Speed

Version: 1.0.0

The speed parameters in the motor are measured in pulses per second. The values you program in the motor are a multiple of the *speed unit* that is set in parameter *K37*. By Default, this speed unit is set to 100 pulses per second. This means that if you set the motors speed value to 50, the rotational speed of the motor will be 100pps x 50 = 5000 pulses per second.

In order to calculate the speed of the motor in revolutions per minute, you would use the following formula:

$$\frac{Speed\ Value\ x\ Speed\ Unit\ x\ 60}{Motor\ Resolution} = Motor\ Speed\ (RPM)$$

For example, using the above speed value of 50, the default speed unit of 100, and 1000 pulse per revolution resolution:

$$\frac{50\ x\ 100\ x\ 60}{1000} = 300RPM$$

When moving the motor, the sign of the speed is ignored, unless the position is set to 1,000,000,000. If this is the case, the motor will move indefinitely with no target position. The direction is then determined by whether the speed is a negative or positive value. If the speed is 0, the motor will stop.