

Is solar panel / accumulator ratio a good idea?

Moreover, it allow your solar panel farm to be a safe way for drones. Space is generally not the rarest resource in factorio. However, I was not happy with the solar panel / accumulator ratio in this design. Without good reason at first, only a disturbing feeling. I decided to resolve the question of the ratio a bit more rationally.

How many accumulators are in a solar panel?

The true perfect ratio for solar panels to accumulators therefore turns out to be... It takes 0.84672 accumulators per solar panel, or a ratio of 2646 accumulators to 3125 solar panels. Speaking conservatively we can take a higher ratio of 0.85 with 17 accumulators to 20 solar panels.

How long does a Factorio solar panel last?

Factorio daylight lasts for 208.33s, dusk and dawn last for 83.33s, and night lasts for 41.66s. The solar panel's output scales linearly as time progresses through dusk and dawn, decreasing and increasing respectively. My approach is to combine three things into an array: accumulators, 'output' solar panels, and 'charging' solar panels.

What is a good accumulator ratio?

The most commonly recommended ratio is 21/25 or 0.84, let's see how it fairs against 17/20 or 0.85, and then check out ratios for 0.8467 and 0.8469. And for fairness, these tests start off with fully charged accumulators before a load is applied. The tests support the analytic solution.

When do solar accumulators start to output power?

The accumulators start to output power when the solar panels output falls below P . Since their output power falls linearly from P' to 0 in time t_3 , the time during which the accumulator output is growing is $t_3 * P/P'$. Thus we have that the energy E_{acc} restored during the night is

Does solar-calc support accumulators?

Supports modded panels and accumulators, quality and DLC planets (future Space Exploration update to 2.0 most likely won't work) I expect the 0.5.X ver of solar-calc to be extremely buggy, so please report any bugs. You can now select the same entity multiple times in a block due to how 'choose-elem-button-with-quality' works.

I think I read somewhere that in 13 accumulators hold twice as much power making the new ratio 50 solar to 21 Acc? Edit: I was wrong ignore me. Last edited by Tnarg on Tue ...

164 Solar panel 141 Accumulators Which gives an ratio of 0.86, a bit higher than the optimal but in my opinion just perfect. One of the biggest improvement of this design is the efficient use of space and substations. If ...

Calculating the ideal ratio of solar panels to accumulators in Factorio to ensure efficient energy storage and distribution. Maximize energy production and storage in your factory by using this ...

Solar power is a great way to provide electricity for your base without needing to worry about boilers or nuclear reactors running out of fuel, or pollution causing biter attacks. ...

In this tutorial we will properly quantify the amount of solar panels and accumulators needed and the proper ratio that is needed between the two buildings. The game uses SI units ...

(60KW Max, 42KW average per solar panel, ratio of 70% "usable" to total) 10MW worth of solar panels will power a factory of 7MW on the planet surface (50% day and 10% night). During the day, excess power generated is ...

Adjusting the power output of solar panels to 60 kW, accumulator in/out to 300 kW, and accumulator max charge to 5 MJ (the rest of the values about day seem correct to ...

This blueprint optimizes the placement and ratio of solar panels and accumulators in Factorio for maximum electricity production and storage efficiency. Ensure your factory runs smoothly with ...

Meh, ratios in the honor they deserve but on the solar panel/accumulator ratio I've kinda given up. Space optimization is kind of whatever, since if you need high power per ...

Can be used to power the base at night if it relies on solar panels. Can act to satisfy surging demands of certain loads. If the power usage of one device exceeds production for a few seconds or so, the accumulator can ...

mrvn wrote: Thu Aug 13, 2020 9:27 pm Solar is the ultimate in resource to power ratio: In the "perfect" ratio it gives you 42kW per solar cell for 0 resources (amortized over time). You see ...

Especially the part about infinities. When dealing with infinities you have to be very careful about how you approach them in the limit. If you have the exact number of solar panels to sustain your base on average, then it should ...

So, in total, the accumulator will be supplying power for 41.66s (night) and 83.33s (combined halves of dawn and dusk) = 125s. So, a full accumulator can supply 83.33s of "solar ...

How to read it: Pick your planet, pick your qualities and look up the number. The given number is how many accumulators you need to build per solar panel. So a value of ...

On the other hand if you power demands rise the ratio can go the other way. But then the accumulators will be pointless and remain uncharged and unused. ... if accumulator charge ≥ 0 or solar power supply \geq factory power ...

First, a few base facts and values. A solar panel generates 60kW during the daytime. A accumulator can store 5MJ. Factorio daylight lasts for 208.33s, dusk and dawn last ...

The best Factorio solar panel setup. What you want is to try to approach a ratio of 0.8/0.9 in your blueprint design. This means that, keeping in mind that an optimal ratio of accumulators to solar panels is approximately ...

Koub wrote: Mon Aug 17, 2020 3:38 pm [Koub] this is drifting to off topic. The thread is about solar to accumulator ratio, not the power to resource ratio of solar vs other ...

Taking the known vanilla ratio (here: https://wiki.factorio.com/Solar_panel) of 21 accumulators to 25 solar panels (to sustain 1 MW of power through the night) gives a ratio of ...

$$\text{accumulator_ratio} = 70 * \text{solar_panel_power} / \text{accumulator_energy}$$
 For example, using vanilla values: $70 * 60,000 / 5,000,000 = 0.84$ If you are a nerd who likes units to match, ...

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