

EFFICIENCY REDEFINED

**DBOX**

**PVH**



### **DBox next generation: help your plant become more efficient than ever**

DBox 5 controls directly the motor which moves the tracker and monitors the current tilt position of the tracker. This allows you to ensure and improve solar tracking as well as tracker security.

When installed on a tower, DBox 5 can operate as a meteorological control unit to provide real-time data about the weather and, thus, prepare the plant to react in the most productive way accordingly.

### **More sustainable**

DBox 5 electronics is **enhanced** and even **more efficient** than the previous DBox generation. Power consumption was reduced while the capacity range was increased.

DBox 5 offers different power options: it can be self-powered or externally powered. Self-powered solution includes a battery and a PV panel which allows to charge the battery. PV panel model choice is based on plant analysis. Regarding battery options, there are two: LiFePO4 and LTO. LTO batteries offer a wider operational temperature range and provide a more beneficial solution for cooler areas.



Furthermore, DBox 5's unique design reduces carbon footprint as well as the potentially generated waste.

### **Smarter**

DBox 5 **tilt measurement** is **more accurate** and **assured**.

The management of the battery is optimized and safe.

In case of total power supply failure, the most recent configuration of the system parameters is stored in the data storage systems, so that it can be recovered once the power supply is reestablished.

## More durable

DBox 5 is a resilient solution. Its robust housing offers **IP67** protection against dust and water immersion and **IK07** protection against external mechanical impacts.

DBox 5 long-lasting battery withstands the harshest conditions.

## More agile

DBox 5 design is **cost-effective**: it allows to reduce installation and commissioning times. The installation does not require the use of any tools. Commissioning is also enhanced by DBox 5 trailblazing starting system.

DBox 5 ergonomics was redefined to optimize user interaction and provide a flawless user experience. In addition, DBox 5 also communicates through LED indicators and sounds.

DBox 5 internal technical design is **flexible** and allows to be adapted to the current global market. PVH focuses on continuing to offer the most competent delivery time without affecting product performance.

**Capacitive buttons** allow to control tracker movement. Tracker operation can be halted by pressing the **emergency stop** regardless of the state, as this is the local maneuver with the highest priority due to safety reasons.

## More connected

Best-in-class communication solution: DBox 5 communicates with TBox –the Network Control Unit– using LoRa technology. LoRa networks provide a very compelling mix of wireless, long-range, low-power-consumption and secure data transmission.

Tracker information can be monitored in **SCADA**. SCADA system allows you to control DBox 5 .



Tracker information can also be shown in **PVH app** via NFC connection with DBox 5. Through PVH app interface, tracker control is also enabled.

DBox 5 includes **new functionalities**. DBox 5 can measure humidity and allows you to have more devices connected while also boosts connectivity with superior wireless technology.

## More secure

DBox 5 advanced security system makes trackers unstoppable.

The tracker is automatically stopped when it reaches an angle greater or equal than the operative range of the structure provided by the structure manufacturer. This range of movement can be modified in the commissioning of the device. The tracker position is detected by the inclinometer, which determines the actual angle of the PV panels.

**Motor Overcurrent protection:** The current delivered to the motor when the trackers are moved is monitored by the DBox 5. In case the maximum safe limit is surpassed, the tracker is stopped, and an alarm is activated to alert the user.

**Loss of communication management:** DBox 5 can detect whether the communication is lost. In case it is, it protects the structure, preventing any hazardous situation.