

VI Chip® DCM™ Isolated, Regulated DC-DC Converter Module Family

VICOR

Description

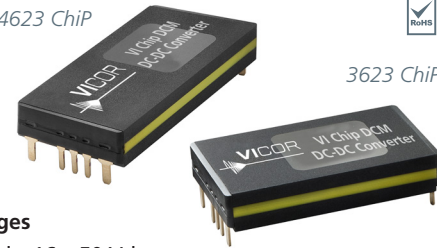
The DCM is an isolated, regulated DC-DC converter, operating from an unregulated, wide range input to generate an isolated output. With its high frequency zero voltage switching (ZVS) topology, the DCM converter consistently delivers high efficiency across the input line range. Modular DCM converters and downstream DC-DC products support efficient power distribution, providing superior power system performance and connectivity from a variety of unregulated power sources to the point of load.

Leveraging the thermal and density benefits of Vicor's ChiP packaging technology, the DCM module offers flexible thermal management options with very low top and bottom side thermal impedances. Thermally-adept ChiP based power components enable customers to achieve cost-effective power system solutions with previously unattainable system size, weight and efficiency attributes, quickly and predictably.

4623 ChiP



3623 ChiP

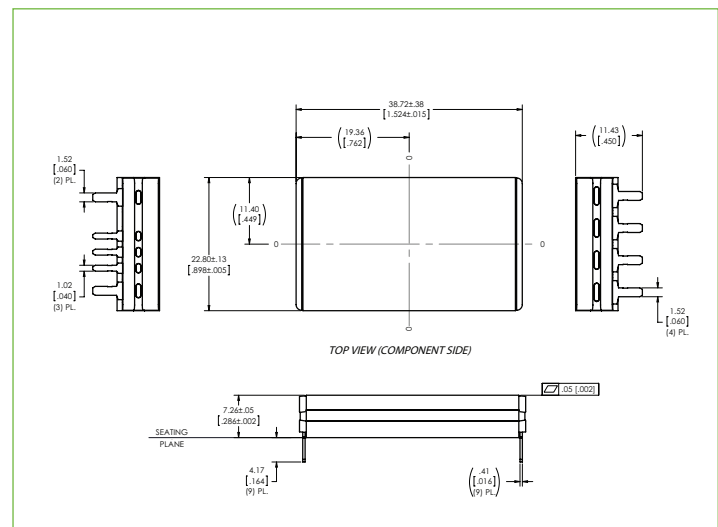
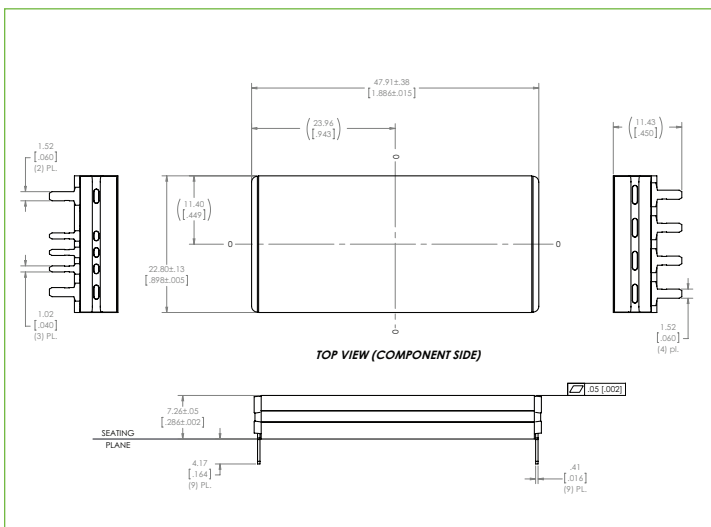


Overview

- **Input Voltages**
160 – 420 Vdc; 16 – 50 Vdc
- **Output Voltages (SELV)**
5 V, 12 V, 13.8 V, 15 V, 24 V, 28 V, 48 V
- **Output Power**
4623: Up to 600 W
3643: Up to 320 W
- **Efficiency: Up to 93%**
- **Dimensions**
4623: 47.91 x 22.8 x 7.26 mm
3623: 38.72 x 22.8 x 7.26 mm

Model Number	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Package Type	Control Interface
DCM300P120x400A40	300 (180 – 420)	12 (7.2 – 13.2)	400	33.3	4623	Analog
DCM290P138T600A40	290 (160 – 420)	13.8 (11.5 – 15.5)	600	43.5	4623	Analog
DCM300P240x600A40	300 (200 – 420)	24 (21.6 – 26.4)	600	25.0	4623	Analog
MDCM28AP050M180A50	28 (16 – 50)	5.0 (4.0 – 5.5)	180	47.5	3623	Analog
MDCM28AP120M320A50	28 (16 – 50)	12 (7.2 – 13.2)	320	26.67	3623	Analog
MDCM28AP150M320A50	28 (16 – 50)	15 (9.0 – 16.5)	320	21.40	3623	Analog
MDCM28AP240M320A50	28 (16 – 50)	24 (14.4 – 26.4)	320	13.40	3623	Analog
MDCM28AP280M320A50	28 (16 – 50)	28 (22 – 30.8)	320	11.43	3623	Analog
MDCM28AP480M320A50	28 (16 – 50)	48 (28.8 – 52.8)	320	6.67	3623	Analog

