

# CRYOMECH

## Helium Reliquefier Specification Sheet

### HeRL15-RM with CPA1110

Reliquefaction rate (Recondensing boil-off from Cryostat)	≥ 24 L/day at 0.50 psig
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:	Ø 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 ± 5 psig (15.2 ± .34 bar) at 60 Hz 250 ± 5 psig (17.2 ± .34 bar) at 50 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)