

# MESA COMPRESSOR

DC-POWERED VARIABLE SPEED  
MICRO-ROTARY COMPRESSORS



Our Mesa family of compressors are the perfect choice for small DC-powered refrigerators used in recreational vehicles, buses, trains, trucks and boats, as well as medical and telecommunications applications. The Mesa compressor is rugged, light-weight and can fit the installation requirements of limited spaces.

## COMPACT

Micro/Mini rotary BLDC compressors one fourth the size of conventional compressors, the perfect fit for DC-powered refrigerators in embedded applications.

## ECO-FRIENDLY

Planned to be A2L R-1234yf, and natural refrigerant R-290 compatible.

## REDUCED ENERGY

High-efficiency motors combined with variable speed technology, result in intelligent cooling and energy consumption reduction to achieve industry leading EERs.

## QUIET OPERATION

Stable and low vibration mechanisms coupled with reduced friction cylinder components minimize noise to meet standards application requirements.

## 12/24/48 VDC POWER SUPPLY

Best fit for electrical vehicles and easy connected to batteries.

# COMPRESSOR INFORMATION

**COOLING CAPACITY:**\* HBP: From 134 to 451 Watts

**APPLICATION:** HBP: -20°C to 25°C

**REFRIGERANT:** Available: R-134a / Planned: R-1234yf, R-290

**POWER SUPPLY:** 12, 24 and 48 VDC

**CONSUMPTION:**

- Max Power: 132 Watts (12V) / 209 Watts (24V) / 201 Watts (48V)

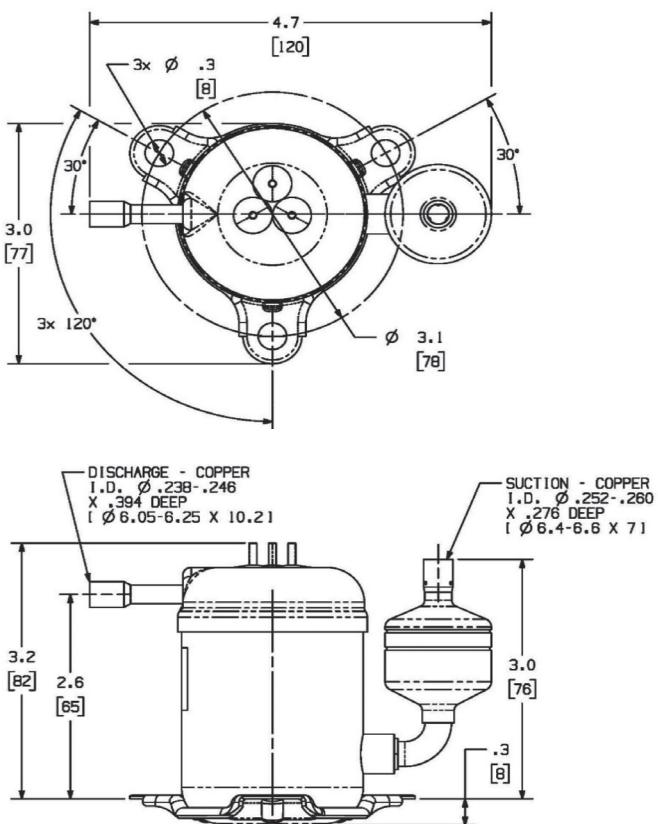
- Max Current: 11A (12V) / 8,72A (24V) / 4,2A (48V)

**DIMENSIONS:** 120x77mm / Height: 82mm

**WEIGHT:** 1.76 lb / .80 kg

\*HIGH / AIR CONDITIONING: Performance rated at 7.2°C evap., 54.4°C cond., 11.1°C superheat, 8.3°C subcooling, 35°C ambient.

# COMPRESSOR DIMENSIONS



# CONTROLLER INFORMATION

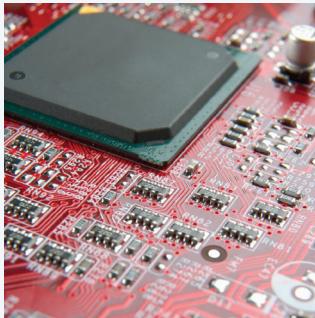
- **COMPRESSOR INITIATION & OPERATION**
- **VARIABLE SPEED CONTROL**
- **LOCKED-ROTOR PROTECTION**
- **LIMITS POWER & CURRENT DRAW**
- **PROVIDES DIAGNOSTIC INFORMATION**
- **THERMAL PROTECTION & SHUTDOWN OF COMPRESSOR AND CONTROLLER**
- **LOW-VOLTAGE & HIGH-VOLTAGE SHUTDOWN**
- **SPEED CONTROL:** 0-3V or PWM signal

# MESA APPLICATIONS

## MICRO AIR CONDITIONING



## ELECTRONICS



## MOBILE CONTAINERS



## MEDICAL/SCIENTIFIC



## SOLAR/OFF-GRID POWER



## LIQUID CHILLERS



## REFRIGERATORS



## LASER COOLING

