# coils	2	2	1	8	8	2	2
	1. OH	2. EF	3. GF	4. PF	5. TF	6. DC-I	7. DC-O
Load L (H)	3.1E-05	9.5E-04	3.4E-03	#REF!	1.8E-06	1.5E-06	7.88E-06
Load R (Ohms)	1.0E-03	7.8E-03	3.8E-02	1.7E-04	2.4E-03	2.7E-03	7.18E-03
Bank Peak I (kA)	180	26	40	1080	500	50	50
Unit Capacitance (F)	6.00E-05	0.021	0.0011	6.00E-05	1.25E-05	1.25E-05	1.25E-05
No. Units	50	20	40	65	100	3	4
Total Capacitance (F)	3.00E-03	4.20E-01	4.40E-02	3.90E-03	1.25E-03	3.75E-05	5.00E-05
Capacitor V (kV)	20	1.4	14	20	20	10.2	20
Pulse period (ms)	0.9	60	38	0.22	0.16	0.02	0.06
Voltage Reversal	Small reversal	No reversal	No Reversal	Full rev.	Full rev.	Full Rev.	Full Rev.
Pulse freq.	1 every 3 min.	1 every 3 min.	1 every 3 min.	1 every 3 min.	1 every 3 min.	1 every 3 min.	1 every 3 min.
Life rating	500,000	500,000	500,000	500,000	500,000	500,000	500,000

	1. OH	2. EF	3. GF	4. PF	5. TF	6. DC-I	7. DC-O
No.cable connections required:	10	4	10	48	6	4	4

		Coil Designation						
		OH Parallel Option	EF	GF	FC-PF	FC-TF	DC-I	DC-O
No. Coils		per 25-turn coil	2	48 (12 legs, 4 T ea.)	2 flux cores, each containing TF and PF coils		2	2
Circuit Arrangement		Parallel option	Parallel	Single circuit	All PF turns in parallel	Parallel ,15T 8 groups	Parallel	Parallel
Rc (m)		0.172	1.5	.75 (plasma ctr.)	0.75	0.75	0.3	1.2
rc (m)		0.75			0.1	0.136		
Zc(m)		+/- 0.493	N/A	+/-1.75	+/- 0.95	+/- 0.95	+/-.250	+/-.250
N turns/coil (or section)		25	16	48	4	60	2	2
Cond. H (mm)		19	16	400MCM Welding Cable	Large Custom Cable	Small Custom Cable	AWG 2/0 Weld Cable	Large Custom Cable
Cond. W (mm)		38	16					
Coolant Hole dia. (mm)		6	8	2.34	2.34	2.34	2.34	2.34
Net Cu Area (mm^2)		693.73	205.73	*203*	*120*	67.4	67.4	*120*
J, A/mm^2		91.72	44.67	139.31	795.38	655.60	262.24	147.29
Lead allowance (m)		4.00	0.20	0.00	20.00	20.00	5.50	5.50
dT/pulse, C		0.05	0.60	3.69	0.70	0.34	0.01	0.01
Cu Length/coil (or section) (m)		31.0	151.0	445.4	38.8	302.7	9.3	20.6
I*R (Volts)		118	164	1510	752	4829	59	74
Bc (T)		5.75E+00	8.71E-02	5.12E-01	4.52E-01	1.00E+00	1.05E-01	2.62E-02
Flux Area (m^2)		0.09	7.07	4.80	1.77	0.06	0.28	4.52
V-s		0.53	0.62	2.46	0.80	0.06	0.03	0.12
L, Self Inductance /coil(H)		6.26E-05	1.89E-03	3.36E-03	4.26E-05	5.73E-05	2.90E-06	1.58E-05
Resistance / coil (ohms)		7.69E-04	1.26E-02	3.77E-02	5.57E-03	7.73E-02	2.37E-03	2.95E-03
Coil Rating I/turn, Amps		90000	13000	40000	135000	62500	25000	25000
Desired Tpulse, ms				1.2				0.20
				0.6				0.1
Obtained Currrent, Amps		90,000.00	13,000.00	40,000.00	135,000.00	62,500.00	25,000.00	25,000.00
Obtained pulse period , ms		0.9	60	38	0.22	0.16	0.02	0.06
Obtained T-rise, ms		0.45	30	19	0.11	0.08	0.01	0.03
Unit capacitance		6.00E-05	2.10E-02	1.10E-03	6.000E-05	1.250E-05	1.250E-05	1.250E-05
In milliFarads	0.06	0.06	21.00	1.10	0.06	0.0125	0.0125	0.0125
# Units		50	20	40	65	100	3	4
Total Capacitance		3.00E-03	4.20E-01	4.40E-02	3.90E-03	1.25E-03	3.75E-05	5.00E-05
# 40 kA rated cables req'd.		10	4	10	48	6	4	4
Length / cable (m)		10	10	10	10	10	10	10
Cable resistance ohms/m		0.000565	0.000565	0.000565	0.000565	0.000565	0.000565	0.000565
Cable inductance H/m		1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07
Res./cable for length, ohms		5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
Cable copper area for N cables, mm^2		465.66	186.27	465.66	2235.18	279.40	186.27	46.57
J for N cables, A/mm^2		193.27	69.79	85.90	60.40	223.70	134.22	536.87
Adiabatic dT/pulse-C		0.22	1.46	1.40	0.00	0.04	0.00	0.17
dT for full bank Energy, C		13.6	3.8	13.9	48.6	3.6	1.5	2.1
Resistance for parallel cables		5.65E-04	1.41E-03	5.65E-04	1.18E-04	9.42E-04	1.41E-03	5.65E-03
No. Joints in cable		1.20E+01	1.20E+01	1.20E+01	3.00E+01	1.20E+01	1.20E+01	1.20E+01
Resistance/joint - ohms		5.00E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06	5.00E-06
Parallel cables + Joint resistances		6.25E-04	1.47E-03	6.25E-04	2.68E-04	1.00E-03	1.47E-03	5.71E-03
Ind/cable for length, H		1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.50E-06
Inductance for cables in parallel		1.50E-07	3.75E-07	1.50E-07	3.13E-08	2.50E-07	3.75E-07	1.50E-06
Cap Charging Voltage		20,000.00	1,400.00	14,000.00	20,000.00	20,000.00	10,200.00	20,000.00
0.5 C*V^2 (Joules)		1.01E+06	4.12E+05	4.31E+06	7.80E+05	2.50E+05	3.25E+03	1.75E+04

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