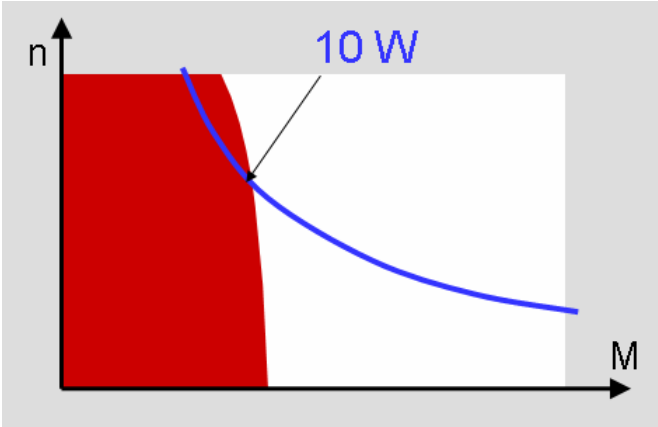
Assigned Power Rating

A few remarks about power rating of motors.
There is no standard way of assigning power to small DC motors. Some manufacturer use the output power at the rated working point, some the maximum output power at rated voltage, some the electrical power at the rated working point. In addition there are also "marketing" factors: How does the motor fit into the existing program? How is it placed with regard to the competition?

At maxon we assign motor power in order to have the curve of constant assigned power intersecting the continuous operation range. So it is possible to run the motor continuously at the given power.



Power rating and motor selection
Usually, power is too a general value for motor selection. It is made of two components: Speed and torque, or voltage and current.

$$P_{typ} = \frac{\pi}{30} \cdot n_N \cdot M_N$$

Thus, te power rating just gives an overall frame for the motor size. But at the end it is important that the motor in consideration is able to deliver both independently, the required torque at the required speed.