# Mbsm.pro, compressor, AE16LMY,3/8 hp, R134a, HBP, 17.4 cc, 5/8 hp, R404, LBP, 14.5 cc.

Category: compressor
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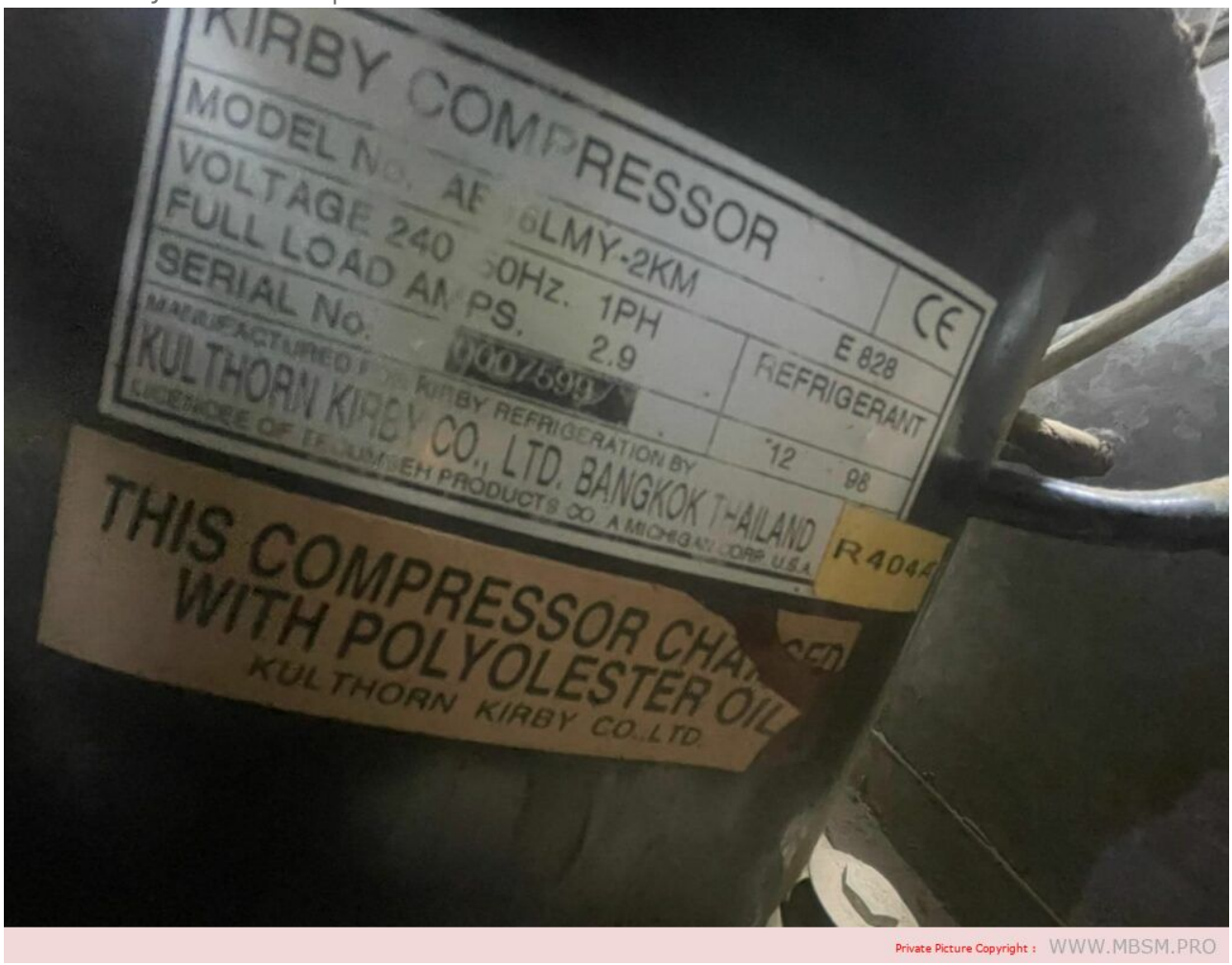


The **AE16LMY** compressor is a versatile hermetic compressor designed for both **R134a** (medium/high temperature) and **R404a** (low temperature) applications. Below is a detailed breakdown of its specifications, cooling capacities, applications, and key features when operating in **High Back Pressure (HBP)** mode with **R134a** and **Low Back Pressure (LBP)** mode with **R404a** .

