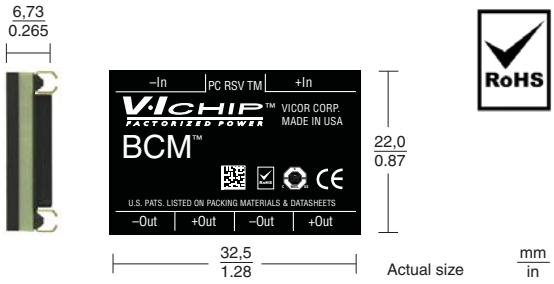
V·I Chip™ BCM™
HV Bus Converter Family

- Efficiency: 95% Typical
- Input: HV 270 / 350 / 380 V
- Power Density: >1000 W/in^3
- Current sharing: 5%
- Isolation: 4,242 Vdc
- Footprint: 1.1 in^2



RoHS

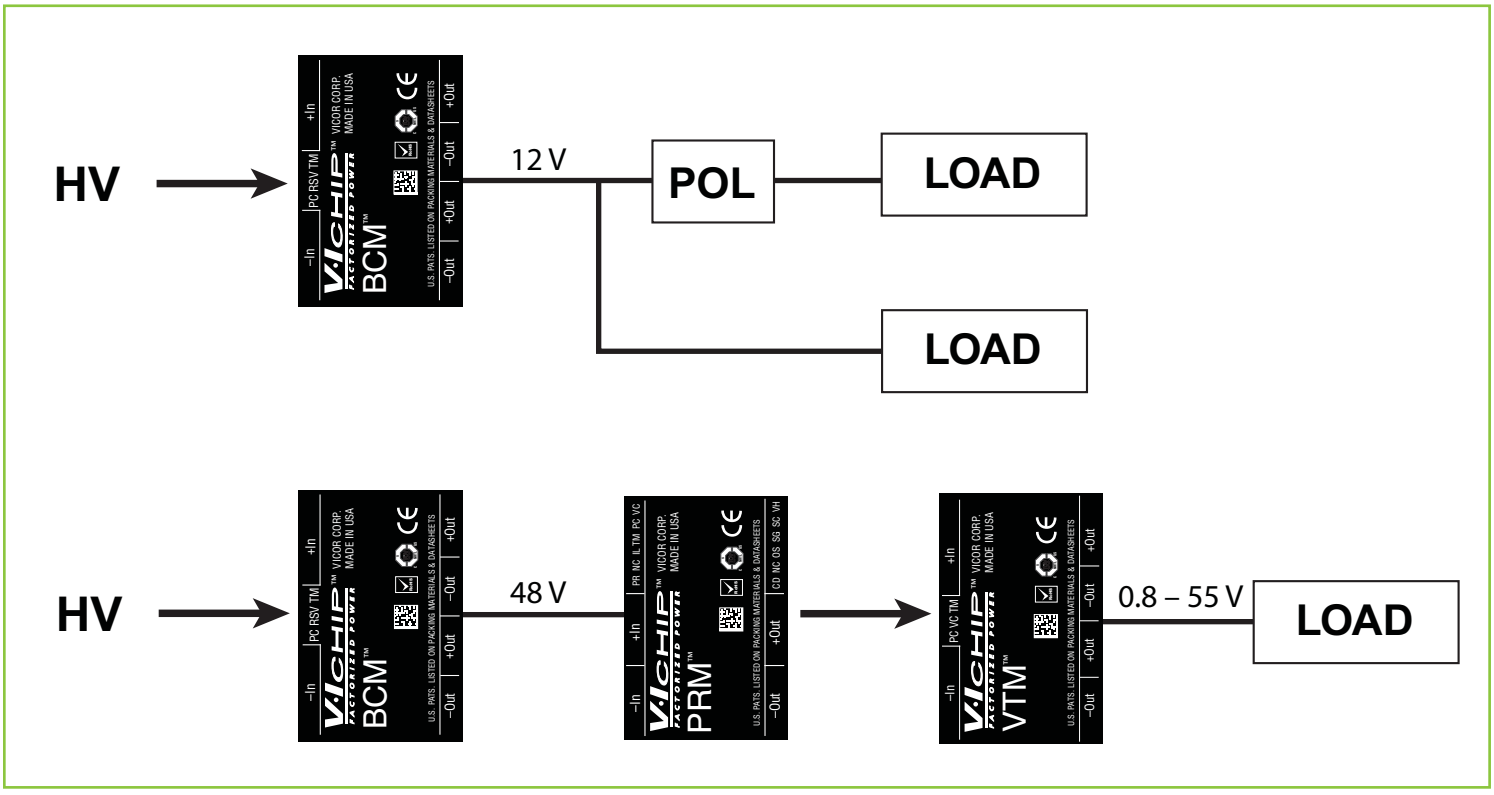
Product Description

The HV Bus Converter modules provide an isolated intermediate bus voltage to power non-isolated POL converters. The HV BCMs offer direct conversion from PFC bus voltage to 12 V POL at up to 300 W with isolation to 4,242 Vdc. The HV family provides superior performance, the highest efficiency and power density in the smallest package available.

