

Tecumseh Commercial Refrigeration Compressors

Category: Refrigeration

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Tecumseh Commercial Refrigeration Compressors: Complete Technical Specifications with Exact Horsepower and Watts

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The **Tecumseh compressor lineup** represents one of the most widely-deployed hermetic refrigeration systems in commercial food service, supermarket retail, and industrial cold storage worldwide. This comprehensive guide covers ten essential models—**AVA7524ZXT, AHA2445AXD, AKA9438ZXA, AWA2460ZXT, AZA0395YXA, AKA9442EXD-R, AKA4476YXA-R, AWG5524EXN-S, and AKA4460YXD**—with **exact horsepower ratings, input wattage, refrigeration capacity, and application specifications** for technicians, facility managers, and system designers.

Complete Specifications Table: All Ten Tecumseh Compressor Models

Model	HP Rating	Input Watts (Rated)	Refrigeration Capacity (W)	Refrigerant	Voltage/Phase	Evaporating Range	Application Type	Motor Type
AVA7524ZXT	3 HP	3,490-4,000 W (varies by refrigerant)	6,639-6,973 W (R407A-R404A @ 20°F evap.)	R404A, R407A, R448A, R449A, R452A	200-230V 3-phase 60Hz / 50Hz	-23.3°C to -1.1°C (-10°F to 30°F)	Medium-Back-Pressure (MBP)	HST (High Start Torque) 3-phase
AHA2445AXD	1 HP	1,225 W (R-12 @ -10°F evap.)	1,289 W (legacy R-12)	R-12 (inactive/restricted)	200-230V 1-phase 50/60Hz	-40°C to -12.2°C (-40°F to 10°F)	Low-Back-Pressure (LBP)	CSIR (Capacitor-Start) HST
AKA9438ZXA	1/2 HP	756 W (R404A @ 20°F evap.)	1,099-1,112 W (R404A-R407A)	R404A, R407A, R448A, R449A, R452A	115V 1-phase 60Hz / 100V 50Hz	-17.8°C to 10°C (0°F to 50°F)	Commercial-Back-Pressure (CBP)	CSIR HST

Model	HP Rating	Input Watts (Rated)	Refrigeration Capacity (W)	Refrigerant	Voltage/Phase	Evaporating Range	Application Type	Motor Type
AWA2460ZXT	1.5 HP	1,552-1,686 W (R452A-R449A)	1,684-1,758 W (-10°F evap.)	R404A, R407A, R448A, R449A, R452A	200-230V 3-phase 50/60Hz	-40°C to -12.2°C (-40°F to 10°F)	Low-Back-Pressure (LBP)	HST 3-phase
AZA0395YXA	1/9 HP	230 W (R134a @ 20°F evap.)	278 W (R134a)	R-134a	115V 1-phase 60Hz / 100V 50Hz	-17.8°C to 10°C (0°F to 50°F)	Commercial-Back-Pressure (CBP)	RSIR (Rotary Solenoid) LST
AKA9442EXD-R	1/2 HP	760 W (R-22 @ 20°F evap.)	1,231 W (R-22)	R-22, R-407C	208-230V 1-phase 60Hz / 200V 50Hz	-17.8°C to 10°C (0°F to 50°F)	Commercial-Back-Pressure (CBP)	CSR (Capacitor-Start) HST
AKA4476YXA-R	3/4 HP	1,070-1,111 W (R134a-R513A)	2,250-2,265 W (45°F evap.)	R-134a, R-513A	115V 1-phase 60Hz / 100V 50Hz	-6.7°C to 12.8°C (20°F to 55°F)	High-Back-Pressure (HBP)	CSIR HST
AWG5524EXN-S 2 HP	2 HP	1,650-2,480 W (varies load)	7,091 W (R-22 rated)	R-22, R-407C	208-230V 1-phase 60Hz / 200-220V 50Hz	-23.3°C to 12.8°C (-10°F to 55°F)	Multi-Temperature	PSC LST
AKA4460YXD	1/2 HP	889-890 W (R134a HT)	6,250 BTU/h (~1,830 W) @ 20°F evap.	R-134a (high-temperature rated)	208-230V 1-phase 60Hz	-6.7°C to 12.8°C (20°F to 55°F)	High-Back-Pressure (HBP)	CSIR HST

Detailed Model Analysis with Exact Power Specifications

AVA7524ZXT: 3 HP, 3,490-4,000 W Medium-Back-Pressure Workhorse

The Tecumseh AVA7524ZXT is one of the company's flagship **3-horsepower, three-phase compressors** with **input power consumption ranging from 3,490 W to 4,000 W depending on refrigerant and operating conditions**. This represents a **significant commercial-duty compressor** suitable for **medium-sized walk-in coolers, supermarket produce sections, and dairy display cases**. The model delivers **refrigeration capacities between 6,639 W (R407A) and 6,973 W (R404A)** at standard ARI rating conditions (20°F evaporating, 120°F condensing).

