

Our calibration center

IEC 61724-1 recommends as well the calibration interval of the sensors.

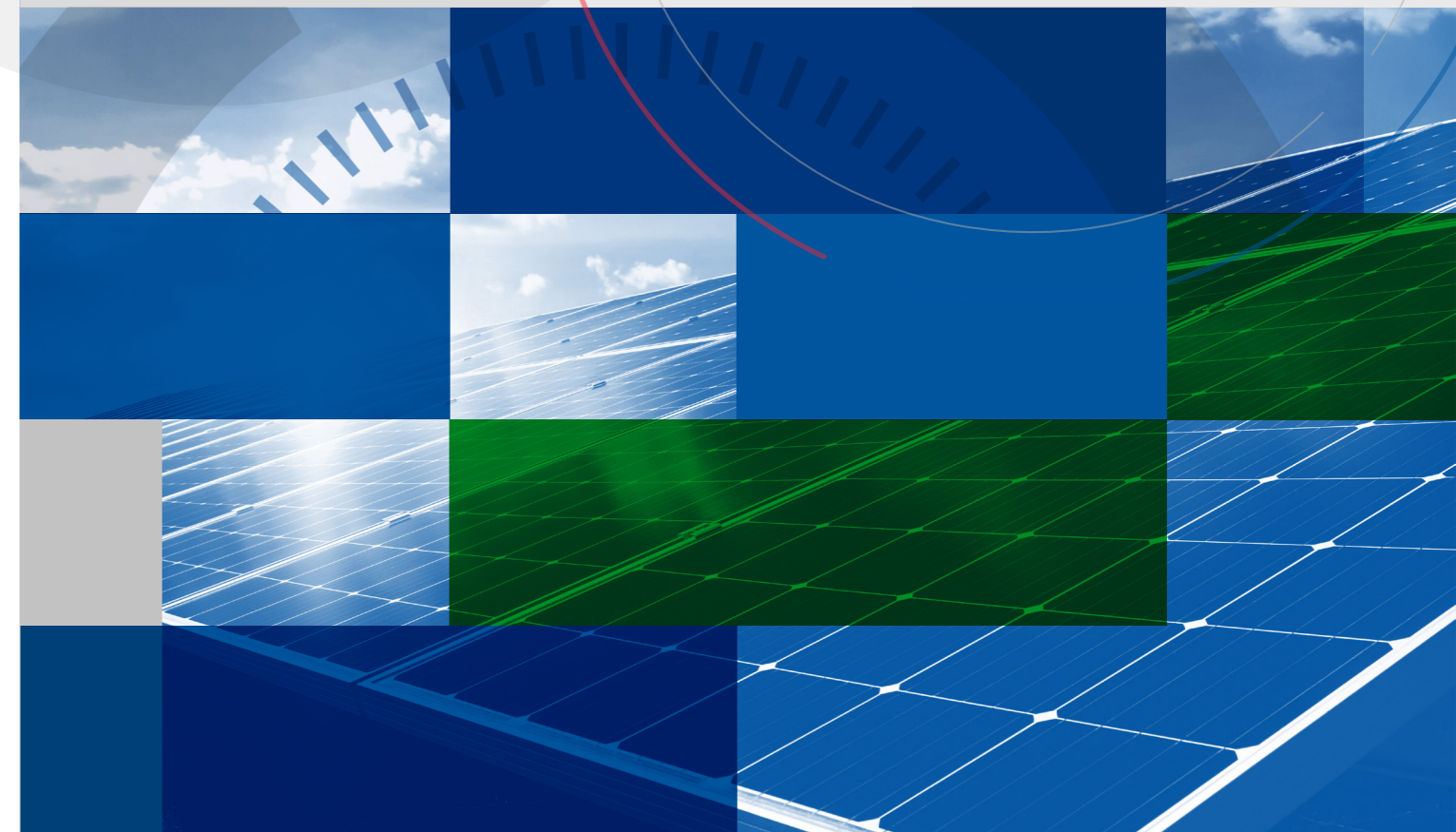
Delta OHM Calibration Centre can proudly boast of 6 ISO 17025 calibration laboratories, all equipped with high level instrumentation: Temperature, Humidity, Pressure, Air Speed, Photo-radiometry and Acoustics.



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Environmental monitoring solutions for PV Systems

Discover our comprehensive solar monitoring solutions



Our solutions

1 DATALOGGER
HD33LMT.4 Data Logger for weather station with multiple inputs for connecting a wide range of sensors. Cellular connectivity for remote monitoring and FTP/Cloud services.

2 RAIN GAUGE
HD2013 – HD2015 Reliable, accurate and durable tipping bucket rain gauges with 400 cm² and 200 cm² collecting area.

3 RAIN DETECTOR
HD2013.3 Simple and effective way to detect precipitations.

4 VENTILATION AND HEATING UNIT
HD9906.51 To increase the accuracy of solar radiation measurements maintaining the operating temperature of the sensor uniform.

5 PYRANOMETER
PYRAsense A complete series of Spectrally Flat Class A, Class B and Class C pyranometers all compliant to ISO 9060:2018 and WMO recommendations. All available with a wide variety of standard outputs for easy integration in any installation.

6 TEMPERATURE TRANSMITTER
HD48...TFP A series of transmitters complete with Pt100 contact temperature probe to keep the panels temperature under control.

7 TEMPERATURE & HUMIDITY TRANSMITTER
HD9008... / HD9817... All available with UV-resistant shield to protect the sensors from solar radiations, rain and wind.

