GREEN HS0996

GREEN Electric Automotive AC Air Conditioning Compressor Instruction Manual

Brand: GREEN | Model: HS0996

Product Overview

The GREEN Electric Automotive AC Air Conditioning Compressor is a brand new unit designed for universal application in 12V car, HD-truck, and van systems. As the heart of automotive air conditioning refrigeration systems, it is responsible for compressing and transporting refrigerant vapors. Constructed from high-strength aluminum, the main body is durable, rigid, and resistant to cracking, breaking, or leaking, ensuring long-term use. This compressor provides sufficient pressure, increasing power force and decreasing engine load, dramatically improving cooling function with stable efficiency, safety, and reliability. Each unit is fully examined and tested before delivery. It is crucial to add the proper amount of oil prior to installment.

Image: The GREEN Electric Automotive AC Air Conditioning Compressor, showcasing its compact design and integrated inverter unit.

Important Safety Information

- Always disconnect the vehicle's battery before beginning any installation or maintenance.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure the vehicle's A/C system is properly discharged by a certified technician before removing old components.
- This product operates on 12V. Applying higher voltage than specified to control signals may cause damage.
- Installation should ideally be performed by a qualified professional. Refer to your vehicle's specific service manual for detailed instructions.

Setup and Installation

The GREEN Electric Automotive AC Air Conditioning Compressor is designed for universal application in 12V car,

HD-truck, and van systems. Proper installation is crucial for optimal performance and longevity. *Please note that this compressor is an electric unit and does not include a separate control panel; it requires an external control signal for operation.*

Pre-Installation Checks:

1. **Verify Compatibility:** Ensure this 12V electric compressor is compatible with your vehicle's electrical system and A/C refrigerant type (R134a).
2. **System Flush:** Thoroughly flush the entire A/C system to remove any contaminants, debris, or old oil. This is critical to prevent damage to the new compressor.
3. **Add Proper Oil:** The manufacturer specifies 130ml of ISO VG68 oil. Ensure the correct amount is added prior to installation. The compressor is pre-filled, but verify levels if the system has been opened.
4. **Inspect Components:** Check all other A/C system components (condenser, evaporator, expansion valve/orifice tube, receiver/drier) for wear or damage and replace as necessary.

Installation Steps (General Guidance):

1. **Mounting:** Securely mount the new compressor in the designated location using appropriate hardware. The compressor features firm mounting points for stability.
2. **Connect Refrigerant Lines:** Connect the high and low-pressure refrigerant lines to the compressor. Ensure all connections are tight and properly sealed to prevent leaks.
3. **Electrical Connections:** Connect the main 12V power supply. For the control signal, locate the green wire on the motor driver board. This wire requires a 0-5V signal to operate the compressor. 0V will turn the compressor off, and increasing the voltage up to 5V will throttle the compressor to full power. **Warning: Applying 12V directly to this green signal wire may cause irreversible damage to the unit.**
4. **Vacuum and Charge:** Evacuate the A/C system using a vacuum pump to remove all air and moisture. Then, charge the system with the correct type and amount of R134a refrigerant according to your vehicle's specifications.
5. **Leak Test:** Perform a thorough leak test using a refrigerant leak detector to ensure there are no leaks in the system.

Image: Rear view of the GREEN Electric AC Compressor, showing the heat sink and electrical connections. Note the importance of correct wiring for the control signal.

