Frequently Asked Questions

What is Daikin's approach regarding next-generation refrigerants?

Daikin believes our industry can reduce the global warming and energy consumption impact of air conditioning, cooling, and heat pump equipment by transitioning away from refrigerants with high global warming potential (GWP) and which requires more energy to operate. Because of HFC refrigerant's widespread and growing use around the world, a conversion to refrigerants that have a lower GWP rating is essential.

Why is Daikin advocating HFC-32 as the next generation refrigerant?

Daikin believes HFC-32 is the most balanced refrigerant solution to replace R-410A or HCFC-22 that can mitigate the global warming impact of residential and commercial air conditioners, cooling, and heat pump equipment. It has several advantages over other alternatives: it requires less energy to use (as compared to R-410A, the most commonly used refrigerant today), and it is easier to recycle. There is no perfect alternative refrigerant applicable for every kind of application, so it is necessary to use the most suitable refrigerant for each application. However, Daikin believes HFC-32 is the best, next generation refrigerant for many applications.

What are the specific environmental and energy usage benefits of HFC-32?

HFC-32 has significantly lower Global Warming Potential (GWP) – one third that of R-410A – and can transfer efficiently a large quantity of heat per unit amount. This means the refrigerant charge amount can be reduced by 10 to 30% over R-410A and the CO2 equivalent refrigerant charge (kg x GWP) can be drastically reduced. Also, compared with R-410A, HFC-32 transfers a larger quantity of heat-per-unit amount, producing greater efficiency, and requiring less electricity to operate.

Why is Daikin offering the free access for certain patents worldwide at this time?

Daikin believes reducing the global warming impact of air conditioners, cooling, and heat pump equipment cannot be achieved by just one company. We believe free access for certain patents will encourage the industry to immediately adopt this environmentally-advanced technology. Because many countries are today considering ways to mitigate climate change, Daikin decided it is important to promote the conversion to HFC-32 as a way to improve the environmental profile of air conditioners, cooling, and heat pump equipment.

How will this decision benefit Daikin?

Daikin and other companies can accelerate the development of air conditioners, cooling, and heat pump equipment using HFC-32. These efforts will not only have a positive impact on mitigating global warming, but will also help ensure sustainable growth of the industry worldwide.

What will be the impact on Daikin's business?

HFC-32 units are today sold in more than 40 countries. As the industry will benefit and expand, we can expect our business to expand globally. In the U.S. market, one of the world's largest, this will be a major step toward the development of HFC-32 products. In Europe, where HFC-32 air conditioners were first introduced in 2013, this action can help to meet the gradual phase down of HFC consumption required by the EU F gas legislation. It can also help to meet the GWP limit of 750 for single split air conditioners with a refrigerant charge below 3 kg much earlier than required (legal deadline is 2025). In emerging countries, we expect some countries will revise their regulations and standards to align with those of developed countries.