

# Samsung SD162H-L4UA S01, hermetic , compressor

Category: Refrigeration  
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## Samsung SD162H-L4UA S01, 1/5 HP, R134a, 200-220V 50Hz / 220V 60Hz, LBP Refrigerator Compressor - Specifications, Performance Tables, Use & Comparison

### Model overview

The **Samsung SD162H-L4UA S01** is a hermetic reciprocating compressor designed for small household refrigerators using R134a refrigerant, with dual-voltage operation at 200-220V 50Hz and 220V 60Hz. It belongs to the SD162 family widely used in under-counter and reach-in cabinets where high efficiency, reliable starting, and low noise are required.

### Electrical and identification data

This section summarizes the key electrical characteristics typically associated with the SD162H series working with R134a in low back pressure applications.

Parameter	Samsung SD162H-L4UA S01	Notes
Manufacturer	Samsung	Hermetic reciprocating compressor.
Refrigerant	R134a	Optimized for domestic refrigeration.
Voltage range	200-220V 50Hz / 220V 60Hz	Single-phase AC power.
Phase	1Ph, thermally protected	Internal overload protector.
Locked Rotor Amps (LRA)	5.5 A (label)	Indicates starting current peak.
Typical displacement (family)	≈ 6-7 cm <sup>3</sup>	Comparable to SD162Q-L1UA at 6.16 cm <sup>3</sup> .
Motor type	RSCR / RSIR equivalent	Relay start with start capacitor, high starting torque.
Compliance	CE, RoHS	For household appliances in EMEA.

These values make the **Samsung SD162H-L4UA** suitable for compact refrigerators in the 150-250 liter class where moderate starting current and good efficiency are important.

## Cooling performance and application range

Samsung does not publish an open public sheet for every sub-suffix, but performance can be estimated from SD162Q-L1UA and similar 1/5 HP R134a LBP models.

Operating condition	Typical value (SD162 family)	Comment
Displacement	about 6.1–6.9 cm <sup>3</sup>	Similar frame size to SD162Q-L1UA (6.16 cm <sup>3</sup> ).
Nominal power	≈ 1/5 HP	Classified for small refrigerator duty.
Evaporating temperature	–30 °C to –10 °C	LBP range for fresh-food and freezer compartments.
Condensing temperature	≈ 54 °C (ASHRAE)	Standard test condition.
Cooling type	Natural convection shell cooling	No external fan required.

In practical use this means the compressor can work both in standard refrigerator mode around –10 °C evaporating and in small freezer compartments near –25 °C with reduced capacity but stable operation.

## Comparison with similar R134a compressors

To help with replacement and design decisions, the next table compares **Samsung SD162H-L4UA** with two other 1/5–1/4 HP R134a hermetic compressors often referenced in technical catalogs.

### R134a domestic compressors comparison

Feature	Samsung SD162H-L4UA S01	Samsung SD162Q-L1UA	ACC GL80AN
Refrigerant	R134a	R134a	R134a
Nominal HP	1/5 HP (family)	1/5 HP	1/5 HP
Displacement	≈ 6–7 cm <sup>3</sup>	6.16 cm <sup>3</sup>	8.1 cm <sup>3</sup>
Application	LBP refrigerator	LBP refrigerator	HMBP / beverage coolers
Voltage	200–220V 50Hz / 220V 60Hz	220–240V 50Hz	220V 50Hz
Motor type	RSCR / RSIR	PTC-RSCR	RSIR
Typical use	Household fridge, small freezer	Household fridge, 1-door / 2-door	Display coolers, merchandisers

Compared with **SD162Q-L1UA**, the **SD162H-L4UA** keeps similar capacity but offers a label-specified 5.5 A LRA, which can be interesting when designing systems with modest starting current constraints.

Against **ACC GL80AN**, the Samsung unit generally has slightly lower displacement, making it better suited to compact cabinets where low noise and reduced energy use are more critical than maximum capacity.

# Practical exploitation, reliability and installation tips

In workshop practice the **Samsung SD162H-L4UA S01** is appreciated for:

- **Strong load capacity** during pull-down of warm cabinets, inherited from the SD162 series design.
- **Reliable starting performance** thanks to the RSCR/RSIR motor concept combined with an internal thermal protector.
- **Low noise and vibration**, making it acceptable for domestic kitchens and small commercial premises.

When using this compressor as a replacement:

- Match refrigerant (R134a), voltage, and application range (LBP) to the original unit to avoid overheating and low capacity.
- Keep suction line sizing close to Samsung recommendations in general catalogs to preserve return gas cooling and oil return.
- Use clean-brazing practice and always replace the filter-drier after opening the circuit to protect the compressor against moisture and acids.



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