

[Click Here](#)



Convert kilowatts (kW) to kilovolt-amps (kVA) by entering the power and power factor in the form below. Learn how we calculated this below Add this calculator to your site Kilowatts and kilovolt-amps are both a measure of power, but they're a little different. Kilowatts (kW) measure the real power in an electrical circuit, while kilovolt-amps (kVA) measure the apparent power. In electrical equipment with an inductive characteristic, such as a generator or transformer, the real power and apparent power are often not equal. Real power is the amount of power that does real work in the circuit and is always the same or less than the apparent power. Apparent power is determined by the magnitude of voltage and current that must be transmitted to the device. For reactive (inductive and/or capacitive) loads, electrical energy is stored in the device and pushed back to the power supply as opposed to doing real work. This phenomenon is called reactive power and is measured in kilovolt-amps-reactive (kVAR). Therefore, typically we try to maximize the real power and minimize reactive power. The ratio of real power to apparent power is called the power factor (PF) and is between 0 and 1, where 1 is a pure resistive load and both inductive and capacitive loads have a PF less than 1. To convert from kilowatts to kilovolt-amps considering all of this, you'll need a simple formula. kW to kVA Formula The formula to convert kW to kVA accounting for the power factor is: S(kVA) = P(kW) ÷ PF The apparent power S in kVA is equal to the real power P in kW divided by the power factor PF. To convert to kVA, substitute the power factor in the formula above. For example, let's find the apparent power in kVA for a 10 kW electric motor with a power factor of 0.8. S(kVA) = 10 kW ÷ 0.8 S(kVA) = 12.5 kVA In this example, 10 kilowatts with a power factor of 0.8 is equivalent to 12.5 kilovolt-amps. kW to kVA Conversion Chart This chart shows kilovolt-amps (kVA) converted to kilowatt (kW) ratings for equipment with a power factor of 0.8. Equivalent kW and kVA ratings given a power factor of 0.8. kW kVA 5 kW 6.3 kVA 10 kW 12.5 kVA 15 kW 18.7 kVA 20 kW 25 kVA 30 kW 37.5 kVA 40 kW 50 kW 62.5 kVA 60 kW 75 kVA 75 kW 93.8 kVA 80 kW 100 kVA 100 kW 125 kVA 125 kW 156 kVA 150 kW 187 kVA 175 kW 219 kVA 200 kW 250 kVA 250 kW 312 kVA 300 kW 375 kVA 350 kW 438 kVA 400 kW 500 kW 625 kVA 600 kW 750 kVA 700 kW 875 kVA 800 kW 1,000 kVA 900 kW 1,125 kVA 1,000 kW 1,250 kVA 1,250 kW 1,563 kVA 1,500 kW 1,875 kVA 1,750 kW 2,188 kVA 2,000 kW 2,500 kVA 2,250 kW 2,812 kVA You might also be interested in our kVA to kW calculator. Direct links to this calculator: Kilovolt-amps+to+Kilowatt.php To achieve the desired result as quickly as possible, it is best to enter the value to be converted as text, for example '771 kVA to kW' or simply '771 kVA'. In most cases, the word 'to' (or '=' /'->') can be omitted between the names of the two units, for example '771 kVA kW' instead of '771 kVA to kW'. In the abbreviations for 'square' and 'cubic', the '^' character can be omitted from '^2' and '^3'. Square centimetres can therefore be written cm^2 instead of cm^2. Instead of the Greek letter 'µ' (= micro), a simple 'u' can be used, for example uPa instead of µPa. Instead of 1.23 x 10^-5, 1.23e5 can be written. The 'e' stands for 'exponent'. The basic operations of arithmetic: addition (+), subtraction (-), multiplication (*, x), division (:, /, ÷), exponent (^), square root (sqrt, √), brackets and n (pi) are all permitted at this point Using the calculator with the selection lists Choose the right category from the selection