

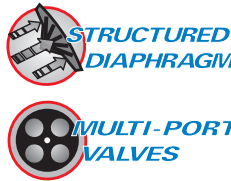


UN815KNDC model shown with DC motor.

## Type: UN815

### Diaphragm Vacuum Pump

**Single Stage  
OEM Installation Model  
with AC or DC Motor**



Free-Flow Capacity: 15 liters/minute (0.53 SCFM)  
Maximum End Vacuum: 100 mbar (27 in. Hg)

#### Description

Representing a new generation of diaphragm pumps from KNF, this pump is optimized for durability and the highest efficiency in its size class using CAD/FEA methods. It features our exclusive, patented, structured diaphragm and multi-port valve system that improves performance and reliability, resulting in a smaller package.

#### Pump Features

- **Advanced Multi-Port Valve System** - This pump features KNF's patented multi-port valves. The tough, circular valve disk spans several smaller holes instead of one large hole, and can withstand punishment created by pumping liquid droplets. The resulting flow and efficiency are increased along with improved reliability.
- **Patented, Structural Molded Diaphragm** - A unique structure is molded into the diaphragm that spreads stress over a wide area. This precision control of flexibility improves efficiency, performance and lifetime. There is no metal clamping disk to leak or corrode.
- **Flexible Design** - KNF's engineers combine high performance with a small physical package to produce an efficient, compact standard unit. In addition, with KNF's Project Pump program, we can suggest a variety of inexpensive modifications to meet your OEM design requirements. A variety of motor options are available, including brushless DC.
- **Oil-Free, Contamination-Free Transfer** retains pumped medium purity and increases system reliability, as there are no sliding seals to wear away.
- **Low Noise Level** - The enclosed compressor housing reduces noise transmission keeps dirt away from critical components. The pump is extremely quiet and smooth running. The heavy-duty motor is equipped with ball bearings to assure quiet operation.
- **Variety of Accessories** - Available accessories include noise & dust filters, hose connectors and shock mounts.

#### Applications

- Automatic Sampling Systems
- Air/Gas Samplers
- Portable Analytical Instruments
- Medical Diagnostic Equipment
- Pick & Place Equipment
- Sample Probe Wash Applications
- Residual Gas Analyzers
- Medical Therapeutic Devices

## KNF Performance Specifications

Model Number	UN815KNI (AC)	UN815KTI (AC)	UN815KNDK	UN815KTDK
Maximum Flow	15 lit./min. (.53 SCFM)	14 lit./min. (.49 SCFM)	15 lit./min. (.53 SCFM)	15 lit./min. (.53 SCFM)
Maximum Vacuum	100 mbar (27 in. Hg)	160 mbar (25.2 in. Hg)	100 mbar (27 in. Hg)	180 mbar (24.6 in. Hg)

## Electrical

Motor Voltage & Frequency	115V (60 Hz) or 230V (50 Hz)	6 / 12 / 24 VDC
Full Load Motor Current	1.0 Amps    0.75 Amps	3.2 / 1.6 / 0.8 Amps
Motor Type	Shaded Pole AC	Permanent Magnet Brush Type DC
Motor Protection	Thermal Reset	None

## Environmental

Maximum Ambient Temperature	40°C / 105°F	40°C / 105°F
Maximum Medium Temperature	40°C / 105°F	40°C / 105°F
Net Weight	1.35 kg / 3.0 lbs.	0.98 kg / 2.1 lbs.

## Materials of Construction

Standard Model Number	Head	Diaphragm	Valves
UN815KN	Ryton®	EPDM	EPDM
UN815KT	Ryton®	Teflon®	Kalrez®

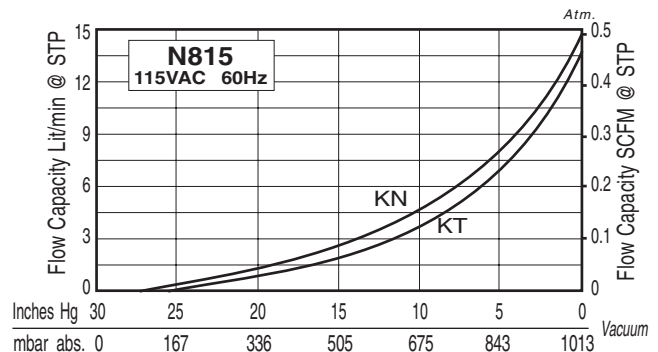
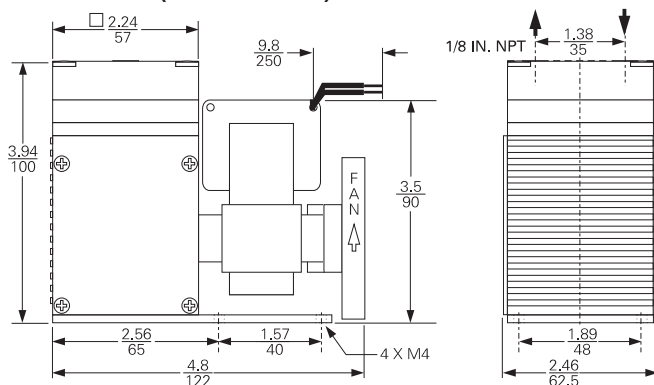
**Notes:** Standard continuous performance ratings, based on technical data and test results of nominal units at sea level with an ambient temperature of 70° F (21° C), and nominal electrical supply are listed above. Dimensions and performance characteristics given are for reference only. Higher performance models, cost efficient OEM modifications, a wide variety of motor options, including brushless DC, and different materials of construction are available. Teflon® and Kalrez® are registered trademarks of DuPont. Ryton® is a registered trademark of the Phillips 66 Company. Specifications subject to change without notice.



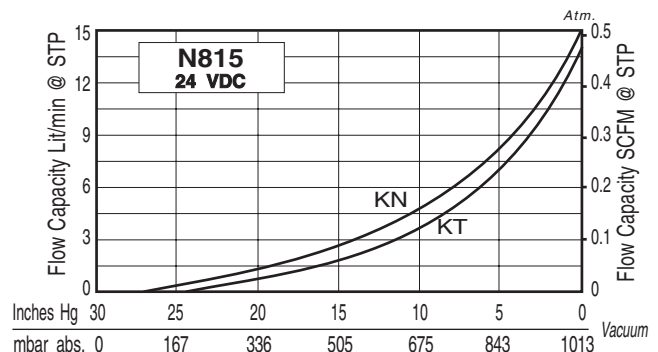
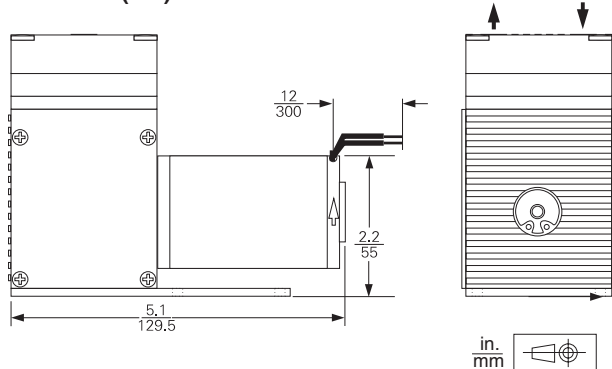
**Accessories:** Hose Connectors, Noise & Dust Filters, Shock Mounts

## Performance Characteristics/Outline Dimensions:

**N815KNI (115VAC 60 Hz)**



**N815KNI (DC)**



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