

# E15H022A-SH

## 1 kW Semi-Hermetic Scroll Expander

100% Oil-Free or Lubricated

Operate with or without lubrication

Semi-Hermetic

No dynamic seals with patented magnetic coupling configuration

Efficient Power Generation

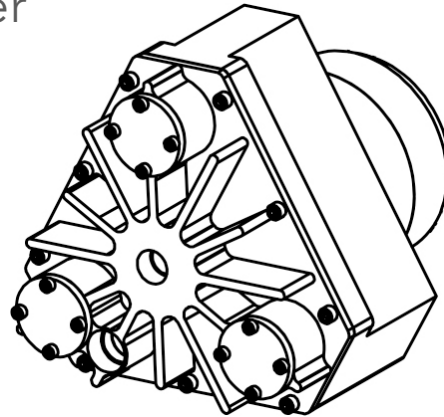
Up to 90% volumetric efficiency with lubrication, 80% without

Quiet, Smooth Operation

Dynamically balanced, valve-less, and near pulsation-free

Reliable, Durable Solution

Long product life and simple field maintenance



	SI	IMPERIAL
NOMINAL OUTPUT	1 kW <sub>e</sub>	1.34 hpe
VOLUME RATIO	3.5	
DISPLACEMENT	14.5 cm <sup>3</sup> /Rev.	0.73 in <sup>3</sup> /Rev.
MAX. SPEED	3,600 RPM	
MAX. INLET PRESSURE	13.8 bara	200 psia
MAX. INLET TEMP.	175°C	345°F
AMBIENT TEMP. RANGE	-20°C - 40°C	0°F - 104°F
NOMINAL SOUND LEVEL	55 dB(A)	
NET WEIGHT	9 kg	20 lb
PORT CONFIGURATION	½" NPT (Inlet) ¾" NPT (Outlet)	
PART NUMBER	E15H022A-A01 (No Generator) E15H022A-A03 (50 Hz Generator) E15H022A-A04 (60 Hz Generator)	

### MEDIA COMPATIBILITY

Air, CO<sub>2</sub>, CO, He, N<sub>2</sub>, Ar, Natural Gas and most refrigerants are compatible with standard product configuration.

**Operation with most refrigerants will require lubrication.**

### OPTIONAL CONFIGURATIONS

E15H022A-SH-AC-60HZ  
 Expander and Attached 115 V, 60 Hz AC Generator

E15H022A-SH-AC-50HZ  
 Expander and Attached 220 V, 50 Hz AC Generator

### CUSTOM REQUIREMENTS

Qualified OEMs should consult Air Squared for custom configurations and application specific requirements.

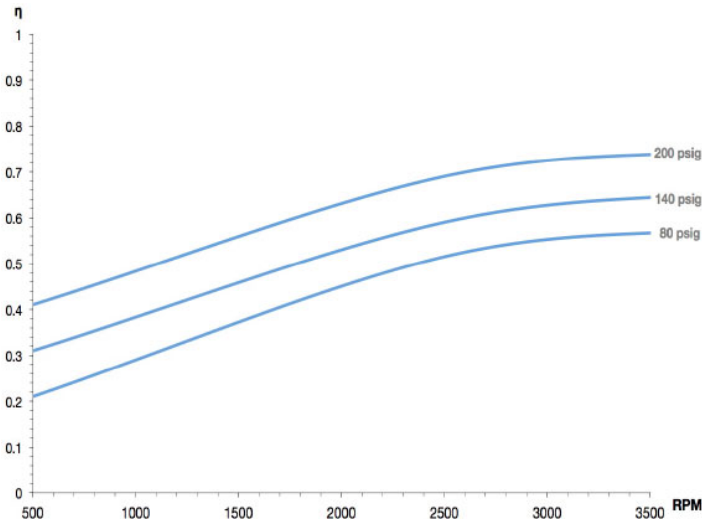
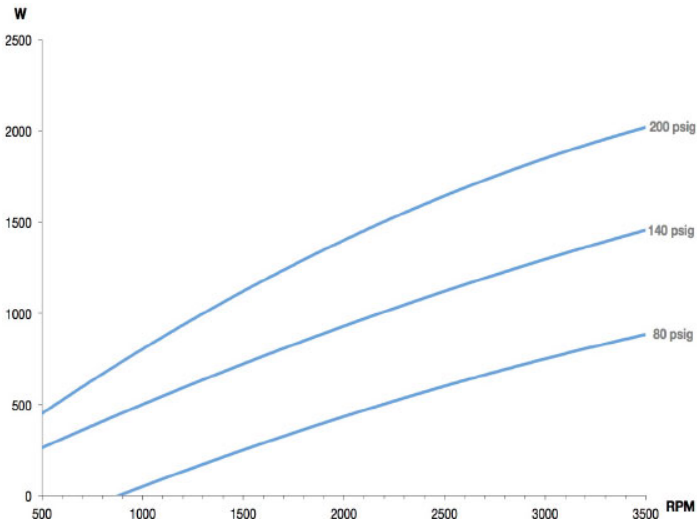
Contact info@airsquared.com.

