

SmCo/Samarium Cobalt Performance Datasheet

● 2:17 SmCo Magnets

Material	Grade	Remanence Br		Coercive Force Hcb		Intrinsic Coercivity Hcj		Max. Energy Product (BH)max		Curie Temp. TC	Max Working Temp. TW	Temp. Coefficient of Br T.C.α (Br) %/°C	Temp. Coefficient of Hcj T.C.β(HcJ) %/°C	
		T	KGS	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe					
Sm ₂ (CoFeCuZr) ₁₇	YXG22H	0.93-0.97	9.3-9.7	676-740	8.5-9.3	≥1,990	≥25	160-175	20-22	800	300	-0.02	-0.2	
	YXG24H	0.95-1.02	9.5-10.2	700-750	8.7-9.4	≥1,990	≥25	175-191	22-24	800	350	-0.025	-0.2	
	YXG26H	1.02-1.05	10.2-10.5	750-780	9.4-9.8	≥1,990	≥25	191-207	24-26	800	350	-0.03	-0.2	
	YXG28H	1.05-1.08	10.5-10.8	756-796	9.5-10	≥1,990	≥25	207-220	26-28	800	350	-0.035	-0.2	
	YXG30H	1.08-1.10	10.8-11.0	788-835	9.9-10.5	≥1,990	≥25	220-240	28-30	800	350	-0.035	-0.2	
	YXG32H	1.10-1.13	11.0-11.3	812-860	10.2-10.8	≥1,990	≥25	230-255	29-32	800	350	-0.035	-0.2	
	YXG22	0.93-0.97	9.3-9.7	676-740	8.5-9.3	≥1,443	≥18	160-175	20-22	800	300	-0.02	-0.2	
	YXG24	0.95-1.02	9.5-1.02	692-764	8.7-9.6	≥1,443	≥18	175-191	22-24	800	300	-0.025	-0.2	
	YXG26	1.02-1.05	10.2-10.5	748-796	9.4-10.0	≥1,443	≥18	191-207	24-26	800	300	-0.03	-0.2	
	YXG28	1.05-1.08	10.5-10.8	756-812	9.5-10.2	≥1,443	≥18	207-220	26-28	800	300	-0.035	-0.2	
	YXG30	1.08-1.10	10.8-11.0	788-835	9.9-10.5	≥1,443	≥18	220-240	28-30	800	300	-0.035	-0.2	
	YXG32	1.10-1.13	11.0-11.3	812-860	10.2-10.8	≥1,443	≥18	230-255	29-32	800	300	-0.035	-0.2	
	YXG26M	1.02-1.05	10.2-10.5	676-780	8.5-9.8	955-1,433	12-18	191-207	24-26	800	300	-0.035	-0.2	
	YXG28M	1.05-1.08	10.5-10.8	676-796	8.5-10.0	955-1,433	12-18	207-220	26-28	800	300	-0.035	-0.2	
YXG30M	1.08-1.10	10.8-11.0	676-835	8.5-10.5	955-1,433	12-18	220-240	28-30	800	300	-0.035	-0.2		
YXG28L	1.05-1.08	10.5-10.8	541-764	6.8-9.6	636-955	8-12	207-220	26-28	800	250	-0.035	-0.2		
YXG30L	1.08-1.15	10.8-11.5	541-796	6.8-10.0	636-955	8-12	220-240	28-30	800	250	-0.035	-0.2		
(SmEr) ₂ (CoTm) ₁₇ (LTC)	LTC (YXG22)											Temp. Range	T.C.α (Br)	
		0.94-0.98		9.4-9.8		668-716		8.4-9.0		≥1,443		-50-25°C		+0.005
												20-100°C		-0.008
												100-200°C		-0.008
												200-300°C		-0.011

SmCo/Samarium Cobalt Performance Datasheet

● 1:5 SmCo Magnets

Material	Grade	Remanence Br		Coercive Force Hcb		Intrinsic Coercivity Hcj		Max. Energy Product (BH)max		Curie Temp. TC	Max Working Temp. TW	Temp. Coef. of Br T.C.α (Br)	Temp. Coef. of Hcj T.C.β(HcJ)
		T	KGs	kA/m	kOe	kA/m	kOe	kJ/m³	MGOe				
(SmPr)Co5	YX16	0.81-0.85	8.1-8.5	610-660	7.8-8.3	1,194-1830	15-23	111-127	14-16	750	250	-0.05	-0.3
	YX18	0.85-0.90	8.5-9.0	650-700	8.3-8.8	1,194-1830	15-23	127-143	16-18	750	250	-0.05	-0.3
	YX20	0.90-0.94	9.0-9.4	680-725	8.5-9.1	1,194-1830	15-23	143-159	18-20	750	250	-0.05	-0.3
	YX22	0.94-0.96	9.4-9.6	710-750	8.9-9.4	1,194-1830	15-23	159-175	20-22	750	250	-0.05	-0.3
	YX24	0.96-1.00	9.6-10.0	720-770	9.2-9.7	1,194-1830	15-23	175-190	22-24	750	250	-0.05	-0.3
SmCo5	YX16S	0.79-0.84	7.9-8.4	612-660	7.7-8.3	≥1,830	≥23	118-135	15-17	750	250	-0.035	-0.28
	YX18S	0.84-0.90	8.4-9.0	644-692	8.1-8.7	≥1,830	≥23	135-151	17-19	750	250	-0.04	-0.28
	YX20S	0.90-0.94	9.0-9.4	684-732	8.6-9.2	≥1,830	≥23	151-167	19-21	750	250	-0.045	-0.28
	YX22S	0.92-0.96	9.2-9.6	710-756	8.9-9.5	≥1,830	≥23	167-183	21-23	750	250	-0.045	-0.28
	YX24S	0.96-1.00	9.6-10.0	740-788	9.3-9.9	≥1,830	≥23	183-199	23-25	750	250	-0.045	-0.28
(SmGd)Co5 (LTC)	LTC (YX-10)	0.62-0.66	6.2-6.6	485-517	6.1-6.5	≥1,830	≥23	75-88	9.5-11	750	300	Temp. Range 20-100°C 100-200°C 200-300°C	T.C.α (Br) +0.0156 +0.0087 +0.0007

If in any doubt, please contact us for technical assistance.

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