

Magnetic Properties of TC SmCo Magnets

Magnet Grade	Maximum Energy Product (BH) _{max}				Residual Induction B _r				Coercivity H _c				Intrinsic Coercivity iH _c		RTC of B _r (1)	Max. Operating Temp. ⁽²⁾
	MGOe		kJ/m ³		kG		T		kOe		kA/m		kOe	kA/m	%/°C	°C
	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Min	Min	Typ	Typ
Sm ² Co ¹⁷ Temperature Compensated Magnets																
EEC 2:17-TC22	22	20	175	159	9.75	9.35	0.98	0.94	9.2	8.9	732	708	24	1910	-0.030	320
EEC 2:17-TC20	20	18	159	143	9.25	8.85	0.93	0.89	8.8	8.4	700	669	24	1910	-0.025	320
EEC 2:17-TC18	18	16	143	127	8.75	8.35	0.88	0.84	8.2	7.8	653	621	24	1910	-0.015	320
EEC 2:17-TC16	16	14	127	111	8.25	7.85	0.83	0.79	7.8	7.4	621	589	24	1910	-0.001	320
EEC 2:17-TC15	15	13	119	103	8.00	7.60	0.80	0.76	7.3	6.9	581	549	24	1910	-0.001	320
EEC 2:17-TC13	13	11	103	88	7.50	7.10	0.75	0.71	6.8	6.4	541	509	24	1910	0.008	320
EEC 2:17-TC7	7	5	56	40	5.50	5.10	0.55	0.51	4.9	4.5	390	358	24	1910	-0.034	320
EEC 2:17-TC5	5	3	40	24	4.50	4.10	0.45	0.41	4	3.5	318	279	24	1910	-0.008	320
EEC 2:17-TC4	4	2	32	16	4.00	3.60	0.40	0.36	3.5	3.0	279	239	24	1910	0.012	320
SmCo ⁵ Temperature Compensated Magnets																
EEC 1:5 TC15	15	13	119	103	7.8	7.5	0.78	0.75	7.6	7.3	605	581	24	1910	-0.034	300
EEC 1:5 TC13	13	11	103	88	7.3	7.0	0.73	0.70	7.2	6.8	573	541	24	1910	-0.025	300
EEC 1:5 TC11	11	9	88	72	6.7	6.3	0.67	0.63	6.5	6.1	517	486	24	1910	-0.015	300
EEC 1:5 TC9	9	7	72	56	6.1	5.7	0.61	0.57	6.0	5.6	478	446	24	1910	-0.001	300
EEC 1:5 TC7	7	6	56	48	5.4	5.0	0.54	0.50	5.3	4.9	422	390	24	1910	0.012	300
EEC 1:5 TC6	6	5	48	40	5.0	4.5	0.50	0.45	4.8	4.3	382	342	24	1910	0.025	300
EEC 1:5 TC5	5	4	40	32	4.6	4.1	0.46	0.41	4.0	3.6	318	287	24	1910	-0.03	300
EEC 1:5 TC4	4	3	32	24	4.0	3.5	0.40	0.35	3.5	3.1	279	247	24	1910	-0.018	300
EEC 1:5 TC3	3	2	24	16	3.5	3.0	0.35	0.30	3.1	2.6	247	207	24	1910	-0.002	300
EEC 1:5 TC2	2	1	16	8	2.8	2.3	0.28	0.23	2.5	2.0	199	159	24	1910	0.025	300

(1) Typical reversible temperature coefficient (RTC) of B_r calculated between -50°C and 150°C. It is for reference only.
(2) Maximum operating temperature has strong dependence on the loadline and operating environment. Consult EEC engineering for details.