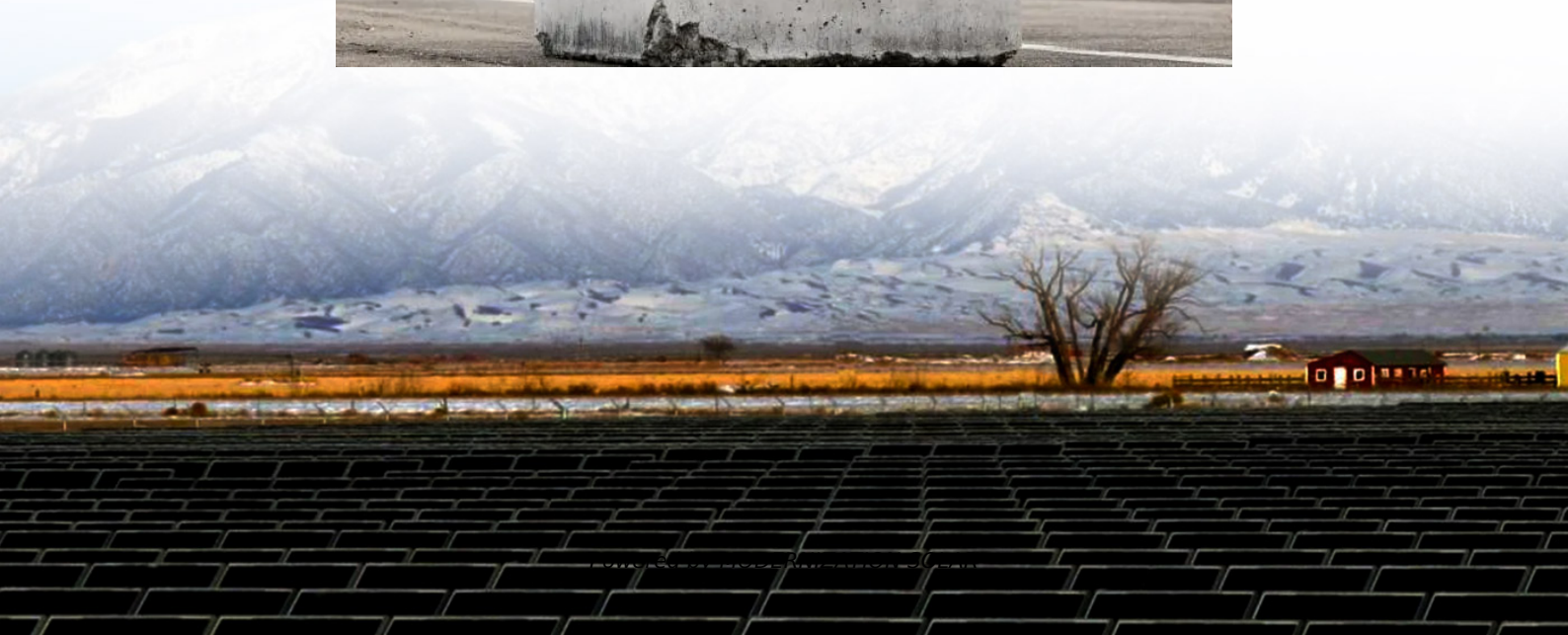


# **Production of 2 kilowatt sine wave high frequency inverter**





## Overview

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What is a high frequency inverter?

In many applications, it is important for an inverter to be lightweight and of a relatively small size. This can be achieved by using a High-Frequency Inverter that involves an isolated DC-DC stage (Voltage Fed Push-Pull/Full Bridge) and the DC-AC section, which provides the AC output.

What is the efficiency of a sinusoidal power inverter?

The inverter efficiency is 78.7% and the output voltage THD is 1.6%. The output voltage and current shown in Fig. 14. Under this load condition, the efficiency is 84.6% and the output THD is 2.4%. and lightweight sinusoidal power inverters. They can provide up to 85% efficiency over a wide output power range (75 to 200W). The output voltage is up to 28V.

Which power supply topologies are suitable for a high frequency inverter?

The power supply topologies suitable for the High-Frequency Inverter include push-pull, half-bridge and the full-bridge converter as the core operation occurs in both the quadrants, thereby, increasing the power handling capability to twice of that of the converters operating in single quadrant (forward and flyback converter).

What is a bridge type inverter?

The simplest form of an inverter is the bridge-type, where a power bridge is controlled according to the sinusoidal pulse-width modulation (SPWM) principle and the resulting SPWM wave is filtered to produce the alternating output voltage. In many applications, it is important for an inverter to be lightweight and of a relatively small size.



## Production of 2 kilowatt sine wave high frequency inverter

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