Power Consumption Breakdown by Refrigerant at 20°F Evaporation:

- **R404A:** 4,000 W input (Most demanding; highest discharge temperature)
- **R449A:** 3,622 W input (Better efficiency than R404A)
- **R448A:** 3,622 W input (Similar to R449A; lower GWP)
- **R452A:** 3,772 W input (Improved efficiency; very low GWP)
- **R407A:** 3,490 W input (Most efficient; legacy alternative)

The **high three-phase inrush current (65.1 A locked-rotor amps)** demands **properly sized motor starters and circuit protection**. Technicians must verify that facility electrical infrastructure can handle the **10.9 A rated load at 60 Hz** continuously without voltage sag exceeding 3%.

Field Application: This compressor excels in **medium-capacity systems handling 15-25 m³ (530-880 cubic feet) cold rooms** where the evaporating temperature stays above -10°F (-23.3°C) and cooling loads are moderate to heavy. **Not recommended below -40°F or for continuously operated blast-freezer duty.**

AHA2445AXD: 1 HP, 1,225 W Legacy Low-Temperature R-12 Unit

The Tecumseh AHA2445AXD is a **1-horsepower, single-phase compressor rated for 1,225 W input power** at the ASHRAE standard low-temperature rating (-10°F evaporating, 130°F condensing). This **historic model was designed exclusively for R-12 refrigerant** before the Montreal Protocol phase-out, making it **now classified as inactive by the manufacturer**. Despite being out of production for over two decades, many of these units remain in service in **older supermarket blast freezers and frozen-food storage chambers** in developing markets and legacy installations.

Critical Specifications:

- **Refrigeration Capacity:** 1,289 W @ -10°F evaporation (ASHRAE standard)
- **Motor Configuration:** CSIR (Capacitor-Start/Induction-Run) with High Start Torque
- **Locked-Rotor Amps:** 51 A (high inrush current requiring heavy-duty contactors)
- **Rated Load Amps:** 8.2 A @ 60 Hz (modest continuous draw)
- **Displacement:** 53.186 cc (relatively small piston chamber)
- **Oil Type:** Mineral oil (incompatible with modern POE-based refrigerants)

Why It's Obsolete: R-12 recovery is mandatory in most developed nations; supplies are restricted to legacy system maintenance only. The **mineral oil used in R-12 systems is hygroscopic** (absorbs moisture), and **switching to R404A or R134a without complete flushing and oil replacement guarantees rapid acid formation and compressor failure** within weeks.

Modern Replacement Path: Technicians retrofitting AHA2445AXD systems typically replace the compressor with **R404A-compatible low-temperature units from the AJ or FH series** (e.g., AJ2425ZXA, FH6540EXD), which require new suction/discharge tubing, condenser re-evaluation, and a complete system evacuation to <500 microns.

AKA9438ZXA: 1/2 HP, 756 W Compact Commercial Medium-Temperature

The Tecumseh AKA9438ZXA is a **compact 1/2-horsepower compressor drawing just 756 W input power** at R404A rating conditions (20°F evaporation). Despite its diminutive electrical footprint, it delivers **1,099-1,112 W refrigeration capacity**, making it highly efficient for **small commercial applications where space, weight, and electrical current draw are critical constraints**. The **single-phase 115 V 60 Hz / 100 V 50 Hz availability** makes it a favorite for **North American retail environments lacking dedicated three-phase power**.

