Cryomagnet Dump Diodes and Conductor Requirements

Critical Design Review
May 2003
RECTIFIERS

RECTIFIER MOUNT BASE – 6061 AL. ALY.

TORLON WASHERS

5/16 THREADED HOLE

0.190 DIA. BOLTS

CHO-THERM 1671 PADS

Cryomagnet Discharge System Interface
Cryomagnet Discharge System Interface
Cryomagnet Discharge System Interface
Cryomagnet Discharge System Interface

May 2003
R. Harold and P. Nemeth/LM
Cryomagnet Discharge System Interface
0.25 DIA. BOLTS & WASHERS

TORLON WASHERS

Thermally conductive material applied to threads

SECTION A - A

SECTION B - B

Cryomagnet Discharge System Interface
Cryomagnet Discharge System Interface
Cryomagnet Discharge System Interface
Conductor Requirements

• Charge Conductor Length: 64 inches

• Discharge Conductor Length: 24.6 FT.

• Stranded Insulated Cable
  • Easier to fabricate and route
  • Minimal problems with Thermal/Mechanical Stress
  • 2/0 Sufficient for Discharge Cable
  • Two 2/0 cables for Charge Cable
    • Lower Resistance
    • Lower Heat Load