

Copeland YS scroll compressor

For low- to medium-temperature A2L refrigeration applications

Qualified for A2L refrigeration applications

The Copeland YS scroll compressor represents the latest innovation in scroll technology for refrigeration equipment from 1-4 HP (9k-30k BTU/hr at medium temperature ARI). Copeland developed optimized compression solutions for a variety of lower-GWP refrigerants, including A2L refrigerants R-454A, R-454C, and R-455A.

Classified as “mildly flammable,” A2L refrigerants have been identified as viable alternatives to high-GWP hydrofluorocarbons (HFCs). A2L refrigerants have the potential to solve application challenges within the commercial refrigeration landscape. With charge limits exceeding those approved for R-290, A2Ls represent a potentially higher-capacity alternative in self-contained applications. They also have a likely place in distributed architectures, such as remote, outdoor condensing units (OCUs) or mini-racks used in smaller-format outlets.

Improved efficiency and reliability plus quieter operation

Copeland YS scroll compressor models are intended for low- to medium-temperature



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refrigeration applications and are ideally suited for walk-in, reach-in, coolers, soft serve and frozen carbonated beverage equipment. These compressors are wide-ranged, multi-refrigerant capable with lower sound and vibration recommended for supermarket, restaurant and convenience store operations.

Key product advantages

- 70% fewer moving parts compared to reciprocating compressors for increased reliability
- Superior liquid handling capability
- Smooth scroll movement for low sound and vibration
- Wide operating range from -25°F to 45°F
- Qualified for multiple refrigerants including R-454A, R-454C, R-455A, R-404A, R-507, R-407A, R-407C, R-407F, R-448A, R-449A, R-134a

Applications

- Walk-in and reach-in coolers and freezers
- Coolers and chillers
- Soft serve machines
- Frozen beverage machines
- Display cases

YS model summary

Model	Capacity (Btu/hr)			L (in)	W (in)	H (in)
	R-454A	R-454C	R-455A			
YS09KAE	9,383	8,063	8,720	9.7	9.7	16.0
YS11KAE	11,041	9,488	10,261	9.7	9.7	16.0
YS12KAE	12,692	10,907	11,795	9.7	9.7	16.0
YS14KAE	14,925	12,826	13,870	9.7	9.7	16.0
YS16KAE	16,674	14,293	15,513	9.7	9.7	16.0
YS19KAE	20,083	17,250	18,685	9.7	9.7	16.0
YS21KAE	22,277	19,150	20,762	9.7	9.7	17.2
YS24KAE	24,728	21,257	23,046	9.7	9.7	17.2
YS26KAE	27,702	23,814	25,819	9.7	9.7	17.2
YS30KAE	31,501	27,080	29,359	9.7	9.7	17.2

Dewpoint capacity at 20°F/120°F/40°F return gas
0°F subcooling