

ENGINEERING TOMORROW

# Plan now, for a **smooth** and **profitable conversion**. The countdown to R32 has begun!



### BE PREPARED FOR THE BIG CHANGE

The countdown has started! It's time to get ready for the change from prohibited refrigerants such as R22 to others with a low GWP, such as R32. Don't get caught out. Start planning now so that your business can handle the transition smoothly.

#### **NEW REGULATIONS**

Governments around the world are introducing regulations to minimise the negative environmental impacts of HVAC systems. The choice of refrigerant is a key factor. As of 2013, R32 will be one of the refrigerants used to replace R22, which is soon to be banned.

### **R32 - THE SUCCESSOR**

R32 is similar to R410A in many ways and is, in fact, the main component in R410A. It offers low GWP (Global Warming Potential) and better volumetric efficiency.

**LOW GWP** As awareness of environmental impacts increases, there is growing international pressure to move away from refrigerants with high Global Warming Potential (GWP). R32 has a much lower GWP (675) than R22 (1810) and R410A (2100).

**VOLUMETRIC CAPACITY** The volumetric capacity of R32 is 20% higher than that of R410A, which means that the volume charged to the system can be much lower.



## 1 Contact point

for all your R32 needs.



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As a result of switching from R22 to R32.

## WE'RE GETTING READY FOR R32! ARE YOU?

Suitable for use across a broad range of products, R32 has clear financial and environmental benefits. Danfoss supports R32 as the safe choice of refrigerant and, as such, we're developing R32-adapted products for optimal performance in our customers' applications. You can rely on us to support you fully throughout the conversion process...and beyond!

	Compressors	A new range of R32-friendly compressors is currently being developed and soon will be ready for commercial launch.
	HEAT EXCHANGERS	Our MCHE and MPHE heat exchangers are designed to require a minimal refrigerant charge, which makes them ideal for use with R32. Customers are currently testing our products in their own applications.
T	THERMOSTATIC EXPANSION DEVICES	We offer thermostatic expansion devices which are prepared for use with R32.
	ELECTRONIC EXPANSION DEVICES	Our range of electronic expansion devices is now in the final stages of development. Soon to be tested in customers' applications.
	CONTROLLERS	Regardless of the refrigerant used, Danfoss offers a wide range of controllers based on a global, open and flexible system. Ensure the safety of your system, using our world-class control equipment.
	OTHER COMPONENTS	The preparation of filter driers, sight glasses, ball valves, check valves and solenoid valves for the introduction of R32 has been already completed.



### GET GOING, THE EASY WAY

#### **ENJOY A SMOOTH CONVERSION**

Although it is clear that the conversion to R32 brings benefits to the environment and to the industry, adaptation nonetheless implies a major effort on the part of manufacturers. Danfoss can help you make that transition with minimal disruption to your business. We can help you prepare in advance so that orders and production continue to flow as usual and your business remains profitable.

### TALK TO US

Danfoss is a leading industrial supplier and solution provider with over 20 years' experience in dealing with environmentally friendly refrigerants and refrigerant-based products. We have been named 'best-in-class' for our refrigerant safety and system reliability. All our products have the relevant quality and environmental certification, making them suitable for export to global markets.

Let us help you prepare now so that your business is ready to start selling R32-adapted products profitably from day one.



#### How to evaluate refrigerants' global warming impact











MOLECULAR FORMULA MOLAR MASS EXACT MASS APPEARANCE DENSITY MELTING POINT BOILING POINT LOG P VAPOUR PRESSURE CH₂F₂ 52.02 g mol<sup>-1</sup> 52.012456474 g mol<sup>-1</sup> COLOURLESS GAS 1.1 g cm<sup>-3</sup> −136 °C, 137 K, -213 °F −52 °C, 221 K, -62 °F -0.611 1518.92 kPa (AT 21.1 °C)



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Danfoss supports the use of R32 and develops products suitable for use in our customers' applications - with the aim of optimising energy efficiency. Using R32 is a safe choice with core environmental benefits.

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