

2023 REGULATORY REQUIREMENTS AND WHAT THEY MEAN FOR YOU

TEMPSTAR[®]
Heating and Cooling Products



TIME FOR A NEW CHANGE

As an innovative leader in home comfort, Tempstar has thrived by continuously looking for the next advancement in comfort technology. That's why we are always prepared when it's time to meet new, federally mandated minimum efficiency standards.*

* <https://www.federalregister.gov/documents/2017/01/06/2016-29992/energy-conservation-program-energy-conservation-standards-for-residential-central-air-conditioners>

Why the Change

Every six years the Department of Energy (DOE) reanalyzes the effects of energy usage, sets minimum efficiency requirements and manages the testing standards by which those efficiencies are measured. For 2023, the DOE is increasing the minimum efficiencies for central air conditioners and heat pumps. The testing procedures for determining those efficiencies will change as well.

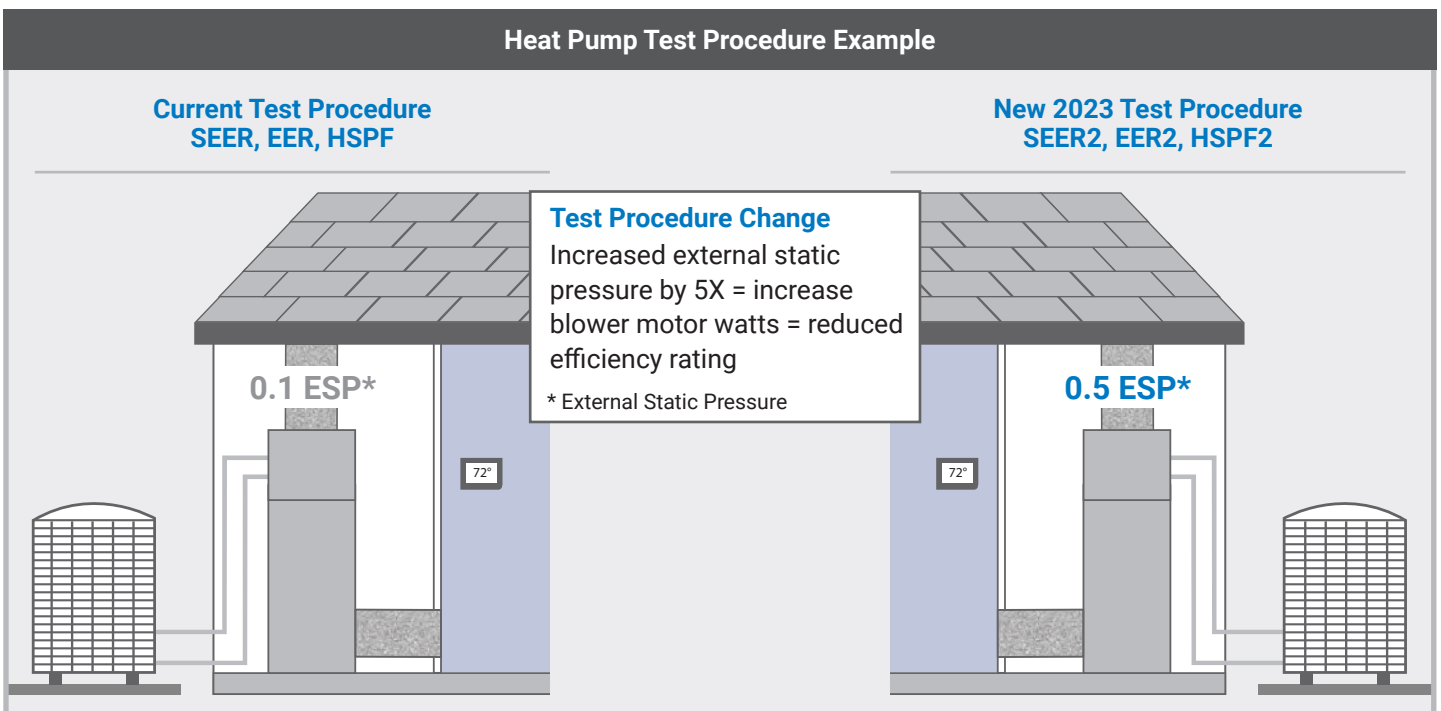
2023 Minimum Efficiency Change

For 2023, the DOE has reanalyzed and adjusted minimums accordingly. For air conditioners in the North, the minimum efficiency will increase from 13.0 to 14.0 SEER and in the South from 14.0 to 15.0 SEER[†] under today's test procedure. The national heat pump minimum efficiency will increase from 14.0 to 15.0 SEER.

† 15.0 SEER up to 45k BTU, 14.5 SEER at/above 45k BTU

A New Normal is Coming for 2023 – SEER2, EER2 and HSPF2

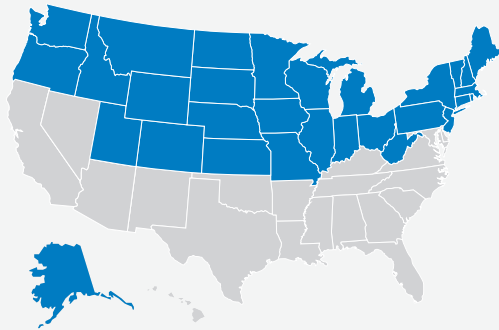