list, in this case 'Power'. Next enter the value you want to convert. The basic operations of arithmetic: addition (+), subtraction (-), multiplication (*, x), division (:, /, ÷), exponent (^), square root (√, sqrt), brackets and n (pi) are all permitted at this point. From the selection list, choose the unit that corresponds to the value you want to convert, in this case 'Kilovolt-ampere [kVA]'. Finally choose the unit you want the value to be converted to, in this case 'Kilowatt [kW]'. Then, when the result appears, there is still the possibility of rounding it to a specific number of decimal places, whenever it makes sense to do so. Utilize the full range of performance for this units calculator With this calculator, it is possible to enter the value to be converted together with the original measurement unit, for example, '759 Kilovolt-ampere'. In so doing, either the full name of the unit or its abbreviation can be used as an example, either 'Kilovolt-ampere' or 'kVA'. Then, the calculator determines the category of the measurement unit to measure that is to be converted, in this case 'Power'. After that, it converts the entered value into all of the appropriate units known to it. In the resulting list, you will be sure also to find the conversion you originally sought. Alternatively, the value to be converted can be entered as follows: '57 kVA to kW' or '98 kVA into kW' or '85 Kilovolt-ampere -> Kilowatt' or '14 kVA = kW' or '42 Kilovolt-ampere to kW' or '70 kVA to Kilowatt' or '27 Kilovolt-ampere into Kilowatt'. For this alternative, the calculator also figures out immediately into which unit the original value is specifically to be converted. Regardless of these possibilities one uses, it saves one the cumbersome search for the appropriate listing in long selection lists with myriad categories and countless supported units. All of that is taken over for us by the calculator and it gets the job done in a fraction of a second. Mathematical expressions Furthermore, the calculator makes it possible to use mathematical expressions. As a result, not only can numbers be reckoned with one another, such as, for example, '(68 * 96) kVA'. But different units of measurement can also be coupled with one another directly in the conversion. That could, for example, look like this: '12 Kilovolt-ampere + 40 Kilowatt' or '25mm x 53cm x 81dm = ? cm^3'. The units of measure combined in this way naturally have to fit together and make sense in the combination in question. Mathematical functions The mathematical functions sin, cos, tan and sqrt can also be used. Example: sin(π/2), cos(π/2), tan(90°), sin(90) or sqrt(4). Numbers in scientific notation If a check mark has been placed next to 'Numbers in scientific notation', the answer will appear as an exponential. For example, 1.436 681 468 407 7 x 1021. For this form of presentation, the number will be segmented into an exponent, here 21, and the actual number, here 1.436 681 468 407 7. For devices on which the possibilities for displaying numbers are limited, such as for example, pocket calculators, one also finds the way of writing numbers as 1.436 681 468 407 7+21. In particular, this makes very large and very small numbers easier to read. If a check mark has not been placed at this spot, then the result is given in the customary way of writing numbers. For the above example, it would then look like this: 1.436 681 468 407 700 000 000. Independent of the presentation of the results, the maximum precision of this calculator is 14 places. That should be precise enough for most applications. Enter the apparent power in kilovolt-amps (kVA), power factor (PF) from 0 to 1 with a 1 step, then press the Calculate button to get the result in kilowatts (kW), kVA to kW calculation P(kW) = S(kVA) × PF The real power P in kilowatts (kW) is equal to the apparent power S in kilovolt-amps (kVA), multiplied by the power factor PF. Converting kW to kVA when selecting a generator. Power ratings can be expressed in many different forms such as kilowatts and watts, amps or amperes, kilovolts and volts, and also in kVA. Our Diesel Generators are Rated in kVA but what is a kVA? Away from the diesel generator industry, the term kilo-volt-amperes or kVA is not very well known. Kilowatt or kW is the more common term and is how electrical items in your home and business are rated, it is also the units usually quantified on your electricity bill so it is much more relatable but what is kVA? Actual Power We tend to refer to kW as actual power, it is the amount of power that is converted into an output. Apparent Power We can call the kVA a measure of apparent power; it describes the total amount of power being used by a system. If a system is 100% efficient system kW would equal kVA exactly. In reality, electrical systems do not work at 100% efficiency and all of the system's apparent power is not being used for useful work output. Remember the fundamentals that one kVA is equal to 1,000 volt-amps. Whereas a volt is for the measurement of electrical pressure an amp is a way of measuring electrical current. A term called apparent power is equal to the product of the volts and amps. Power Factor (pf) Diesel Generators generally have a power factor of 0.8. In other words, the actual power is approx. 0.8 of the apparent power. Whilst there is a slight variation from one generator to another generator, 0.8 is the accepted power factor when calculating actual power output when purchasing diesel generators. By knowing this it is easy to convert kVA to kW using a power factor of 0.8 as the efficiency level of the electrical system in question. Electrical efficiency is expressed as a power factor in between 0 and 1, therefore the closer the power factor is to 1, then the more efficiently the kVA is being converted into actual kilowatts. If you do know your kVA and your kW output you can calculate a precise Power Factor by dividing the kW by the kVA pf = kW/kVA The kVA to kW Formula: The formula for converting kVA into kW is: Apparent power (kVA) x power factor (pf) = actual power (kW) 100 kVA x 0.8 = 80 kW The kW to kVA Formula: The formula for converting kW into kVA is: Actual power (kW) / power factor (pf) = apparent power (kVA) 1000 kW / 0.8 = 1250 kVA Our kVA to kW calculator: Use our kW to kVA calculator on our homepage to work out the kVA for the generator you require. If you know how much kW you need and want to know what kVA you need from a diesel generator: Select "kW to kVA" Select "pf 0.8" Press "Calculate" Click here if you need a power converter or kVA calculator. If you know the kVA and want to know the expected power output from the generator: Select "kVA to kW" Select "pf 0.8" Press "Calculate" In case you still need help in working out which powered diesel generator is right for you: Call us on 0121 517 0793 or email us at sales@generatorsworldwide.com About GenPro Generators We have been selling pre-owned and new diesel generators from Cummins and Perkins' Powered for over 40 years We only stock and sell quality British-made second-hand generator sets a variety of kVAs to suit your requirements Free advice to make sure you're getting the right generator for your needs Low hours, we only stock generators with low usage hours