

Liquid Nitrogen Plant Specification Sheet

LNP120

Liquid nitrogen production rate* \geq 120 liter/day (5 liter/hour); 31.7 gal/day (1.3 gal/hour)
*reduced production rate on 50Hz

Dewar assembly

Capacity 300 liters (79 gal)
Weight:
Empty 465 lb (211 kg)
Full 1000 lb (453 kg)
Dimensions (OD x H) 32 x 51 in (81 x 130 cm)

Cold head model AL600, mounted on dewar

Helium compressor model

CP1014, available as water cooled only
Weight 490 lb (223 kg)
Dimensions (L x W x H) 24 x 23 x 38 in (61 x 58 x 97 cm)
Electrical rating 460VAC, 3Ph, 60Hz // 380/420VAC, 3Ph, 50Hz
Power consumption 15.5 kW // 13 kW
Cooling water flow rate Minimum flow 3 GPM (11.4 LPM) @ 80°F (27°C) maximum temperature

Helium flexible lines

Standard length 10 ft (3 m)
Weight per pair 15 lb (6.8 kg)

Nitrogen generator assembly

Nitrogen purity 98%
Weight TBD
Dimensions (L x W x H) TBD

System parameters

Helium pressure 200 \pm 5 PSIG (13.8 \pm .34 bar) @ 60 Hz
220 \pm 5 PSIG (15.2 \pm .34 bar) @ 50 Hz
Ambient temperature range 45°F to 100°F (7°C to 38°C)
Maximum altitude (standard LNP) 10,000 ft (3000 m)

CRYOMECH

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<u>Compressed air requirement</u>	15.6 ACFM at 85 PSIG (442 ALPM at 6 bar) FAD FAD (free air delivery) measures the compressor's output while operating at a specific pressure. The result, expressed in actual cubic feet per minute (ACFM), rates the outlet flow based on the inlet conditions.
<u>Maximum sound level</u> Water cooled	76 dBA @ 1 meter
<u>Minimum footprint requirement</u> Air cooled helium compressor Water cooled helium compressor	5 x 7 ft (1.5 m x 2.1 m) 7 x 7 ft (2.1 m x 2.1 m)
<u>Shipping weight and dimensions</u> Crate 1: Weight Dimensions (L x W x H) Crate 2: Weight Dimensions (L x W x H)	The standard LNP is packaged in two wooden crates TBD TBD TBD TBD
Optional Equipment	
<u>Air compressor</u> Flow rate Weight Dimensions (L x W x H) Duty cycle Horsepower Electrical rating Sound level	26 ACFM at 175 PSIG (736 ALPM at 12.1 bar) FAD TBD TBD 1/3 7.5 208/230; 460VAC, 3Ph, 60Hz // 220; 380VAC, 3Ph, 50Hz TBD
<u>Refrigerated air dryer</u> Nominal capacity Weight Dimensions (L x W x H) Power consumption Electrical rating	15 SCFM (425 SLPM) 44 lb (20 kg) 18 x 8 x 18 in (46 x 20 x 46 cm) 0.23 kW 208/230VAC, 1Ph, 60Hz; 200VAC, 1Ph, 50Hz