

CMS hydraulic cooling needs -surface tests - DRAFT

System	Temperature inflow	water system	max dissipation (kW)	flow (m3/h)	Comments
Busbars	20±2 °C	Al-demi	34	2.5	aluminum circuits for surface tests / Cu for underground
MB (including racks on balconies)	18-20 °C	Al-demi	18	3.5	
Ecal: 2 cooling racks, power / regulation	mixed / chilled	Al-demi	22	26	Inox system / no copper
HB, HE, HO-RBX (108 pcs)	20±2 °C	Cu-demi	43	4.9	copper tubes
ME (per disk)	16-...	Cu-demi	...-72	6-24	12-24m ³ /hour per disk would be ideal (6 is min)
Yoke/ Vac Tank	16-18 °C	Cu-demi	7.5	2.2	copper in circuit
vacuum pumps	20±2 °C	normal	12	1	dissipation=f(dT=10K)
HB-cooling	16-18 °C	normal	5		Cu ?
Electronic Racks / Ex-Opal Barracks	16-17 °C	normal	100	30	
Power converter	20±2 °C	normal	110	6	inlet Temp of 24C possible / 5-7 m ³ /h