



# Factorio solar panels to accumulators

Perfect charge/discharge cycle: 42 Accumulators and 50 Solar Panels, will completely charge and discharge if power output is 3 MW and power drain is 2.1 MW Spreadsheet workings : Shows the required power production and ratios to achieve buffers of 0-66.7% of total accumulator capacity

16 Solar Panels, 12 Accumulators with a Substation in the center. Place the Accumulators in a cross with 4 Solar Panels each in the four corners. If you need an Accumulator layout to boost the number of Accumulators 48 Accumulators surrounding a Substation.

Factorio version: 0.15 - 1.1 Downloaded by: 19.6K users. Two more tiers of solar panels and accumulators. First tier is 5x power, second tier 5x the first. Based on Advanced-Electric mod but toned down. Redid graphics and technology structure and costs.

Your solar panels have 2 functions : provide power (P) recharge accumulators. While the sun is out, your solar panels have to output Q power (where  $Q > P$ ). The accumulators start ...

Factorio has a day/night cycle that controls how much power your solar panels produce. For 50% of the day, your solar panels produce full power. For the next 20% of the day, the power produced linearly decreases to zero. ... So, while you need at least 0.84 accumulators per solar panel for any base that is powered only by solar, a base that ...

Find blueprints for the video game Factorio. Share your designs. Search the tags for mining, smelting, and advanced production blueprints. ... accumulator: assembling-machine-2: fast-transport-belt: Details. Companion to the solar panels blueprint. Simple prints, does only accumulators, change the steel chest with a provider chest if you want ...

Community-run subreddit for the game Factorio made by Wube Software. Members Online o Alfonse215. ADMIN MOD Calculating solar panel ratios in K2 . Modded Question So the ratio of solar panels to accumulators is 1:0.84 in vanilla. This old post on the forums goes into detail explaining how this calculation is made. And you can use the same ...

Medium Accumulator-Extra Array. This solar array was modified for longer burst power output than the Medium Solar Array. 96 x 96 tiles = 3 x 3 chunks. 27.614 MW sustained 2.996 kW / tile 333.744 tiles / MW 88.177% area efficiency ...

Community-run subreddit for the game Factorio made by Wube Software. ...  $37/13 = 2,846$  accumulators / solar panel. Following the math from this forum thread with the values you gave I found a ratio of exactly 2.8 accumulators per solar panel, pretty close to what you got and yeah, ...

Your solar panels have 2 functions : recharge accumulators. While the sun is out, your solar panels have to



# Factorio solar panels to accumulators

output  $Q$  power (where  $Q > P$ ). The accumulators start delivering power when the output of your panels drops below  $P$  (during dusk, NOT at the beginning of dusk).

There are 2 periods of time where both panels and accumulators provide power (when solar power drops below  $P$  until full night and when day starts until solar power  $> P$ ). During those 2 periods solar panels + accumulators provide  $P$  power. Accumulators have to provide a maximum of  $P$  power, never  $Q$  power.

Quote from factorio wiki: A radar can be continuously powered by eight solar panels and six accumulators. Seven solar panels and five accumulators is the most efficient; it gives the radar full power all but a short time in the morning, but never dips below the 20% power threshold for nearby scanning.

While the sun is out, your solar panels have to output  $Q$  power (where  $Q > P$ ). The accumulators start delivering power when the output of your panels drops below  $P$  (during dusk, NOT at the beginning of dusk). The accumulators stop delivering power when the output of your panels is above  $P$  (during dawn, NOT at the beginning of dawn).

This solution is a standalone no brain set of equations that will give you the optimal ratio of accumulator to solar panels. Try yourself with the numerical values I gave for the ...

The accumulators starts 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

The accumulators start delivering power when the output of your panels drops below  $P$  (during dusk, NOT at the beginning of dusk). The accumulators stop delivering power when the output of your panels is above  $P$  (during dawn, NOT at the beginning of dawn). There are 2 periods of time where both panels and accumulators provide power (when solar ...

"Build 21 accumulators for every 25 panels" vs. "build 0.84 accumulators for every solar panel". How exactly do I build 0.84 accumulators? Just divide if you need a decimal; reverse operation (ratio from decimal) needs multiplication and reduction by the largest common divisor.

It has a reasonably good accumulator-to-solar-panel ratio, and can be repeated sideways. The ideal vanilla ratio is 0.84. When not repeated at all, the ratio is 70:84  $\approx$  0.83. When repeating this blueprint in a long row, the accumulator-to ...

This solar blueprint is intended to be simple: small, without roboports / other complexities. It has a reasonably good accumulator-to-solar-panel ratio, and can be repeated sideways. The ideal vanilla ratio is 0.84. When not repeated at all, ...

The optimal ratio for solar power to charge enough accumulators is 21 accumulators for 25 solar panels



# Factorio solar panels to accumulators

(supplying 42 kW per solar panel). Produce more than 10 GJ per hour using only solar panels. Win the game without building any solar panels.

Best solar panel to accumulator ratio? :  $r/\text{factorio}$  Best solar panel to accumulator ratio? 21 accumulators for 25 solar panels  $21/25=0.84$  note, having a bit more storage than production is a better idea than the reverse. particularly if you want to develop a steam back-up system. that's because accumulators are cheaper than solar panels.

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 vanilla), your formula gives me (assuming I did it right) 1.05.

1.1 Solar Panels; 1.2 Accumulators; 2 Solar Power on Planet Surfaces. 2.1 Calculating the Accumulator/Panel Ratio. 2.1.1 Example: 2.2 Calculating the Average Panel Output. 2.2.1 Example: 2.3 Comparing Planets; 3 Solar power in space; 4 See Also

Do Not Use -- Use the Original Author's update version Updated Kaktusbot's mod from 1.1 - All credit to them - Adds a solar power calculator able to calculate how much energy your solar plants are providing on average right now. Or calculate how much panels and accumulators you need to provide desired power.

For example, if your factory requires 20 MW of power to run, you can easily calculate that you'll need 476 solar panels and, in turn, almost 400 accumulators. Clearly, the more solar panels one adds, the more efficiency you'll lose in the long run, so you might want to make sure you're always producing enough energy to keep production ...

A single solar panel outputs an average of 42 kW over a day and requires 0.84 accumulators to sustain a constant power output through the night. It takes 23.8 solar panels to operate 1 MW of factory and charge 20 accumulators to sustain that 1 MW through the night.

A small mod that allows changes to the following: Solar Panel: Maximum energy output during the day.; Accumulator: Energy storage capacity, maximum charge rate and maximum discharge rate.; Values are individually configurable to any amount, since I don't want to restrict the user.

This is a very compact tileable solar panel+accumulator field with the 0.84 ratio between both. I tried to find a good overall size and ratio between roboport and substation coverage, and also having walking space if tiled. It became ...

Each solar panel is useful for 70% of the time. So each solar panel yields 42 kW on average (70% of 60 kW). So you could divide your total power need by 42 kW to figure out how many solar panels you need. However you need an additional buffer in order to recharge your accumulators.



## Factorio solar panels to accumulators

Blueprint for a solar array that's covered with roboport and radars. 0.54 accumulators short of perfect ratio. Can have 2 tiles (sideways) / 4 tiles (up/down) gap between each array for pathways/rails and still have full roboport coverage. Produces: 16.128 MW of power

Web: <https://derickwatts.co.za>

Chat online: <https://tawk.to/chat/667676879d7f358570d23f9d/1i0vbu11i?web=https://derickwatts.co.za>