

0,4-286
Nm³/hJOURNEY
OF
AIR

MODULAR NITROGEN GENERATORS

Nitrogen is separated from oxygen and enriched with the Carbon Molecular Sieve (CMS) adsorbent used in Dalgakiran Pressure Swing Adsorption (PSA) type Nitrogen generators. Carbon Molecular Sieve (CMS) allows nitrogen to pass through the line by adsorbing oxygen and water vapor molecules under a certain pressure. Dalgakiran Nitrogen Generator has a compact structure through multiple modules filled with Carbon Molecular Sieve.

Clean and dry air is directed to the modules in a sequential manner for the adsorption process. The Carbon Molecular Sieve (CMS) in the modules adsorbs oxygen and water vapor molecules and keeps them in its pores, allowing nitrogen molecules to pass through. Thus, nitrogen gas is produced (Purity levels can be between 95-99.999% depending on the areas of use and customer expectations).



Advantages

- Compact design, full automated operation
- Replaces manifold usage
- Touch Screen PLC for controlling the complete system
- New design silencer that operates at lower noise levels during pressurization and purge
- High performance
- The purity and capacity of nitrogen gas is designed to meet customer requirements
(Nitrogen Purity 95%~99.999% is available)
- Durable piston valves for long-life operation
- Minimum maintenance cost
- Lower air-to-nitrogen (A/N) ratios and energy consumption
- High-sensitive sensor technologies
- Effective integrated filtration



Standard

- Nitrogen Modules
- Silencer
- Mini PLC
- Manometers
- Proportional Valve
- Pressure Transmitter
- ECO Mod
- T Filter
- Piston Valves
- Valve Control Regulator



Optional

- Dew Point Sensor Kit
- Flowmeter Kit
- Carbolescer
- Oxygen Analyzer Kit
- 3-Way By-Pass Valve Kit
- HMI Color Touch Screen PLC
- Buffer Tank
- Oil Indicator

| Model | Free Nitrogen Delivery @ Following Purity Level (m³/h) | | | | | | | | | |
|--------------|--|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| | %95,00 | %97,00 | %98,00 | %99,00 | %99,50 | %99,90 | %99,95 | %99,99 | %99,995 | %99,999 |
| DNG MOD 20 | 4,3 | 3,9 | 3,3 | 2,8 | 2,1 | 1,7 | 1,6 | 0,7 | 0,7 | 0,4 |
| DNG MOD 40 | 7,0 | 6,3 | 5,4 | 4,6 | 4,1 | 2,8 | 2,5 | 1,2 | 1,1 | 0,7 |
| DNG MOD 70 | 12,9 | 11,5 | 9,9 | 8,4 | 7,2 | 5,1 | 4,7 | 2,2 | 2,1 | 1,3 |
| DNG MOD 123 | 21,5 | 19,2 | 16,5 | 14,0 | 12,3 | 8,5 | 7,8 | 3,7 | 3,5 | 2,2 |
| DNG MOD 210 | 37,0 | 33,1 | 28,5 | 24,2 | 21,3 | 14,6 | 13,5 | 6,3 | 6,0 | 3,8 |
| DNG MOD 285 | 49,4 | 44,2 | 38,0 | 32,3 | 28,5 | 19,4 | 18,0 | 8,5 | 8,0 | 5,0 |
| DNG MOD 340 | 60,4 | 54,1 | 46,5 | 39,5 | 34,9 | 23,8 | 22,0 | 10,3 | 9,7 | 6,1 |
| DNG MOD 555 | 96,1 | 86,0 | 74,0 | 62,8 | 55,5 | 37,9 | 35,0 | 16,5 | 15,5 | 9,8 |
| DNG MOD 735 | 127,2 | 113,8 | 98,0 | 83,2 | 73,5 | 50,1 | 46,3 | 21,8 | 20,5 | 12,9 |
| DNG MOD 990 | 172,0 | 152,8 | 132,4 | 112,4 | 99,3 | 67,7 | 62,6 | 29,5 | 27,7 | 17,5 |
| DNG MOD 1130 | 197,0 | 176,2 | 151,7 | 128,7 | 113,7 | 77,6 | 71,7 | 33,7 | 31,8 | 20,0 |
| DNG MOD 1260 | 218,8 | 195,7 | 168,4 | 143 | 126,3 | 86,2 | 79,7 | 37,5 | 35,3 | 22,2 |
| DNG MOD 1650 | 286,3 | 256,1 | 220,4 | 187,1 | 165,3 | 112,8 | 104,3 | 49,0 | 46,2 | 29,1 |

Reference conditions: 7.5 bar inlet, 6 bar outlet, 25°C ambient temperature

AIR INLET FACTOR

| Pressure (bar[g]) | 5 | 5,5 | 6 | 6,5 | 7 | 7,5 | 8 | 8,5 | 9 | 9,5 | 10 |
|-------------------|------|------|------|------|------|-----|------|------|------|------|-----|
| Correction Factor | 0,68 | 0,73 | 0,79 | 0,88 | 0,90 | 1 | 1,04 | 1,08 | 1,15 | 1,18 | 1,2 |

CMS CORRECTION FACTOR

| Ambient Temperature °C | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|------------------------|------|----|----|----|----|------|------|------|-----|
| Correction Factor | 0,85 | 1 | 1 | 1 | 1 | 0,91 | 0,82 | 0,74 | 0,6 |