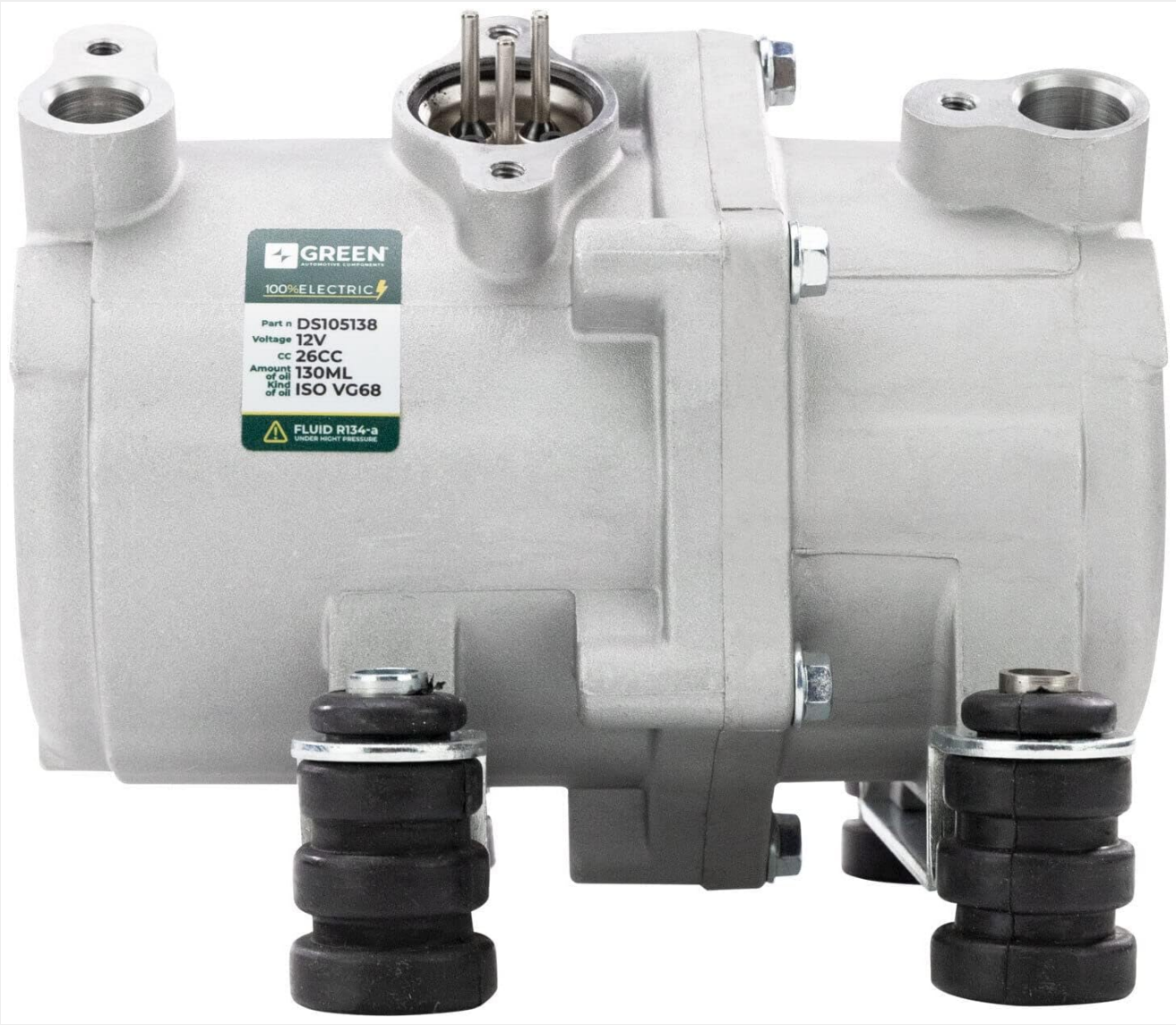

Image: Side view of the compressor, highlighting the product label with specifications like voltage (12V), CC (26cc), oil amount (130ml), and fluid type (R134a, ISO VG68).

Operating Instructions

This electric A/C compressor integrates into your vehicle's existing air conditioning system. Once properly installed and charged, its operation is typically managed by the vehicle's climate control system or an external control unit.

- The compressor is designed to provide sufficient pressure to circulate refrigerant, ensuring effective cooling.
- It features silent operation, contributing to a quieter cabin environment.
- The unit's performance is optimized for stable efficiency, safety, and reliability.