*The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable. Air Squared does not warrant, guarantee, or assume liability in connection with this information. Picture, Performance, and Dimensions for reference use only - visit [airsquared.com](http://airsquared.com) for current specifications. Application conditions may adversely affect performance and product life. It is the responsibility of the user to determine the suitability of the product for intended use.*

## Performance

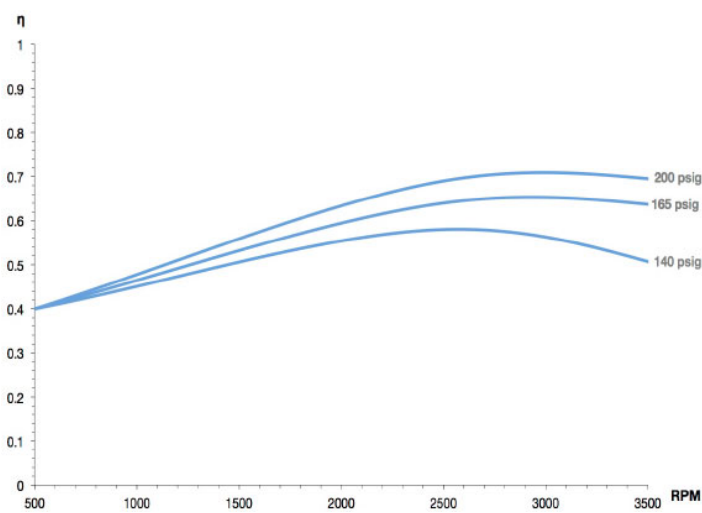
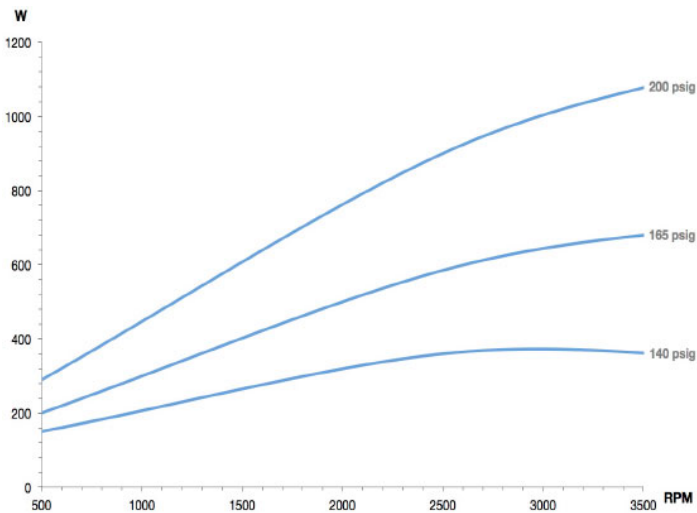
### R-245FA - WITHOUT LUBRICATION

