C0 (BTeV) IR Estimate of Additional Cryogenic Load

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Assumptions

Item	Heat to 4 K (W)	Helium consumption (l/hr)	Nitrogen consumption (l/hr)	Design goal
Each HTS lead		0.7	3.6	
Each AMI lead		12.0		
Each corrector pkg		1.0		
TeV dipole	10			
TeV warm iron quad	8			
Spool piece	10			5
LHC-style quad Q2	12			8
LHC-style Q1/3/4/5	7			5
IR feed box	15			10
Warm-cold transition	5			
5-inch spacer	3			

Results—new (additional) cryogenic loads

Location	Heat to 4 K (W)	Helium consumption (l/hr) *(g/sec)*	Nitrogen consumption (l/hr)
B4	31	34.8 *(1.2)*	50.4
C1	6	34.8 *(1.2)*	50.4
Present low beta	70	200 *(6.9)*	0