

Mbsm.pro, Compressor, HIGHLY, BSA645CR-R1EN, GBSA645CR, 840w, r134a, 1.12hp, Constant-Speed, [1ph] 100/100-110V 50/60Hz

Category: compressor

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Performance Analysis of the BSA645CR Compressor with Horsepower Calculation

1. Introduction

The **BSA645CR** is a constant-speed reciprocating compressor designed for refrigeration and air conditioning systems using **R134a** refrigerant. It is commonly used in residential and light commercial applications due to its compact design, efficiency, and compatibility with standard voltage supplies. This article provides a detailed overview of the BSA645CR compressor's technical specifications, explains how to calculate its output horsepower (HP), and discusses its performance characteristics.

2. Technical Specifications of



| 系列 Series | 型号 Model | 排气量 Displacement (cc/rev) | 冷量 CoolingCapacity (W) | 冷量 CoolingCapacity (Btu/h) | COP (W/W) | 电容 Capacitor (μ F/v) | 压缩机高度 Height (mm) | 测试工况 Testing Condition |
|--------------|-------------|---------------------------------|------------------------------|----------------------------------|--------------|---------------------------------|-------------------------|---------------------------|
|--------------|-------------|---------------------------------|------------------------------|----------------------------------|--------------|---------------------------------|-------------------------|---------------------------|

定速 R134a Constant-speed R134a
[1 ϕ]100/100-110V 50/60Hz

| | | | | | | | | |
|---|----------|------|-----|------|------|--------|-------|----------|
| A | BSA357CR | 3.57 | 450 | 1535 | 2.21 | 17/250 | 143.0 | ASHRAE/T |
| | BSA357UR | 3.57 | 455 | 1552 | 2.60 | 25/250 | 153.0 | ASHRAE/T |
| | BSA460CR | 4.60 | 584 | 1993 | 2.35 | 17/220 | 169.0 | ASHRAE/T |
| | BSA586CR | 5.86 | 789 | 2692 | 2.40 | 25/250 | 169.0 | ASHRAE/T |
| | BSA645CR | 6.45 | 840 | 2866 | 2.33 | 20/250 | 169.0 | ASHRAE/T |
| | BSA725SR | 7.25 | 945 | 3224 | 2.51 | 17/300 | 162.6 | ASHRAE/T |

定速 R134a Constant-speed R134a
[1 ϕ]110V 60Hz

| | | | | | | | | |
|---|----------|------|-----|------|------|--------|-------|----------|
| A | BSA272HJ | 2.72 | 345 | 1177 | 2.60 | 20/200 | 152.1 | ASHRAE/T |
| | BSA325HJ | 3.25 | 430 | 1467 | 2.81 | 15/250 | 162.6 | ASHRAE/T |
| | BSA357UJ | 3.57 | 465 | 1587 | 2.67 | 20/250 | 152.1 | ASHRAE/T |
| | BSA460UJ | 4.60 | 615 | 2098 | 2.80 | 20/250 | 162.6 | ASHRAE/T |
| | BSA520HJ | 5.20 | 704 | 2402 | 2.93 | 25/250 | 172.6 | ASHRAE/T |
| | BSA535HJ | 5.35 | 718 | 2450 | 2.92 | 25/250 | 172.6 | ASHRAE/T |
| | BSA586UJ | 5.86 | 780 | 2661 | 2.80 | 17/250 | 172.6 | ASHRAE/T |
| | BSA586HJ | 5.86 | 785 | 2678 | 2.92 | 25/250 | 172.6 | ASHRAE/T |

除湿压缩机

Dehumidifier Compressor



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Parameter

Value

| | |
|----------------------------------|-----------------------|
| Model | BSA645CR |
| Refrigerant | R134a |
| Voltage | 100/100-110V, 50/60Hz |
| Displacement | 6.45 cc/rev |
| Cooling Capacity (W) | 840 W |
| Cooling Capacity (Btu/h) | 2866 Btu/h |
| COP (Coefficient of Performance) | 2.33 W/W |
| Capacitor | 20 μ F / 250 V |
| Compressor Height | 169.0 mm |
| Test Condition | ASHRAE/T |