In addition to increasing the minimum efficiency in 2023, HVAC manufacturers will also be required to comply with a new testing procedure for developing efficiency ratings. Compared to today's test procedure, the external static pressure used when testing will be increased by up to 5X to better reflect field conditions. Since the new testing requirements are more stringent and reduce the resulting efficiency rating, in 2023, there will be new metrics and nomenclature – SEER2, EER2 and HSPF2. On the same system, compared to SEER ratings, the new SEER2 ratings will be lower and the minimum efficiencies will be reduced to account for the more difficult test procedure. For example, the North Region's 14.0 SEER minimum efficiency under the current test procedure will become a 13.4 SEER2 under the new test procedure. With the new test procedure, ALL tiers of products will need to be retested, optimized and relaunched in accordance with the new test procedure resulting in a much larger scale project for manufacturers compared to prior minimum efficiency changes. In addition, the new test procedure will drive changes to the airflow set point on indoor blowers (fan coils and furnaces).



WHAT THIS MEANS FOR YOU

As a practicing HVAC contractor, learning the new minimum efficiency standards for your region and understanding the consequences of non-compliance are important. We will continue to keep you informed about products that meet these requirements and any additional regulatory changes coming your way. We hope this white paper serves as a good first step to being prepared for 2023.

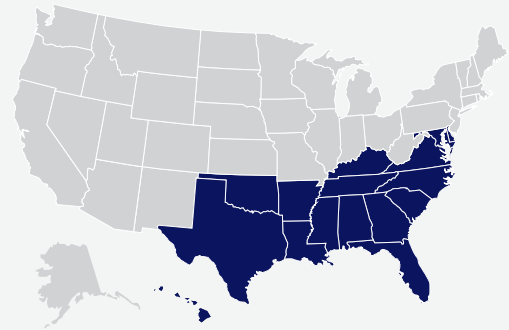
North Region



2023 Minimum Efficiencies

System Type	Current Minimum	New Minimum with M Ratings	New Minimum with M1 Ratings
Split System AC	13.0 SEER	14.0 SEER	13.4 SEER2

