

FEL Design Quad Strength

QG Magnets									
FEL Name	Dimad Name	k-value (1/m^2)	B' (G/cm) @ 42 MeV	Current (amps)				Special Treatment	
				35 MeV	42 MeV	79 MeV	79 MeV		
MQG1F03	QM11	-4.794	67.16	1.19	1.43	2.68			
MQG1F04	QM12	3.683	51.60	0.91	1.10	2.06			
MQG1F05	QM13	0.825	11.55	0.20	0.25	0.46	weak/nominal		
MQG2F07	QM23	-1.230	17.24	0.30	0.37	0.69	weak/nominal		
MQG2F08	QM22	7.144	100.09	1.77	2.12	3.99			
MQG2F09	QM21	-2.596	36.37	0.64	0.77	1.45			
MQG4F01	QB1	0.698	9.77	0.17	0.21	0.39	weak		
MQG4F02	QB2	3.277	45.91	0.81	0.97	1.83			
MQG4F03	QB3	-3.422	47.94	0.85	1.02	1.91			
MQG4F04	QB4	3.546	49.68	0.88	1.05	1.98			
MQG4F05	QB5	-3.424	47.98	0.85	1.02	1.91			
MQG4F06	QB6	3.424	47.98	0.85	1.02	1.91			
MQG4F07	QB7	-3.424	47.98	0.85	1.02	1.91			
MQG4F08	QB8	3.424	47.98	0.85	1.02	1.91			
MQG4F09	QB9	-3.424	47.98	0.85	1.02	1.91			
MQG4F10	QB10	3.546	49.68	0.88	1.05	1.98			
MQG4F11	QB11	-3.422	47.94	0.85	1.02	1.91			
MQG4F12	QB12	3.277	45.91	0.81	0.97	1.83			
MQG4F13	QB13	0.698	9.77	0.17	0.21	0.39	weak		
QB Magnets									
MQB2F01	QM14	-6.919	96.93	0.88	1.06	1.99			
MQB2F02	QM15	12.335	172.81	1.57	1.89	3.55			
MQB2F03	QM16	-9.345	130.92	1.19	1.43	2.69			
MQB2F04	QM26	3.500	49.03	0.45	0.54	1.01	weak/nominal		
MQB2F05	QM25	-10.000	140.10	1.27	1.53	2.88			
MQB2F06	QM24	8.488	118.92	1.08	1.30	2.44			
MQB5F05	QB	-2.889	40.47	0.37	0.44	0.83	weak		
MQB5F06	QE1	1.184	16.58	0.15	0.18	0.34	weak		
MQB5F07	QE2	6.509	91.19	0.83	1.00	1.87			
MQB5F08	QE3	-8.118	113.74	1.04	1.24	2.34			

QG Current Ranges						
	sub group	35 - 42 Mev		79 Mev		
		min	max	min	max	
QG	weak	0.17	0.37	0.69		
	nominal	0.64	2.12	3.99		
QB	weak	0.15	0.54	1.01		
	nominal	0.83	1.89	3.55		

Notes:

weak - magnets to be measured on lower (range.

weak/nominal - strength of magnet may vary particular tune. Keep this magnet "strong" magnet and forfeit problem encountered at low fields.