

COPPER COIL ESTIMATING SHEET -

BAF 8X20 Octupole

NO COILS/MAGNET 8  
 WATER SYST PRESS 125  
 (PSI)

**COIL PARAMETERS**  
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URNS 8  
 MEAN TURN L (IN) 55  
 COIL LENGTH (FT) 36.67  
 COIL WEIGHT (LBS) 12.8

**CONDUCTOR PARAMETERS**  
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HEIGHT (IN) 0.375  
 WIDTH (IN) 0.375  
 ID (IN) 0.250  
 CONDUCTOR AREA (IN\*IN) 0.092  
 WATER AREA (IN\*IN) 0.049  
 WEIGHT/FT (LBS) 0.349

**MAGNET PARAMETERS**  
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NO WATER CIRCUITS 8  
 TOTAL FLOW (GPM) 19.37  
 CURRENT (AMPS) 2000  
 VOLTAGE 56.7  
 RESISTANCE (OHMS) 0.0283  
 PRESS DROP (PSI) 61  
 TEMP RISE (F) 40

**ELECTRICAL PARAMETERS**  
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CURRENT (AMPS) 2000  
 CURR. 21849  
 DENS.(A/IN^2)  
 RESISTANCE 0.0035  
 VOLTAGE 7.1  
 POWER (KW) 14.2

**COOLING PARAMETERS**  
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NO WATER CIRCUITS 1  
 TEMP RISE (F) 40  
 TOTAL FLOW (GPM) 2.42  
 FLOW(GPM)/CIRCUIT 2.42  
 VELOCITY (FPS) 15.83  
 REYNOLDS NUMBER 5.41E+04  
 FRICTION FACTOR 0.021  
 PRESS DROP (PSI) 61

**MAX MAGNET PARAMETERS**  
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NO WATER CIRCUITS 8  
 FLOW @ MAX PRESS 27.64  
 MAX CURRENT (AMPS) 2389  
 MAX VOLTAGE 67.7  
 RESISTANCE (OHMS) 0.0283  
 TEMP RISE (F) 40