## GENERON ${ }^{\circ}$



## MEMBRANE MODULES MODEL 7200LPHF

Reliable Nitrogen Membrane modules are the heart of a nitrogen generation system. GENERON ${ }^{\circledR}$ membrane modules have been at the forefront of the industry for over 40 years. Our research and development team in California work to continually improve the performance and durability of our membranes.

By supplying the GENERON ${ }^{\circledR}$ membrane modules with compressed air, they will generate a nitrogen stream suitable for an array of industries, including beverage, laboratory, food, controlled atmosphere, pharmaceutical, chemical, textile, heat treatment, electronics, and many more.

## Features \& Benefits:

Over 40 years of Manufacturing and Engineering
GENERON ${ }^{\circledR}$ Membranes have been the benchmark of the industry and proud to have shipped over 250,000 membranes around the world.

## Save Energy:

GENERON® Membrane modules offer the highest effeciency in the market, reducing your compression.

## Quality Guaranteed:

Every GENERON® Membrane module is rigorlously tested to the highest standards in one of our ISO 9001 certified facilities.

## Easy Start Up:

GENERON ${ }^{\circledR}$ Systems are delivered ready to start and deliver nitrogen.

## Suited for Tough Environments:

GENERON®Membrane modules are built to withstand even the roughest operating conditions, including the harsh offshore environment.

## Reduced Footprint:

GENERON® Membrane modules have the highest productivity in the industry and can have a $30 \%$ smaller footprint, allowing for horizontal or vertical installation, and adaptable to any space requirement.

| Mechanical Description |  |
| :--- | :---: |
| Outer Diameter: | 10.75 inch $(273 \mathrm{~mm})$ |
| Length: | 80.25 inch $(2038 \mathrm{~mm})$ |
| Weight: | 356 lbs $(162 \mathrm{~kg})$ |
| Case Material: | Carbon Steel |

## GENERON MEMBRANE MODULES - MODEL 7200LPHF

| Nitrogen Product Flow Rate at $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ vs. Product Purity |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nitrogen Product Purity in Vol\% and Product Flow Rate in $\mathrm{Nm}^{3} / \mathrm{h}$ (SCFH) |  |  |  |  |  |  |
| Pressure barg (psig) | 95\% | 96\% | 97\% | 98\% | 99\% | 99.5\% |
| $\begin{gathered} \hline 6.9 \\ (100) \end{gathered}$ | $\begin{gathered} 71.9 \\ (2770.8) \end{gathered}$ | $\begin{gathered} 60.8 \\ (2344.5) \end{gathered}$ | $\begin{gathered} 50 \\ (1928.1) \end{gathered}$ | $\begin{gathered} 39.3 \\ (1514.4) \end{gathered}$ | $\begin{gathered} 28.1 \\ (1082.5) \end{gathered}$ | $\begin{gathered} \hline 21.6 \\ (831.5) \end{gathered}$ |
| $\begin{gathered} \hline 8.5 \\ (125) \end{gathered}$ | $\begin{gathered} 96.8 \\ (3731.0) \end{gathered}$ | $\begin{gathered} 82.0 \\ (3162.5) \end{gathered}$ | $\begin{gathered} 67.6 \\ (2606.7) \end{gathered}$ | $\begin{gathered} 53.3 \\ (2054.0) \end{gathered}$ | $\begin{gathered} 38.3 \\ (1476.2) \end{gathered}$ | $\begin{gathered} \hline 29.6 \\ (1140.1) \end{gathered}$ |
| $\begin{gathered} 10.4 \\ (150) \end{gathered}$ | $\begin{gathered} 126.6 \\ (4880.0) \end{gathered}$ | $\begin{gathered} 107.5 \\ (4143.5) \end{gathered}$ | $\begin{gathered} 88.8 \\ (3422.7) \end{gathered}$ | $\begin{gathered} 70.2 \\ (2705.3) \end{gathered}$ | $\begin{gathered} 50.7 \\ (1954.5) \end{gathered}$ | $\begin{gathered} \hline 39.4 \\ (1517.5) \end{gathered}$ |
| $\begin{gathered} 12.1 \\ (175) \end{gathered}$ | $\begin{gathered} 152.3 \\ (5871.4) \end{gathered}$ | $\begin{gathered} 129.5 \\ (4991.4) \end{gathered}$ | $\begin{gathered} 107.1 \\ (4129.7) \end{gathered}$ | $\begin{gathered} 84.9 \\ (3271.5) \end{gathered}$ | $\begin{gathered} 61.6 \\ (2372.7) \end{gathered}$ | $\begin{gathered} 48.0 \\ (1849.4) \end{gathered}$ |
| $\begin{gathered} 13.8 \\ (200) \end{gathered}$ | $\begin{gathered} 178.6 \\ (6885.9) \end{gathered}$ | $\begin{gathered} 152.0 \\ (5860.5) \end{gathered}$ | $\begin{gathered} 126.0 \\ (4855.9) \end{gathered}$ | $\begin{gathered} 100.0 \\ (3854.7) \end{gathered}$ | $\begin{gathered} 72.8 \\ (2805.6) \end{gathered}$ | $\begin{gathered} 56.9 \\ (2194.4) \end{gathered}$ |
| Air Recovery Rate at $77{ }^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ in [\%] vs. Product Purity |  |  |  |  |  |  |
| Pressure barg (psig) | 95\% | 96\% | 97\% | 98\% | 99\% | 99.5\% |
| $\begin{gathered} \hline 6.9 \\ (100) \end{gathered}$ | 52.1\% | 48.7\% | 44.6\% | 39.6\% | 32.6\% | 27.2\% |
| $\begin{gathered} \hline 8.5 \\ (125) \\ \hline \end{gathered}$ | 53.8 | 50.4\% | 46.3\% | 41.3\% | 34.3\% | 28.9\% |
| $\begin{gathered} \hline 10.4 \\ (150) \end{gathered}$ | 55.1 | 51.7\% | 47.7\% | 42.7\% | 35.8\% | 30.4\% |
| $\begin{gathered} \hline 12.1 \\ (175) \\ \hline \end{gathered}$ | 55.8 | 52.4\% | 48.5\% | 43.6\% | 36.7\% | 31.3\% |
| $\begin{gathered} 13.8 \\ (200) \\ \hline \end{gathered}$ | 56.2 | 52.9\% | 49.0\% | 44.2\% | 37.4\% | 32.1\% |


| Porting Configuration |  |
| :--- | ---: |
| Connection | Size |
| A-Feed | $11 / 2^{\prime \prime}$ FNPT |
| B-Product | $11 / 2^{\prime \prime}$ FNPT |
| C-Permeate | $3^{\prime \prime}$ FNPT |

1. Seal connections with Teflon Tape or Formula 8 Thread Sealant only.
2. Standard Conditions: $77^{\circ} \mathrm{F}\left(25^{\circ} \mathrm{C}\right)$ and $14.7 \mathrm{psi}(1 \mathrm{~atm})$
3. Performance after 1 year ( 9,000 hours) of continuous operation.
4. Recovery $=$ Product $\mathrm{N}_{2}$ Flow/Feed Flow

