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Daikin Expands Patent Non-Assertion Pledge for Equipment Using Low GWP Refrigerant HFC-32

Company to facilitate industry adoption of HFC-32 with pledge of free access to approximately 300 patents

Daikin Industries, Ltd. (“Daikin”) has added 123 new patents to its Pledge*¹ which includes a grant of free access to its pledged patents in relation to certain HVAC-R (heating, ventilation, air conditioning, and refrigeration) equipment using the non-blended, single-component refrigerant HFC-32 (R-32). Approximately 300 patents are now free to use and do not require permission or a written contract with Daikin. As a result, the company will facilitate the further adoption of HFC-32, which has a lower global warming impact than many refrigerants commonly used today.

HFC-32 has many advantages that can help reduce the environmental impact of air-conditioning, heat pump, chiller, and applied equipment. HFC-32 is a non-ozone depleting refrigerant with a global warming potential (GWP) one-third*² of current R-410A refrigerant. It provides excellent system performance and is readily available. As a single-component refrigerant, it is easy to recover, recycle, and reclaim, which helps reduce the need for additional production of refrigerant. Therefore, Daikin believes HFC-32 is suitable refrigerant to reduce environmental impact in many regions.

To encourage the use of HFC-32 globally, *³ Daikin offered free access to 93 patents for emerging countries in 2011 and then expanded this free access worldwide in 2015. In July 2019, the company announced to provide free access to the pledged patents, which had been filed after 2011 and were not included in the previous free access to 93 patents. Daikin intends to further facilitate the adoption of HFC-32 equipment by other manufacturers to promote the development of the environment by allowing free access to its intellectual property. As a result, many other manufacturers are already offering HFC-32 equipment, and more than 140 million HFC-32 residential and commercial units have been sold in approximately 100 countries.*⁴ We believe that expanding the scope of these patents will lead to further industry adoption.

A listing of the pledged patents and the specific details regarding the pledge is available at [<https://www.daikin.com/patent/r32>]. Once listed, a pledged patent will not be removed, and the Pledge will not be withdrawn against a party unless that party triggers Daikin’s right of defensive termination by, for example, filing a lawsuit or other legal proceeding alleging patent infringement against single-component HFC-32 equipment provided by Daikin or one of its group companies. For a full overview and explanation of the Pledge, please see at [<https://www.daikin.com/patent/r32>].

*1 Please see <http://www.daikin.com/patent/r32> for the specific controlling terms and conditions regarding Daikin’s Pledge and the list of the pledged patents included in this pledge.

*2 GWP values based on 100-year time horizon from IPCC Forth Assessment Report (AR4).

*3 “Daikin Offers Worldwide Free Access to Patents for Equipment Using Next-Generation Refrigerant” on 10 September 2015 (https://www.daikin.com/csr/pdf/press_20150910.pdf)

*4 As of December 2020. Data by Daikin.

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