

MDI's 6000 DC-DC Converter Series

MDI has introduced a new family of five types of DC-DC Converters. These "6000" series parts are derived from MDI models 2690, 3107, 2680, 3193 and 3031. The corresponding part numbers are 6690, 6107, 6680, 6193 and 6031.

The operating frequency of these parts is 270 kHz when unsynchronized, and 300 kHz when synchronized. The approximately 50% higher operating than the original parts results in a much lower fundamental output ripple for the 6000 series, typically half that of the baseline parts.

Because of the higher operating frequency, the typical efficiencies of the 6000 series parts is about 1% lower than the lower frequency counterparts.

In addition, the standard inhibit function found in the original lower frequency parts has been changed to an "inhibit-not" function, due to greater customer demand for this inverted connection. The inhibit-not features higher noise immunity than the standard inhibit function. When operating normally, the "inhibit-not" pin is open. To shut off the converter, the "inhibit-not" pin is connected to input return. This is typically performed with an open collector NPN transistor.