

Technical information for all users of MAC motors.

Since we introduced the MAC motor range many users have asked for another torque scale. Until recently the scale was 0-100% which meant that 100% was the peak torque and around 33% was the continuous torque.

Because of all these wishes we have decided to change the torque scale up to 300% which means that 300% is corresponding to the peak torque. 100% is hereafter corresponding to the continuous torque. The new scale is seen as giving a better understanding what the motor can perform in torque. Many find it more logic that 100% is what the motor can perform continuously and everything between 100% and 300% is an intermediate overload (short time peak load). Another argument have been that the reference in the industry is to use this kind of scale.

What does the change influence?

Only the readout values and torque input fields in MacTalk VI.27 or newer are affected.

The default torque for all torque controlling registers/fields in MacTalk will hereafter be presented as 300%. Setup files created in the past will simply just be converted into the new scale first time the setup is opened by a new MacTalk.

The scale inside the motor is unaffected.

Definitions:

Continues torque: The torque that is available continuously.

Peak torque: The absolute highest torque that the motor can produce for a short time.

“Motor load mean”: The “motor load mean” is the I2T function also called melt integral that calculates the average load over a certain time.
This field in MacTalk will integrate slowly up or down depending on the load.
If the motor is loaded with the maximum continuous torque for some time the “motor load mean” will settle close to 100%.
If the motor is loaded harder than 100% the “motor load mean” will integrate up to more than 100% and the motor will go in error state indicating an overload error.

Please consult JVL if you have any further questions to this issue.