Outline Drawings

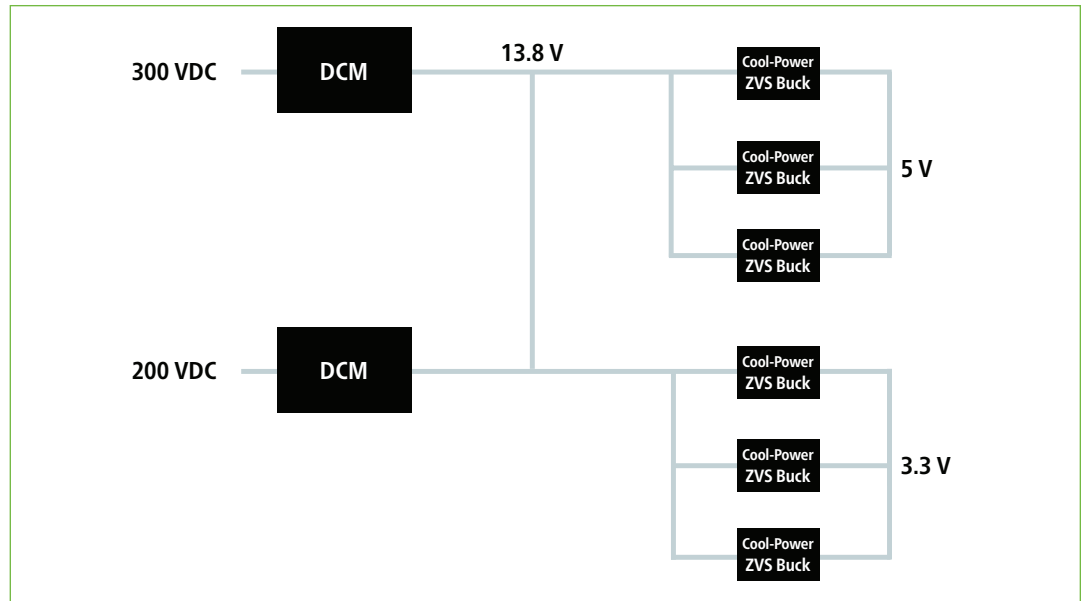


4623 ChiP Package

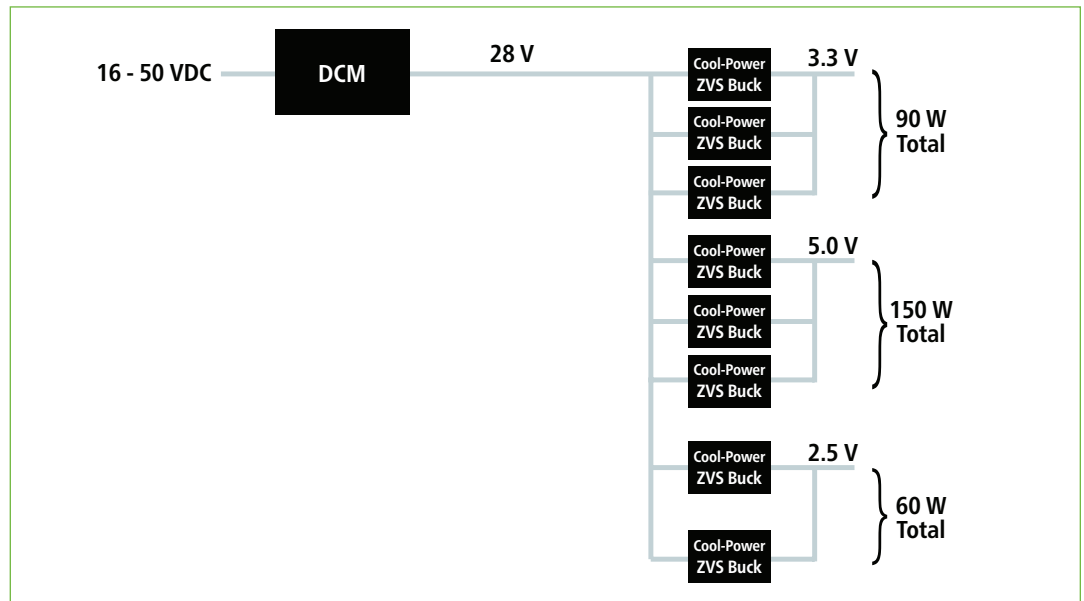
3623 ChiP Package

Typical Applications

300 VDC & 200 VDC
Source-to-Load Example



28 VDC
Source-to-Load Example



Electric and Hybrid Electric
(EV/HEV) Vehicle Example

