A world leader in climate and energy technology

The Danfoss Group operates globally with the primary aims of making modern living possible for our stakeholders and being a leader in refrigeration, heating, power electronics, and mobile hydraulics.

We employ 24,000 people, 6,000 of whom work in Denmark at 11 different locations.

We produce approximately 250,000 components each day at our 76 factories in 25 countries.

We promise leadership in our businesses through reliability, excellence, and innovation – driving true customer satisfaction and solutions within climate and energy.

Extensive experience in all key HVAC/R segments

Danfoss plays a leading role in research, development and production in a wide spectrum of industries, and has been a key player in the HVAC/R field for more than 75 years. Our Refrigeration & Air Conditioning Division designs, produces and markets a comprehensive range of automated solutions and compressors for a wide variety of HVAC/R segments, including

- Commercial Air Conditioning
- Residential Air Conditioning
- Heat Pumps
- Commercial Refrigeration
- Household, Light Commercial and Mobile Refrigeration
- Wholesalers & Installers
- Industrial Refrigeration
- Food Retail

Learn more at www.danfoss.com

www.danfoss.com/ets

Reduce energy consumption with precise flow control in A/C

ETS 6 Electronic Expansion Valve and EIM 336 Superheat Controller

up to 15% increased energy efficiency when installed together: ETS 6 + EIM 336

Reduce energy consumption with precise flow control in A/C
Your air conditioning is only as efficient as two superheat control components

Effective superheat control depends on a pair of components to continuously adapt to exact capacity demands: a responsive electronic expansion valve and an intelligent, accurate superheat controller. That’s why Danfoss engineered the new ETS 6 Electronic Expansion Valve and the EIM 336 Superheat Controller together.

Sometimes, good things really do come in pairs. Two of our latest innovations let you and your customers relax while your A/C works precisely and reliably. Both were designed to let you fine-tune systems in a cost-efficient way. The ETS 6 valve together with the EIM 336 can be used in the A/C units with evaporator capacity ranging from 3 kW to 37 kW. Because the EIM 336 controls ETS 6 in microsteps, it gives a smooth superheat curve and less noise. With EIM 336 and corresponding ETS 6 valve, you can achieve a Maximum Operating Pressure Differential (MOPD) of up to 45 bar.

**ETS 6 Electronic Expansion Valve:**

- Tested over 120 million pulses supplied to partially open valve, which is comparable to 300,000 cycles if the valve is operated to fully open valve, which is comparable to 150,000 cycles if the valve is operated to partially open valve, which is comparable to 60 million total pulses supplied to partially open valve.
- Tested for 30,000 full-stroke cycles, including 20-pulse overdrive at each closing.
- Tested for 30,000 full-stroke cycles, including 20-pulse overdrive at each closing.
- Tested for 60 million total pulses supplied to partially open valve, which is comparable to 150,000 cycles if the valve is operated between 100 to 300 pulses when open.
- Tested for 30,000 full-stroke cycles, including 20-pulse overdrive at each closing.

**EIM 336 Superheat Controller:**

- Electronic expansion valve to reduce pressure, without lowering superheat.
- If pressure exceeds this limit, then the controller adjusts the valve position to maintain superheat at optimal level for capacity ranging from 3 kW to 37 kW.
- Minimise compressor strain by setting Maximum Operating Pressure limits and enter a special defrost sequence to overrule normal control of the valve and defrost the evaporator.
- Minimise compressor stress by setting Maximum Operating Pressure limits if pressure exceeds this limit, then the controller adjusts the valve on the expansion valve to reduce pressure, without lowering superheat.

**Technical specifications**

This diagram illustrates how the EIM 336 Superheat Controller and ETS 6 Electronic Expansion Valve work together in a sample system. Actual system configuration and components will vary.