

**TEMPSTAR**<sup>®</sup>  
Heating and Cooling Products

**3–27.5 TONS  
COMMERCIAL  
PACKAGED ROOFTOPS**



# Tempstar® Commercial Packaged Rooftops

Tempstar® professionals take pride in bringing you the latest technology in heating and air conditioning, with the goal of surpassing your expectations in energy efficiency and dependability. From engineering and design to industry-leading warranties, we are dedicated to always delivering quality you can feel.

## Easier To Sell

Tempstar® commercial packaged rooftop offer certified and pre-engineered factory installed options as well as field accessories.

Tempstar commercial rooftop units are available in both standard and high efficiency gas heating/electric cooling (RG Series), electric heat/electric cooling (RA Series) or packaged heat pumps (RH Series).

Patented X-Vane two stage models achieve 16.0 SEER<sup>†</sup> and 15.2 IEER. Single stage X-Vane models deliver a SEER rating of 14.0 and up to 11.8 EER<sup>†</sup>. Other models deliver efficiency ratings of up to 16.2 IEER (RGH/RAH072) and EER ratings up to 12.4.

Tempstar commercial rooftop units are field convertible 3 – 15 ton in standard efficiency and 3 – 12.5 ton in high efficiency.

<sup>†</sup>SEER stands for Seasonal Energy Efficiency Ratio and EER stands for Energy Efficiency Ratio.

## Tempstar Patented X-Vane Commercial Models 3 – 6 Ton

RGV/RAV/RGW/RAW rooftop units fit on our existing roof curbs dating back to 1989. Intuitive controls make setting the required fan speed simple and accurate. Access to blower section is not required.

The new Vane Axial fan and direct drive ECM motor eliminate the need to adjust belts or pulleys. This frees up maintenance and installation time. Sloped, composite drain pan won't rust. RGV units are designed with a naturally draining heat exchanger. Unlike positive pressure heat exchangers, RGV heat exchangers do not need to be periodically, manually drained. This feature reduces labor and maintenance costs.

X-Vane Unit Control Board places all connections and troubleshooting points in one place. Setting the fan is simple using the switch and rotary dial arrangement. This new Vane Axial design compared to past belt drive systems has 75% fewer moving parts and uses up to 40% less energy.

## Easier To Service

### Scroll Compressor

Tempstar commercial rooftop units utilize fully hermetic scroll compressors. Compressors are designed with internal isolation and have internal thermal line break, current overload, and high-pressure differential protection.

### Central Terminal Board

Standard on every unit, the integrated terminal simplifies the installation of pre-engineered and certified field-installed accessories, including economizers, by providing clearly labeled connection points for easy plug-in connection.

### Easy-Access Handles

Handles located on all major access panels provide quick, convenient and safe access to components for easy maintenance and service.

### No-Strip Screw Collars

To prevent misalignment and stripped metal panels, screws are guided into collars. This increased screw engagement also makes panels easier to remove and replace.

### Unit Safety Protection

For increased reliability, heat pump models come standard with a refrigerant suction line accumulator in each refrigerant circuit. This preventive measure stops the natural tendency of liquid refrigerant from entering the compressor in heat pumps as they switch in and out of defrost, and between heating and cooling modes. In addition, heat pump models come with high pressure and temperature protection as well as low pressure or loss of charge protection.

## Easier To Install

- The light and compact design has full-perimeter base rails that help in moving, transporting and rigging.
- Tempstar models up to 12.5 tons are specifically designed to fit on many similar roof curbs dating back over 30 years, which makes replacement easy and eliminates the need for curb adapters or changing utility connections.
- Tempstar commercial rooftops are capable of either vertical or horizontal airflow to meet nearly every application.
- Tempstar commercial rooftops can be ordered with factory pre-engineered and certified options like stainless steel heat exchangers, smoke detectors and economizers. Other factory-installed options include convenience outlets, non-fused disconnects and motorized two-position dampers. Protective E-Coat is also available for caustic applications.
- For humid applications, Tempstar commercial rooftop units offer hot gas re-heat dehumidification in both standard and high efficiency models.



R410A is an EPA-approved, environmentally sound refrigerant.

### RGV Standard Efficiency Gas Heating / Electric Cooling Package Unit with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER) IEER	Gas Heat—Heating Input (MBTUH)		
			Low	Medium	High
3	1	(14.0)	67	110	–
4, 5	1	(14.0)	67	110	150
6	2	15.0	67	110	150

### RAV Standard Efficiency Electric Heating / Electric Cooling Package Unit with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency SEER	Electrical Heat Nominal kW Range
3	1	(14.0)	4.0-15.0
4	1	(14.0)	4.0-21.0
5	1	(14.0)	6.5-24.0
6	2	15.2	6.5-24.0

### RHV Standard Efficiency Electric Package Heat Pump with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER) EER	@ 47° F		@ 17° F	
			Heating Capacity (Btuh)	(HSPF) COP	Heating Capacity (Btuh)	(HSPF) COP
3	1	(14.3)	34,000	(8.2)	17,000	n/a
4	1	(14.3)	46,600	(8.2)	23,600	n/a
5	1	(14.3)	56,500	(8.2)	30,000	n/a
6	2	15.0	64,500	3.6	35,000	2.4

