## **CRYOMECH**

## Helium Reliquefier Specification Sheet HeRL15-RM with CPA1110

Reliquefaction rate ≥ 24 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 inch (305 mm) – 35 inch (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 83 lb (37.6 kg)
Cold head PT415-RM

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

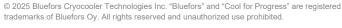
250 ± 5 psig (17.2 ± .34 bar) at 50 Hz

Ambient temperature range  $45 \,^{\circ}\text{F}$  to  $100 \,^{\circ}\text{F}$  ( $7 \,^{\circ}\text{C}$  to  $38 \,^{\circ}\text{C}$ )

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)

