



Oxford Instrument MercuryITC:
Cryogenic Environment Controller:
100-240 VAC ; 50-60 Hz; 650 W

Oxford Instrument 5200 Hall
Effect magnetometer:240 VAC

Oxford Instrument MercuryITS:
Superconducting Magnet Power
Supply-Master: 100-240 VAC ; 47-63
Hz; 600 W

Oxford Instrument MercuryITS:
Superconducting Magnet Power
Supply-Slave: 100-240 VAC ; 47-
63 Hz; 600 W

Oxford Instrument ITM10:
Intelligent temperature Monitor:
220 VAC

He/N/Vacuum gauge: 220 VAC

He gas flow: 220 VAC

Vacuum gauge: 220 VAC

Oxford Instrument Shim power
supply: 220 VAC

Oxford Instrument PS120:
Superconducting Magnet Power
Supply (Backup): 100-115 VAC or
200-230 VAC; 1200 W

Require two separates plug for both Mercury ITS and one 208 VAC plug for the rests. Back of the rack should be open and mounted at least 30 cm from the wall.

Heat Transfer Simulation

(Preliminary) Conclusion: The magnet will survive with $1E12$ proton/sec (upper limit of the intensity)

Ongoing study:

- Improve the detailed geometry
- Study the effect of the beam offset
- Study the effect of the micro quench (We knew from the E906 experience that the beam intensity "jump" by a factor of 10 instantaneously/nano second)
- Generate Run plan to validate the simulation (Temperature reading predictions on the sensors as a function of beam intensity)