

Case study

Identify solar panel cables for 10 years outdoors



[Vindo Solar B.V.](#) is a solar PV engineering, design, installation and maintenance company, operating in the Netherlands, Belgium, Germany, Ireland and Poland.

Vindo Solar will be able to locate efficiently any inverter and cable marked for maintenance in a 124 000 solar panel renewable energy park with reliable labelling.

Challenge

Quickly and reliably identify large volumes of various outdoor cable types

Vindo Solar quickly needed an efficient solution to reliably identify the cables and inverters of 124 000 solar panels in the Haringvliet-Zuid renewable energy park in the Netherlands. In agreement with Vindo Solar's main customer, any identification solution used had to stay attached and remain legible for 10 years under active UV-radiation and in rough environmental conditions.

Solutions

Reliable, colour-coded tags printed at the construction site

Brady offered B-7598 cable tags made out of polyester, B-7593 polyester nameplate alternative labels for the invertors, and the BradyPrinter i3300 Industrial Label Printer to print them at the construction site.

The B-7598 tags are designed to perform great in outdoor environments for up to 10 years. Printed tags show no visible effect when exposed to 95% humidity at 37°C, when heated up to 100°C or cooled down to -40°C. Printed tags also offer great abrasion resistance and are available in white, black, yellow, red, green, blue and metallic. This enabled Vindo Solar to easily colour code AC cables, solar cables, fuses, grounding cables, communication cables and fibre optic cables. The bulk of the tags were printed at Brady factories and delivered ready-to-apply. In addition, an amount of tags were supplied blank so Vindo Solar could flexibly respond to additional needs by printing the tags with their BradyPrinter i3000 at the construction site. All tags are printable with unique identifiers, source and destination information and other data to enable fast future cable interventions or replacements. "The B-7598 cable tags which were offered by experienced Brady specialists quickly seemed a perfect match", said Tadas Malinauskas, Solar PV Project Manager at Vindo Solar. "They are made from reliable materials and tested in different environmental conditions."



To identify 100+ invertors on-site, Brady supplied its B-7593 nameplate label. This is a polyester label equipped with a foam that looks just like an engraved metal nameplate but with increased flexibility at a fraction of the cost. After printing the self-adhesive label quickly expands to take on the shape of a metal nameplate.

With the compact, high volume BradyPrinter i3300 Industrial Label Printer, Vindo Solar is equipped with highly flexible and fast identification capabilities. The system can print a wide variety of labels, sleeves, tags and signs for cable, product and facility identification. Printable materials can be switched and be ready to print in less than 20 seconds thanks to smart label rolls and printer auto-calibration. Via Brady Workstation label design apps, Vindo Solar can easily import data from Excel to print labels at great speed and efficiency. "In a 124 000 solar panel plant, the quantity of labels that are needed, is enormous. The flexibility offered by the BradyPrinter i3300 is just what we needed."



Results

Reliably identified outdoor cables

Vindo Solar can meet their customer's identification requirements with reliable cable tags and inverter labels. This will enable them to quickly find specific cables and invertors among the 124 000 solar panels in the Haringvliet-Zuid renewable energy park in the Netherlands. "We are very satisfied with the Brady identification solutions and will use them in other solar plants as well."