Control Signal:

The compressor's motor driver board (identified as YMING12V-0-5V-AR) utilizes a 0-5V signal on the green wire for control. A 0V signal will keep the compressor off, while increasing the voltage towards 5V will proportionally increase the compressor's speed and cooling output. Ensure your vehicle's control system or aftermarket controller provides this specific voltage range. Do not apply 12V to this signal wire as it is designed for a low-voltage control signal.

Maintenance

Regular maintenance helps ensure the longevity and efficient operation of your A/C compressor.

- **Refrigerant Level Check:** Periodically check the refrigerant level in your A/C system. Low refrigerant can indicate a leak and can cause the compressor to overwork or fail.
- **System Inspection:** Regularly inspect the compressor and surrounding components for any signs of leaks (oil residue, green dye if used), unusual noises, or worn belts (if applicable to your vehicle's setup).
- **Oil Maintenance:** While the compressor is pre-filled, ensure proper oil levels are maintained if the system is opened for service. Refer to the specifications for the correct oil type (ISO VG68).
- **Professional Service:** For complex issues or refrigerant handling, always consult a certified automotive A/C technician.

Troubleshooting

If you experience issues with your A/C system, consider the following common problems and potential solutions:

Problem	Possible Cause	Solution
A/C Not Cooling Properly	Low refrigerant level, faulty control signal, electrical issue, seized compressor.	Check refrigerant levels and for leaks. Verify 0-5V control signal on the green wire. Inspect electrical connections. If compressor is seized, replacement is necessary.
Unusual Noises from Compressor	Low oil, internal wear, foreign object, worn mounting bushings.	Check oil level. Inspect for debris. Ensure mounting is secure. Professional inspection recommended.
Compressor Not Engaging	No control signal, low refrigerant pressure, electrical fault, clutch failure (if applicable).	Verify control signal (0-5V on green wire). Check refrigerant pressure. Inspect wiring and fuses.
Refrigerant Leaks	Loose connections, damaged seals/O-rings, cracked housing.	Tighten connections. Replace seals/O-rings. If housing is cracked, compressor replacement is required. Use a leak detector to pinpoint the source.

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Video: "All you need to know about A/C Compressor" by Qualy Air. This video provides general information about A/C compressors, their function, importance, and common issues like worn belts, leaking refrigerant, and clutch failure, which can help in troubleshooting.

Specifications

Feature	Detail
Brand	GREEN
Model Name	ELECTRIC AIR CONDITIONING COMPRESSOR
Model Number	HS0996
Part Number	CM105138
Voltage	12 Volts
AC Adapter Current	50 Amps

Feature	Detail
Recommended Uses	Automotive Air Conditioning
Power Source	Corded Electric
Special Feature	Silent Operation
Included Components	AC Compressor
Item Weight	26.4 pounds (12 Kilograms)
Color	White
Package Dimensions	12 x 12 x 12 inches
Batteries Included?	Yes (1 Unknown batteries required)
Battery Cell Type	Lead Acid
Maximum Operating Pressure	1 (Unit not specified, likely 1 MPa or 1 bar, but given as '1' in source)

