

HYDROGEN GENERATORS NM PLUS SERIES



The NM Plus series hydrogen generators use the latest proton exchange membrane (PEM) technology to produce high purity hydrogen. The unique no-maintenance purification system, provides ultra high purity grade hydrogen suitable as carrier gas in GC-MS. The highly sophisticated software control and safety alarm capability maximize the benefits of using hydrogen carrier gas while minimizing the safety concerns.

NM PLUS SERIES FEATURES

- ✓ **Unique Full titanium electrolytic cell**
- ✓ PEM Technology (no caustic solution) -
- ✓ PURITY: >99.99996%
- ✓ Pressure up to 11 bar (160 psi)
- ✓ Unique drying system
- ✓ **NO desiccant cartridges required**
- ✓ Optimized powerful water pump for PEM cell
- ✓ Low energy consumption
- ✓ Software upgrade by standard USB
- ✓ Full microprocessor control
- ✓ LCD touch screen interface or push buttons
- ✓ Real time outlet pressure
- ✓ Water level and quality sensors - Autodiagnosics with alarms
- ✓ H₂ leak detector
- ✓ Shock sensor

SUITABLE FOR

- ✓ Gas Analyzer
- ✓ Carrier Gas for GC-Fast GC-GC/MS
- ✓ Auxiliary gas for FID/FPD
- ✓ Sulphur Analyzer
- ✓ Hydrocarbon Analyzer

CASCADING

The ability to "cascade", or install several hydrogen generators in parallel, provides:

- ✓ Higher flow rates
- ✓ Automatic flow compensation in the event of unplanned downtime
- ✓ Continuous operation for critical applications

IMPROVED SAFETY

The very limited internal volume (less than 50ml) allows safe use of the gas generators where the use of cylinders is risky or prohibited. The application of tested safety technologies stops the unit in the event of leaks or malfunctions.

SAVING

Hydrogen gas generators avoid the need for expensive installation of gas pipelines from the cylinder storerooms to the labs, as well as the need to repeatedly change the bottles.

OPERATING PRINCIPLE

Hydrogen is produced by forcing distilled or deionized water through a sophisticated fuel cell designed and made by VICI AG Swiss. Electrolytic dissociation separates the water into its two main components: hydrogen ready for analytical use, and oxygen that is released into the air. **NO ACID NO ALKALINE SOLUTIONS** are used in the hydrogen generation cycle. The automatic drying system ensures the maximum grade of hydrogen purity.

Specification NM Plus Series

Models	NM-100 PLUS	NM-160 PLUS	NM-250 PLUS	NM-300 PLUS	NM-400 PLUS	NM-500 PLUS	NM-600 PLUS	NM-1000 PLUS	NM-1350 PLUS
Flow ml/min.	100	160	250	300	400	500	600	1000	1350
Weight (kg)	15	15	15	15	15	16	16	17	18
Power Watts	100	120	165	205	205	220	255	385	410
Technology	Proton exchange membrane (PEM)								
Cell type	Full titanium								
Dryer system	No maintenance cold dual dynamic regeneration system								
Purity	>99.99996%								
Dew Point a 7 bar	-73° C								
Outlet pressure	20-160 psi / 1.4-11 bar								
H2 Internal volume	< 50 ml at max pressure								
Internal water tank	2.5 Lt								
Cascading	up to 32 units								
Display	Operating parameters, system status, alarms and touch screen								
LED indicators	Power on / off, system ready, errors								
Interface	USB mod. A								
Water quality	Deionized or demineralized (<10µS/cm)								
Power	110-120V 60Hz / 220-240V 50Hz								
Product Dimensions (mm)	230W x 480H x 370D								
Shipping Dimension (mm)	580W x 570H x 400D Weight 22 Kg								
Outlet Connections	1/8" Compression								
Safety	Automatic shut down- pressure drop, overpressure, low water								
Certification	CE, MET, FCC								

The following options are available:

- I/O board
- Remote control software (RS232 or USB)
- Cascading hardware
- Autorefill
- H2 Sensor