Service and usage history when available We service and maintain generators as soon as they come to us Ready for shipping worldwide Highly commended customer service If you have any questions about purchasing a generator, do not hesitate to get in touch. Call us on 0121 711 7421 or email sales@generatorsworldwide.com Check out our sister site Eagle Generators for more available. Understanding the conversion between kVA and kW is essential for electrical engineers and technicians. This calculation helps determine actual power usage from apparent power ratings. This article explores the formulas, practical examples, and tables for accurate kVA to kW conversion. It also introduces an AI-powered calculator to simplify the process. Artificial Intelligence (AI) Calculator for "kVA to kW Calculator" Convert 50 kVA with a power factor of 0.85 to kW Calculate kW from 100 kVA at 0.9 power factor Find kW for 75 kVA with power factor 0.95 Determine kW from 120 kVA and 0.8 power factor Comprehensive Tables for kVA to kW Conversion Below are detailed tables showing common kVA values converted to kW at various power factors. These tables assist in quick reference for practical electrical load calculations. kVA Power Factor (PF) kW (Active Power) 100.66, 0.100, 88.0, 100.99, 0.250, 71.7, 5.250, 8.521, 2.525, 9.523, 7.550, 6.630, 0.500, 84.0, 0.500, 94.5, 0.750, 75.2, 5.750, 8.563, 7.575, 50.9571, 25.100, 66.0, 0.100, 88.0, 0.100, 99.0. These values are calculated using the fundamental relationship between apparent power (kVA), active power (kW), and power factor (PF). The power factor typically ranges from 0.6 to 1.0 in most industrial and commercial applications. Fundamental Formulas for kVA to kW Conversion Understanding the formulas behind kVA to kW conversion is critical for accurate power system analysis and design. Below are the essential formulas with detailed explanations. Basic Conversion Formula: kW = kVA × Power Factor (PF) This formula calculates the active power (kW) from the apparent power (kVA) and the power factor (PF). Power Factor (PF): Power factor is the cosine of the phase angle (θ) between voltage and current waveforms. It represents the efficiency of power usage. Relationship Between Power Components: This Pythagorean relationship links apparent power (kVA), active power (kW), and reactive power (kVAR). Reactive Power Calculation: Reactive power (kVAR) is the power stored and released by inductive or capacitive elements in the system. Each variable is defined as follows: kVA (kilovolt-amperes): Apparent power, representing the total power supplied by the source. kW (kilowatts): Active power, the actual power consumed by the load to perform work. kVAR (kilovolt-ampere reactive): Reactive power, power oscillating between source and reactive components. PF (Power Factor): Ratio of active power to apparent power, dimensionless, ranging from 0 to 1.0 (Theta). Phase angle between voltage and current waveforms, measured in degrees or radians. Real-World Application Examples of kVA to kW Conversion Applying these formulas in practical scenarios is crucial for engineers managing electrical systems. Below are two detailed examples demonstrating the conversion process. Example 1: Industrial Motor Load Power Calculation An industrial motor is rated at 75 kVA with a power factor of 0.85. Calculate the active power (kW) consumed by the motor. Given: kVA = 75, PF = 0.85 Formula: kW = kVA × PF Calculation: kW = 75 × 0.85 = 63.75 kW The motor consumes 63.75 kW of active power. This value is essential for energy billing and system design. Example 2: Transformer Load Analysis A transformer