

# Q-Series

## Low Noise, Miniature, Variable Speed Rotary Refrigeration Compressors

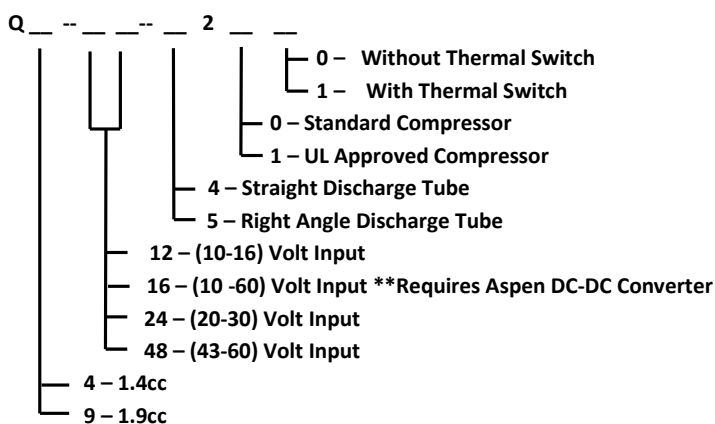
Worldwide patents pending



### Compressor Specifications

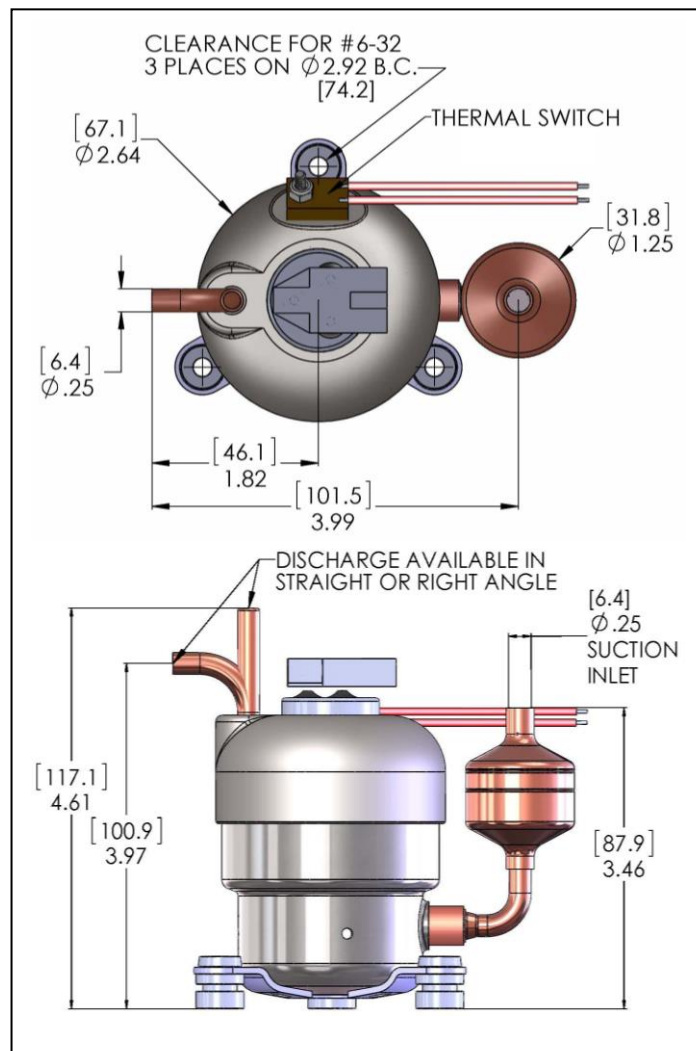
Refrigerants	R134a / R404a / R1234yf R513a/ R290 / R600a
Oil Type	Consult Factory
Oil Quantity	23cc's
Motor / Drive	BLDC / Sensorless
Speed Range	1400 – 6500 RPM
Evaporator Temp. Range	-22~75°F (-30~24°C)
Max Condensing Temp.	140°F (60°C)
Max Discharge Temp.	212°F (100°C)
Max Ambient Temp.	120°F (49°C)
Max Dome Temp.	212°F (100°C)
Max Operating Pressure	350 psi (2.4 MPa)
Suction Port Size	1/4" ID Cup
Discharge Port Size	1/4" OD Tube
Cooling Capacity	Varies With Refrigerant See Capacity Tables
Noise Level @ 1 meter	~ 40 dBA
Weight	1.4cc ~ 900g 1.9cc ~ 925g