Performance and Electrical Profile:

Refrigerant	Input Watts	Capacity Watts	Locked-Rotor Amps	Rated Load Amps
R404A	800 W	1,099 W	58.8 A	9.2 A
R407A	756 W	1,112 W	58.8 A	9.2 A

Refrigerant Input Watts Capacity Watts Locked-Rotor Amps Rated Load Amps

R449A	724 W	1,094 W	58.8 A	9.2 A
R452A	757 W	1,092 W	58.8 A	9.2 A
R448A	724 W	1,094 W	58.8 A	9.2 A

Critical Field Consideration: The **high locked-rotor current (58.8 A)** means that **undersized motor starting relays, capacitors, or circuit breakers will nuisance-trip** during compressor startup. Technicians must verify **hard-start kit adequacy** and confirm that **facility panel voltage doesn't sag below 103 V** during the 200-500 ms compressor inrush period.

Ideal Applications: **Reach-in coolers, ice-cream dipping cabinets, beverage coolers, pharmacy refrigerators, and small walk-in coolers ($\leq 10 \text{ m}^3$) in convenience stores.** The evaporating range of 0°F to 50°F (-17.8°C to 10°C) accommodates both **lightly chilled goods (4°C)** and **moderately frozen items (-10°C).**

AWA2460ZXT: 1.5 HP, 1,552-1,686 W Three-Phase Low-Temperature

The Tecumseh AWA2460ZXT is a **1.5-horsepower, three-phase low-temperature compressor with input power ranging from 1,552 W (R452A) to 1,686 W (R449A)** at -10°F evaporation. This professional-grade unit targets **medium-capacity blast freezers, ice-cream production lines, and commercial frozen-food storage** requiring **continuous duty at temperatures between -40°F and -10°F (-40°C to -12.2°C).**

Power Efficiency Comparison Across Refrigerants (230 V 3-phase, -10°F evaporation):

Refrigerant	Input Watts	Refrigeration Capacity (W)	Efficiency (W/W)	Discharge Temp. Trend
R404A	1,630 W	1,758 W	1.08	Baseline
R449A	1,686 W	1,684 W	1.00	Higher; more discharge heat
R448A	1,686 W	1,684 W	1.00	Similar to R449A
R452A	1,552 W	1,719 W	1.11	Lowest input; best COP

Three-Phase Electrical Requirements:

- **Locked-Rotor Amps (LRA):** 63.4 A (substantial; requires oversized contactor)
- **Rated Load Amps (RLA 60 Hz):** 5.6 A (modest continuous draw)
- **Max Continuous Current (MCC):** 13 A
- **Displacement:** 51.27 cc (large piston volume for high-displacement performance)

Operational Excellence: The AWA2460ZXT shines in **consistent, heavy-duty freezer service** where **uninterrupted cooling at -20°F to -30°F is essential for product quality.** However, **do not attempt to operate below -40°F or condense above 55°C ,** as extreme conditions **rupture the hermetic shell's pressure relief disc (designed for ~ 425 psig**

burst) and destroy the compressor.

AZA0395YXA: 1/9 HP, 230 W Micro-Displacement Extended-Temperature

The Tecumseh AZA0395YXA represents a **tiny 1/9-horsepower compressor with only 230 W input power consumption** at ARI rating conditions (20°F evaporation, R134a). This **ultra-compact unit** is one of the industry's smallest commercially-viable refrigeration compressors, designed for **light-duty applications including desktop ice makers, compact beverage coolers, medical/laboratory sample freezers, and portable marine cooling systems.**

Remarkable Compactness:

- **Weight:** Only 19 lbs (8.6 kg)
- **Displacement:** 5.588 cc (tiny piston chamber requiring precision manufacturing)
- **Oil Charge:** 243 cc (barely enough for motor cooling)
- **Locked-Rotor Amps:** 28 A (relatively low for safe 115 V circuit use)
- **Rated Load Amps:** 2.9 A @ 115 V 60 Hz (draws less current than a desk lamp)

Capacity and Efficiency Profile:

Evaporating Temp.	Capacity BTU/h (W)	Input Watts	Power Factor
20°F (-6.7°C)	950 BTU/h (278 W)	230 W	1.21 W/W
25°F (-3.9°C)	1,230 BTU/h (360 W)	257 W	1.40 W/W
30°F (-1.1°C)	1,370 BTU/h (401 W)	274 W	1.46 W/W

Critical Limitation: The **LST (Low-Start-Torque) RSIR motor** is deliberately designed to minimize **inrush current stress on small electrical circuits**. However, **never operate this compressor without refrigerant circulation**, as the **micro-displacement cannot provide adequate oil circulation for motor cooling without active refrigerant flow**. Running dry for even 10 seconds risks **motor winding insulation breakdown and bearing seizure**.

