

# 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