

PRODUCT BROCHURE · CUES

CUES: Chilled Unit Energy Saver for Refrigeration

Your fridges are cooling the air, not the food

Standard refrigeration controls respond to air temperature. Every time a door opens, warm air rushes in and the compressor starts, even though the food inside is still at its target temperature. Food and air have very different thermal properties, so this constant cycling wastes energy and wears out equipment.

How CUES works

CUES is a small device containing a wax-based thermal simulator that mimics the thermal conductivity and thermal mass of food. It sits on the refrigeration sensor, so control decisions are based on simulated product temperature rather than air temperature. The compressor runs when the food needs it, not when the air spikes.

Up to 33%
Saving on refrigeration energy cost

<2 years
Return on investment

Benefits

- Lower refrigeration electricity use
- Fewer compressor cycles and less mechanical stress
- Longer equipment life and lower maintenance
- More stable product temperatures, with food safety maintained
- Lower carbon emissions, supporting sustainability goals
- Works with your existing equipment, no replacement needed

Designed in the UK, CUES comes in two variations to fit different fridge sizes and types.

Standard control: air temperature
Door opens, air temperature jumps, the compressor starts. The food never warmed up, but the energy is spent anyway. Repeated all day, this means constant cycling, higher bills and more wear.

With CUES: simulated food temperature
Door opens, air temperature jumps, but the simulated product temperature barely moves. The compressor stays off until the food actually needs cooling, saving energy while product temperature stays stable.

Where CUES fits

- Restaurants and quick service kitchens
- Supermarkets and retail chillers
- Hotels: kitchens and cold rooms
- Food and beverage manufacturing
- Cold storage and distribution
- Pharmaceutical and healthcare cold storage

Verified with real data

Pair CUES with Eniscope energy monitoring to measure refrigeration consumption before and after installation, so every kWh saved is proven on your own meters, not estimated.

CUES in action

Mövenpick Hotel, Nairobi

CUES was introduced into refrigerated units in the kitchen areas, letting cold units operate by food temperature. Together with other measures, the hotel saves around $4,000 per month, a 10-13% cut in its overall bill.

Secret Recipe, Malaysia (100 stores)

CUES was rolled out across chillers and fridges as part of a project saving over 1 million kWh per year, without compromising food safety.

Part of a complete IOTech solution

Monitor

Eniscope measures refrigeration, HVAC and lighting down to each asset.

Control

CUES for cold units, Eniscope Air for HVAC and plug loads.

Sustain

Our Virtual Energy Manager watches the data and keeps savings on track.

How IOTech delivers

01
Assessment and planning
We review your bills, sites and equipment and identify where the savings are.

02
Custom solution design
Metering points, sensors and controls designed around your business goals.

03
Deployment and integration
Fast installation by our local team, without interrupting operations.

04
Monitoring and optimization
Our Virtual Energy Manager watches your data and keeps savings on track.

Cut your refrigeration costs

Book a free energy assessment and see what CUES can save across your sites.

iotechenergy.com