

PORTABLE CONDITIONING UNITS-PCU SERIES

Russells PCU-Series, portable conditioning units give you the maximum environmental testing flexibility. Your Russells portable conditioning unit will find a wide variety of temperature and humidity control uses in your lab and in the field including:

- Vibration testing
- Automotive “squeak and rattle” testing
- Custom test enclosures (remote)
- Environmental stress screening (ESS)
- Materials testing
- Spot heating or cooling
- Environmental forced air for avionics testing
- Ordinance temperature conditioning
- Elite PCU’s double as a stand alone test chamber



Elite GB-16-5-5-WC-PCU

Performance:

- Temperature range for mechanical refrigeration, single stage: -4°F/-20°C to 350°F/177°C
- Temperature range for mechanical cascade and LN2 refrigeration: -100°F/-73°C to 350°F/177°C

Humidity: (PCUD Models)

- 20%RH to 95%RH in the range bounded by an 185°F/85°C maximum temperature and a 40°F/4°C minimum dewpoint.

Russells PCU’s are available in a variety of air flow, cooling and heating capacities. A Russells application engineer can assist you in selecting the chamber configuration and size that is most economical for your testing needs. Let Russells give you the competitive edge!



PCUD-2400-LTC-LN2-EP

PORTABLE CONDITIONING UNITS-PCU SERIES

Standard Features:

- PCU liner is continuous TIG welded 300 series stainless steel.
- Non-setting oven grade fiberglass insulation, 0.25 K factor.
- Welded structural steel frame.
- Service panels removable with ¼ turn fasteners.
- Fan motors externally located.
- Silicone door gaskets.
- Heavy duty casters.
- Microprocessor temperature programmer controller.
- Solid state humidity sensor on humidity models.

Cooling:

- Low or zero ozone depletion refrigerants.
- Cascade or liquid nitrogen cooling.
- Cryogenic service control solenoid valve on LN2 models.
- Energy saving refrigeration bypass capacity control.
- Low stage desuperheater on cascade models.
- Oil pressure switches.
- Compressor suction and discharge pressure switches.
- Water cooled condenser on mechanical refrigeration models.
- Vapor tank and condenser ASME certified.
- Compressor overload protection.
- High stage compressor crankcase heater.
- Compressor head fans.
- Low stage oil separator.
- All piping joints silfos or silver soldered.
- Stainless steel compressor condensate pans.

Electrical:

- All wiring meets NEC standards.
- 120 volt control circuit transformer.
- Fully enclosed electrical panel.
- All circuits fused or circuit breaker protected.
- Full system function switches w/ system status pilot lights.
- All wiring numbered or color coded.
- High Temperature limit safety.
- Master heating circuit contactor.

Optional Accessories:

- Insulated flexible air ducts.
- 208, 230, or 460 volts power.
- Refrigeration sound deadening package.
- Air cooled condenser.
- Boost cooling system, LN2 or CO2.
- Running timer meter.
- Electrical disconnect switch.
- Humidity water demineralizer on humidity models.
- Explosion proof models.

Optional Instrumentation:

- Product safeguard redundant over/under temperature limit.
- Circular or electronic chart recorders.
- Computer communications, networking, data-logging software.