DEPARTMENT OF ENERGY

2023 REGULATORY REQUIREMENTS

On January 1, 2023, the Department of Energy (DOE) will enact new minimum cooling energy efficiency requirements for residential and commercial HVAC equipment. The purpose of these new regulations is to continue the ongoing efforts to reduce energy consumption in the United States. These changing requirements will present a unique challenge for our business, and we're getting ready to meet it.

SELL-THROUGH REQUIREMENTS

All commercial products that were legally compliant on the day that they were manufactured are considered legal to distribute, sell and install in the United States. Sell-through is also allowed, except for three-phase < 65k BTU (delayed until 2025, pending DOE final ruling).

COMMERCIAL PRODUCT MINIMUM EFFICIENCY REQUIREMENTS BEFORE 1/1/2023 AND AFTER

Package and Split ACs and Heat Pumps

	Equipment	Capacity (BTU)	Subcategory	Before 2023 Minimum Rating		January 1, 2023 Minimum Rating	
AC Units	Package	< 65,000	All types	14.0	SEER →	13.4	SEER2
	Split & Package	≥ 65,000 < 135,000	Electric heat, cooling only	11.2/12.9	EER/IEER →	14.8	IEER
	Split & Package	≥ 65,000 < 135,000	All others	11.0/12.7	EER/IEER →	14.6	IEER
	Split & Package	≥ 135,000 < 240,000	Electric heat, cooling only	11.0/12.4	EER/IEER →	14.2	IEER
	Split & Package	≥ 135,000 < 240,000	All others	10.8/12.2	EER/IEER →	14.0	IEER
	Split & Package*	≥ 240,000 < 760,000	Electric heat, cooling only	10.0/11.6	EER/IEER →	13.2	IEER
	Split & Package*	≥ 240,000 < 760,000	All others	9.8/11.4	EER/IEER →	13.0	IEER
	Split & Package**	≥ 760,000	Electric heat, cooling only	9.7/11.2	EER/IEER →	12.5	IEER
	Split & Package**	≥ 760,000	All others	9.5/11.0	EER/IEER →	12.3	IEER
Heat Pumps	Package	< 65,000	All types	14.0	SEER →	13.4	SEER2
	Package	< 65,000	Heating mode	8.0	HSPF →	6.7	HSPF2
	Split & Package	≥ 65,000 < 135,000	Electric heat, cooling only	11.0/12.2	EER/IEER →	14.1	IEER
	Split & Package	≥ 65,000 < 135,000	47°F dB/ 43°F wB Outdoor	3.3	COP →	3.4	COP
			17°F dB/ 15°F wB Outdoor	2.25	COP →	2.25	COP
	Split & Package	≥ 135,000 < 240,000	47°F dB/ 43°F wB Outdoor	3.2	COP →	3.3	COP
			17°F dB/ 15°F wB Outdoor	2.05	COP →	2.05	COP
	Split & Package	≥ 240,000	47°F dB/ 43°F wB Outdoor	3.2	COP →	3.2	COP
			17°F dB/ 15°F wB Outdoor	2.05	COP →	2.05	COP

*AHRI Certification program does not apply to splits in this size, and DOE does not mandate these efficiencies for 2023, but is mandated by ASHRAE 90.1-2019.

**AHRI Certification program does not apply to splits and packaged units in this size, and DOE does not mandate these efficiencies for 2023, but is mandated by ASHRAE 90.1-2019.

Three-phase packaged air conditioners and heat pumps < 65,000 BTU do not have an established conversion date, while ASHRAE 90.1-2019 has been updated to the values shown above. DOE has not yet established an effective date for amended energy conservation standards.

NEW TESTING AND MEASUREMENT PROCEDURES

Alongside the new efficiency requirements are more stringent testing requirements for all residential and 3–5 ton light commercial, single-phase products manufactured on or after January 1, 2023. This new testing procedure will more accurately account for field conditions by increasing external static pressure, or ESP, from 0.3 to 0.5 and will result in several other changes, including:

New efficiency standards

Changes are as follows:

SEER →	SEER2
EER →	EER2
HSPF →	HSPF2

Minimum efficiency reduction

Because minimum efficiency requirements will be determined through more rigorous testing procedures, minimum efficiency requirements will be reduced for SEER2, EER2 and HSPF2 ratings versus the 2023 SEER, EER and HSPF minimum efficiency ratings.

Retesting

Every product tier will need to be retested, reoptimized and relaunched in accordance with the new DOE test procedures. This will be a large undertaking by manufacturers compared to previous efficiency requirement changes.

NOTE: These changes apply ONLY to equipment with single-phase power supply in 2023. Equipment with three-phase power supply will be addressed in 2025.

Additional changes and impacts on commercial HVAC

- The new DOE testing requirements will also result in changes to the airflow set point on indoor blowers, including fan coils and furnaces.
- Standard efficiency tiers will be discontinued due to the required +15% efficiency increase.
- Almost all equipment will require VFDs.
- Gas furnaces above 225k BTU are required to meet 81% Steady State Efficiency.

HOW JOHNSON CONTROLS IS PREPARING FOR THE NEW REQUIREMENTS

We are committed to helping our dealers, contractors and partners meet the challenges these new regulations bring. To make these regulatory updates as smooth a transition as possible, we are:

- Updating all HVAC products to meet minimum requirements for air conditioners and heat pumps and affected furnace sizes manufactured in 2023 or later
- Updating testing procedures to be compliant with upcoming regulations
- Making other essential improvements to increase performance and efficiency while keeping costs low
- Offering ongoing webinars and training on new regulatory changes through 2022
- Providing 2023 regulatory training, included for each future product update and launch

BE READY FOR THE CHANGE

Transitioning to 2023 requirements may seem like a challenge, but we believe preparation and planning can help ease the transition and minimize disruptions to your business. Your local distributor can also help you understand and prepare for the 2023 minimum efficiency change and answer any questions you may have.

Legal disclaimer: The contractor is ultimately responsible to ensure a compliant system installation. Manufacturers are not legally responsible for any equipment sold and/or installed that is noncompliant with DOE 2023 standards.

ADDITIONAL RESOURCES

U.S. Department of Energy
(Energy.gov)

U.S. Environmental Protection Agency
(EPA.gov)

EPA and DOE Energy Efficiency
(Energystar.gov)

U.S. Government's National Archives
(Federalregister.gov)

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