Cold Room Calculator

Mobile App for iOS & Android

Cold room calculation

Air cooler units can be found in most cooling and freezing rooms. Air cooler capacities should perfectly match with the specific conditions of each individual cold room. For that reason LU-VE Group supplies software to select the best air cooler model for the application. However, prior to air cooler selection a calculation must be made to determine the expected heat load for the cold room. That's what our Cold Room Calculator App is for!

Rules of thumb or accuracy?

For making cold room calculations refrigeration installers can rely on experience based and widely used 'rules of thumb': 15-20 W/m^3 for a large frozen storage room, 60-70 W/m^3 for a fresh fruit cooling room, etc. Convenient, quick, but not very accurate.

A more accurate method is a detailed cold room calculation using refined calculation formulas in combination with product data tables. This can be done manually or using commercial cold room calculation software. This is relatively time consuming, a computer is required and in addition the software is not for free. And if for instance the room door remains open a little longer than planned, so much for calculation accuracy…
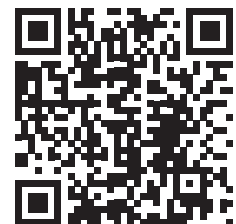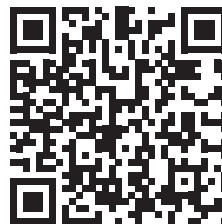
Quick & easy

To offer the market an convenient intermediate solution, LU-VE Group offers a quick & easy cold room calculation module in the selection software for LU-VE Group heat exchangers. This non-academic software enables customers to make quick and reliable 'stand alone' calculations for cold/ freezing rooms.

Mobile App – for free!

With mobile technology rapidly developing, LU-VE Group decided to translate the existing cold room calculation software into a mobile App for smartphones and tablets. This App is available for free in both Apple & Google app stores. Our Cold Room Calculator turned out to be a very easy-to-use tool with thousands of satisfied users all over the world. The functionality is fully based on the LU-VE Group heat exchanger selection software. The App quickly calculates a reliable cooling capacity for any cold or freezing room.
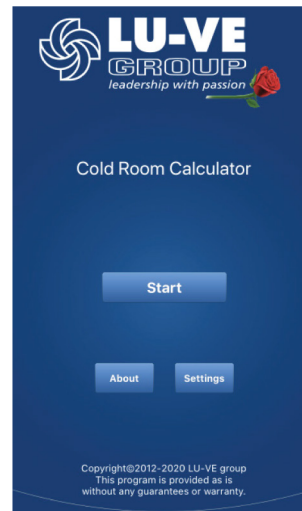
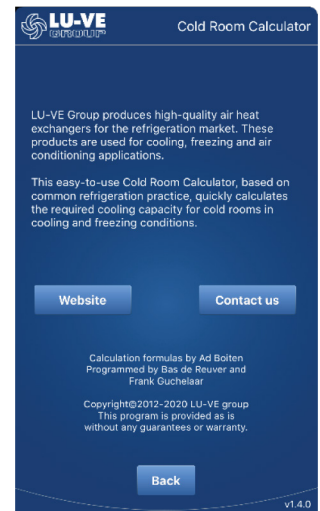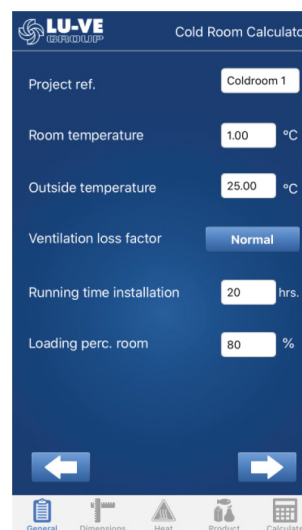| App name	Cold Room Calculator
Platform	iOS & Android
Languages	Arabic, Bulgarian, Chinese, Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovenian, Spanish, Swedish, Turkish

Functionality

- In the Start screen, the calculating units and the interface language can be selected by clicking <Settings>.
The <About> button gives access to contact data.
<Start> launches actual cold room calculation.

- The next screen <General> is for general data. Cold room temperature, outside temperature, expected ventilation losses etc. are to be entered here.

- <Dimensions> is about defining cold room dimensions, insulating material specifications etcetera.

- Screen <Heat> deals with other heat sources. Here an estimation is required for air cooler fan power, room illumination, persons working in the room and other heat sources that may be present. This includes the duration of the specified heat sources.

- Screen <Product> is about stored products. The App includes specific product data for the most common stored products. Here you make an estimate of the storage volume. This is especially important to determine the respiration heat for biologically 'living' produce like fruits & vegetables. In addition the stock shift quantity needs to be defined. This refers to the product volume that is regularly placed in the cell at a different temperature than the cold room temperature. Apart from the entering temperature also the cool down period needs to be defined.

- In the final screen <Calculate> the actual cold room calculation is performed. The calculation output includes all selected input values and calculation results. Each calculation can be saved or shared using the built-in email functionality.
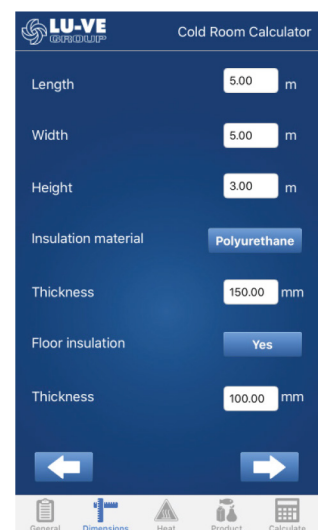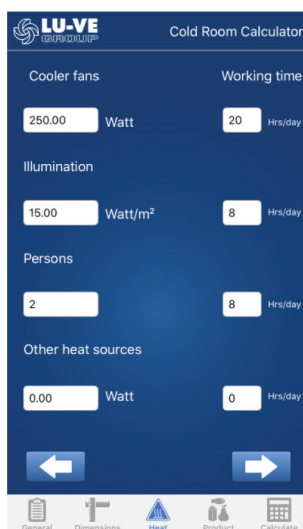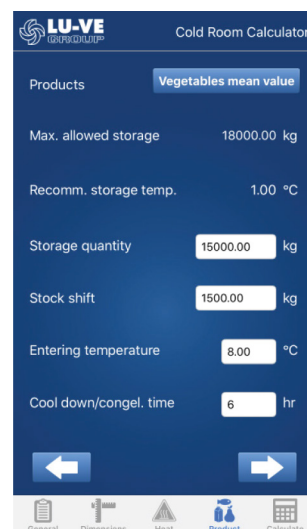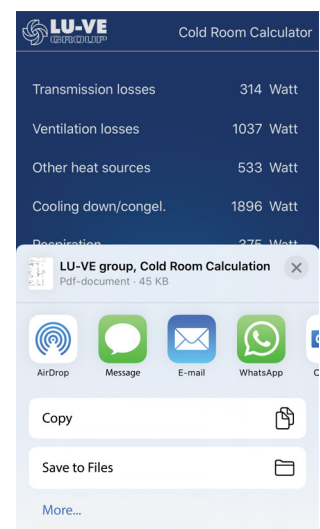

Start

About

General

Dimensions

Heat

Product

Calculate

Share

LU-VE Group reserves the right to change specifications without prior notification.

How to contact LU-VE Group
Up-to-date LU-VE Group contact details
for all countries are always available on
our website at luvegroup.com