



### THE CHANGE

## NEW REGULATORY REQUIREMENTS

On January 1, 2023, the Department of Energy's new minimum efficiency standards will go into effect. The changes include:

- › The minimum efficiencies for all new split air conditioners, heat pumps, packaged units, and ductless will change
- › A more rigorous testing standard (known as the 'M1 Standard') will produce new efficiency rating metrics

These changes may present new complexities, but Trane® is committed to leading our industry in compliance and is prepared to support our partners every step of the way.

### Why The Change?

Every six years, the Department of Energy reviews energy use of certain home appliances and mechanical systems in an ongoing effort to reduce overall energy consumption in the United States. If it is determined that an increase in energy efficiency requirements is justified, higher requirements are put into effect.

### New 2023 DOE Resource Hub

<https://my.visme.co/view/z46jyx8o-trane-2023-doe-resource-hub>

### New Testing Standards

The new testing procedure (the M1 Standard) increases the external static pressure at which ratings are calculated by up to 5 times the static pressure used in today's test procedure, effectively reducing the rated efficiency of equipment for both heating and cooling. The heating load line has also been redefined. This new load line will favor variable speed systems and will therefore have a larger negative impact on 1-stage and 2-stage HSPF ratings. The ratings created by the new M1 Standard will be published using new ratings nomenclatures: SEER2, EER2, and HSPF2.

### RESOURCES

## WE'RE PREPARED TO SUPPORT YOU

Throughout 2022, resources will be made available to provide education on the regulatory changes; awareness of product phase in/out timelines; and updated consumer product literature.



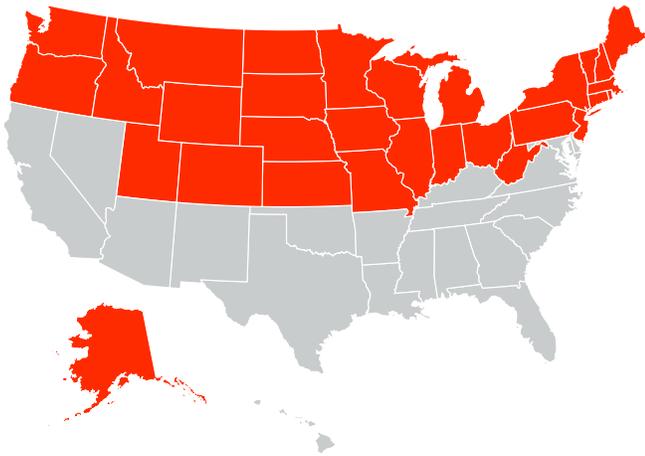
Training and  
E-learning courses



Updated consumer  
product literature



Updated Product  
Handbook



### New Minimum Efficiency Standards

The new 2023 system efficiency minimums may differ by product type.

The following chart outlines your regional standards for ducted and ductless split system air conditioners, split system heat pumps, single-packaged air conditioners and single-packaged heat pumps. All products manufactured prior to January 1, 2023, may be installed on or after January 1, 2023.

	CURRENT M STANDARDS (EST. 2015)	NEW 2023 M1 STANDARDS	ENFORCEMENT
<b>SPLIT SYSTEM AIR CONDITIONERS</b> <i>(Including Ductless)</i>	13 SEER	13.4 SEER2 <i>(Equivalent to 14 SEER)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.
<b>SPLIT SYSTEM HEAT PUMPS</b> <i>(Including Ductless)</i>	14 SEER   8.2 HSPF	14.3 SEER2   7.5 HSPF2 <i>(Equivalent to 15 SEER and 8.8 HSPF)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.
<b>SINGLE-PACKAGED AIR CONDITIONERS</b>	14 SEER   11 EER	13.4 SEER2   10.6 EER2 <i>(Equivalent to 14 SEER and 11 EER)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.
<b>SINGLE-PACKAGED HEAT PUMPS</b>	14 SEER   8 HSPF	13.4 SEER2   6.7 HSPF2 <i>(Equivalent to 14 SEER and 8 HSPF)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.

## INNOVATING FOR A SUSTAINABLE FUTURE

As an industry leader in home comfort and HVAC innovation, Trane® is committed to energy-efficient solutions and reducing our customers' carbon footprint through innovation.

We approach this commitment through continuous low-emissions product development; working with channel partners to increase adoption of high-efficiency and connected systems; and educating and supporting homeowners to understand and act upon benefits of highly efficient, responsible systems.



## New Minimum Efficiency Standards

The new 2023 system efficiency minimums may differ by product type and in some cases, system rated capacity.

The following chart outlines your regional standards for ducted and ductless split system air conditioners, split system heat pumps, single-packaged air conditioners and single-packaged heat pumps. Split air conditioners that do not meet the new 2023 M1 Standards will not be allowed to be installed on or after January 1, 2023. Split heat pumps and single-packaged products manufactured prior to January 1, 2023, may be installed on or after January 1, 2023.