1.25 bara Condensing Pressure

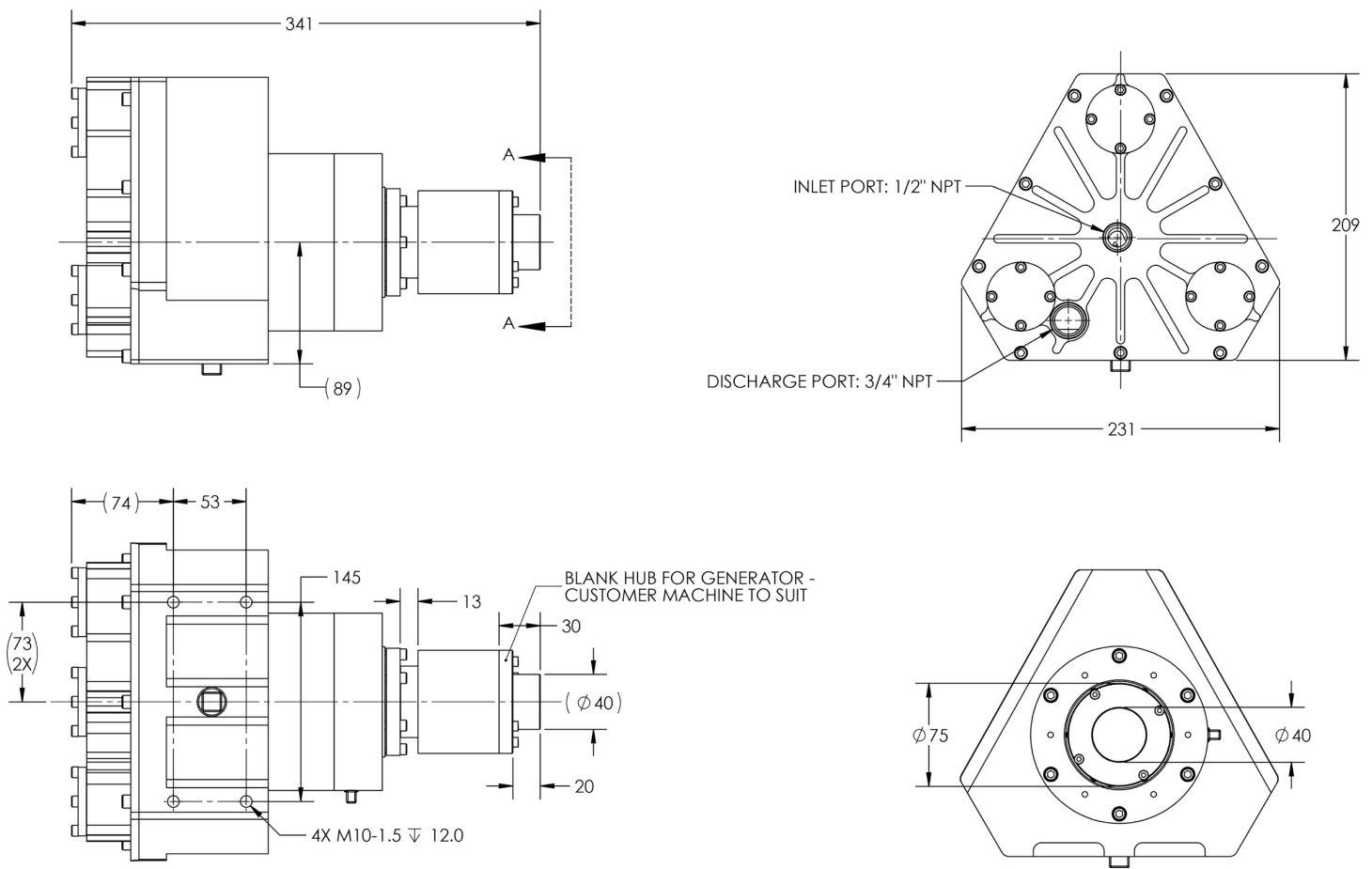


### R-134A - WITHOUT LUBRICATION

5.5 bara Condensing Pressure



## Dimensions



Dimensions in millimeters unless otherwise stated.

## Connection Reference Diagram