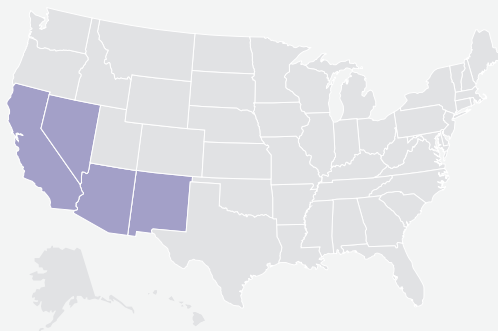
Southeast Region



2023 Minimum Efficiencies

System Type	Current Minimum	New Minimum with M Ratings	New Minimum with M1 Ratings
Split System AC (AC < 45k Btu/h)	14.0 SEER	15.0 SEER	14.3 SEER2
Split System AC (AC ≥ 45k Btu/h)	14.0 SEER	14.5 SEER	13.8 SEER2

Southwest Region

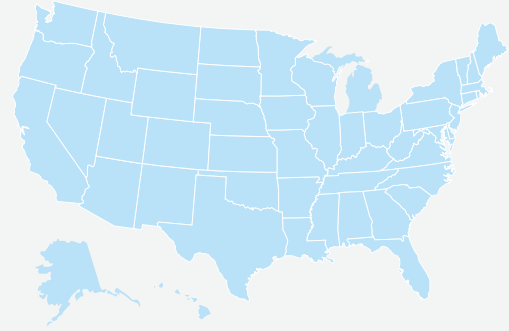


2023 Minimum Efficiencies

System Type	Current Minimum	New Minimum with M Ratings	New Minimum with M1 Ratings
Split System AC (AC < 45k Btu/h)	14.0 SEER	15.0 SEER	14.3 SEER2
	12.2 EER	12.2 EER*	11.7 EER2**
Split System AC (AC ≥ 45k Btu/h)	14.0 SEER	14.5 SEER	13.8 SEER2
	11.7 EER	11.7 EER*	11.2 EER2**

* 10.2 EER if equipment is at or above 16.0 SEER
 ** 9.8 EER2 if equipment is at or above 15.2 SEER2

National



2023 Minimum Efficiencies

System Type	Current Minimum	New Minimum with M Ratings	New Minimum with M1 Ratings
Split System HP	14.0 SEER	15.0 SEER	14.3 SEER2
	8.2 HSPF	8.8 HSPF	7.5 HSPF2
SPP AC and Gas Electric (EER applies to SW only)	14.0 SEER	14.0 SEER	13.4 SEER2
	11.0 EER	11.0 EER	10.6 EER2
SPP HP and Dual-Fuel HP	14.0 SEER	14.0 SEER	13.4 SEER2
	8.0 HSPF	8.0 HSPF	6.7 HSPF2

AIR CONDITIONER RATINGS

The new 2023 minimum efficiency standards for air conditioners continue to follow the regional borders established in 2015: North, Southeast and Southwest. Additionally, the Southwest includes an EER/EER2 requirement. SEER and EER are ratings tested under the pre-2023 test procedure while SEER2 and EER2 are tested under the 2023 test procedure with higher external static pressures as detailed below.

Split System Air Conditioners – 2023 Regional Standards [†]						
System Type	North Region		Southeast Region		Southwest Region	
	New SEER	New SEER2	New SEER	New SEER2	New SEER	New SEER2
Split System ACs (AC < 45K Btu/h)	14.0 SEER	13.4 SEER2	15.0 SEER	14.3 SEER2	15.0 SEER and 12.2 EER*	14.3 SEER2 and 11.7 EER2**
Split System ACs (AC ≥ 45K Btu/h)	14.0 SEER	13.4 SEER2	14.5 SEER	13.8 SEER2	14.5 SEER and 11.7 EER*	13.8 SEER2 and 11.2 EER2**

* 10.2 EER if SEER ≥ 16.0 SEER ** 9.8 EER2 if SEER2 ≥ 15.2 SEER2

Sell-Through Deadlines For the North Region, any 13.0 SEER AC built before January 1, 2023, **can still be installed** on or after January 1, 2023. For the Southeast and Southwest Regions, any AC that does not meet the above requirements **cannot be installed** on or after January 1, 2023.

