555,056390	556,037055	557,017720	558,998385
57	558,979050	559,959715	560,940380	561,921045	562,901710	563,882375	564,863040	565,843705	566,824370	567,805035
58	568,785700	569,766365	570,747030	571,727695	572,708360	573,689025	574,669690	575,650355	576,631020	577,611685
59	578,592350	579,573015	580,553680	581,534345	582,515010	583,495675	584,476340	585,457005	586,437670	587,418335
60	588,399000	589,379665	590,360330	591,340995	592,321660	593,302325	594,282990	595,263655	596,244320	597,224985
61	598,205650	599,186315	600,166980	601,147645	602,128310	603,108975	604,089640	605,070305	606,050970	607,031635
62	608,012300	609,992965	610,973630	611,954295	612,934960	613,915625	614,896290	615,876955	616,857620	617,838285
63	617,818950	618,799615	619,780280	620,760945	621,741610	622,722275	623,702940	624,683605	625,664270	626,644935
64	627,625600	628,606265	629,586930	630,567595	631,548260	632,528925	633,509590	634,490255	635,470920	636,451585
65	637,432250	638,412915	639,393580	640,374245	641,354910	642,335575	643,316240	644,296905	645,277570	646,258235
66	647,238900	648,219565	649,200230	650,180895	651,161560	652,142225	653,122890	654,103555	655,084220	656,064885
67	657,045550	658,026215	659,006880	660,987545	661,968210	662,948875	663,929540	664,910205	665,890870	666,871535
68	666,852200	667,832865	668,813530	669,794195	670,774860	671,755525	672,736190	673,716855	674,697520	675,678185
69	676,658850	677,639515	678,620180	679,600845	680,581510	681,562175	682,542840	683,523505	684,504170	685,484835
70	686,465500	687,446165	688,426830	689,407495	690,388160	691,368825	692,349490	693,330155	694,310820	695,291485
71	696,272150	697,252815	698,233480	699,214145	700,194810	701,175475	702,156140	703,136805	704,117470	705,098135
72	706,078800	707,059465	708,040130	709,020795	710,001460	711,982125	712,962790	713,943455	714,924120	715,904785
73	715,885450	716,866115	717,846780	718,827445	719,808110	720,788775	721,769440	722,750105	723,730770	724,711435
74	725,692100	726,672765	727,653430	728,634095	729,614760	730,595425	731,576090	732,556755	733,537420	734,518085
75	735,498750	736,479415	737,460080	738,440745	739,421410	740,402075	741,382740	742,363405	743,344070	744,324735
76	745,305400	746,286065	747,266730	748,247395	749,228060	750,208725	751,189390	752,170055	753,150720	754,131385
77	755,112050	756,092715	757,073380	758,054045	759,034710	760,015375	761,996040	762,976705	763,957370	764,938035
78	764,918700	765,899365	766,880030	767,860695	768,841360	769,822025	770,802690	771,783355	772,764020	773,744685
79	774,725350	775,706015	776,686680	777,667345	778,648010	779,628675	780,609340	781,590005	782,570670	783,551335
80	784,532000	785,512665	786,493330	787,473995	788,454660	789,435325	790,415990	791,396655	792,377320	793,357985
81	794,338650	795,319315	796,299980	797,280645	798,261310	799,241975	800,222640	801,203305	802,183970	803,164635
82	804,145300	805,125965	806,106630	807,087295	808,067960	809,048625	810,029290	811,009955	812,990620	813,971285
83	813,951950	814,932615	815,913280	816,893945	817,874610	818,855275	819,835940	820,816605	821,797270	822,777935
84	823,758600	824,739265	825,719930	826,700595	827,681260	828,661925	829,642590	830,623255	831,603920	832,584585
85	833,565250	834,545915	835,526580	836,507245	837,487910	838,468575	839,449240	840,429905	841,410570	842,391235
86	843,371900	844,352565	845,333230	846,313895	847,294560	848,275225	849,255890	850,236555	851,217220	852,197885
87	853,178550	854,159215	855,139880	856,120545	857,101210	858,081875	859,062540	860,043205	861,023870	862,004535
88	862,985200	863,965865	864,946530	865,927195	866,907860	867,888525	868,869190	869,849855	870,830520	871,811185
89	872,791850	873,772515	874,753180	875,733845	876,714510	877,695175	878,675840	879,656505	880,637170	881,617835
90	882,598500	883,579165	884,559830	885,540495	886,521160	887,501825	888,482490	889,463155	890,443820	891,424485
91	892,405150	893,385815	894,366480	895,347145	896,327810	897,308475	898,289140	899,269805	900,250470	901,231135
92	902,211800	903,192465	904,173130	905,153795	906,134460	907,115125	908,095790	909,076455	910,057120	911,037785
93	912,018450	912,999115	913,979780	914,960445	915,941110	916,921775	917,902440	918,883105	919,863770	920,844435
94	921,825100	922,805765	923,786430	924,767095	925,747760	926,728425	927,709090	928,689755	929,670420	930,651085
95	931,631750	932,612415	933,593080	934,573745	935,554410	936,535075	937,515740	938,496405	939,477070	940,457735
96	941,438400	942,419065	943,399730	944,380395	945,361060	946,341725	947,322390	948,303055	949,283720	950,264385
97	951,245050	952,225715	953,206380	954,187045	955,167710	956,148375	957,129040	958,109705	959,090370	960,071035
98	961,051700	962,032365	963,013030	963,993695	964,974360	965,955025	966,935690	967,916355	968,897020	969,877685
99	970,858350	971,839015	972,819680	973,800345	974,781010	975,761675	976,742340	977,723005	978,703670	979,684335
100	980,665000									

Anwendungsbeispiele unter Aufrechterhaltung der Genauigkeit der Tabellenwerte

0,4 kp = 3,922660 N
 4,2 kp = 41,187930 N
 420 kp = 4118,79300 N

4256 kp = ? N
 4250 kp = 41678,2625 N
 6 kp = 58,8399 N

4256 kp = 41737,1024 N



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