aturday Saturda 3A max 3A ma	Saturday 3A max	
		riday
		max
20/95 21/8	20 / 95	) / 85
10.38 20.4	10.38	18.4
11.48 21.5	11.48	20.11
69 65.	69	91
C210817 C21081	C210817	0817
	2021-08-21	0817
	Rotor 2 , 20 / 20mm	0mm
10 10		12
CG CC		CG
8		8
N/A N/A		N/A
	S1 (FLA 30Ah)	0Ah)
	12.85 / 13.12*	2 / ??
-	S2 + S3 (FLA 60Ah)	0Ah)
/ 12.86* 13.12 / ?	13.10/12.86*	2/??
12.86 12.8	12.86	12.88
12.65 12.6	12.65	2.62
1.59 1.6	1.59	1.56
1.2 1.2	1.2	1.1
98 / 214 197 / 21	198 <b>/ 21</b> 4	189
69 65.	69	91
1.60 1.54	1.60	2.02
0.62 0.63	0.62	0.50

57.9 57.9 1.395 1.41 1.15 1.09

again.

Rotor 2 installed, 10mm As mentioned in the gap. Discharged output comments of the previous battery previous night, cycle: output battery was Charged input batteries this not discharged 1h after SG morning for 1h, let it rest charge up, but after 1h53 for 1h53min (instead of 1h), Charge output battery to then started this cycle. 14.93V (because of charge output battery to previous cycle). 14.93V (because of previous cycle). \*Measured after an hour

3A I 20 20



51	
C210817	
2021-08-20	
Rotor 2 , 20 / 20mm	
12	
CG	
8	
N/A	
S1 (FLA 30Ah)	
12.82 / ??	
S2 + S3 (FLA 60Ah)	
13.12 / ??	
12.88	
12.62	
1.56	
1.1	
180 / 189	
91	
2.02	
0.50	
57.9	

Rotor 2:

20magnet/20m

gap to 12mm

1.33 1.52

Switched to Rotor 2: 20 Rotor 2 installed, 12mm magnet, 20mm wide magnets. Charged output battery previous night, battery to 15V. Amp meter Charged input batteries this back into positive wire. evening for 45min, let it Discharge rate of output rest for 1h, then started battery 1A. Ideal procedure: this cycle. Stopped SG 1: SG charge / 2: wait 1h / 3: charge @ 14.93V since it discharge output battery went really slow at that 1Ah / 4: wait hours / 5: TGX point (so actual COP is charge input batteries for 1h lower, if charged to 15V).

gap. Discharged output

C210816 2021-08-19 Rotor 3, 21 / 22mm CG 51 (FLA 304 12.83 / 13.10\* S2 + S3 (FLA 60Ah) 13.13 / 12.87\* 12.84 12.62 2.01 1.65 224 / 267 45.5 1.39 0.72 57.9 1.83

Rotor to 6mm gap

Thursday

3A max

20/89

20.1

20.56

45.5

0.76

Rotor to 12mm gap Thursday 3A max 20/94 10.18 11.18 60 C210815 2021-08-19 Rotor 3, 21 / 22mm CG S1 (FLA 30AF 12.83 / 13.10\* S2 + S3 (FLA 60Ah) 13.13 / 12.86\* 12.87 12.63 1.81 1.37 173 / 210 60 1.59 0.63

20 / 78 18.08 19.02 53 C210814 2021-08-18 Rotor 3, 21 / 22mn CG S1 (FLA 30A 12.82 / 13.10 S2 + S3 (FLA 60Ah 13.13 / 12.87 12.8 12.6 1. 1.4 198 / 236 1.44 0.70

Amp meter back to

negative wire,

rotor to 10mm gap

Wednesday

3A max

57.9 1.625 0.88

Increased gap to 10mm. Discharged output battery in the morning, Charged input batteries for for 1h, let it rest for 1h, then started this cycle. \*Measured after an hour

Increased gap to 12mm. Discharged output battery previous night, Charged input batteries this morning for 1h, let it rest for 1h,then started this cycle. \*Measured after an hour