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# AE16LMY Compressor Overview

## General Specifications

- **Nominal Horsepower (HP):**
  - **R134a Mode (HBP):** 3/8 HP
  - **R404a Mode (LBP):** 5/8 HP
- **Displacement:**
  - **R134a Mode (HBP):** 17.4 cc
  - **R404a Mode (LBP):** 14.5 cc

- **Motor Type:** CSIR (Capacitor Start Induction Run) / CSR (Capacitor Start Run) with FC C/V control
- **Weight:** 13.7 kg
- **Lubricant:** Emkarate RL22HB POE (Polyolester lubricant)
- **Connections:** Rotolock suction and discharge connections

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# 1. R134a Application (HBP Mode)

## Evaporating Temperature Range:

- **Medium to High Temperature:** -15°C to 10°C

## Cooling Capacity (Watts):

| Evaporating Temp (°C) | Cooling Capacity (Watts) |
|---|---|
| -15 | 1068 |
| -10 | 1335 |
| -5 | 1635 |
| 0 | 1970 |
| 5 | 2340 |
| 10 | 2740 |

## Applications:

- **R134a Mode (HBP):**
  The AE16LMY is ideal for medium to high-temperature refrigeration systems, such as:
  - Commercial refrigerators
  - Beverage coolers
  - Air conditioning systems
  - Display cases in supermarkets

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# 2. R404a Application (LBP Mode)

## Evaporating Temperature Range:

- **Low Temperature:** -32°C to 0°C

## Cooling Capacity (Watts):

| Evaporating Temp (°C) | Cooling Capacity (Watts) |
|---|---|
| -32 | 524 |
| -30 | 717 |
| -25 | 948 |
| -20 | 1215 |
| -15 | 1540 |
| -10 | 1920 |
| 0 | 2400 |

## Applications:

- **R404a Mode (LBP):**
  When used with **R404a** , the AE16LMY is suitable for low-temperature applications, including:
  - Walk-in freezers
  - Industrial chillers
  - Cold storage facilities
  - Transport refrigeration systems

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# Key Features

1. **Dual Refrigerant Compatibility:**
   - The AE16LMY can operate efficiently with both **R134a** (medium/high temperature) and **R404a** (low temperature), making it highly adaptable to diverse applications.
2. **Advanced Motor Design:**
   - The CSIR motor type with FC C/V control ensures consistent performance and energy efficiency.
3. **Compact & Lightweight:**
   - With a weight of just 13.7 kg and compact dimensions, this compressor is easy to install and maintain.
4. **Rotolock Connections:**
   - Equipped with rotolock suction and discharge connections, which are particularly beneficial for low-temperature applications.
5. **No Oil Cooler Required:**
   - The AE16LMY does not require an oil cooler when used with **R404a** in low-temperature applications.
6. **Liquid Injection Kits:**
   - For low-temperature **R404a** applications, liquid injection kits may be required to ensure optimal performance.

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# Performance Highlights

- **Versatility:** The AE16LMY’s ability to handle a wide range of evaporating temperatures and cooling capacities makes it suitable for diverse applications, from commercial refrigeration to industrial freezers.
- **Efficiency:** Its advanced motor design and compatibility with POE lubricants ensure smooth operation and extended compressor life.

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# Applications Summary

- **R134a Mode (HBP):**
  - Medium to high refrigeration needs.
  - Examples: Supermarkets, convenience stores, air conditioning systems.
- **R404a Mode (LBP):**
  - Low-temperature refrigeration systems.

- Examples: Freezers, cold storage units, industrial cooling.

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# Conclusion

The **AE16LMY** compressor is a dual-mode solution that excels in both **R134a** (HBP) and **R404a** (LBP) applications. Its ability to deliver reliable performance across a broad range of evaporating temperatures and cooling capacities makes it an invaluable component in modern refrigeration technology. By understanding its specifications and capabilities, professionals can select the appropriate configuration based on their specific refrigeration needs.
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