

Maxon, the Swiss precision DC motor manufacturer, supplies some of the worlds leading model railway companies with motors. Now maxon can supply Australian and New Zealand based modellers with motors direct from our sales facility in Hornsby, just north of Sydney. Credit card payments can be taken over the phone.

Typical motors suitable for modelling range in size from less than 8mm through to 22mm and above. All are manufactured exclusively in Switzerland using state of the art robotic assembly.

Maxon motors offer the choice of sleeve or ball bearings, precious metal (PMB) or graphite brushes and a number of different magnet materials, power densities and price points to suit all applications.

Top of the line is the RE series, a rare earth magnet motor offering one of the highest power densities available today in a brushed motor. The RE motor is built exclusively in Switzerland to maintain the highest standards. For lower cost and lower power applications we would recommend the A-max series. Built to the same exacting standards as the RE, but using an Alnico magnet, the A-max offers an outstanding combination of performance and competitive pricing.

For lowest friction and maximum efficiency our PMB motors excel.

Many of maxon's PMB motors feature our CLL (capacitor long life) anti spark technology, and special lubrication which together which ensure long brush life and low radio frequency emissions.

For higher power applications we recommend graphite brushed motors. Maxon graphite brushed motors utilise special brush design to give exceptional service life combined with smooth, bidirectional running.

Below is a cross reference chart listing motor types suitable for modelling use. Full data is available at <http://www.maxonmotor.com.au>

Motors for Model Trains

maxon motor products, see catalogue for full details

Target spec		maxon motor products, see catalogue for full details													
		suggested		maxon		nominal								shaft	
Dia	Length	Power	Ohms	rpm X1K	I _{max}	maxon	pt no	Diameter	Length	Power	Ohms	rpmX1K	I _{max}	mm	brush
8	16	0.17	80.3	17.8	0.1	RE8	347727	8	16	0.5	92.2	15.6	0.08	0.8	pmb
10	16	0.37	103	16	0.09	RE10	256094	10	17	0.75	114	11.4	0.081	1	pmb
12	19	0.55	69	16	0.1	RE13	118414	13	19	1.2	43	11.2	0.136	1.5	pmb/se
12	19	0.44	131	16	0.08	RE13	118445	13	19	0.75	75.8	8.4	0.103	1.5	pmb
13	19	1.64	22	17.1	0.23	RE13	118563	13	22	1.5	31.4	12.4	0.189	1.5	graph
13	31	2.71	13.3	11.3	0.34	RE13	118562	13	22	1.5	27	13.3	0.202	1.5	graph
16	24	1.5	24	13	0.26	RE16	320177	16	22	2	33.4	8.1	0.169	1.5	pmb/cll/se
17	17	1.8	20	13	0.26	Amax16	110045	16	25	2	23.1	12.3	0.243	1.5	pmb/cll/se
17	24	2.25	16	8	0.34	Amax 16	110075	16	25	2	23.1	11.8	0.294	1.5	graph
22	30	3.33	10.8	9.5	0.45	Amax 22	110137	22	32	3.5	13.1	6.6	0.376	2	pmb/cll
						Amax 22	110160	22	32	6	5.74	10.2	0.664	2	graph (note1)

See maxon data sheet for full information

Note 1
 pmb= precious metal brush
 graph = graphite
 se= single ended (all other double ended)
 cll=capacitor lossless(RFI/spark suppression built in)