TECHNICAL

NEWS

## CASTEL APP SELECTOR EXPANSION VALVES

One of the main components of a refrigeration system is the **all-important expansion valve**. Its correct sizing is critical to ensure the optimum and most efficient operation. It's considered to be **one of the most difficult components to size**, however our aim is to make this selection a simple operation.

This application supports the designer, or refrigeration technician, in **matching the PEGO compatible electronics to the chosen electronic expansion valves**, thus providing all the information necessary for the complete configuration of a refrigeration system.

By entering the thermodynamic data of the system, and choosing from the various refrigerant fluids available, **the application guides** the designer **in sizing and choosing the lamination valve**. The selection of the valves is generated starting from the consideration of the steady-state load values, for each suggested valve the percentage of load is indicated in the conditions indicated by the user.

This percentage of theoretical workload provides the knowledge and information necessary for the designer to be able to evaluate the behaviour of the valve in all transient conditions of the system. A system that will operate most of the time in steady state may have a load percentage close to 95%. While for a system with many transients it will be necessary to evaluate a valve that works with load percentages in a steady state of approximately 70%.

Through the use of the app it is also possible to define the electronic components that can be supplied



by PEGO

and can be used with Castel electronic expansion valves. The App, through the correlation of the fluid dynamic data of the system, the calculated valve model, the electrical characteristics and the real needs of the user, is able to provide the correct model of the PEGO product, whether it be a complete control box, or whether it is a stand-alone driver for inside the Panel.

The technical characteristics and specifications of the selected PEGO components can also be reviewed within the application.

We are pleased to say that this application strengthens the indispensable synergy between supplier and customer, strengthening the necessary proactive relationship that creates the environment for common growth.

Underlining the spirit and philosophy of the whole Castel group.

Download the 2021 General Catalogue from our web site: www.castel.it to see our complete product range

