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K2 Buddy keeps an eye on the snow load at all times

Unique in the world: Mechanical live monitoring from K2 Systems monitors the weight of snow on photovoltaic modules

New: K2 Buddy photovoltaic monitoring system with integrated snow load monitoring

Heavy snowfall can affect photovoltaic systems. System owners should therefore regularly check the snow load. The new K2 Buddy weight tracker does this work for them. The monitoring system from photovoltaic mounting system manufacturer K2 Systems is installed under a module. There it monitors the snow loads on the flat roof 24 hours a day. The data can be viewed digitally and in real time. A push message warns if the snow load is too high. The K2 Buddy can be ordered now. Anyone using the monitoring system receives an extended 20-year guarantee on the K2 mounting system. Service companies can work more efficiently with K2 Buddy, while system owners benefit from greater safety. The product is unique worldwide – to date, no mounting system manufacturer has anything comparable in its range.

Severe weather events are occurring more and more frequently. Heavy snowfall in particular can affect the service life of photovoltaic systems. In the case of light powder snow, neither the roof nor the solar installation are at serious risk. If around 50 centimetres of fresh snow falls, the load per square metre is around 25 kilograms. Every system and every roof can withstand this. With wet snow, however, the weight quickly increases by a factor of ten. Such cases occur more frequently in snowy regions and can lead to damage to the modules and higher maintenance costs, especially if larger modules are used that can bear less weight.

Maximum pressure load can be entered individually - warning via push message

Those who use the K2 Buddy will avoid these dangers in future. The monitoring system ensures the safety of the photovoltaic system even in snowy regions and avoids unnecessary maintenance. This means greater efficiency for service companies and greater safety for system owners. The mechanical live monitoring system can be installed quickly and easily under a module. It measures the snow loads on the modules 24 hours a day. The K2 Buddy is connected to the system owner's smartphone or other end device and provides clear information on the current load situation.

Service companies and installers can also use the monitoring system. The maximum permissible pressure load of the modules is entered in the app beforehand. It then displays the percentage load on the modules and sends a push message warning if the values are too high, prompting the user to clear the snow before module damage and yield losses occur.



Connecting Strength

Warranty extension to 20 years

The app shows at a glance whether there is a need for action and thus prevents unnecessary roof inspections. Snow clearance work can thus be reduced to a minimum. The measured values can also be viewed retrospectively using the history overview. As the system will prevent a lot of damage in the future, the warranty period of a K2 mounting system is extended from 12 to 20 years when it is used.

Another advantage: as snow loads are reliably monitored with the K2 Buddy, the Dome 6 flat roof system from K2 Systems can also be used to install more systems with the corner clamp version of the modules. This saves time, reduces the amount of material used and extends the range of applications for modern, large-format modules. The K2 Buddy can initially be mounted under modules with a frame height of 35 millimetres or retrofitted. A solution for modules with a frame height of 30 mm is expected to be available from February 2024.

Unique on the market so far

The new product is a world first in the solar industry: the measuring system is installed directly under a solar module and thus weighs the direct pressure load on the module. Other snow load scales cannot do this, as they are placed separately on the roof and measure the snow load next to the photovoltaic system. Another advantage of the K2 Buddy is that it is integrated into the system and practically invisible from the outside.

"Climate change is also posing challenges for the solar industry, with extreme weather conditions on the rise. As a specialist in PV mounting systems, we see that heavy snowfall repeatedly leads to damage to photovoltaic modules. This can be very unsettling for system owner", says Katharina David, Co-Managing Director of K2 Systems. "We developed the K2 Buddy to build permanently safe PV systems, even during such weather events. This is now made visible with live monitoring. System owners can therefore have peace of mind in winter because the push notification informs them when the snow load starts to exceed the module's limit range. We are particularly pleased that we can strengthen their sense of security with the K2 Buddy", says Katharina David.

More information: <u>https://k2-systems.com/en/digital-services/k2-buddy/</u>

About K2 Systems: We connect strengths: innovative mounting systems, digital technology and people with the know-how and energy to drive sustainable solutions.

Since 2004, K2 Systems has stood for global power generation from solar energy. The heart is the development of easy-toinstall mounting systems that are precisely tailored to the needs of our customers. The soul is the common spirit of all employees. Together, we define technical innovation and set new service standards digitally as well.

At our headquarters in Renningen and our nine international locations, we develop and sell mounting systems together with 400 employees for the roofs of this world.

Media contacts

- Contact Solar Consulting: Mr. Axel Vartmann | +49 (0)761 380968-23 | vartmann@solar-consulting.de
- Contact K2 Systems: Mrs. Nina Oral | +49 (0)7159 42059-490 | n.oral@k2-systems.com



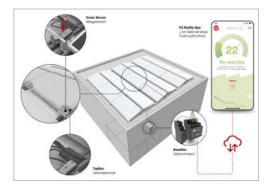
You can download corresponding image material here: <u>https://k2-systems.com/en/company/press-media/</u>



The weight sensors of the K2 Buddy are attached under the module (image source: K2 Systems).



The monitoring system sends an alarm via push message if high loads are imminent (image source: K2 Systems).



Structure and components of the K2 Buddy: Weighing unit, TopBox for data collection, BaseBox for data transmission and app for live data display (Image source: K2 Systems).