



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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VI Brick® IBC Modules

IB0xxxxxxxxxxx-xx Family

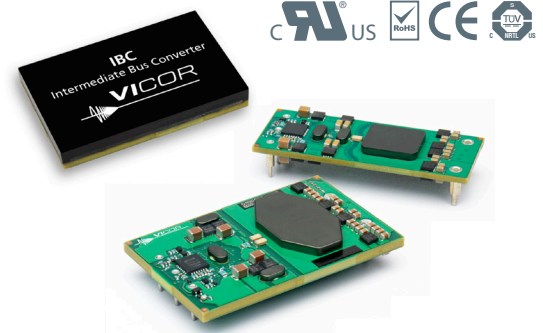
BRICK

Overview

- Isolated, Fixed-Ratio Bus Converters
- Best-in-Class Efficiency
- Best-in-Class Output Power
- A Superior Drop-in Replacement
- Industry Standard Form Factors and Pinouts
- IPC-9592 Compliant

Features

- **Best-in-Class Performance**
 - Quarter-Brick Output to 80 A / 850 W
 - Eighth-Brick Output to 48 A / 500 W
 - Eighth-Brick & Quarter-Brick Density >600 W/in³
 - Peak Efficiency to >98%
 - Low Noise ZVC / ZCS Topology
- **Industry Standard Packages**
 - Eighth-Brick & Quarter-Brick Formats
 - Multiple I/O Pin Lengths
 - Baseplate Option for Quarter-Brick Model
 - Low Profile (0.42")
- **Flexible Electrical Characteristics**
 - Input Range: 36 to 60 Vdc (48 V nom.)
 - 75 V Surge Capability
 - 9.6 Vdc (nom.) Output (5:1 transfer ratio) or 12.0 Vdc (nom.) Output (4:1 transfer ratio)
 - Positive or Negative Logic Enable
 - 2,250 Vdc Isolation
 - 40°C Operation



Description

Vicor's dynamic Sine Amplitude Converter™ (SAC™) topology is at the heart of each fixed-ratio Intermediate Bus Converter (IBC) module. Benefits realized from this patented technology are: superior efficiency, exceptional power density, very fast response to load transients, extremely low output impedance and a low electrical noise profile. These IBC modules are well suited to power system applications in enterprise and optical access networks.

Offered from 300 W to 850 W, these IBCs conform to industry-standard eighth and quarter-brick footprints and feature input/output isolation and an array of protection functions. Their low cross section profile facilitates unimpeded airflow — above and below the thin body — to minimize the temperature rise of downstream components.

Part Number	Package	Power	Part Number	Package	Power
9.6 Vdc Output (5:1)			12.0 Vdc Output (4:1)		
IB048E096T40xx-xx ^[a]	Eighth Brick	300 W	IB048E120T32xx-xx ^[a]	Eighth Brick	300 W
IB050E096T40xx-xx ^[b]	Eighth Brick	300 W	IB050E120T32xx-xx ^[b]	Eighth Brick	300 W
IB054E096T40xx-xx ^[c]	Eighth Brick	300 W	IB054E120T32xx-xx ^[c]	Eighth Brick	300 W
IB048E096T48xx-xx ^[a]	Eighth Brick	500 W	IB048E120T40xx-xx ^[a]	Eighth Brick	500 W
IB050E096T48xx-xx ^[b]	Eighth Brick	500 W	IB050E120T40xx-xx ^[b]	Eighth Brick	500 W
IB054E096T48xx-xx ^[c]	Eighth Brick	500 W	IB054E120T40xx-xx ^[c]	Eighth Brick	500 W
IB048Q096T64xx-xx ^[a]	Quarter Brick	650 W	IB048Q120T53xx-xx ^[a]	Quarter Brick	650 W
IB050Q096T64xx-xx ^[b]	Quarter Brick	650 W	IB050Q120T53xx-xx ^[b]	Quarter Brick	650 W
IB054Q096T64xx-xx ^[c]	Quarter Brick	650 W	IB054Q120T53xx-xx ^[c]	Quarter Brick	650 W
IB048Q096T70xx-xx ^[a]	Quarter Brick	750 W	IB048Q120T60xx-xx ^[a]	Quarter Brick	750 W
IB050Q096T70xx-xx ^[b]	Quarter Brick	750 W	IB050Q120T60xx-xx ^[b]	Quarter Brick	750 W
IB054Q096T70xx-xx ^[c]	Quarter Brick	750 W	IB054Q120T60xx-xx ^[c]	Quarter Brick	750 W
IB048Q096T80xx-xx ^[a]	Quarter Brick	850 W			
IB050Q096T80xx-xx ^[b]	Quarter Brick	850 W			
IB054Q096T80xx-xx ^[c]	Quarter Brick	850 W			

^[a] 38 – 55 Vin, 1,500 Vdc isolation
^[b] 36 – 60 Vin, 2,250 Vdc isolation
^[c] 36 – 60 Vin, 2,250 Vdc isolation with 75 V transient ride-through

Replace the “-xx” suffix in the part number with “-CB” to order an evaluation board.