	CURRENT M STANDARDS (EST. 2015)	NEW 2023 M1 STANDARDS	ENFORCEMENT
<b>SPLIT SYSTEM AIR CONDITIONERS</b> <i>(Including Ductless)</i>	14 SEER   12.2 EER	< 45k BTU: 14.3 SEER2   11.7* EER2 <i>(Equivalent to 15 SEER and 12.2 EER)</i>  ≥ 45k BTU: 13.8 SEER2   11.2* EER2 <i>(Equivalent to 14.5 SEER and 11.7 EER)</i>	Units that do not meet the new M1 requirements cannot be installed on or after January 1, 2023.
<b>SPLIT SYSTEM HEAT PUMPS</b> <i>(Including Ductless)</i>	14 SEER   8.2 HSPF	14.3 SEER2   7.5 HSPF2 <i>(Equivalent to 15 SEER and 8.8 HSPF)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.
<b>SINGLE-PACKAGED AIR CONDITIONERS</b>	14 SEER   11 EER	13.4 SEER2   10.6 EER2 <i>(Equivalent to 14 SEER and 11 EER)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.
<b>SINGLE-PACKAGED HEAT PUMPS</b>	14 SEER   8 HSPF	13.4 SEER2   6.7 HSPF2 <i>(Equivalent to 14 SEER and 8 HSPF)</i>	Units manufactured before January 1, 2023 may be installed indefinitely.

\*9.8 EER2 applies if SEER2 is ≥ 15.2

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# Frequently Asked Questions:

## 2023 DOE Regulatory Changes



Last Updated: March 17, 2022

### What is changing?

On January 1, 2023, the Department of Energy's new minimum efficiency standards will go into effect. The changes include:

- The minimum efficiencies for all new split air conditioners, heat pumps, packaged units, and ductless will change;
- A more rigorous testing standard (known as the 'M1 Standard') will produce new efficiency rating metrics.

### Why is there a change?

Every six years, the Department of Energy reviews the energy usage of certain home appliances and mechanical systems in an ongoing effort to reduce overall energy consumption in the United States. If it is determined that an increase in energy efficiency requirements is justified, higher requirements are put into effect.

### How is the new testing procedure, the M1 Standard, different?

The external static pressure will be increased by up to 5 times versus today's testing procedures. This will result in increased blower motor watt usage, effectively reducing energy efficiency ratings. Due to this new procedure, there will be new metrics and ratings nomenclatures: SEER2, EER2 and HSPF2.

### Can I access ratings for products made before the new deadline?

Yes, you can view the ratings in the [AHRI](#) directory.

### Are there sell-through deadlines?

Yes, in the *Southeast and Southwest* regions, split system air conditioners that do not meet the new 2023 M1 Standards will not be allowed to be installed on or after January 1, 2023. Split system heat pumps and single-packaged products manufactured prior to January 1, 2023, may be installed on or after January 1, 2023.

In the *North*, split system air conditioners, split heat pumps and single-packaged product manufactured prior to January 1, 2023, may be installed on or after January 1, 2023

### Why are there different requirements by region?

Air conditioners are used more often in warmer climates than cooler climates. For these areas, a system with a higher efficiency provides an opportunity for greater energy savings.

### What is the breakdown of the Southwest and Southeast regions?

*Southeast Region:* Alabama, Arkansas, Delaware, Florida, Georgia, Hawaii, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia

*Southwest Region:* Arizona, California, Nevada, New Mexico

### What are the lead times for new products once they are ordered?

We will allocate our final production quantities of the old product first. After all inventory of old product is exhausted, remaining open orders will be converted by our Order Management team to the new model numbers at the new product price.



# Frequently Asked Questions

## 2023 DOE Regulatory Changes



Last Updated: March 17, 2022

### Considering the new refrigerant changes, what is the plan to support and supply R-410A components in and out of warranty?

We will not transition refrigerant as part of the 2023 Department of Energy transition and will remain with R-410A.

### With the rising prices in R410-A refrigerant, will there be a switch from R410-A to another refrigerant?

There will be no refrigerant switch prior to LOW GWP conversion.

### What changed on the HSPF calculations in the new M1 standard?

The heating load line was changed, negatively affecting HSPF calculated ratings.

### What are the changes in the new model numbers for outdoor units?

Trane®	RunTru™
1-Stage: 'N' in 9th digit	A4AC3/A4AC4/A4HP4
2-Stage: 'N' in 9th digit on wire top units	'D' in 9th digit A4AC5/A4HP5
'E' in 9th digit on Flat-Top units	5th digit changes from '6' to '5' and 'D' in 9th digit
Variable Speed: No Changes	

### Lead times are extended for RunTru; any timing on when that will improve?

When the building expansion in Tyler is complete, we will have added capacity on Runtru outdoor models. This will improve our lead times and availability. We should see a better situation in late Q2.

### Will there be a Department of Energy change forcing air handlers into a constant torque motor (as they did with furnaces)? is that the reason for the change?

Yes, the change in static pressure testing and increase in efficiency effectively eliminates the ability to use permanent split capacitor motors.

### Is there a timeline on when air handlers will move to constant torque motors (CTM)? How many speeds will the motors have?

Air handlers, for the most part, already have a full line of CTM motors. The TEM4 family will be introducing a couple new models where a CTM solution is needed. The motor control will be similar to our CTM's in TEM4 today. The goal is to line up the introductions with outdoor model timeline.

### Will there be a 'B' cabinet and 'C' cabinet in the 3-Ton TEM air handlers?

The TEM4A0B31 with the 'B' cabinet will accomplish ratings that reach max capacity at 36K BTU/hr.

### Are there any changes to air handlers?

Yes, the most significant change is that air handlers with permanent split capacitor motors will be phased out. Models with constant torque motors will be introduced where models are needed. This transition will happen in alignment with outdoor unit timing.

### Where can I find documents related to the Department of Energy changes?

All Department of Energy content/documents are accessible on MAX. Go to Marketing Center--> MAX--> Info Center --> DOE Updates. This will house all the information we publish for DOE 2023.

