New Line of SiC-Based Power Modules for Universal Use in Solar and Battery Management Applications
Second generation of SiC modules debuts

Vincotech has rolled out new SiC-based products for ultra efficient, high-frequency operation in solar inverter and battery management applications.

These 2G flow 0 SiC modules come in two versions. One is a flow3xPHASE 0 SiC three-phase inverter module with 3x BUCK/BOOST and split output topology; the other is the flow3xBOOST 0 SiC with three-channel boost circuits.

Both modules feature SiC MOSFET switches designed for ultra fast switching frequencies >100 kHz. They are able to achieve >99% peak efficiency at fPWM = 64 kHz. Equipped with integrated DC capacitors, these new flow 0 SiC modules provide ultra low inductance.

<table>
<thead>
<tr>
<th>Part. No.:</th>
<th>Voltage</th>
<th>R_{DSS-ON}</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Phase Inverter / 3x BUCK/BOOST:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-PZ126PA080ME-M909F18Y</td>
<td>1200 V</td>
<td>80 mΩ</td>
<td>SiC MOSFET (CREE)</td>
</tr>
<tr>
<td>3x BOOST:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-PZ123BA080ME-M909L18Y</td>
<td>1200 V</td>
<td>80 mΩ</td>
<td>SiC MOSFET (CREE)</td>
</tr>
</tbody>
</table>
Power Modules

Main features:
- three-phase inverter (BUCK/BOOST) with split output topology or
- three-channel boost circuit
- SiC-MOSFET switches
- Integrated capacitors
- Temperature sensor

Applications:
- Solar
- Battery management

The **flow3xPHASE 0 SiC** and **flow3xBOOST 0 SiC** come in low-inductive, 12-mm **flow 0 housings** with Press-fit pins. Samples of these modules may be sourced on demand from our usual channels.