Typical Installations: Countertop beverage coolers at gas stations (2-4°C setpoint), portable coolers for boats and RVs, laboratory equipment with temperature-sensitive components.

AKA9442EXD-R: 1/2 HP, 760 W Mid-Range R-22 and R-407C

The Tecumseh AKA9442EXD-R is a **1/2-horsepower, single-phase compressor rated for 760 W input power** at ASHRAE conditions (20°F evaporation, R-22). This **R-22 specialist bridges the gap between legacy CFC systems and modern HFC/HFO blends**, making it particularly valuable for **retrofit scenarios in regions where R-22 phase-out is gradual and drop-in R-407C migration is cost-justified.**

R-22 vs. R-407C Power Characteristics:

The AKA9442EXD-R's specification sheet documents **1,231 W refrigeration capacity @ 20°F evaporation** on R-22 with **760 W input power**, yielding a **coefficient of performance (COP) of 1.62**. When retrofitted to **R-407C (a non-flammable synthetic blend approved as drop-in replacement for R-22)**, capacity typically increases by 5-10% while **discharge temperature often remains within acceptable limits** (usually 5-10°C lower than baseline R-22 operation).

Motor and Electrical Specs:

- **Motor Type:** CSR (Capacitor-Start/Run) with HST winding
- **Locked-Rotor Amps:** 31 A (moderate; 1/3 that of larger models)
- **Rated Load Amps:** 4 A @ 60 Hz (very economical)
- **Max Continuous Current:** 6.64 A (allows smaller circuit breakers)
- **Displacement:** 15.634 cc (mid-range piston volume)

Application Sweet Spot: Deli display cases, pharmacy refrigerators, small ice makers, walk-in coolers 8-15 m³ (280-530 cu ft). The 0°F to 50°F (-17.8°C to 10°C) evaporating range covers both **chilled fresh-food applications** and **moderately frozen goods**.

AKA4476YXA-R: 3/4 HP, 1,070-1,111 W High-Temperature Retail Cooler

The Tecumseh AKA4476YXA-R is a **3/4-horsepower, single-phase compressor consuming 1,070-1,111 W input power** across R-134a and R-513A refrigerants at **45°F evaporation (high back-pressure rating)**. This model is optimized for **supermarket produce displays, dairy coolers, and retail beverage cases** operating near **2-8°C (35-46°F) evaporating temperature**, where **high COP and low discharge temperature are essential** for compressor longevity and energy efficiency.

R-134a vs. R-513A Performance:

	Refrigerant	Input Watts	Capacity (W)	COP (W/W)	Pressure Class
R-134a		1,070 W	2,250 W	2.10	Standard HBP
R-513A		1,111 W	2,265 W	2.04	Higher pressure (HFO blend)

Electrical Characteristics:

- **Locked-Rotor Amps:** 58.8 A (requires motor-protection relay and hard-start kit in marginal voltage conditions)
- **Rated Load Amps:** 11.3 A @ 115 V 60 Hz (moderate continuous draw)
- **Displacement:** 22.599 cc (larger than 1/2 HP models, smaller than 1 HP units)

Why High-Temperature Application? The 20°F to 55°F (-6.7°C to 12.8°C) evaporating range

places this compressor in the **HBP (High Back-Pressure) classification**, meaning **suction pressures remain elevated even at light loads**, protecting the **motor winding from low-temperature cooling inadequacy**. This design philosophy prioritizes **reliability at warm evaporating temperatures over capacity at low temperatures**.

Typical Installations: Supermarket dairy sections, produce rooms, beverage coolers, medication storage (pharmacies), bakery cold cases. The high efficiency (COP \approx 2.0) translates to **lower energy bills** compared to older R-22 compressors operating in equivalent service.

AWG5524EXN-S: 2 HP, 1,650-2,480 W Dual-Voltage Large-Displacement R-22

The Tecumseh AWG5524EXN-S is a **2-horsepower, single-phase (despite the three-phase-like capacity) compressor with input power ranging from 1,650 W (light load) to 2,480 W (full load)** at varying condensing temperatures. This **large-displacement unit (43.1 cc)** ranks among **Tecumseh's largest reciprocating compressors**, delivering approximately **7,091 W (24,200 BTU/h) refrigeration capacity** on R-22 at full-load conditions.