has an apparent power rating of 100 kVA and operates at a power factor of 0.9. Determine the active power and reactive power. Given: kVA = 100, PF = 0.9 Step 1: Calculate active power (kW). Step 2: Calculate phase angle (θ). Step 3: Calculate reactive power (kVAR). kVAR = 100 × sin(25.84°) = 100 × 0.436 = 43.6 kVAR The transformer delivers 90 kW of active power and 43.6 kVAR of reactive power, critical for power quality and system stability analysis. Additional Technical Insights on kVA to kW Conversion Power factor correction is a common practice to improve the efficiency of electrical systems. By increasing the power factor closer to 1, the active power approaches the apparent power, reducing losses and improving voltage stability. In three-phase systems, the conversion formulas adapt to include line-to-line voltage and current measurements. The apparent power in a balanced three-phase system is calculated as: kVA = (√3 × VL × IL) / 1000 Where: VL = Line-to-line voltage (Volts) IL = Line current (Amperes) Once kVA is determined, the active power (kW) is calculated by multiplying by the power factor as before. For single-phase systems, the apparent power is: Where V is voltage and I is current. Standards and Guidelines for Power Measurement Accurate power measurement and conversion are governed by international standards such as IEC 60038 (Standard Voltages), IEC 61000 (Electromagnetic Compatibility), and IEEE standards for power quality. Adhering to these ensures consistency and reliability in electrical system design and operation. For further reading and official guidelines, consult: kVA represents apparent power; kW represents active power used for work. Power factor (PF) is crucial for converting kVA to kW accurately. Reactive power (kVAR) affects system efficiency and power quality. Use the formula kW = kVA × PF for straightforward conversion. Tables and calculators simplify quick conversions for practical applications. Mastering kVA to kW conversion is vital for optimizing electrical system performance and ensuring compliance with industry standards. kVA to kW is one of the basic conversions in electric engineering. If you want to analyze different electric appliances on an AC circuit, you need to convert kVA to kW. We created an easy kVA to kW calculator that converts kVA into kW with a known power factor. You will also find a kVA to kW table with calculated values. Here's a screenshot of what the calculator looks like: Example: 100 kVA on a 0.8 PF circuit is equal to 80 kW. You can check and freely use the dynamic kVA to kW conversion calculator below. Let's first cover the basics (this might sound a bit complex but once you get a hang of it, it's very simple): What's the difference between kVA and kW? kVA or kilovolt-ampere is a unit for measuring apparent power in electric circuits. In DC circuits, kW is the same as kW; that is, apparent power (measured in kW) is equal to real power (measured in W or kW). However, kVA is mostly used in AC circuits. kW or kilowatt is a unit of electric power. It is equal to 1,000 Joules per second and it measures how fast the energy is transferred. Here's the deal: In DC circuits, we can use the basic DC power circuit equation to figure out how many kW is 1 kVA: P (power) = I (current) × V (voltage) That means that in DC circuits, 1 kVA is equal to 1 kW. That means that 1 kW is equal to 1,000 watts. In alternating current (AC) circuits, where kVA to kW conversion is mostly used, the kVA to kW conversion depends on the power factor (PF). To be able to use the kilovolt-ampere to kilowatt conversion calculator, you first need to