## **CRYOMECH**

## Helium Reliquefier Specification Sheet HeRL15 with CPA1110

Reliquefaction rate ≥ 27 L/day at 0.50 psig

(Recondensing boil-off from Cryostat)

Cool down time < 2 hours between start up and liquid helium production

Max operating pressure 5.0 psig (0.34 bar) Pressure relief valve cracking pressure

Cryostat interface

Standard drain leg diameters:  $\emptyset$  1/2 inch (12.7 mm)

Ø 3/8 inch (9.5 mm) Ø 12 mm (0.472 inch)

(Custom sizes available upon request)

Standard drain leg length 12 in (305 mm) – 35 in (889 mm)

(Custom lengths available upon request)

Vapor return line Connects to vent port

Supplied with 1/4 inch MNPT and KF16 adaptor

System monitoring and control

Pressure control Balances boil-off rate with condensing rate

Temperature monitor Monitors the cold head temperature using a calibrated

diode.

Reliquefier weight 81 lb (36.7 kg)

Cold head PT415

Helium compressor package CPA1110, available as water cooled only

Weight 420 lb (191 kg)

Dimensions See compressor package outline drawing

Electrical rating 200/230VAC, 3 Ph, 60 Hz

440/480VAC, 3 Ph, 60 Hz 200VAC, 3 Ph, 50 Hz 380/415VAC, 3 Ph, 50 Hz

Power consumption at steady state 10.7 kW, 60 Hz

8.0 kW, 50 Hz

Cooling water flow rate Minimum flow 3.0 GPM (11.5 LPM) at 80 °F (27 °C)

maximum temperature

Flexible lines 90° elbows at Reliquefier end

Standard length 66 ft (20.1 m) Weight per pair 120 lb (54.4 kg)

System parameters

Helium pressure  $220 \pm 5 \text{ psig}$  (15.2 ± .34 bar) at 60 Hz

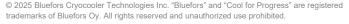
 $250 \pm 5 \text{ psig} (17.2 \pm .34 \text{ bar}) \text{ at } 50 \text{ Hz}$ 

Ambient temperature range 45 °F to 100 °F (7 °C to 38 °C)

Maximum sound level 76 dBA at 1 meter

Mounting interface (8) 5/16 -18 threaded holes on HeRL base

See Reliquefier outline drawing







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## **Optional Equipment**

Reliquefier Stand

Weight (with empty ballast tank) 125 lb (57 kg)

Dimensions - L x W x H 36 inch x 32 inch x 96 inch (92 cm x 81 cm x 244 cm)

(Custom heights available upon request)

Counterweight (liquid volume) 30 gal (114 L)

