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- › [Carrier](#) /
- › [Carrier Corporation EA36UZ067 Thermal Expansion Valve User Manual](#)

## Carrier EA36UZ067

# Carrier Corporation EA36UZ067 Thermal Expansion Valve User Manual

Model: EA36UZ067

## INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of the Carrier Corporation EA36UZ067 Thermal Expansion Valve. Please read this manual thoroughly before attempting any installation or service to ensure safe and efficient performance of the unit.

## PRODUCT OVERVIEW

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Figure 1: Carrier EA36UZ067 Thermal Expansion Valve. This image displays the brass valve body, copper capillary tube, and sensing bulb, which are key components of the thermal expansion valve.

The Carrier EA36UZ067 is a thermal expansion valve (TXV) designed to regulate the flow of refrigerant into the evaporator coil, ensuring optimal superheat and system efficiency. It is a critical component in air conditioning and refrigeration systems.

## INSTALLATION AND SETUP

Installation of a thermal expansion valve requires specialized knowledge and tools. It is highly recommended that installation be performed by a qualified HVAC technician.

### Safety Precautions:

- Always disconnect power to the HVAC system before beginning any work.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Handle refrigerants with care and in accordance with local regulations.
- Ensure proper ventilation when working with refrigerants.

### Installation Steps (General Guidelines):

1. **System Preparation:** Recover refrigerant from the system.
2. **Valve Placement:** Install the TXV in the liquid line just before the evaporator coil. Ensure the flow direction arrow on the valve body matches the refrigerant flow.
3. **Brazing/Connections:** Braze or connect the valve securely to the refrigerant lines. Use heat-sinks or wet rags to protect the valve body from excessive heat during brazing. The EA36UZ067 features NPT outlet connections.

4. **Sensing Bulb Installation:** Securely attach the sensing bulb to the suction line, typically after the evaporator coil, using a clamp. Ensure good thermal contact. The bulb should be insulated to prevent ambient temperature interference.
5. **Leak Check:** Pressurize the system with nitrogen and perform a thorough leak check using an electronic leak detector or soap bubbles.
6. **Evacuation:** Evacuate the system to a deep vacuum to remove all non-condensable gases and moisture.
7. **Refrigerant Charge:** Recharge the system with the correct type and amount of refrigerant according to the system manufacturer's specifications.
8. **Superheat Adjustment:** Once the system is running, adjust the superheat setting on the TXV (if adjustable) to the manufacturer's recommended value.

## OPERATING PRINCIPLES

The thermal expansion valve operates by maintaining a constant superheat at the evaporator outlet. The sensing bulb, filled with a charge similar to the system's refrigerant, detects the temperature of the suction line. Changes in this temperature cause the pressure within the bulb to change, which in turn acts on a diaphragm inside the valve. This diaphragm movement adjusts the valve's opening, controlling the flow of liquid refrigerant into the evaporator. This precise control prevents liquid refrigerant from returning to the compressor (slugging) and ensures the evaporator coil is fully utilized for efficient heat transfer.

## MAINTENANCE

The Carrier EA36UZ067 Thermal Expansion Valve is a sealed component and generally requires no routine maintenance itself. However, regular maintenance of the overall HVAC or refrigeration system is crucial for the TXV's proper function and longevity.

- **System Cleanliness:** Ensure the refrigerant system is free from contaminants, moisture, and non-condensable gases, as these can impair TXV operation.
- **Filter Drier Replacement:** Periodically replace the system's filter drier to prevent debris from reaching and clogging the TXV.
- **Superheat Verification:** During routine system checks, verify the superheat at the evaporator outlet. Deviations may indicate an issue with the TXV or other system components.
- **Sensing Bulb Integrity:** Ensure the sensing bulb remains securely attached and insulated on the suction line.

## TROUBLESHOOTING

Troubleshooting TXV issues often involves diagnosing the entire refrigerant system. The following are common symptoms that might indicate a TXV problem, though they can also be caused by other system faults. Always consult a qualified technician for diagnosis and repair.

