V308: Spulen und Magnetfelder

03.12.19

Spulenpaar: Abstand: 62,5mm ① $I = 3{,}03\,A$, $U = 3{,}4\,V$

$x = 0 \hat{=}$ innere Spulenkante der linken Spule

①

x in mm	B in mT
~~12~~	4,260
~~7~~	4,239
13,5	4,239
10,5	4,234
9	4,231
68,5	3,003
69	2,960
70	2,891
75	2,666
80	2,445
85	2,219
90	2,018
95	1,839
100	1,662

①

② Abstand 104mm

x in mm	B in mT
~~108~~ 103,5	2,639
115	2,410
120	2,194
125	2,031
130	1,849
160	1,036
190	0,615
230	0,366
33,5	2,882
7	3,091
16	2,976
27	2,887
54,5	3,081
44	2,945

②

③ 130mm

x in mm	B in mT
45	2,199
7	2,754
22	2,420
30	2,288
51	2,211
63	2,354
79	2,688
134	2,529
149	2,007
155	1,789
163	1,540
171	1,315
179	1,128
190	0,909
208	0,663

③

Hysteresekurve/Ringspule:

~~Strom~~ I in A	B in mT	
0	0	
1,0	148	
2,0	335	
3,0	440	Kurve
4,0	508	④
5,0	561	
6,0	603	
7,0	638	
8,0	668	
9,0	698	
8,0	677	
7,0	656	
6,0	632	
5,0	604	
4,0	569	
3,0	524	
2,0	460	
1,0	332	
0	128	Kurve
~~-0~~ 0,65	0	④
-1,0	-71	
-2,0	-252	
-3,0	-390	
-4,0	-482	
-5,0	-546	
-6,0	-594	
-7,0	-634	
-8,0	-669	
-9,0	-698	

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Strom in A	B in mT	
-8,0	-679	
-7,0	-658	
-6,0	-635	
-5,0	-607	
-4,0	-573	
-3,0	-529	
-2,0	-464	
-1,0	-339	Kurve
0	-129	③
~~0~~ 0,6	-8	
0,675	0	
1,0	72	
2,0	253	
3,0	390	
4,0	482	
5,0	544	
6,0	592	
7,0	630	
8,0	663	
9,0	693	

$d = 27\,cm$ (Durchmesser)

fc.