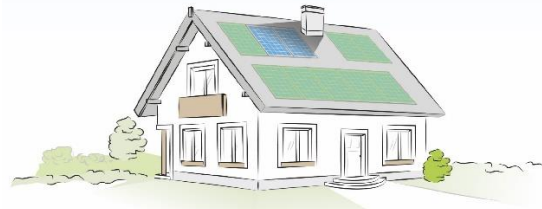
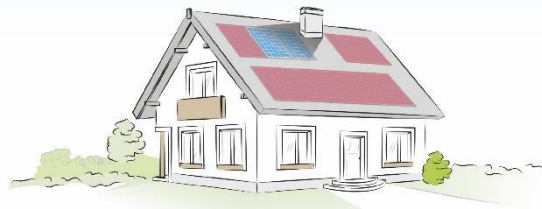


Power Optimizer M500/14 – Information sheet

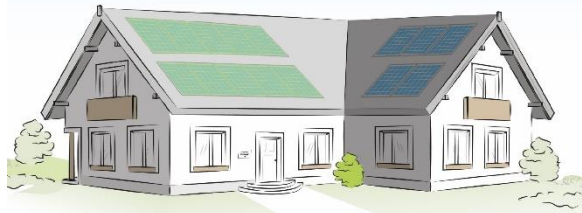
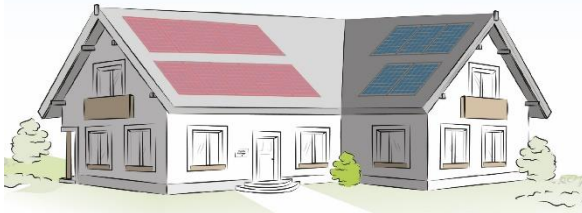
Without BRC Optimizer

With BRC Optimizer

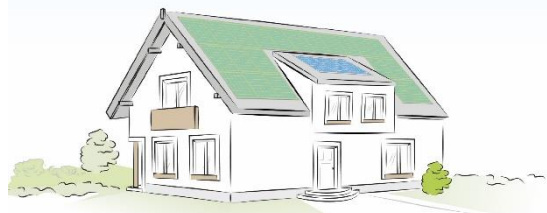
Problem: Shading



Problem: Different orientation



Problem: Different Module Tilt or inclination



What is the problem?

The connection of modules and their corresponding circuits in series results in the current always being dependent on the weakest module. The yield of the solar system decreases significantly in case of shading, orientation and different inclinations. A visual example can be seen above. The modules marked in red produce less power as a result of the string being held back by affected modules.

How does the Power Optimizer M500/14 solve the problem?

The BRC power optimizer boosts the current of the affected modules to match the level of the others. The remaining modules are no longer being held back and the energy of the affected modules can be utilized. The remaining modules are no longer being held back and the energy of the affected modules can be utilized.

Recommendation for the correct application of the Power Optimizer M500/14

Problem	Partial optimization	Full optimization
Shading	+	+
Different orientation	-	+
Different Module Tilt or inclination	-	+

What makes the BRC Power Optimizer better?

- Manufactured in Europe
- High-quality components
 - o Original MC4 connectors → no risk of arcing due to mismatched connectors
 - o 6mm² cable → better heat and EMC resistance
 - o Extra water-repellent potting material → protection against moisture ingress
- Usable without power loss even at 85°C ambient temperature
- Ultra Fast MPPT (20 times faster switching)
- Reliable customer service (via phone, email, and support form on the website)
- Easier installation (Plug & Play → no software, apps, etc. required)
- Increased yield, thanks to the shutdown function of the optimizer, which turns off the optimizer when it is not needed
- Not needed for all modules
- Compatible with all popular inverter brands (see Compatible Inverters page on www.brc-solar.de)

What do we offer to support the craftsmen?

1. BRC Checker App - Does my module match the BRC optimizer?
2. List of compatible inverters - Can I pair the planned PV inverter with BRC?
3. Planning Assistant - How many optimizers are necessary for my system?
4. Webinars every Thursday - Weekly training sessions with an opportunity for a Q&A session
5. Support/Service - Quick assistance for issues via support tool on the website