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w = wattage, v = voltage, rpm = revolutions per minute, S/E = single ended, D/E = double ended

<u>MOTOR</u>	<u>WATT/ VOLTAGE</u>	<u>WIDTH/ LENGTH</u>	<u>NO LOAD SPEED</u>	<u>STALLED CURRENT</u>	<u>MAX CONT CURRENT</u>	<u>DCC FRIENDLY</u>
<b>'O' GAUGE</b>						
Canon 1833	3.5w 12v D/E	18 x 33	11000 rpm	2 amps	0.9amps	Yes
This motor is the most cost effective of all the motors and provides good slow speed running and enough power to pull all but the heaviest of Expresses.						
Maxon 220514 (leadwires)	2w 12v S/E	16 x 26	15500 rpm	0.933 amps	0.394 amps	Yes
Maxon 352923 (leadwires)	2.5w 12v S/E	19 x 29	10300 rpm	0.884 amps	0.333 amps	Yes
These are coreless motors with excellent slow speed running, the 2w is ideal for small locomotives where space is limited and the 2.5w is suitable for small and mixed traffic locomotives.						
Maxon 110143	6w 6v S/E	22 x 32	9240 rpm	2.64 amps	1.06 amps	Yes (In series)
Maxon 110156	6w 6v D/E	22 x 32	9240 rpm	2.64 amps	1.06 amps	Yes (In series)
A coreless motor providing up to 30% more power than the Canon, robust, smooth with excellent slow speed running ideally suited for the larger locomotives and steeply graded railways.						
Maxon B7741 ballbearing (leadwires)	10w 12v S/E	22 x 34	10980rpm	7.50 amps	0.84 amps	Yes
A coreless rare earth magnet motor with ball races supplied with 150mm leadwires with exceptional smooth, slow speed running and is ideally suited for the largest locomotives pulling heavy trains and well suited for large garden railways and steep gradients.						
Maxon Surplus	2.5w 6v S/E	21 x 28	9600 rpm	N/A	N/A	No
A 6v coreless motor ideal for small and mixed traffic battery powered locomotives.						
Portescap 22N	3.8w 12v S/E	22 x 32	5900 rpm	0.445amps	0.38 amps	Yes
The Escap motor is the quietest of all the motors and offers excellent smooth slow speed running but perhaps has insufficient power for the larger tasks.						
<b>PUG MOTOR</b>						
Canon DN16	1.2w 12v S/E	16 X 20	16000 rpm	0.32 amps	0.17 amps	Yes
The Maxon 220514 (2w) can also be used for the Pug						
<b>GAUGE '1' MOTORS</b>						
Maxon B7741 ball bearing (leadwires)	10w 12v S/E	22 x 34	10980rpm	3.75 amps	0.84 amps	Yes but see DCC info page
Maxon 266540	20w 12v S/E	29 x 45	9587 rpm	22.4 amps	0.84 amps	Yes but see DCC info page
Please note that the Maxon 247623 (10w) can also be used for smaller Gauge '1' Locomotives						
<p>Most newer decoders have built in current protection. The decoder will simply shut down if the current exceeds the maximum that the decoder can give. These decoders can be a little more expensive to buy but usually come with a manufactures guarantee so will be replaced if anything goes wrong. Please check with your decoder supplier to ensure this is the case. <b>With these decoders, the stalled current of the motor is not so important, but the maximum continuous current of the motor is very important. If this is exceeded, we want the chip to shut down to protect the motor.</b> On the other hand, if a power hungry motor is quite happy to draw 2 amps when pulling a heavy goods train up the 1:40 gradient, we don't want the decoder to shut down when we get half way up. As an example, our 10 watt Maxon motor has a stalled current of 7.5 amps but the maximum continuous current is only 0.85 amps, so the LokPilotDDC V4.0 decoder with a maximum continuous current of 1.1 amps is perfect for the job.</p>						