### RHS Standard Efficiency Electric Package Heat Pump

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER) EER	@ 47° F		@ 17° F	
			Heating Capacity (Btuh)	(HSPF) COP	Heating Capacity (Btuh)	(HSPF) COP
7.5	2	11.2	86,600	3.4	48,000	2.25
8.5	2	11.2	96,000	3.3	54,500	2.25
10	2	11.0	116,000	3.4	62,300	2.25
12.5	2	10.6	142,000	3.2	76,000	2.05
15	2	10.8	166,000	3.3	103,000	2.4
20	2	10.5	220,000	3.3	134,000	2.3

### RGS Standard Efficiency Single Circuit Two-Stage Gas Heating / Electric Cooling Package Unit - no VFD Meets DOE 2018

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (EER)	Gas Heat—Heating Input (MBTUH)		
			Low	Medium	High
7.5	2	11.0	125	170	224
8.5	2	11.0	125	180	224
10	2	11.0	125	224	250

### RGS Standard Efficiency Two Circuit Two-Stage Gas Heating / Electric Cooling Package Unit with VFD

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (EER)	Gas Heat—Heating Input (MBTUH)		
			Low	Medium	High
7.5, 8.5	2	11.0	125	180	224
10	2	11.1	180	224	240
12.5, 15, 17.5	2	10.8	150	180	240
20, 25	2	9.8	220	310	440
27.5	2	10.2	220	310	440

### RAS Standard Efficiency Single Circuit Two-Stage Electric Heating / Electric Cooling Package Unit - no VFD Meets DOE 2018

Nominal Cooling Ton Size	Net Capacity (Btuh)	AHRI Efficiency (EER)	Total Power (kW)
7.5	88,000	11.0	8
8.5	97,000	11.2	8.8
10	117,000	11.2	10.6

### RAS Standard Efficiency Two Circuit Two-Stage Electric Heating / Electric Cooling Package Unit - with VFD

Nominal Cooling Ton Size	Net Capacity (Btuh)	AHRI Efficiency (EER)	Total Power (kW)
7.5	83,000	11.2	7.4
8.5	97,000	11.2	9.0
10	114,000	11.3	10.1
12.5	140,000	11.0	12.7
15	174,000	11.0	15.8
17.5	208,000	11.0	18.9
20	242,000	10.0	24.2
25	280,000	10.0	28.0
27.5	330,000	10.4	31.7

STANDARD EFFICIENCY COMMERCIAL PACKAGED ROOFTOPS

# HIGH EFFICIENCY COMMERCIAL PACKAGED ROOFTOPS

## RGW High Efficiency Gas Heating / Electric Cooling Package Unit with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency SEER	Gas Heat—Heating Input (MBTUH)		
			Low	Medium	High
3	2	16.0	67	110	–
4, 5	2	16.0	67	110	150

## RGH High Efficiency Gas Heating / Electric Cooling Package Unit with Patented X-Vane Technology

Nominal Cooling Ton Size	AHRI Efficiency EER	Gas Heat—Heating Input (MBTUH)		
		Low	Medium	High
6	12	59,000	103,000	120,000
7.5, 8.5	12	103,000	148,000	184,000
10	12	148,000	184,000	205,000
10	11.5	148,000	184,000	205,000
12.5	12.2	120,000	146,000	195,000
15, 17.5, 20, 25	12	178,000	251,000	324,000

## RAW High Efficiency Electric Heating / Electric Cooling Package Unit with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency SEER	Electrical Heat Nominal kW Range
3	2	16.0	4.0-15.0
4	2	16.0	4.0-21.0
5	2	16.0	6.5-24.0

## RHH High Efficiency Electric Packaged Heat Pump

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER) EER	@ 47° F		@ 17° F	
			Heating Capacity (Btuh)	(HSPF) COP	Heating Capacity (Btuh)	(HSPF) COP
6	1	12.0	7,000	3.40	39,000	2.40
7.5	2	12.1	84,600	3.50	47,000	2.40
8.5	2	12.0	100,000	3.40	56,000	2.26
10	2	12.3	116,000	3.50	65,000	2.40

## RHW High Efficiency Electric Package Heat Pump with Patented X-Vane Technology

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER)	@ 47° F		@ 17° F	
			Heating Capacity (Btuh)	HSPF	Heating Capacity (Btuh)	HSPF
3	2	(16.2)	34,000	8.3	17,600	n/a
4	2	(16.2)	45,500	8.3	24,400	n/a
5	2	(16.2)	55,500	8.3	30,000	n/a

## RAH High Efficiency Electric Heating / Electric Cooling Packaged Unit

Nominal Cooling Ton Size	Cooling Stages	AHRI Efficiency (SEER) EER	Electric Heat Nominal kW Range
6	1	12.2	6.0-26.5
7.5, 8.5	2	12.2	10.0-42.4
10	2	12.0	10.0-51.0
10	2	11.7	10.0-51.0
12.5	2	12.4	15.0-51.0
15, 17.5, 20	2	12.2	25.0-75.0
25	2	11.4	25.0-75.0

All systems tested and listed by the appropriate agencies.



As part of its commitment to quality, the manufacturer reserves the right to change specifications on its products without notice. Illustrations and photographs in this brochure are only representative. Some product models may vary.

RGS/RAS/RHS/RGH/RAH/RHH/RGV/RAV/RGW/RAW/RHV/RHW Series  
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PO Box 128 • Lewisburg, TN 37091  
GoTempstar.com

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