HEAT PUMP RATINGS

Heat pump minimum efficiency requirements follow national standards. In 2023, the new minimum efficiency standards for heat pumps will increase by 1.0 SEER to 15.0 SEER. Split-system heat pumps must also achieve a minimum of 8.8 HSPF.

Split System Heat Pump – 2023 National Standards [†]		
System Type	National Efficiency Standard	
	New SEER and HSPF	New SEER2 and HSPF2
Split System HPs	15.0 SEER and 8.8 HSPF	14.3 SEER2 and 7.5 HSPF2

Sell-Through Deadline Any 14.0 SEER heat pump built before January 1, 2023, **can still be installed** on or after January 1, 2023.

SMALL PACKAGED PRODUCT RATINGS

Small Packaged Products will not increase in minimum efficiency from 14.0 SEER and 8.0 HSPF, but will be required to comply with the new test procedure.

Packaged Systems – 2023 National Standards [†]				
System Type	National Efficiency Standard		Southwest Region	
	New SEER & HSPF	New SEER2 & HSPF2	New EER	New EER2
Packaged ACs & Gas/Electric ACs	14.0 SEER	13.4 SEER2	11.0 EER	10.6 EER2
Heat Pumps & Dual-Fuel HPs	14.0 SEER & 8.0 HSPF	13.4 SEER2 & 6.7 HSPF2	N/A	N/A

Sell-Through Deadline Any 14.0 SEER SPP unit built before January 1, 2023, **can still be installed** on or after January 1, 2023.

[†] SEER, EER, and HSPF values shown are based on the current test procedure and are for reference only. Beginning January 2023, products must comply with the SEER2, EER2 and HSPF2 values developed using the 2023 test procedure.

WHAT IT ALL MEANS

Breaking down the numbers, the 2023 efficiency standards represent a 7-8% SEER increase from current standards, across the board. Under the new program, roughly 70% of our current products will NOT meet the minimum efficiency standards, and 100% of current products will need to be retested using the new procedures. The good news is, we have been working for several years in anticipation of these changes, and will be more than ready before the 2023 standards take effect on January 1, 2023.

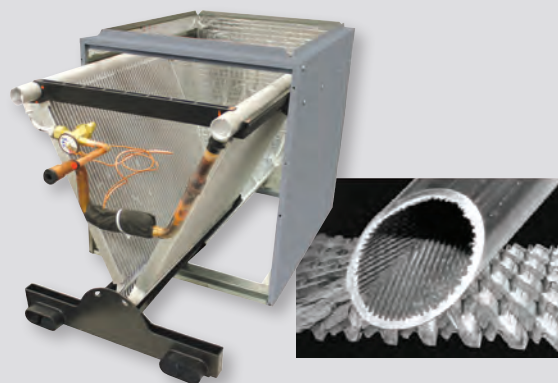
WE'LL BE READY, AND YOU SHOULD BE TOO

We have been working on our 2023 product redesign and development for many years now. With millions of dollars invested in engineering, testing, tooling and manufacturing, we will be ready for 2023.

- The majority of product tiers and tonnages will be available on or before January 1, 2023
- Industry-leading technology within our 2023 product line will have been tested and validated to meet new requirements
- We are instituting a phased roll out, with products launching ahead of deadline, starting early 2022, to ensure readiness before January 1, 2023
- Comprehensive training and communications will be shared when available
- In addition, our regulatory-ready products are being redesigned with an expected change in refrigerant, first requirements targeted for the year 2025, to minimize future product transitions

As we prepare for 2023, you will see new technologies emerge in 2022. We will launch aluminum outdoor coils in some of our current minimum efficiency products and a new indoor V-coil with Power-V technology. Both innovative solutions are key as we transition to our 2023 minimum efficiency products.

We will continue to keep you updated on our progress and will work with you so we can all make the transition to 2023-compliant products as seamless as possible.