### Compressor Ordering Guide



#### Sample Order # Q9 - 24 - 4201

Description – 1.9cc compressor  
(20-30) Volt Input  
Straight Discharge Tube  
Standard Compressor  
With Thermal Switch

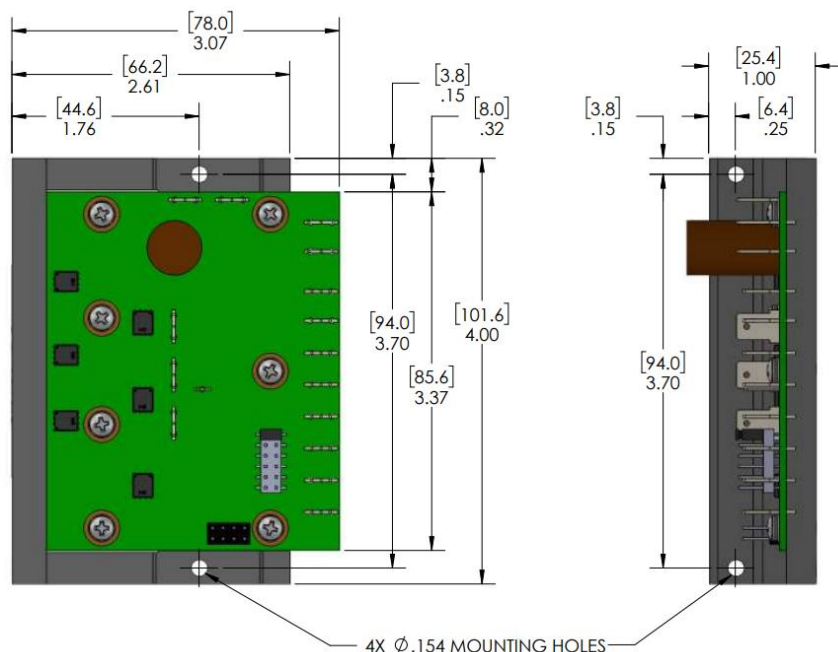


### Compressor Application Notes:

1. Compressor is supplied with a factory charge of 23 cc's of oil. Addition oil will be required if operating compressor in systems with long tubes, large heat exchangers or internal surfaces that can trap oil and prevent adequate return to the compressor.
2. Recommended airflow over compressor is 1 meter/sec.
3. **If replacing an older Aspen Compressor, consult with Aspen Engineering for compatibility as oil types have changed to accommodate new HC refrigerants**

# ASPEN Universal Quiet Sinusoidal Drive & DC-DC Converter

## Universal Quiet Sinusoidal Drive

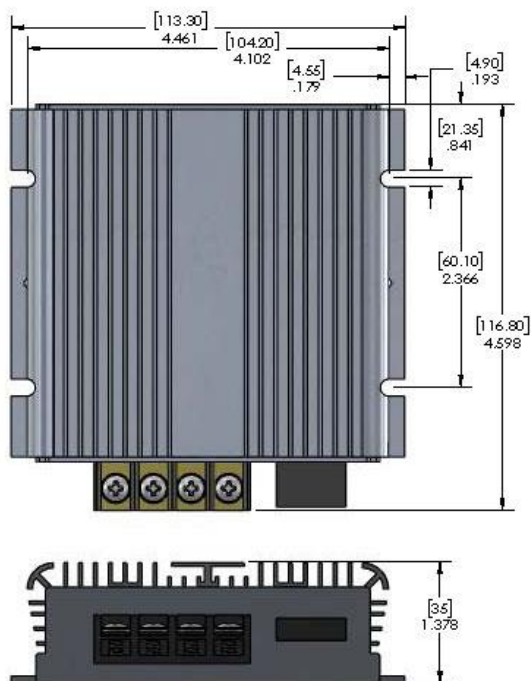


### Drive Board Options

Input Voltage	Max Current
10-16V	15A
20-30V	15A
43-60V	8A
10-60V**	8-35A**

\*\*Requires use of Aspen DC-DC Converter in conjunction with Compressor Drive. Max current based on input voltage.

## DC-DC Converter



### Compressor Drive & Converter Application Notes:

1. Drive Board is conformally coated, however, care should be taken to prevent operation in corrosive or wet environments. Drive board is thermally protected, however, airflow over the drive board/ converter and heat sink is highly recommended.
1. Maximum current to the compressor is automatically limited by the drive board by reducing the compressor speed as the current approaches set limits, however, a suitable inline fuse is required for branch circuit protection and safe operation. See Universal Low Noise Sinusoidal Motor Controller Instructions for installation instructions.