

# Comptek QD65H Compressor 1/6 HP R134a L/MBP Technical Specifications and Replacement Guide

**Site:** Mbsmpro

**Date:** January 31, 2026 | **Author:** www.mbsmpro.com

**URL:** <https://mbsmpro.com/comptek-qd65h-compressor-1-6-hp-r134a-l-mbp-technical-specifications-and-replacement-guide/>



Yes, your conclusion regarding the compressor ports is correct based on the standard design for this category:

Pipe 1 (single top pipe): This is the discharge line, usually the thinner pipe.

Pipe 2 (opposite the discharge): This is the suction line, which has a slightly larger diameter.

Pipe 3 (next to the suction): This is the process/service line, used for charging the gas.

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# **Mbsmpro.com, Compressor, QD65H, 1/6 hp, Comptek, Cooling, R134a, 160 W, 1.2 A, 1Ph 220-240V 50Hz, L/MBP, RSIR, -35°C to -5°C, Cooling and Freezing**

The refrigeration industry relies heavily on the “heart” of the system: the compressor. Among the most versatile and durable options available for domestic and light commercial applications is the **Comptek QD65H**. This piston-driven reciprocating compressor is engineered for reliability, specifically designed to handle the thermal demands of Low and Medium Back Pressure (L/MBP) environments.

## **Technical Specifications and Performance Data**

The QD65H operates on the R134a refrigerant, a global standard for domestic cooling due to its thermodynamic efficiency and safety profile.

Below is the comprehensive technical breakdown:

<b>Feature</b>	<b>Specification</b>
<b>Model</b>	QD65H (HM Series)
<b>Horsepower (HP)</b>	1/6 HP
<b>Displacement</b>	6.5 $\text{cm}^3$

<b>Feature</b>	<b>Specification</b>
<b>Cooling Capacity (BTU/h)</b>	546 BTU/h
<b>Cooling Wattage (-23.3°C)</b>	160 W
<b>Motor Type</b>	RSIR (Resistive Start - Induction Run)
<b>Winding Material</b>	High-grade Copper
<b>Refrigerant Type</b>	R134a
<b>Power Supply</b>	220-240V / 50Hz (1 Phase)
<b>Oil Type and Quantity</b>	POE/Mineral (approx. 180ml - 200ml)
<b>Current (Running)</b>	1.1 A - 1.2 A
<b>LRA (Locked Rotor Amps)</b>	6.5 A
<b>Cooling Method</b>	Static (Natural cooling, no fan required for compressor)

## **Efficiency Metrics (COP) and Performance Curve**

Understanding the Coefficient of Performance (COP) is vital for energy management. The QD65H shows excellent stability across a wide range of evaporating temperatures.

<b>Evaporating Temp (°C)</b>	<b>Cooling Capacity (Watts)</b>	<b>Power Consumption (Watts)</b>	<b>COP (W/W)</b>
-30	110	102	1.07

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-25	142	118	1.20
<b>-23.3 (Standard)</b>	<b>160</b>	<b>125</b>	<b>1.28</b>
-20	185	134	1.38
-15	230	148	1.55
-10	285	162	1.76
0	410	190	2.15

## Application and Capability

This compressor is the “workhorse” for medium-sized household appliances. It is ideally suited for:

- **Capacity in Liters:** Efficiently cools units between 180 to 250 Liters.
- **Capacity in Cubic Feet:** Approximately 6.3 to 8.8  $\text{ft}^3$ .
- **Appliance Types:** Single-door refrigerators, small chest freezers, and water dispensers.

## Comparison: QD65H vs. Similar Models

Model	HP Rating	Displacement	Refrigerant	Application
<b>Comptek QD65H</b>	1/6 HP	6.5 $\text{cm}^3$	R134a	L/MBP (Versatile)

Model	HP Rating	Displacement	Refrigerant	Application
<b>ZMC GM70AZ</b>	1/5 HP	7.0 $\text{cm}^3$	R134a	LBP (Stronger Cooling)
<b>Danfoss TLS6F</b>	1/6 HP	5.7 $\text{cm}^3$	R134a	LBP (High Efficiency)

## Professional Recommendations and Installation Notes

- Capillary Tube Selection:** For R134a systems using the QD65H, a capillary tube of 0.031 inches (0.8mm) with a length of 3 meters is standard for LBP freezing applications.
- Vacuum Procedure:** Always ensure a vacuum level of at least 500 microns to prevent moisture from reacting with the R134a oil.
- Thermal Protection:** The QD65H features an internal or external protector. Ensure the relay (PTC type) is seated correctly to prevent winding burnout.
- Start Capacitor:** While being an RSIR motor, in areas with unstable voltage, adding a 47-64 $\mu\text{F}$  start capacitor can assist in high-torque starts (HST).

## Replacement Guide (Equivalents)

### Same Refrigerant (R134a):

- Embraco:** EMS 55HLC
- Danfoss/Secop:** TLES6.5FT.3
- Huayi:** HYE69MT
- Zanussi:** GVV66AA

5. **Tecumseh:** THB1355Y

**Alternative Refrigerant (R600a/R12/Other):**

*Note: Requires system flush and oil check.*

1. **QD65Y (R600a version)**
  2. **Embraco:** EMX55CLC (R600a)
  3. **Danfoss:** TLES7.5KK.3 (R600a)
  4. **GL60AA (R134a alternative)**
  5. **Zel:** GQD65Y
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**Focus Keyword:** Comptek QD65H Compressor 1/6 HP R134a L/MBP  
Technical Specifications and Replacement Guide

**SEO Title:** Mbsmpro.com | Comptek QD65H Compressor | 1/6 HP | R134a | L/MBP Specifications

**Meta Description:** Discover the full technical data for the Comptek QD65H 1/6 HP compressor. Includes cooling capacity (160W), COP tables, R134a gas specs, and 10 cross-reference replacement models for refrigerators and freezers.

**Slug:** comptek-qd65h-compressor-1-6hp-r134a-specs

**Tags:** Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, QD65H, Comptek, R134a Compressor, 1/6 HP Compressor, EMS 55HLC, TLES6.5FT.3, HYE69MT, GVY66AA, THB1355Y, Refrigeration Repair, LBP Compressor.

**Excerpt:** The Comptek QD65H is a high-performance 1/6 HP reciprocating compressor designed for R134a systems. Ideal for refrigerators between 180 and 250 liters, it offers a cooling capacity of 160W at -23.3°C. This

professional guide covers its electrical characteristics, COP efficiency metrics, and provides a comprehensive list of equivalent models for seamless field replacement.



1/6 HP Compressor, Comptek, EMS 55HLC, GUY66AA, HYE69MT, mbsm, mbsm.pro, mbsmgroup, mbsmpro.com, QD65H, R134a compressor, Refrigeration Repair, THB1355Y, TLES6.5FT.3

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