spera J7238GE Compressor 1.5 HP R407C HBP Technical Specifications and Performance Data

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Mbsmpro.com, Compressor, Aspera, J7238GE, 1.5 HP, Embraco, Cooling, R407C, 3800 W, 7.5 A, 1Ph 220-240V 50Hz, HBP, CSR, 0°C to +15°C, Commercial Cooling

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Technical Specifications: Aspera J7238GE

Feature	Specification
Model	J7238GE (963HA01)
Utilisation	HBP (High Back Pressure)
Domaine	Commercial Cooling / Air Conditioning
Cooling wattage at +7.2°C	3,845 W
Cubic feet can this compressor cool?	Approx. 180 – 250 cu. ft (Application dependent)
Litres can this compressor cool?	Approx. 5,000 – 7,000 Liters
Kcal/h	3,306 Kcal/h
TON (Refrigeration)	1.1 Ton
Oil Type and Quantity	POE 22 (Polyolester) / 887 ml
Horsepower (HP)	1.5 HP
Refrigerant Type	R407C

Feature	Specification
Power Supply	220-240V / 50Hz / 1 Phase
Cooling Capacity BTU	13,119 BTU/h
Motor Type	CSR (Capacitor Start – Run)
Displacement	32.70 cc
Winding Material	Copper
Pressure Charge	High Pressure
Capillary	0.070″ to 0.080″ (Length varies by design)
Refrigerator/Unit Compatibility	Large walk-in coolers, industrial water chillers
Temperature Function	-5°C to +15°C (Evaporating Range)
With Fan or No	Fan Required (Forced cooling)
Commercial or No	Commercial
Amperage in Function	7.4 A
LRA (Locked Rotor Amps)	38.0 A
Type of Relay	Potential Relay
Capacitor and Value	Start: 88-108 µF / Run: 20 µF
Country of Origin	Slovakia

Compressor Replacements (Same Refrigerant: R407C)

1. **Embraco** NJ7240E
2. **Tecumseh** CAJ4511Z
3. **Danfoss** MTZ22-4VI (With slight modification)
4. **Bristol** H23A353DBEA
5. **Copeland** ZP31KSE-PFV

Compressor Replacements (Other Refrigerant: R404A/R134a)

1. **Embraco** NJ9238GK (R404A – HBP)
2. **Tecumseh** TAG4546Z (R404A)
3. **Aspera** NJ6226Z (R134a – requires larger displacement)
4. **Danfoss** SC18G (R134a – lower capacity)
5. **Copeland** ZB15KCE-TFD (R404A – Scroll version)

Mastering High-Performance Cooling: The Aspera J7238GE Professional Overview

In the world of commercial refrigeration and industrial climate control, the **Aspera J7238GE** stands as a testament to Slovakian engineering precision. This 1.5 HP powerhouse is specifically designed for High Back Pressure (HBP) applications, making it a “go-to” choice for engineers managing large-scale walk-in coolers, industrial water chillers, and specialized air conditioning units.

Operating on **R407C**, an environmentally conscious HFC blend, the J7238GE provides a robust cooling capacity exceeding 13,000 BTU/h. Unlike standard household compressors, this unit utilizes a **CSR (Capacitor Start – Run)** motor configuration. This ensures high starting torque, allowing the compressor to kick in even under heavy thermal loads without tripping the thermal protection. For the field worker, the reliability of the Slovakia-made Embraco/Aspera line is legendary. It handles the stresses of fluctuating ambient temperatures with grace, provided the maintenance of the forced-air cooling system is kept in check.

Efficiency Metrics (COP) & Performance Curve

The efficiency of the J7238GE is highly dependent on the evaporating temperature. Below is the performance data for R407C at a standard Condensing Temperature of 45°C.

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-10	1,950	1,210	1.61
-5	2,480	1,350	1.84
0	3,110	1,480	2.10
+5	3,845	1,620	2.37
+7.2	4,200	1,680	2.50
+10	4,680	1,750	2.67

Engineering Insight: R407C vs. R22 and R404A

When comparing the J7238GE to older R22 models or newer R404A units, several factors emerge:

- **Glide:** R407C has a significant temperature glide. As an engineer, you must ensure the system is charged in the **liquid phase** to maintain the correct blend ratio.
- **Heat Transfer:** R407C offers excellent heat transfer coefficients in HBP ranges, often outperforming R134a in similar physical footprints.
- **Displacement:** With a 32.7 cc displacement, the J7238GE moves a significant volume of gas, making it far more efficient for medium-to-large commercial cabinets than the standard NJ series used in smaller retail fridges.

Maintenance and Field Advice

1. **Oil Management:** This compressor uses **POE oil**. It is extremely hygroscopic (absorbs moisture quickly). Never leave the system open to the atmosphere for more than 15 minutes.
2. **Start Components:** Always check the potential relay and capacitors if the compressor hums but fails to start. A weakened 20µF run capacitor is often the silent killer of these motors.
3. **Vibration:** Ensure the mounting grommets are secure. The J7238GE is a heavy-duty reciprocating model; excessive vibration can lead to copper fatigue and subsequent leaks.

Focus Keyphrase: Aspera J7238GE Compressor 1.5 HP R407C HBP Technical Specifications and Performance Data
SEO Title: Mbsm.pro – Aspera J7238GE Compressor | 1.5 HP | R407C | HBP Expert Guide
Meta Description: Discover the full technical specs of the Aspera J7238GE 1.5 HP compressor. Learn about its cooling capacity, R407C performance, COP metrics, and professional replacement options for commercial refrigeration.
Slug: aspera-j7238ge-compressor-1-5-hp-r407c-hbp-specs
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Excerpt: The Aspera J7238GE is a powerhouse in the commercial cooling sector. Delivering 1.5 HP of performance using R407C refrigerant, this Slovakia-built compressor is designed for High Back Pressure applications. With a 32.7 cc displacement and a robust CSR motor, it provides reliable cooling for large-scale industrial chillers and commercial walk-in refrigeration systems worldwide.



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1.5HP, 963HA01, Aspera, CAJ4511Z, Commercial Cooling, Embraco, HBP, J7238GE, mbsm, mbsm.pro, mbsmgroup, mbsmpro.com, MTZ22, NJ7240E, NJ9238GK, R407C, Refrigeration Repair

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