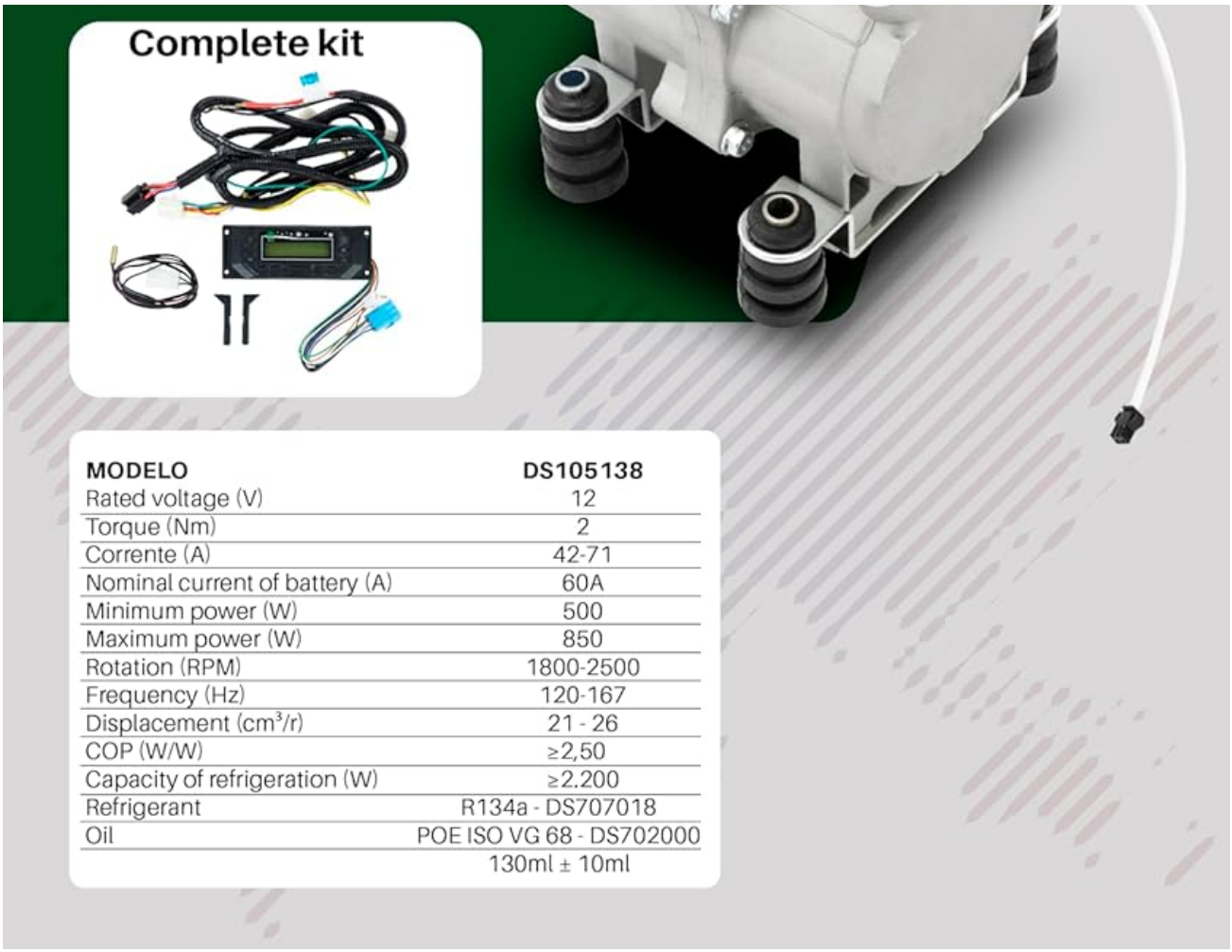

Image: A detailed view of the product label, confirming specifications such as voltage, displacement, and recommended oil type.

Warranty Information

This A/C Compressor includes a **1-year warranty** from the manufacturer. Please retain your proof of purchase for warranty claims.

Support and Contact

For further assistance, technical support, or warranty inquiries, please contact the manufacturer, GREEN, or the seller, Qualy Air. It is recommended to have your product model number (HS0996) and purchase details ready when contacting support.

Note: Some users have reported difficulties in obtaining specific documentation or support regarding the control panel. While this manual provides general guidance, for highly specific vehicle integration or complex issues, seeking assistance from a qualified automotive A/C professional is strongly advised.

Disclaimer: This manual provides general instructions. Always refer to your vehicle's specific service manual and consult a qualified professional for complex installations or repairs.