determine the power factor of the AC circuit: How Does Power Factor (PF) Influence kVA To kW Conversion? In DC circuits, apparent power (kVA) is equal to real power (kW). In AC circuits, apparent power (kVA) is often not equal to real power (kW). The difference between apparent power and real power is the fundamental difference between kVA and kW. Here's what these two different electric power are: Real power is a product of voltage and current; basically volts (V) × amps (A). Apparent power is a product of voltage and RMS current; almost volts (V) × amps (A) but not quite. That's because in AC circuits the voltage and current and not in phase; this reduces the real power to apparent power. Here we have to deal with RMS current, and the power factor helps us out with that. Power factor is the ratio of real power (kW) to the apparent power (kVA) in a circuit. It can take any value between -1 and 1. In practice, a power factor is a number between 0 and 1. Here is a formula for the power factor (we will use it to derive kVA to kW formula): PF = Real Power (kW) / Apparent Power (kVA) kVA To kW Formula As you can see, we can account for voltage and current not being in phase in AC circuits just by using the power factor. From the equation above, we can get this kVA to kW formula: Real Power (kW) = Apparent Power (kVA) × PF Now we have a formula that converts kVA to kW. Example: Let's say we have 1 kVA and 0.8 PF circuits. How many kW is 1 kVA? Real Power = 1 kVA × 0.8 = 0.8 kW In such a circuit, 1 kVA is equal to 0.8 kW. If you know two inputs - kVA and PF - you can convert kVA to kW for any AC circuit. The easiest way is to use this calculator: kVA To kW Calculator Just insert or slide the kVA and PF inputs, and the calculator will dynamically calculate kW from kVA: To help you out, we used this calculator to convert the most common kVA values into kW in 0.4, 0.6, 0.8, and 1 power factor AC circuits: kVA To kW Conversion Chart kVA: kW at 0.4 PF kW at 0.6 PF kW at 0.8 PF kW at 1 PF 1 kVA 0.4 kW 0.6 kW 0.8 kW 1 kW 5 kVA 2 kW 3 kW 4 kW 5 kW 10 kVA 4 kW 6 kW 8 kW 10 kW 15 kVA 6 kW 9 kW 12 kW 15 kW 20 kVA 8 kW 12 kW 16 kW 20 kW 25 kVA 10 kW 15 kW 20 kW 25 kW 30 kVA 12 kW 18 kW 24 kW 30 kW 35 kVA 14 kW 21 kW 28 kW 35 kW 40 kVA 16 kW 24 kW 32 kW 40 kW 45 kVA 18 kW 27 kW 36 kW 45 kW 50 kVA 20 kW 30 kW 40 kW 50 kW 55 kVA 22 kW 33 kW 44 kW 55 kW 60 kVA 24 kW 36 kW 48 kW 60 kW 65 kVA 26 kW 39 kW 52 kW 65 kW 70 kVA 28 kW 42 kW 56 kW 70 kW 75 kVA 30 kW 45 kW 60 kW 75 kW 80 kVA 32 kW 48 kW 64 kW 80 kW 85 kVA 34 kW 51 kW 68 kW 85 kW 90 kVA 36 kW 54 kW 72 kW 90 kW 95 kVA 38 kW 57 kW 76 kW 95 kW 100 kVA 40 kW 60 kW 80 kW 100 kW 120 kVA 48 kW 72 kW 96 kW 120 kW 140 kVA 56 kW 84 kW 112 kW 140 kW 160 kVA 64 kW 96 kW 128 kW 160 kW 180 kVA 72 kW 108 kW 144 kW 180 kW 200 kVA 80 kW 120 kW 160 kW 200 kW 250 kVA 100 kW 150 kW 200 kW 250 kW 300 kW 350 kW 400 kW 400 kW 450 kW 500 kW 500 kW 600 kW 600 kW 800 kW 800 kW 1,000 kW 1,000 kW 1,200 kW 1,200 kW 1,400 kW 1,400 kW 1,600 kW 1,600 kW 1,800 kW 1,800 kW 2,000 kW 2,000 kW 2,200 kW 2,200 kW 2,400 kW 2,400 kW 2,600 kW 2,600 kW 2,800 kW 2,800 kW 3,000 kW 3,000 kW 3,200 kW 3,200 kW 3,400 kW 3,400 kW 3,600 kW 3,600 kW 3,800 kW 3,800 kW 4,000 kW 4,000 kW 4,200 kW 4,200 kW 4,400 kW 4,400 kW 4,600 kW 4,600 kW 4,800 kW 4,800 kW 5,000 kW 5,000 kW 5,200 kW 5,200 kW 5,400 kW 5,400 kW 5,600 kW 5,600 kW 5,800 kW 5,800 kW 6,000 kW 6,000 kW 6,200 kW 6,200 kW 6,400 kW 6,400 kW 6,600 kW 6,600 kW 6,800 kW 6,800 kW 7,000 kW 7,000 kW 7,200 kW 7,200 kW 7,400 kW 7,400 kW 7,600 kW 7,600 kW 7,800 kW 7,800 kW 8,000 kW 8,000 kW 8,200 kW 8,200 kW 8,400 kW 8,400 kW 8,600 kW 8,600 kW 