Note: This document is a product overview, for detailed information such as input range, enable logic and pin length options, go to: <http://www.vicorpower.com/dc-dc-converters-board-mount/vi-brick-intermediate-bus-conver>

Performance

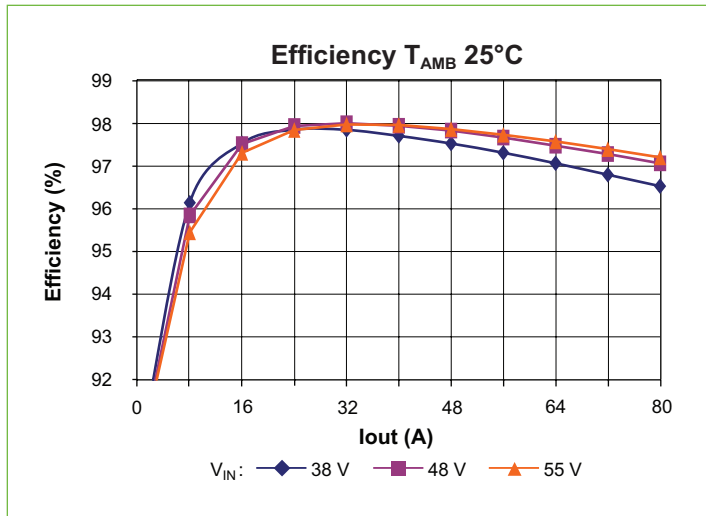


Figure 1 – Efficiency vs. Output Current for IB050Q096T80N1-00

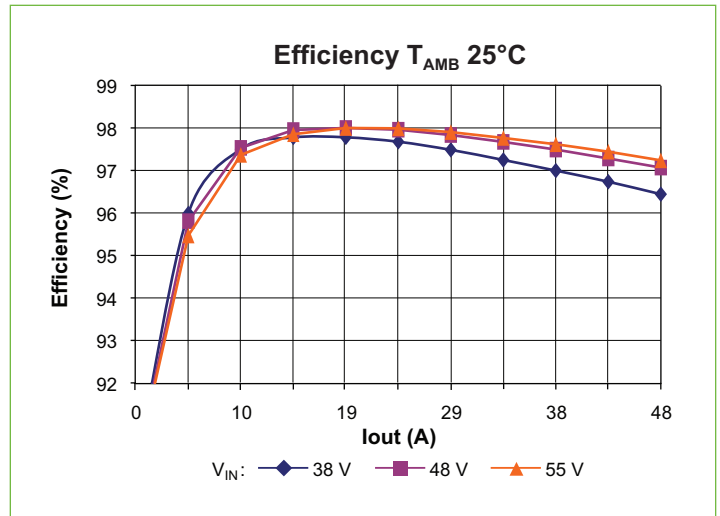


Figure 2 – Efficiency vs. Output Current for IB050E096T48N1-00

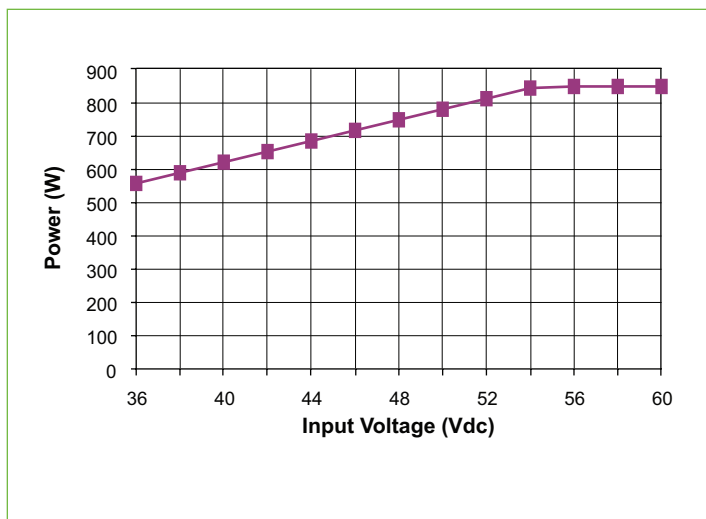


Figure 3 – IB050Q096T80N1-00 Output Power vs. Input Voltage

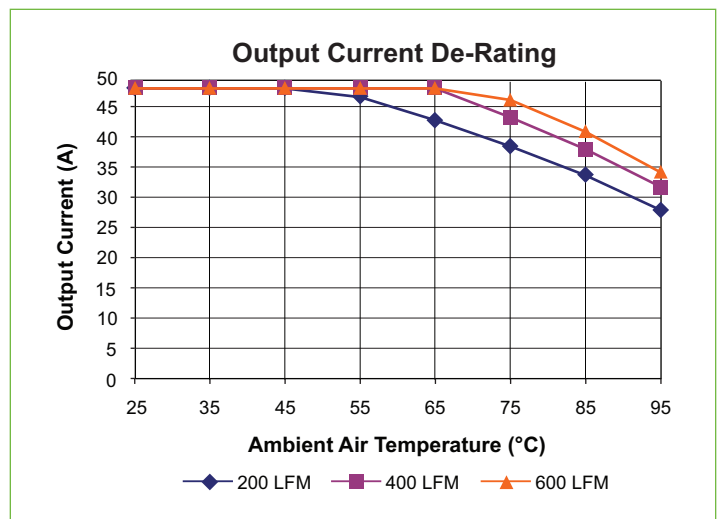


Figure 4 – IB050E096T48N1-00 Output Current De-rating vs. Ambient Temperature

Product Dimensions

