

Dart Controls Application Note

Power Loss / Heat Dissipation Calculation (2/28/2019)



When our controls are installed in a panel, the panel designer / builder will often need to know how much heat the drive(s) will throw off when considering cooling of the panel.

We have a general formula that will give a conservative value (where conservative = 'not likely to be less than') in watts as follows:

15, 125, 150 and MD40 Series

The formula for these Series is: **Watt Loss = 1.3 x (Max Actual* or Motor Nameplate Full Load Amps) + 2**

253, 530 and MD50 Series

The formula for these Series is: **Watt Loss = 1.7 x (Max Actual* or Motor Nameplate Full Load Amps) + 2**

(* Max Actual is the maximum actual amps drawn by the motor under full load if less than motor Full Load Amp rating)

These formulas include any control series options such as -5, -7, -29, -51, -55, -56, and -420 (and more). However, the formulas do NOT work with any 130/132 Series, or 530 Series with -36 / -38 options as the Dynamic Brake resistor in them make it difficult to predict Watt Loss.