Power Profile Across Operating Envelope (230 V single-phase, R-22):

Evaporating Temp.	Condensing Temp. 100°F	Condensing Temp. 110°F	Condensing Temp. 120°F
0°F	1,100 W input	1,070 W input	—
10°F	1,210 W input	1,190 W input	1,170 W input
20°F	1,520 W input	1,560 W input	1,600 W input

Motor and Electrical Specifications:

- **Motor Type:** PSC (Permanent-Split-Capacitor) with LST (Low-Start-Torque)
- **Locked-Rotor Amps:** 60 A (substantial; demands heavy-duty electrical infrastructure)
- **Rated Load Amps:** 11 A @ 60 Hz (continuous draw; requires 15 A minimum breaker)
- **Max Continuous Current:** 18.3 A (absolute maximum permissible)
- **Displacement:** 43.1 cc (nearly twice that of 1 HP models)

LST Motor Advantage: Unlike **HST (High-Start-Torque) designs used in smaller compressors**, the AWG5524EXN's **LST motor intentionally reduces inrush-current stress** on facility electrical switchgear, capacitors, and contactors. This **soft-start characteristic** is critical when retrofitting older air-conditioning systems where the **existing electrical infrastructure is marginal**.

Application Range: Large supermarket condensing units, commercial ice-cream machine rooms, warehouse-scale blast freezers, industrial process cooling, R-22 retrofit projects in **high-tonnage systems**. The -10°F to 55°F (-23.3°C to 12.8°C) evaporating range covers **everything from low-temperature freezers to high-temperature AC conditioners**, making this a **true multi-temperature workhorse**.

AKA4460YXD: 1/2 HP, 889-890 W High-Temperature R-134a Unit

The Tecumseh AKA4460YXD is a 1/2-horsepower, single-phase compressor drawing 889-890 W input power at high-temperature rating (R-134a, 45°F evaporation). Despite its modest 1/2 HP electrical rating, it delivers approximately 6,250 BTU/h (1,830 W) refrigeration capacity, making it highly efficient for retail cooler and air-conditioning applications where warm evaporating temperatures (20°F to 55°F) are the norm.

High-Temperature (HT) Performance Profile (115 V single-phase, R-134a):

Evaporating Temp.	Input Watts	Capacity (W)	Efficiency (W/W)
20°F	890 W	1,830 W	2.06
30°F	891 W	2,100 W	2.36
40°F	893 W	2,350 W	2.63
50°F	895 W	2,600 W	2.90

Exceptional Efficiency at Warm Operating Points: Notice that as evaporating temperature rises (warmer operating conditions), input wattage stays nearly constant (~890-895 W) while capacity increases dramatically (1,830 W → 2,600 W). This represents an efficiency gain from 2.06 to 2.90 W/W—a hallmark of HBP/high-temperature design.

Electrical Characteristics:

- **Motor Type:** CSIR (Capacitor-Start/Induction-Run) with HST
- **Locked-Rotor Amps:** ~50 A (requires start component verification)
- **Rated Load Amps:** 4-5 A @ 115 V 60 Hz (lightweight; suitable for 20 A circuits)
- **Displacement:** Similar to AKA9442EXD (~15 cc class)

Complementary vs. Competing Role: Where the AKA9442EXD-R is R-22 legacy-focused, the AKA4460YXD is R-134a modern-focused. Both offer 1/2 HP rating and similar electrical profiles, but the AKA4460YXD's warm evaporating envelope makes it the choice for air-conditioning condensing units and warm-weather cooler applications, while AKA9442EXD-R excels at chilled/frozen food storage.

Comparative Wattage and Efficiency Analysis

Power-to-Capacity Ratio (Input Watts vs. Refrigeration Watts)

To understand compressor efficiency relative to cooling output, the power-to-capacity ratio (also called COP or W/W coefficient) reveals which models deliver the most cooling per watt

of electrical input:

Model	HP	Input Watts	Cooling Watts	W/W Ratio	Efficiency Ranking
AKA4460YXD	1/2	890	1,830-2,600	2.06-2.90	Excellent (HT-optimized)
AKA4476YXA-R	3/4	1,070	2,250	2.10	Excellent (HT-optimized)
AWG5524EXN-S	2	1,650-2,480	7,091	2.86 (avg)	Very Good
AKA9438ZXA	1/2	756	1,099	1.45	Good (CBP-rated)
AKA9442EXD-R	1/2	760	1,231	1.62	Good
AZA0395YXA	1/9	230	278	1.21	Fair (micro-sized)
AVA7524ZXT	3	3,490-4,000	6,973	1.74-1.99	Good
AWA2460ZXT	1.5	1,552-1,686	1,758	1.04-1.13	Fair (LT-rated; high pressure)
AHA2445AXD	1	1,225	1,289	1.05	Fair (legacy; low efficiency)

Key Insight: High-temperature (HT) models (AKA4460YXD, AKA4476YXA-R) deliver 2.0-2.9 W/W efficiency because warm evaporating temperatures reduce compression pressure ratios, allowing smaller volumes of gas to do more cooling work. Conversely, low-temperature (LT) models like AWA2460ZXT and AHA2445AXD struggle to exceed 1.1 W/W because extreme temperature differentials force large compression ratios with inherent inefficiency.

Refrigerant Selection and Wattage Impact

How Refrigerant Changes Input Power Requirements

The **same compressor model** can consume **different input wattage** depending on refrigerant choice. The **AVA7524ZXT at 20°F evaporation** is a perfect case study:

Refrigerant	Input Watts	Vs. R404A	Discharge Temp.	Pressure Ratio
R404A	4,000 W	Baseline (highest)	95°C (typical)	8.5:1
R449A	3,622 W	-9.4%	85°C (lower)	8.1:1
R448A	3,622 W	-9.4%	85°C (lower)	8.1:1
R452A	3,772 W	-5.7%	88°C	8.3:1
R407A	3,490 W	-12.8%	78°C (lowest)	7.9:1

R407A is the most efficient (3,490 W input) because it has a **lower volumetric expansion ratio** and **inherently lower discharge temperatures**. However, **R407A is being phased down** in favor of **low-GWP blends like R448A and R452A**, which offer **10-15°C lower discharge temperatures** compared to baseline R404A while maintaining **similar electrical input (within ±10%)**.

Installation, Electrical Integration, and Safety Guidelines

Matching Electrical Infrastructure to Compressor Power Draw

A critical installation error is **undersizing circuit protection or motor starters** relative to compressor inrush current. Example scenario:

Site Condition: Installation of **AKA9438ZXA (1/2 HP, 756 W input)** into a facility with **existing 15 A circuit breaker**.

Problem: Locked-rotor amps = **58.8 A**. The **motor starting relay must energize the compressor, causing inrush current of 58.8 A for ~200 ms**. A 15 A breaker **trips immediately**; a 20 A breaker **may nuisance-trip** if voltage sags during startup.

Solution: Install **hard-start kit (start capacitor 30-45 μ F + potential relay)** to **reduce effective locked-rotor current to 30-40 A**, allowing a **20 A breaker to handle the inrush safely**.

Three-Phase vs. Single-Phase Considerations

Three-Phase Models (AVA7524ZXT, AWA2460ZXT):

- **Advantage:** Much lower inrush current per phase (typically 1/3 of single-phase equivalent)
- **Disadvantage:** Requires three-phase electrical service; facility must have three separate 120° phase waveforms
- **Typical Sites:** Supermarkets, industrial facilities, institutional kitchens

Single-Phase Models (All others):

- **Advantage:** 115 V or 208-230 V single-phase service available at nearly every site
- **Disadvantage:** High inrush current (50-60 A); requires robust start components and voltage-stable circuits
- **Typical Sites:** Retail stores, restaurants, small convenience shops

Voltage Sensitivity: All compressors are sensitive to **$\pm 10\%$ voltage variation**. A 115 V compressor operating at **only 103.5 V (10% sag)** experiences **reduced motor torque, slower startup, and risk of thermal overload**. Facilities with **chronic voltage sag** must install **voltage-stabilizing transformers or power-factor correction equipment**.

tecumseh ava7524zxt	
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tecumseh aka9442exd-r	
tecumseh aka4476yxa-r	
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Excerpt (55 words):

Tecumseh commercial compressors range from 1/9 HP (230 W) to 3 HP (4,000 W), delivering refrigeration capacities from 278 W to 6,973 W across R404A, R134a, and legacy refrigerants. This complete technical guide provides exact horsepower, input wattage, evaporating ranges, and application types for all ten major models used in supermarkets, walk-ins, and retail coolers.

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