

COPELAND SCROLL™ FUEL GAS BOOSTER



FOR MICROTURBINES GENSETS FUEL CELLS

The Copeland Scroll™ fuel gas booster is a cost-effective way to ensure reliable gas flow pressure without having to install high-pressure lines on site. The unit is a complete, stand-alone package capable of boosting natural gas line pressure from as little as 15 PSIA to 115 PSIA in a single stage of compression. It combines proprietary Copeland Scroll™ technology with sophisticated electronic controls to provide smooth, accurate variable fuel flow yielding the highest efficiencies available today.

- Turnkey System for Gas Pressure Boosting
- Hermetic Design Eliminates Shaft Seal Leaks
- Exceptional Reliability
- Ultra-low Noise and Vibration Levels
- Commercial-grade, Rugged Construction
- Variable Speed Flexibility
- Application Versatility and Technical Support
- Once a Year, Low-cost Maintenance

Copeland®


EMERSON™
Network Power

MODEL NO. SZN22C2A SPECIFICATIONS



DESCRIPTION

Variable flow scroll compressor package for boosting low pressure natural gas

GENERAL

Nominal compressor displacement ...22 scfm (32 mcf) @ 60 Hz
 Volume0-29 scfm (0-42 mcf)
 Mass Flow*0-79 lbs./hr (0.25 PSIG inlet, 80 PSIG outlet, 0.044 lbs./ft³ density)
 Inlet pressure range.....0.25 PSIG-15 PSIG
 Outlet gas pressure60 PSIG-100 PSIG

MECHANICAL DESCRIPTION

Weight~ 550 lbs.
 Gas inlet1" female NPT (1-5/16" SAE)
 Gas outlet3/4" female NPT (1-1/16" SAE)
 Ambient temperature range14° to 120°F (-10° to 50°C)
 Dimensions(H) 42" x (W) 24" x (L) 54"
 Sound Level.....75 dBA at 1 meter
 Vibration3 mil at 60 Hz

LUBRICATION

Oil typePAO [proprietary Copeland blend]
 System oil capacity~ 200 oz
 Projected oil consumptionapprox. 15oz/8,000 hours (<5 ppm)

Information – 800.996.4660
copeland-corp.com

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SYSTEM ELECTRICAL

DC power supply to inverter (DC systems)
 Voltage range500-800 VDC
 AC power supply to inverter (AC systems)
 Voltage range345-525 VAC (50/60 Hz)
 Input frequency range48-62 Hz
 Over pressure detection (outlet)115 PSIG open
 Under pressure detection (inlet)2" W.C. close
 Oil over temperature detection220°F open
 Fault output to customerDry contact, 5-60 VDC
 Run input from customerDry contact, 28 VDC maximum
 Pressure transducer0-150 psig, 4-20 mA signal
 Power consumption~ 4,500 W @ 60 Hz, ~ 7,500 W @ 80 Hz

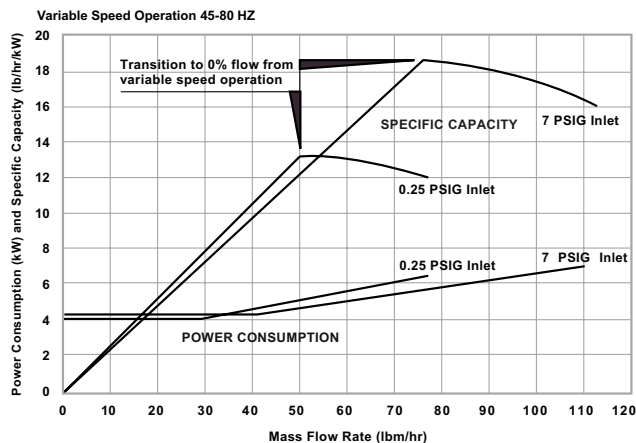
GAS MEDIUM

U.S. pipeline natural gas
 H₂S maximum content45 ppm
 Water vapor maximum150 ppm
 CO₂ maximum content.....2.5%
 Inlet temperature120°F maximum
 Discharge gas temperature150°F maximum

MAINTENANCE

The compressor has a design life of over 20,000 hours and never requires an overhaul. Annual maintenance consists of replacing second stage oil separator, adding oil and cleaning the heat exchanger, for a total service time of about one hour.

FUEL GAS BOOSTER PERFORMANCE [VARIABLE SPEED OPERATION 45-80 HZ]



*TEST CONDITIONS

Inlet Temperature: 60°F, Discharge Pressure: 70 PSIG, Ambient Temperature: 60°F,
 Gas Specific Gravity: 0.6.

Note: Copeland reserves the right to change or modify without notice the design or equipment specification without incurring any obligation either with respect to equipment previously sold or in the process of construction.

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