8 2-AXIS ANEMOMETER
HD52.3D... Compact and light ultrasonic anemometer for wind speed and direction with possibility to add temperature, RH, atmospheric pressure, solar radiation or rainfall sensors.

9 ALL-IN-ONE METEO COMPACT STATION
HDMCS-100 / HDMCS-200 An independent and self-supporting solution with solar panel and back up battery, easy to install and ready to use. Measuring at the same time:
 Wind speed - Wind direction - Temperature - Relative Humidity - Barometric Pressure - Rainfall or Solar Radiation

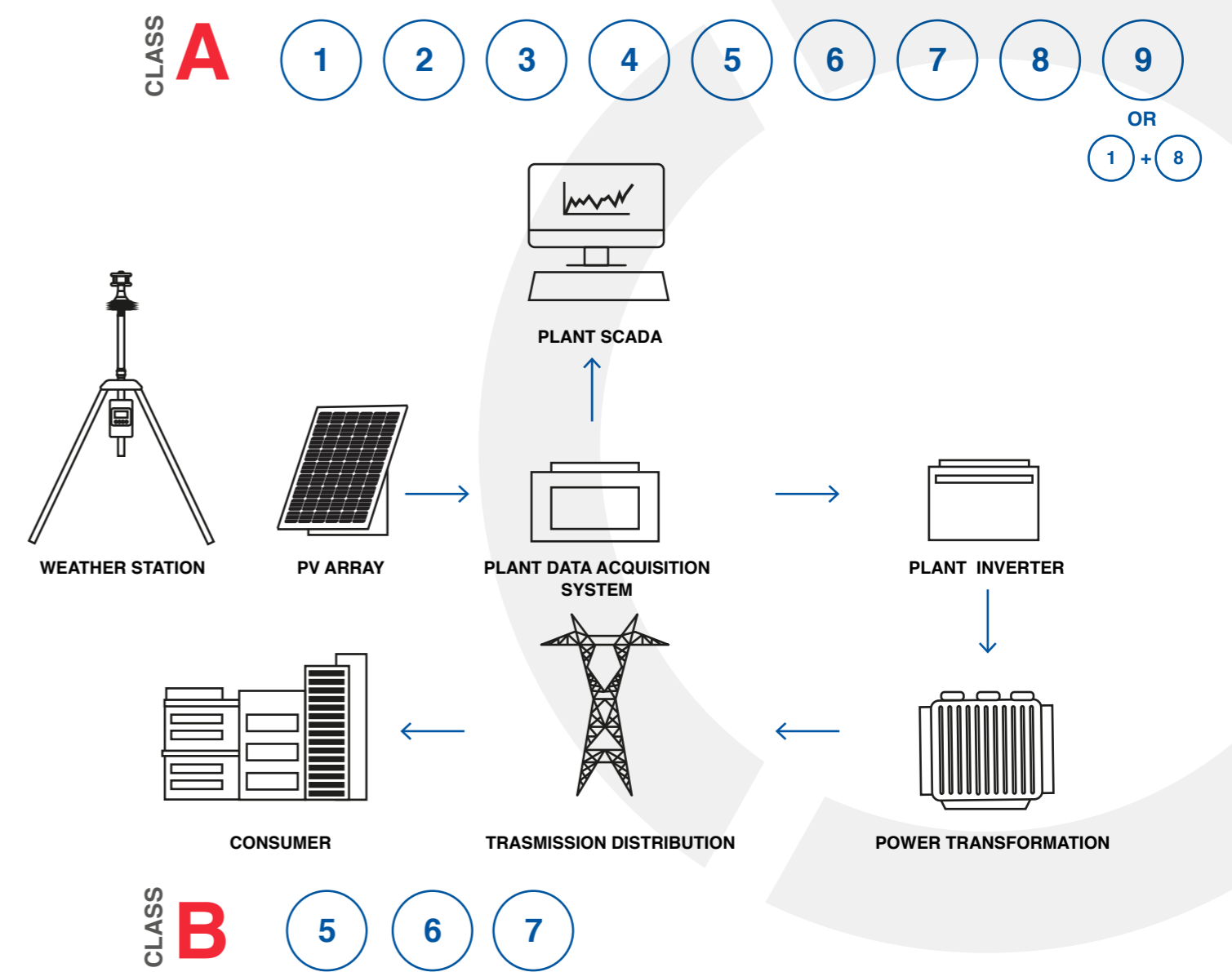


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Monitoring weather parameters through a weather station is crucial for accurately assessing the PR of PV plants.
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WHY MEASURE SOLAR EFFICIENCY

Did you know that weather conditions have a considerable influence on photovoltaic generation? Even a simple cloudy day can drastically affect incident solar energy. Besides solar irradiance, also temperature, humidity, atmospheric pressure, precipitation, and wind speed and direction can affect solar cell efficiency. For this reason, monitoring weather parameters through a weather station is essential to accurately assess the PR of PV systems.

Our tip: the more accurate the weather data collected, the more it is possible to understand whether the system is producing the expected amount of energy.



The IEC 61724-1 standard specifies the requirements for PV plant monitoring systems, differentiating into Class A and Class B. Class A is for large industrial or commercial photovoltaic systems while Class B is for small to medium-sized systems.

Parameter	Monitoring purpose
In-plane Irradiance (POA)	Solar resource
Global horizontal irradiance	Solar resource, connection to historical and satellite data
PV module air temperature	Determining temperature-related losses
Ambient air temperature	Estimation of PV temperatures, connection to prediction models
Wind speed	connection to prediction models
Wind direction	
Rainfall	Estimation of soiling losses for soiling losses

Extract from IEC 61724-1. Further optional monitoring parameters might be required.