

## DDF Files Installation

For your convenience, the following .ddf files are available to be downloaded for use with Emerson Motion Control's Epsilon, En and MDS series drives and Unidrive SP with SM-EZmotion or Digitax ST with EZ Motion.

The .ddf file contains mechanical and electrical specifications for the motor so that the drive can properly control the motor and load. A standard set of motors are provided in the installed directory of PowerTools. Systems which do not use a "Standard Motor" require the use of a .ddf file to configure the drive. Some products available from Emerson Control Techniques are not contained in the .ddf files installed with PowerTools. Those products not found in the standard list can be downloaded from this page and subsequently copied into the proper directory or custom .ddf file on the user's computer.

**Note:** When naming customer motor for use with Epsilon EP drives that will also be used with other drive series, append the name with *-EP*. This will help the user to identify this motor for use with the EP drive series when selecting a motor in PowerTools. This motor data will not be valid for use with Epsilon, EN, MDS series drives. To create valid data for these drives select the customer motor in PowerTools when connected to the desired drive, perform an AutoTune, and save the new motor data. The motor.ddf file will contain two entries for this motor.

### Installing a new \*.DDF file

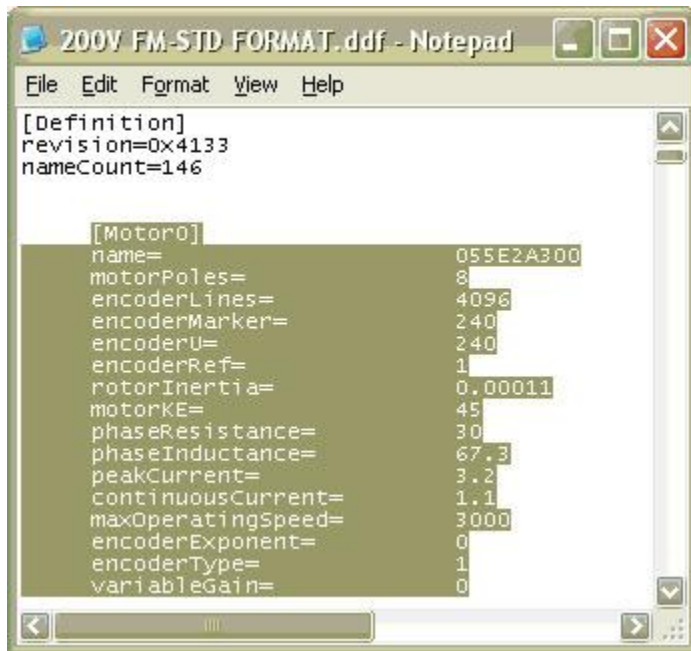
The following instructions will show you how to install your new .ddf file:

#### If you have never created a custom motor file...

1. First download your desired motor data file from the lists below and save it into a temporary directory on your PC.
2. Rename the downloaded file with the following name "motor.ddf" for Epsilon, EN and MDS. For Unidrive SP and Digitax ST using EZ Motion name the file "spmotor.ddf"
3. Go to the directory in which the Power Tools software is installed. (make sure that Power Tools software is closed first).
4. Delete the file called "motor.ddf" or "spmotor.ddf" in this directory.
5. Copy the downloaded file (now renamed) and paste it into the directory in which the Power Tools software is installed.
6. Run the Power Tools software, and select the Motor Type selection box.
7. The new "custom" motor file information should now be at the bottom of the Motor Type selection scroll box (you may need to scroll down to find it).

#### If you have already created a custom motor file...

1. First download your desired motor data file from the lists below and save it into a temporary directory on your PC.
2. Open the newly downloaded file using a text editor (i.e. notepad).
3. Highlight all of the motor data in the downloaded file beginning with [motor#] and ending with the first blank line after the motor parameters (see example below).



```
[Definition]
revision=0x4133
nameCount=146

[Motor0]
name= 055E2A300
motorPoles= 8
encoderLines= 4096
encoderMarker= 240
encoderU= 240
encoderRef= 1
rotorInertia= 0.00011
motorKE= 45
phaseResistance= 30
phaseInductance= 67.3
peakCurrent= 3.2
continuousCurrent= 1.1
maxOperatingSpeed= 3000
encoderExponent= 0
encoderType= 1
variableGain= 0
```

4. Copy the highlighted text, and then close the downloaded file.
5. Navigate to the directory in which your Power Tools software is installed, and open the file called "motor.ddf" or "spmotor.ddf" using your text editor. "motor.ddf" for Epsilon, EN and MDS. For Unidrive SP and Digitax ST using EZ Motion file "spmotor.ddf"
6. Paste the copied text into the bottom of the appropriate file.
7. Increase the # in the [motor#] line of data to correspond with the number of motors added and in sequence. This value can be 0-255.
8. Scroll to the top of the file and change the "nameCount" by the number of motors added.
9. Save the file and close it.
10. Run the Power Tools software, and select the Motor Type selection box.
11. The new "custom" motor should now be at the bottom of the Motor Type selection scroll box (you may need to scroll down to find it).