8,800 kW 8,800 kW 9,000 kW 9,000 kW 9,200 kW 9,200 kW 9,400 kW 9,400 kW 9,600 kW 9,600 kW 9,800 kW 9,800 kW 10,000 kW 10,000 kW 10,200 kW 10,200 kW 10,400 kW 10,400 kW 10,600 kW 10,600 kW 10,800 kW 10,800 kW 11,000 kW 11,000 kW 11,200 kW 11,200 kW 11,400 kW 11,400 kW 11,600 kW 11,600 kW 11,800 kW 11,800 kW 12,000 kW 12,000 kW 12,200 kW 12,200 kW 12,400 kW 12,400 kW 12,600 kW 12,600 kW 12,800 kW 12,800 kW 13,000 kW 13,000 kW 13,200 kW 13,200 kW 13,400 kW 13,400 kW 13,600 kW 13,600 kW 13,800 kW 13,800 kW 14,000 kW 14,000 kW 14,200 kW 14,200 kW 14,400 kW 14,400 kW 14,600 kW 14,600 kW 14,800 kW 14,800 kW 15,000 kW 15,000 kW 15,200 kW 15,200 kW 15,400 kW 15,400 kW 15,600 kW 15,600 kW 15,800 kW 15,800 kW 16,000 kW 16,000 kW 16,200 kW 16,200 kW 16,400 kW 16,400 kW 16,600 kW 16,600 kW 16,800 kW 16,800 kW 17,000 kW 17,000 kW 17,200 kW 17,200 kW 17,400 kW 17,400 kW 17,600 kW 17,600 kW 17,800 kW 17,800 kW 18,000 kW 18,000 kW 18,200 kW 18,200 kW 18,400 kW 18,400 kW 18,600 kW 18,600 kW 18,800 kW 18,800 kW 19,000 kW 19,000 kW 19,200 kW 19,200 kW 19,400 kW 19,400 kW 19,600 kW 19,600 kW 19,800 kW 19,800 kW 20,000 kW 20,000 kW 20,200 kW 20,200 kW 20,400 kW 20,400 kW 20,600 kW 20,600 kW 20,800 kW 20,800 kW 21,000 kW 21,000 kW 21,200 kW 21,200 kW 21,400 kW 21,400 kW 21,600 kW 21,600 kW 21,800 kW 21,800 kW 22,000 kW 22,000 kW 22,200 kW 22,200 kW 22,400 kW 22,400 kW 22,600 kW 22,600 kW 22,800 kW 22,800 kW 23,000 kW 23,000 kW 23,200 kW 23,200 kW 23,400 kW 23,400 kW 23,600 kW 23,600 kW 23,800 kW 23,800 kW 24,000 kW 24,000 kW 24,200 kW 24,200 kW 24,400 kW 24,400 kW 24,600 kW 24,600 kW 24,800 kW 24,800 kW 25,000 kW 25,000 kW 25,200 kW 25,200 kW 25,400 kW 25,400 kW 25,600 kW 25,600 kW 25,800 kW 25,800 kW 26,000 kW 26,000 kW 26,200 kW 26,200 kW 26,400 kW 26,400 kW 26,600 kW 26,600 kW 26,800 kW 26,800 kW 27,000 kW 27,000 kW 27,200 kW 27,200 kW 27,400 kW 27,400 kW 27,600 kW 27,600 kW 27,800 kW 27,800 kW 28,000 kW 28,000 kW 28,200 kW 28,200 kW 28,400 kW 28,400 kW 28,600 kW 28,600 kW 28,800 kW 28,800 kW 29,000 kW 29,000 kW 29,200 kW 29,200 kW 29,400 kW 29,400 kW 29,600 kW 29,600 kW 29,800 kW 29,800 kW 30,000 kW 30,000 kW 30,200 kW 30,200 kW 30,400 kW 30,400 kW 30,600 kW 30,600 kW 30,800 kW 30,800 kW 31,000 kW 31,000 kW 31,200 kW 31,200 kW 31,400 kW 31,400 kW 31,600 kW 31,600 kW 31,800 kW 31,800 kW 32,000 kW 32,000 kW 32,200 kW 32,200 kW 32,400 kW 32,400 kW 32,600 kW 32,600 kW 32,800 kW 32,800 kW 33,000 kW 33,000 kW 33,200 kW 33,200 kW 33,400 kW 33,400 kW 33,600 kW 33,600 kW 33,800 kW 33,800 kW 34,000 kW 34,000 kW 34,200 kW 34,200 kW 34,400 kW 34,400 kW 34,600 kW 34,600 kW 34,800 kW 34,800 kW 35,000 kW 35,000 kW 35,200 kW 35,200 kW 35,400 kW 35,400 kW 35,600 kW 35,600 kW 35,800 kW 35,800 kW 36,000 kW 36,000 kW 36,200 kW 36,200 kW 36,400 kW 36,400 kW 36,600 kW 36,600 kW 36,800 kW 36,800 kW 37,000 kW 37,000 kW 37,200 kW 37,200 kW 37,400 kW 37,400 kW 37,600 kW 37,600 kW 37,800 kW 37,800 kW 38,000 kW 38,000 kW 38,200 kW 38,200 kW 38,400 kW 38,400 kW 38,600 kW 38,600 kW 38,800 kW 38,800 kW 39,000 kW 39,000 kW 39,200 kW 39,200 kW 39,400 kW 39,400 kW 39,600 kW 39,600 kW 39,800 kW 39,800 kW 40,000 kW 40,000 kW 40,200 kW 40,200 kW 40,400 kW 40,400 kW 40,600 kW 40,600 kW 40,800 kW 40,800 kW 41,000 kW 41,000 kW 41,200 kW 41,200 kW 41,400 kW 41,400 kW 41,600 kW 41,600 kW 41,800 kW 41,800 kW 42,000 kW 42,000 kW 42,200 kW 42,200 kW 42,400 kW 42,400 kW 42,600 kW 42,600 kW 42,800 kW 42,800 kW 43,000 kW 43,000 kW 43,200 kW 43,200 kW 43,400 kW 43,400 kW 43,600 kW 43,600 kW 43,800 kW 43,800 kW 44,000 kW 44,000 kW 44,200 kW 44,200 kW 44,400 kW 44,400 kW 44,600 kW 44,600 kW 44,800 kW 44,800 kW 45,000 kW 45,000 kW 45,200 kW 45,200 