



Omron “Value Design” panel components shrink company’s control cabinets by 20%

Netherlands-based Voshol Warmte-Elektrotechniek is an electrotechnical installation company that operates mainly in greenhouse horticulture. Voshol builds control cabinets that control heating, ventilation, (assimilation) lighting, and irrigation. The company recently invested in new, compact relays from Omron’s “Value Design” portfolio to complete several projects while reducing cabinet size by 20%.

According to Jan Bakker, eCAD designer and work planner at Voshol, many greenhouse horticulture customers are seeking out increasingly smaller control cabinets. This is because smaller cabinets improve greenhouse air circulation and climate control. Even a slight improvement has a positive effect on growth and therefore on revenue.

Since one of Omron’s primary focuses with Value Design control panel technology is to minimize the footprint and reduce dead space by standardizing on height and width, Omron was the ideal choice for Voshol’s control panel upgrade. Voshol also used Omron’s new engineering service for the project, which automatically identified all possible improvements in the Bill of Materials.

Business need

Electrotechnical installation company Voshol sought to meet its customers’ needs for smaller control cabinets.

Unique solution

Voshol invested in Omron’s Value Design control panel products that have a compact design and unified dimensions.

Customer benefits

The Value Design components helped achieve a time and cost savings of about 15% thanks to the use of smaller components that allow for smaller cabinets and less material.

The solution

Value Design control panel technology



The need

Due to the high humidity and the widespread use of fertilizers and crop protection products, it is not always possible to cool cabinets with fans. In cabinets that are filled with components, achieving adequate circulation is difficult, leading to heat buildup. Companies sometimes measure temperatures of 70 degrees Celsius or more, which could be hazardous near the flammable shade cloths. This makes it necessary to either use fewer components or employ smaller, more energy-efficient ones.

Minimizing component size also makes maintenance and repairs easier because it gives maintenance personnel more room to work, and it boosts flexibility by making space to add a new group of components to an existing panel if required. Flexibility is extremely important in greenhouse horticulture because horticulturists regularly change the layout of their greenhouses when new crops present completely different climate control and lighting requirements.



The technology

Omron's Value Design products have a common compact design. The industrial relays in particular are very slim, and all of the components are the same height. This allows manufacturers to save space and make cabinets smaller – in some cases, it could even take a whole length off a cabinet, saving even more costs.

In addition to the customization and expansion of its product portfolio, Omron has also developed several services for panel builders under the name Panel-Pro, including a bill of materials (BOM) engineering service that helps panel builders improve an existing BOM. With the help of a plug-in, they can use the service directly from the EPLAN environment. The result is a proposal that includes EPLAN parts data, datasheets and more. The proposal does not need to contain Omron-only components.



The outcome

Bakker estimates that the use of Omron's Value Design components helped achieve a time and cost saving of about 15%. The savings are due in part to the use of smaller components that save space and allow for smaller cabinets and less material. This makes it cheaper for the horticulturists and improves crop results. The support of Omron in the form of reliable parts data and plug-in for EPLAN makes it possible to further automate the design and ordering process, which cuts out a host of manual steps.

Bakker is excited about the engineering service. He recently let Omron analyze the BOM for a project on distributor cabinets for assimilation lighting in a new greenhouse complex. The relays, terminal blocks, and energy monitoring devices from the original specification were replaced by Omron components, and the components were delivered by the Panel-Pro partner Solar.

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