57.9

1.59

1.00

discharged the output start). First couple of was not connected,

Decreased gap to 6mm. 2h Conclusions: increasing the after previous cycle gap to 10mm might increase the COP a tiny bit, battery @1A. Charged the but at least the amp draw is input batteries 2h before LOWER. What is strange is SG cycle, for a duration of that amp draw **INCREASED** 1h (so rested 1h before when with 12mm gap, would have expected lower seconds when the SG amp draw. Increasing it to started the output battery 12mm, decreases the COP. Reducing it to 6mm stopped, and restarted with increases COP a bit, but properly connected wires. increases amp draw. To \*Measured after an hour verify this better, more runs with same setup would be necesarry.

/ 6: wait 1h / Start over.

nagnet/20mm, 20ma	Rotor 2: gnet/20mm, p to 6mm Sunday 3A max 21 / 86 18.55 20 64.25 C210820
Sunday gap   3A max 21 / 95   9.47 10.52	p to 6mm Sunday 3A max 21 / 86 18.55 20 64.25
Sunday gap   3A max 21 / 95   9.47 10.52	p to 6mm Sunday 3A max 21 / 86 18.55 20 64.25
Sunday 3A max 21 / 95 9.47 10.52	Sunday 3A max 21 / 86 18.55 20 64.25
3A max 21 / 95 9.47 10.52	3A max 21 / 86 18.55 20 64.25
3A max 21 / 95 9.47 10.52	3A max 21 / 86 18.55 20 64.25
21/95 9.47 10.52	21 / 86 18.55 20 64.25
9.47 10.52	18.55 20 64.25
10.52	20 64.25
	64.25
00.75	
	C210820
C210819	
2021-08-22	2021-08-22
Rotor 2 , 20 / 20mm R	otor 2 , 20 / 20mm
8	6
CG	CG
8	8
N/A	N/A
S1 (FLA 30Ah)	S1 (FLA 30Ah)
12.85 / ??	12.85 / ??
S2 + S3 (FLA 60Ah)	S2 + S3 (FLA 60Ah)
13.12 / ??	13.13 / ??
12.87	12.87
12.63	12.62
1.64	1.71
1.23	1.3
209 / 235	217 / 250
63.75	64.25
1.52	1.61
0.66	0.62
57.9	57.9

Readings/COP taken at 14.93V (since previous cycle was charged to 14.93V), but then let it continue charging to 15V, so next cycle can be done to 15V

20magnet

gap to a

57.9 1.435 1.06

1.505 1.07 SG charge to 15V

Conclusions: Rotor 2 performs less than Rotor 3. Since in C210817 input batteries were probably discharged too long compared to their charge time (1h) for the next cycle (C210818), resultedprobably for a little lower COP in C210818 compared to C210819 (also reflected in tiny difference in input voltages).

Switched to Rotor 1: 24 magnet, 20mm \*Measured after an hour wide magnets. Charged output battery to 15V. Discharge rate of output battery 1A. Ideal procedure: 1: SG charge / 2: wait 1h / 3: discharge output battery 1Ah / 4:

wait hours / 5: TGX charge input batteries for 1h / 6: wait 1h / Start over.

Rotor 1: 24magnet/20mm, gap to 10mm

Monday	Monday
3A max	3A max
20 / 84	21/85
9.36	19.59
10.28	20.52
52	52.5

C210822	C210821
2021-08-23	2021-08-23
Rotor 1, 24 / 20mm	Rotor 1, 24 / 20mm
10	10
CG	CG
8	8
N/A	N/A
S1 (FLA 30Ah)	S1 (FLA 30Ah)
12.84 / ??	12.85 / 13.12*
S2 + S3 (FLA 60Ah)	S2 + S3 (FLA 60Ah)
13.12 / ??	13.12 / 12.86*
12.85	12.85
12.6	12.62
1.82	1.81
1.47	1.42
183 / 212	184 / 211
52.5	52
1.44	1.40
0.69	0.71
57.9	57.9
1.645	1.615

0.87

1.645 0.88

> Conclusions: Performance Rotor 1, 10mm gap seems comparable with Rotor 3, 10mm gap, with the latter drawing a tiny lesser amp draw.