kW 45,400 kW 45,400 kW 45,600 kW 45,600 kW 45,800 kW 45,800 kW 46,000 kW 46,000 kW 46,200 kW 46,200 kW 46,400 kW 46,400 kW 46,600 kW 46,600 kW 46,800 kW 46,800 kW 47,000 kW 47,000 kW 47,200 kW 47,200 kW 47,400 kW 47,400 kW 47,600 kW 47,600 kW 47,800 kW 47,800 kW 48,000 kW 48,000 kW 48,200 kW 48,200 kW 48,400 kW 48,400 kW 48,600 kW 48,600 kW 48,800 kW 48,800 kW 49,000 kW 49,000 kW 49,200 kW 49,200 kW 49,400 kW 49,400 kW 49,600 kW 49,600 kW 49,800 kW 49,800 kW 50,000 kW 50,000 kW 50,200 kW 50,200 kW 50,400 kW 50,400 kW 50,600 kW 50,600 kW 50,800 kW 50,800 kW 51,000 kW 51,000 kW 51,200 kW 51,200 kW 51,400 kW 51,400 kW 51,600 kW 51,600 kW 51,800 kW 51,800 kW 52,000 kW 52,000 kW 52,200 kW 52,200 kW 52,400 kW 52,400 kW 52,600 kW 52,600 kW 52,800 kW 52,800 kW 53,000 kW 53,000 kW 53,200 kW 53,200 kW 53,400 kW 53,400 kW 53,600 kW 53,600 kW 53,800 kW 53,800 kW 54,000 kW 54,000 kW 54,200 kW 54,200 kW 54,400 kW 54,400 kW 54,600 kW 54,600 kW 54,800 kW 54,800 kW 55,000 kW 55,000 kW 55,200 kW 55,200 kW 55,400 kW 55,400 kW 55,600 kW 55,600 kW 55,800 kW 55,800 kW 56,000 kW 56,000 kW 56,200 kW 56,200 kW 56,400 kW 56,400 kW 56,600 kW 56,600 kW 56,800 kW 56,800 kW 57,000 kW 57,000 kW 57,200 kW 57,200 kW 57,400 kW 57,400 kW 57,600 kW 57,600 kW 57,800 kW 57,800 kW 58,000 kW 58,000 kW 58,200 kW 58,200 kW 58,400 kW 58,400 kW 58,600 kW 58,600 kW 58,800 kW 58,800 kW 59,000 kW 59,000 kW 59,200 kW 59,200 kW 59,400 kW 59,400 kW 59,600 kW 59,600 kW 59,800 kW 59,800 kW 60,000 kW 60,000 kW 60,200 kW 60,200 kW 60,400 kW 60,400 kW 60,600 kW 60,600 kW 60,800 kW 60,800 kW 61,000 kW 61,000 kW 61,200 kW 61,200 kW 61,400 kW 61,400 kW 61,600 kW 61,600 kW 61,800 kW 61,800 kW 62,000 kW 62,000 kW 62,200 kW 62,200 kW 62,400 kW 62,400 kW 62,600 kW 62,600 kW 62,800 kW 62,800 kW 63,000 kW 63,000 kW 63,200 kW 63,200 kW 63,400 kW 63,400 kW 63,600 kW 63,600 kW 63,800 kW 63,800 kW 64,000 kW 64,000 kW 64,200 kW 64,200 kW 64,400 kW 64,400 kW 64,600 kW 64,600 kW 64,800 kW 64,800 kW 65,000 kW 65,000 kW 65,200 kW 65,200 kW 65,400 kW 65,400 kW 65,600 kW 65,600 kW 65,800 kW 65,800 kW 66,000 kW 66,000 kW 66,200 kW 66,200 kW 66,400 kW 66,400 kW 66,600 kW 66,600 kW 66,800 kW 66,800 kW 67,000 kW 67,000 kW 67,200 kW 67,200 kW 67,400 kW 67,400 kW 67,600 kW 67,600 kW 67,800 kW 67,800 kW 68,000 kW 68,000 kW 68,200 kW 68,200 kW 68,400 kW 68,400 kW 68,600 kW 68,600 kW 68,800 kW 68,800 kW 69,000 kW 69,000 kW 69,200 kW 69,200 kW 69,400 kW 69,400 kW 69,600 kW 69,600 kW 69,800 kW 69,800 kW 70,000 kW 70,000 kW 70,200 kW 70,200 kW 70,400 kW 70,400 kW 70,600 kW 70,600 kW 70,800 kW 70,800 kW 71,000 kW 71,000 kW 71,200 kW 71,200 kW 71,400 kW 71,400 kW 71,600 kW 71,600 kW 71,800 kW 71,800 kW 72,000 kW 72,000 kW 72,200 kW 72,200 kW 72,400 kW 72,400 kW 72,600 kW 72,600 kW 72,800 kW 72,800 kW 73,000 kW 73,000 kW 73,200 kW 73,200 kW 73,400 kW 73,400 kW 73,600 kW 73,600 kW 73,800 kW 73,800 kW 74,000 kW 74,000 kW 74,200 kW 74,200 kW 74,400 kW 74,400 kW 74,600 kW 74,600 kW 74,800 kW 74,800 kW 75,000 kW 75,000 kW 75,200 kW 75,200 kW 75,400 kW 75,400 kW 75,600 kW 75,600 kW 75,800 kW 75,800 kW 76,000 kW 76,000 kW 76,200 kW 76,200 kW 76,400 kW 76,400 kW 76,600 kW 76,600 kW 76,800 kW 76,800 kW 77,000 kW 77,000 kW 77,200 kW 77,200 kW 77,400 kW 77,400 kW 77,600 kW 77,600 kW 77,800 kW 77,800 kW 78,000 kW 78,000 kW 78,200 kW 78,200 kW 78,400 kW 78,400 kW 78,600 kW 78,600 kW 78,800 kW 78,800 kW 79,000 kW 79,000 kW 79,200 kW 79,200 kW 79,400 kW 79,400 kW 79,600 kW 79,600 kW 79,800 kW 79,800 kW 80,000 kW 80,000 kW 80,200 kW 80,200 kW 80,400 kW 80,400 kW 80,600 kW 80,600 kW 80,800 kW 80,800 kW 81,000 kW 81,000 kW 81,200 kW 81,200 kW 81,400 kW 81,400 kW 81,600 kW 81,60