

SI/Mi. MAE/70-11
23.12.1970

MINUTES OF THE MEETING OF 16.12.1970

ON THE COMPONENTS OF THE RING CORRECTING ELEMENTS

Present : C. Bovet, M. Gabriel, M. Giesch, B. Godenzi, K.H. Reich

The purpose of the meeting was to review or confirm the parameters of the ring correction elements and its components (cables and power supplies) and to fix the parameters for the few remaining elements.

The final parameters for the correcting elements cables and power supplies are listed in Table 1.

1. Basic parameters

The single multipole will be located in R1 3L1. Each of the three lenses are connected with the BCR by its own cables. One power supply with max. 80 A is foreseen.

The correction of Bdl and asymmetry of inner rings are fixed to 1 °/oo of the main field at 800 MeV. Four special power supplies will be made.

All other parameters were confirmed.

2. Cables

The connection mode for the different elements and the tracing of cables will be summarized in a memo by M. Gabriel.

3. Power supplies (B. Godenzi)

The single multipole R1 3L1 will be connected to one of the two existing 1100 A rectifier sets of the multipoles.

Four special power supplies 20 A, 50 V with protection against the induced voltage at the end of the machine cycle will be made for the f_{Bd1} correction. In contrast it was suggested to use standard supplies (Kepco bipolar) for R-DH 13L4 and R-DV 13L4.

M. Giesch

Distribution :

- A. Ašner
- C. Bovet
- G. Brianti
- G. Chevallier
- M. Gabriel
- B. Godenzi
- R. Mosig
- K.H. Reich
- G. Schnell

	CORRECTING ELEMENT per circuit					CABLES				POWER SUPPLY			
	No.	$\int GdI$ ($\int Bdl$)	I [A]	R 40° C mΩ	L mH	S ₂ mm ²	ℓ _{max} m	R 35° C mΩ	L mH	No.	I [A]	U [V]	dI/dt kA/s
Sext. L3	64	2.4 T/m	270	870	≤ 26	120	480	76		1	300	380	1.5
Oct. L3	64	85 T/m ²	270	870	≤ 45	120	480	76		1	300	380	1.5
Sext. L1	8 x 2	0.53 T/m	60	27	≤ 0.8	25	327	246		8	60	25	0.4
Oct. L1	8 x 2	19 T/m ²	60	27	≤ 1.4	25	327	246		8	60	25	0.4
Quad. 9th	16 x 2	0.049 T	80	37	1.4	35	347	187		16	80	20	0.4
Sqew Quad. 9th	8 x 2	0.025 T	40	37	1.4	16	287	338		8	40	25	0.2
Sqew Quad. 0	4 x 8	0.025 T	40	150	5.6	25	287	217		4	40	25	0.2
Sqew Quad.	1	0.049 T		18.5	0.7	25							
Sqew Sext. } R1 3L1	1	0.71 T/m	80	13.5	≤ 0.4	25	126	68		1	80	20	
Sqew Oct.	1	25 T/m ²											
$\int Bdl$ + Asymm. inj.	4 x 30	1 ‰ of main field	20	155	1.7					4	20	50	
R-DH, V Type 1	4 x 28	10 ⁻² Tm	10	1100	90	6/10				112	15	25	0.2
R-DH, V " 2	4 x 4	H 10 ⁻² Tm	17.5	H 460	H 36	10	} 247 (85)	} 467 (268)		16	15	25	
1L1, 15L1		V 10 ⁻² Tm	16	V 1000	V 32	10							
R-DH 13L4	4		± 20	1100	90	16	120	142		4	± 20	15	0.2
R-DV 13L4	4		± 5	275	22.5	6	120	378		4	± 5	35	0.2

*) bipolar Kepco

Table 1

PARAMETERS OF RING CORRECTING ELEMENTS AND COMPONENTS