The Costs – and Consequences – of Non-Compliance

As with the 2015 standards, we anticipate penalties for non-compliance in 2023 as well. The DOE has been aggressively enforcing efficiency standards in a number of industries, including HVAC and violations can be costly. Dealers and contractors caught installing non-compliant equipment will be forced to replace the equipment at their cost. Repeat violators can be put on a national do-not-sell list.

Distributors are subject to the same do-not-sell penalty if they knowingly and repeatedly supply non-compliant equipment to contractors who install that equipment in violation of the regional minimum. Manufacturers knowingly selling non-compliant equipment also face stiff fines. Any distributor or contractor identified as a routine violator will be prohibited from purchasing any of the seven classes of products identified in the Code of Federal Regulations, 10-CFR-430.32.



In 2015, the DOE cracked down with big fines for violators, including a \$1.2 million fine to HVAC manufacturers.

PROTECTING YOUR BUSINESS

Training

So how can you prepare to safeguard your business? The first step is training. As 2023 draws nearer, the 2023 minimum efficiency standards will be easily accessible on the Internet, including the DOE website. Tempstar will also be creating training materials and continually communicating with you as we get closer to the deadline. We will make every effort to supply you with region-appropriate products that meet all efficiency requirements for your area. However, it is important for you to protect your business by learning the efficiency standards for your region and placing product orders accordingly.



Future Record Keeping

Beginning in 2023, dealers, contractors, distributors, and manufacturers will all be required to track the model and serial numbers of equipment sold, delivered and installed, as well as delivery addresses and installation locations. This includes cash sales. These records will protect you in the event of a DOE investigation and will need to be kept for up to 60 months, depending on the type of business:

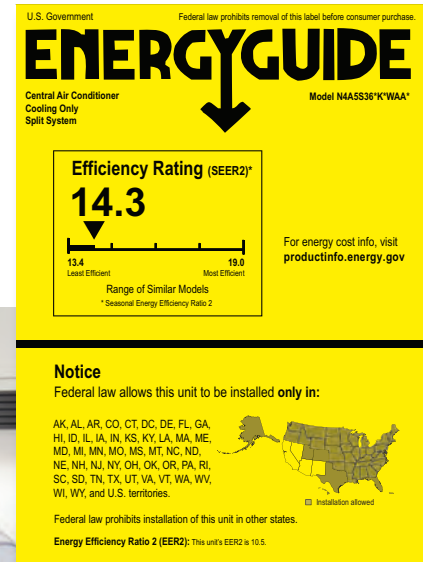
- 48 months for dealers / contractors
- 54 months for distributors
- 60 months for manufacturers

In summary, treat this information like you would treat your tax records, just to be safe.

WE ARE HERE TO HELP

At Tempstar, we are here to help you safeguard your business.

- We will provide detailed training.
- Our rating plates will continue to clearly identify regions in which installation of the equipment is prohibited.
- We will continue to include an EnergyGuide label on the exterior of the shipping packaging for all condensing units.
- We will publish EnergyGuide efficiency rating information for every product online so you can provide this information to your customer before every sale, as required.



Split System Air Conditioner Sample Label

Better Safe Than Sorry

We anticipate the DOE will allow easy and confidential reporting of suspected violations, and will make every effort to investigate credible complaints. In addition, manufacturers will be obligated to report any potential violations we identify or become aware of to the DOE within 15 days of discovery.

MAKE THE COMMITMENT

Remember, we ALL have a stake in this. As your trusted supplier, we will invest the time and resources to make compliance as easy as possible. That includes training, updated product labeling, and continued communications about this topic.

In the end, we encourage you to make the commitment as well. Start preparing now by getting up to speed on the upcoming 2023 regulations and taking advantage of your resources or visit HVACpartners.com for the very latest on the 2023 regulatory requirements and product information. If you have any questions regarding the new 2023 regulations, reach out to your local distributor.



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