



## Index - M1 Series of Motor Data Sheets

### Suppliers

If a motor is available from a single source this is given on the Data Sheet. Only the manufacturer's name and the motor type number are given for motors which are generally available from retailers.

### Power Output and Maximum Voltage

Because most modellers use a nominal 12 Volt supply the power output is listed at 75% of the no-load speed on 12 Volts irrespective of whether the motor is suitable for a higher voltage. As an approximate guide the power output of a motor intended for the heaviest passenger or freight duty should be not less than 5 Watts, whereas branch line and shunting duties require only about 1 Watt.

The maximum voltage quoted is at the motor terminals and is an estimate of the value which it will withstand without damage. In most cases it has been confirmed by actual operating experience.

### Nominal Gear Ratios

Nominal gear ratios are quoted on the data sheets as a guide for the listed applications of the motor. They are calculated on a consistent basis, if the exact ratio is not available use the nearest one which is.

### NOTE

**Motors which are identical in dimensions and external appearance can have greatly differing electrical characteristics. Type numbers such as 2840 normally refer only to mechanical dimensions and therefore the performance characteristics of a motor should be ascertained before purchase.**

Sheet Number	Maker	Maker's Reference	Supplier	Supplier's trade name	Power output at 75% no-load speed	Maximum Voltage
					watts	volts
M1/1.1	Bühler	1.16.037.069	MSC	JH (1994)	7.5	16
M1/1.2	Bühler	1.16.037.038	MSC	JH (5 pole)	8.2	16
M1/1.3	Bühler		MSC	JH (3 pole)	2.2	22
M1/1.4	Bühler	1.16.037.054	CCW		9.5	12
M1/1.5	Bühler	1.13.021.101	MSC	Crailcrest	7.0	22
M1/1.6	Bühler	1.13.021.158			12.6	16
M1/1.7	Bühler	1.13.021.609			2.7	24
M1/1.8	Bühler	1.16.018.022	AMR	AMR3	1.5	12
M1/1.9	Bühler	1.16.011.139	MSC	SM	2.3	16
M1/1.10	Bühler	1.16.011.156	MSC			
M1/1.11	Bühler	1.16.011.180	AMR	AMR 4	2.3	16
M1/2.1	Canon					
M1/3.1	Escap					
M1/4.1	Faulhaber					



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## MOTORS

Compiled by the Technical Committee

Sheet Number	Maker	Maker's Reference	Supplier	Supplier's trade name	Power output at 75% no-load speed	Maximum Voltage
					watts	volts
M1/5.1	Mashima	1833			3.1	16
M1/5.2	Mashima	1824			2.3	16
M1/5.3	Mashima	1628			1.9	16
M1/6.1	Mabuchi					
M1/7.1	Maxon					
M1/8.1	Pittman					
M1/9.1	Sagami	D-241833-CW	Mega	1833	1.8	22
M1/9.2	Sagami	S-2240CS(CW)	Mega	2240	2.4	16
M1/9.3	Sagami	S-2840CS	Mega	2840	5.3	22