

# TUNNEL CIRCUIT

TUNNEL CIRCUIT	Location (Ring, TT2, technical rooms, transfert, injection)	User (magnet type, power converters, etc)	TOTAL power (KW) dissipated in water	TOTAL Water flow (m3/h) needed	Pression max [bar] Driven by the Max pressure equipment rating	Maximum pressure drop. [bar]	Min and Max. water supply Temp. [°C]	Info provided by
MAGNETS	Booster Ring	30 Normal Bending	2040.0	54.0	30.0	13.0	Max 27	A. Newborough
	Booster Ring	2 Special Bending	288.0	7.4	30.0	13.0		
	Booster Ring	32 Quadrupole Focusing	384.0	11.5	50.0	13.0		
	Booster Ring	16 Quadrupole Defocusing	265.6	9.7	50.0	13.0		
	Booster Ring	28 multipole stacks	0 - 3.5	10 - 20	20.0	4 - 11		
	Booster Ring	Water cooled cable	50.0	30.0	20.0	11.0		
	Booster Transfer line BI/BT/BTM/BTY/BTP	31 transfer line magnets	450.0	20.0	20.0	11.0		
RF	Ring, 5L1	C16					Min : ? Max 18	M. Haase
	Ring, 7L1	C02	144 + 48 (Cavity)	43.0	7 bar	5.0	Min : No Condensation Max 26	
	Ring, 10L1	C02	144 + 48 (Cavity)	43.0	7 bar	5.0		
	Ring, 13L1	C04	144 + 48 (Cavity)	43.0	7 bar	5.0		
SEPTA	BI-SMV	septum magnet	0.2	0.9	15.0	12.0	Tmin 20 Tmax 25	M. Hourican
	BI-BSW	H- Injection magnets	7.0	3.0	15.0	12.0	Tmin 20 Tmax 26	
	BE-SMH	septum magnet	0.3	0.4	15.0	12.0	Tmin 20 Tmax 27	
	BT-SMV10	septum magnet	0.4	0.4	15.0	12.0	Tmin 20 Tmax 28	
	BT-SMV20	septum magnet	0.1	0.2	15.0	12.0	Tmin 20 Tmax 29	
TT2	TT2		530.0	30.0	Values to be confirmed			D. Bodart
KICKERS	PSB RING	BI.DIS ring resistors	5.0	1.0	15.0	12.0	15 to 28	R. Noulibos

# SURFACE CIRCUIT

SURFACE CIRCUIT	Location (Ring, TT2, technical rooms, transfert, injection)	User (magnet type, power converters, etc)	TOTAL power (KW) dissipated in water	TOTAL Water flow (m3/h) needed	Pression max [bar] Driven by the Max pressure equipment rating	Maximum pressure drop. [bar]	Min and Max. water supply Temp. [°C]	Info provided by
POWER CONVERTERS	BCER		10.0	6.0	Same as today	Same as today	Same as today	S. Pittet
	BHP		200.0	45.0	15.0	6.0	20 to 30	
	BRF2/BAT		100.0	23.0	16.0	0.4	15 to 27	
	Bat 271		110.0	30.0	To be measured on the field			
KICKERS	BCER	BT.KFA10 & 20 power converters	3.8	0.9	8.0	6.0	15 to 28	R. Noulibos
	BCER	BE.KFA14L1 power converters	5.0	1.2	8.0	6.0		
TRANSVERSE DAMPERS	361/1-211	16 power amplifiers driving kickers	6.0	1.0	9.0	2.0	15 to 28	A. Blas