Symptom	Possible Cause (TXV Related)	Action
High Superheat / Low Suction Pressure	TXV starved (underfeeding), clogged, or sensing bulb lost charge/contact.	Check sensing bulb contact and insulation. Inspect for clogs. Consider TXV replacement if confirmed faulty.
Low Superheat / High Suction Pressure / Liquid Slugging	TXV overfeeding (stuck open), or sensing bulb improperly installed/insulated.	Check sensing bulb installation. If TXV is stuck open, replacement is necessary.

Symptom	Possible Cause (TXV Related)	Action
Fluctuating Suction Pressure / Erratic Superheat	TXV hunting (improperly sized or faulty), or unstable load conditions.	Verify TXV sizing. If hunting persists, TXV may be faulty and require replacement.

## SPECIFICATIONS

The following specifications apply to the Carrier Corporation EA36UZ067 Thermal Expansion Valve:

Attribute	Value
Brand	Carrier
Manufacturer	Carrier Corporation
Part Number	EA36UZ067
Model Number	EA36UZ067
Valve Type	Thermal Expansion Valve
Outlet Connection Type	NPT
Number of Ports	2
Color	Multicolor
Item Package Quantity	1
Included Components	Valve Unit (Note: Original data listed "Bra", interpreted as the main valve unit)

## WARRANTY AND SUPPORT

For specific warranty information regarding the Carrier Corporation EA36UZ067 Thermal Expansion Valve, please refer to the documentation provided with your purchase or contact Carrier Corporation directly. Warranty terms and conditions may vary.





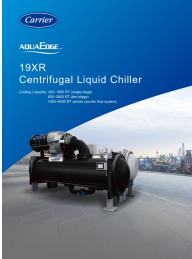

For technical support, service, or to locate an authorized Carrier service provider, please visit the official Carrier website or contact their customer service department. Always ensure that any service or repair is performed by a certified technician.

You can visit the Carrier Store on Amazon for more information:[Carrier Store](#)

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This manual is for informational purposes only. Specifications are subject to change without notice.

## Related Documents - EA36UZ067

	<p><a href="#">Carrier Transicold X4 7300 &amp; X4 7500 Trailer and Rail Refrigeration Operation &amp; Service Manual</a></p> <p>Comprehensive operation and service manual for Carrier Transicold X4 7300 and X4 7500 refrigeration units used in trailer and rail applications. Covers system components, operation, maintenance, and troubleshooting.</p>
	<p><a href="#">Carrier BN Interface 40VCBB1-8FJEE Installation Manual</a></p> <p>Installation manual for the Carrier BN Interface (Model 40VCBB1-8FJEE), providing detailed instructions for setup, wiring, settings, and testing of this central control device for building management systems.</p>
	<p><a href="#">Carlyle Paragon Twin Screw Compressor Application Guide: R-134a &amp; R-404A</a></p> <p>Comprehensive application guide for Carlyle Paragon twin screw compressors (06TS, 06TT, 06TU, 06TV series) covering R-134a and R-404A refrigerants. Details system design, operating limits, oil management, electrical data, and accessories for optimal performance and reliability.</p>
	<p><a href="#">Carrier X4 7700 Trailer and Rail Refrigeration Units Operation and Service Manual</a></p> <p>This manual provides comprehensive operational and service guidance for the Carrier X4 7700 refrigeration units, designed for trailer and rail transport applications. It details unit specifications, safety precautions, operating procedures, system controls, troubleshooting, and maintenance.</p>
	<p><a href="#">Carrier 19XR Centrifugal Liquid Chiller - High Efficiency and Sustainability</a></p> <p>Explore the Carrier 19XR Centrifugal Liquid Chiller, a high-efficiency and environmentally sustainable HVAC solution. Learn about its advanced features, performance data, installation, and control systems.</p>
	<p><a href="#">Carrier 42DH/42DV Series Fan Coil Air Conditioners Product Data</a></p> <p>Carrier's 42DH and 42DV Series Fan Coil Air Conditioners offer efficient and flexible climate control for various buildings. These direct drive units feature EC motors, robust construction, and multiple configurations for easy installation and optimized performance. This product data sheet details AHRI ratings, specifications, and options for models ranging from 600 to 3000 cfm.</p>