Model Number*	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Grade
B384F120T30	360 – 400	11.25 – 12.5	300	25.0	Commercial
BCM352F110T300A00	330 – 365	10.3 – 11.4	300	28.0	Commercial
BCM352F125T300A00	330 – 365	11.79 – 13.04	300	26.0	Commercial
BCM352F440T330A00	330 – 365	41.25 – 45.63	325	7.7	Commercial
BCM384F480T325A00	360 – 400	45.0 – 50.0	325	7.0	Commercial
MBCM270F338M235A00	240 – 330	30.0 – 41.25	235	7.3	MIL-COTS
MBCM270F450M270A00	230 – 330	38.3 – 55.0	270	6.25	MIL-COTS

* Products are also available in through-hole model. See individual data sheets.

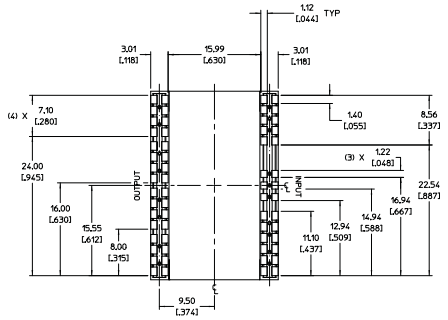
Typical Applications

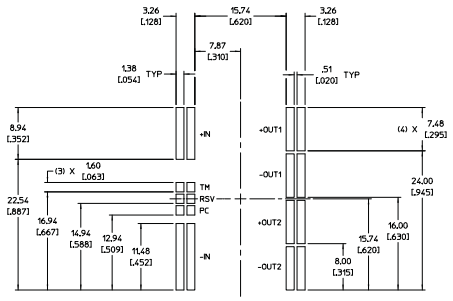


General Specifications

Parameter	Typ	Unit	Note
MTBF			
MIL-HDBK-217F	3.5	Mhrs	25°C, GB
Isolation			
Voltage	4,242	Vdc	Input to output (basic insulation)
Capacitance	500–660	pF	Input to output
Resistance	10	MΩ	Input to output
Regulatory compliance	cTÜVus		UL/CSA 60950, EN60950
	CE Mark		Low voltage directive
	RoHS		
Thermal			
Over temperature shutdown	125	°C	minimum, junction temperature
Case-to-ambient thermal impedance	3.7	°C/W	with 0.25" heat sink @ 300 LFM
Operating junction temperature	-40 to 125	°C	T–Grade
Operating junction temperature	-55 to 125	°C	MIL–COTS
Storage temperature	-40 to 125	°C	

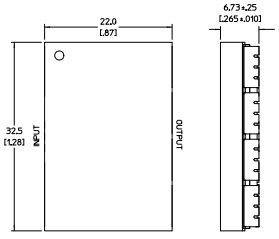
BCM Mechanical Outline Drawing*



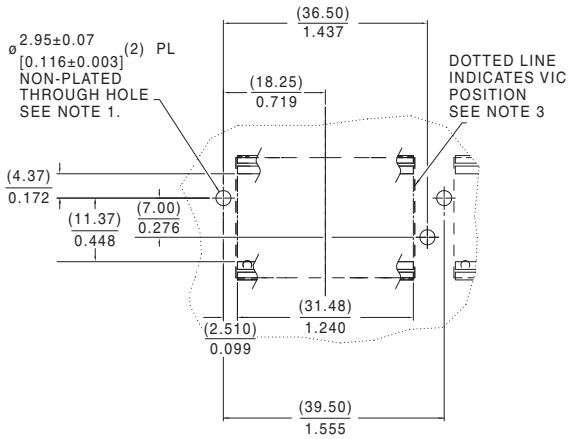


NOTES:
1. DIMENSIONS ARE mm / inch.
2. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE:
   .X / [.XX] = +/-0.25 / [.01]; .XX / [.XXX] = +/-0.13 / [.005]
3. PRODUCT MARKING ON TOP SURFACE

DXF and PDF files are available on vicorpower.com



Heat Sink Push-Pin Hole Pattern



HEAT SINK PUSH-PIN HOLE PATTERN
(TOP SIDE SHOWN)
SEE NOTE 3

NOTES:

1. MAINTAIN 3.5/[0.138] DIA. KEEP OUT ZONE FREE OF COPPER. ALL PCB LAYERS.
2. MINIMUM RECOMMENDED PITCH IS 39.50/[1.555]. THIS PROVIDES 7.00/[0.276] COMPONENT EDGE-TO-EDGE SPACING. AND 0.50/[0.020] CLEARANCE BETWEEN VICOR HEAT SINKS.
3. V•I CHIP LAND PATTERN SHOWN FOR REFERENCE ONLY; ACTUAL LAND PATTERN MAY DIFFER. DIMENSIONS FROM EDGES OF LAND PATTERN TO PUSH-PIN HOLES WILL BE THE SAME FOR ALL FULL SIZE V•I CHIPS.
4. DIMENSION ARE (mm) / inch.

*** For through–hole mechanical drawing see individual data sheets.**