

Maximum RPM before current will drop off, based on dwell:

When the dwell time to reach a certain current level is known, we can work out how many RPM could be reached before the coil current will be reduced from our target due to lack of available charging time. We can do this for any number of cylinders the coil must fire. The table below is based on the earlier dwell figures.

| RPM effects on coil current (from measured dwell characteristics) | | | | | |
|---|---|-------|-------|-------|--------|
| Bosch part number | Max rpm at 7A/14V before current falls away (0.6ms allowed for burn time) | | | | |
| | 1 cyl (COP) | 4 cyl | 6 cyl | 8 cyl | 12 cyl |
| HEC 715 (716) | 30000 | 7500 | 5000 | 3750 | 2500 |
| MEC 717 (718) | 38710 | 9677 | 6452 | 4839 | 3226 |
| MEC 723 | 16086 | 4021 | 2681 | 2011 | 1341 |
| MEC720 | 20478 | 5119 | 3413 | 2560 | 1707 |

The formula used, I suggest you put in an Excel spreadsheet -

$(1000 / (\text{Dwell time} + \text{min burn time})) \times 120$, divide this by number of cylinders supported by the coil.

Dwell time = time to reach your target current in ms

Min burn time = min time left for the spark to occur, 0.6 ms is suggested