LN2-NMR Generation Systems

LN2-NMR is the latest liquid nitrogen generation systems designed specifically for NMR applications.

Utilising the reliable ‘Cryo-refrigerator’ design of a cold head and helium compressor, nitrogen gas is produced using the PSA technique which is then cooled to 77K (-196°C) to produce liquid nitrogen. The NMR systems have been designed specifically to easily connect to an NMR for either manual or automatic filling of the liquid nitrogen.

Overview:-
LN2-NMR Liquid Nitrogen Generation Systems from Noblegen Products is your reliable and efficient alternative to conventional liquid nitrogen supplies used for NMR applications. Taking away the on-going costs, safety considerations of deliveries, transportation and filling of the NMR with traditional liquid gas supplies, the ‘LN2-NMR’ on-site Liquid Nitrogen systems are some of the most advanced and intelligent available. The control system gives the user all the information necessary to ensure an efficient and consistent supply of liquid nitrogen and nitrogen gas are always available. From the process to flow and alarms, including automatic operation, Trend graphs, service alarm and service records page, there is simply no other liquid nitrogen system quite like NMR-LN2.

Features:-
Quiet and low vibration design for NMR applications
Internal liquid nitrogen storage dewar for first NMR fill
Outlet solenoid valve for manual or automatic running
Push button dispensing from touch screen
Communicate with NMR liquid level sensor for automatic top-up
Screen shows Liquid Nitrogen and Liquid helium Level
Optional return hose to recycle vented off nitrogen gas back into cryo-cooler

Models available:-
LN10 - 10 L/day (0.42 L/hr)
LN20 - 20 L/day (0.83 L/hr)
LN40 - 40 L/day (1.70 L/hr)
LN60 - 60 L/day (2.5 L/hr)
LN120 - 120 L/day (5.0 L/hr)
Liquid Nitrogen Generators

Features
- Range of Models Available
- Complete NMR Solution
- Compact and Quiet design
- Built in Nitrogen PSA
- Automatic operation
- Energy saving mode
- LN2 Dewar Liquid Level
- N2 Gas Outlet as standard
- Trend graphs into MS excel
- Alarms with help menu
- Remote access via internet

Applications
- NMR Machines

Options
- Return hose for nitrogen gas recycling
- Dispensing hose lengths to suit installation

NMR-LN2 Generation Systems

<table>
<thead>
<tr>
<th>Models</th>
<th>L/Day</th>
<th>L/Hr</th>
<th>Dewar Capacity (L)</th>
<th>N2 Gas (l/min)</th>
<th>Electrical Supply</th>
<th>Power (Kw)</th>
<th>Cooling Water (L/min @ 27°C)</th>
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<tbody>
<tr>
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<td>10</td>
<td>0.42</td>
<td>35</td>
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<td>65.0</td>
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<td>15.5</td>
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</table>

Specification based on ambient temperature range of 7°-38°C (45°-100°F) and maximum altitude of 3,000 m (10,000 ft). For any other conditions please contact Noblegen technical department.

System Schematic Diagram