FEATURES

- Soft Start
- 100% Burn In
- High Reliability
- Remote ON/OFF
- Up to 89% Efficient
- Cost Efficient Solution
- Fast Transient Response
- Fixed Switching Frequency
- Encapsulated for Added Ruggedness
- Short Circuit and Over Current Protected
- Remote Sense Compensation to 10% Vout

APPLICATIONS

- For use in 12V and 24V Battery Applications
- For use in Intermediate and Distributed Bus Architectures (IBA)
- Telecommunications Equipment
- Network (LANs/WANs) Equipment
- Next Generation Low Voltage, High Current Microprocessors and ICs



DESCRIPTION

The CMLV series consists of high density, low input voltage, isolated converters on a chassis mount with a wide input voltage range. Low input voltage converters are uncommon in the industry and the CMLV series offers the flexibility of operation with both 12V and 24V busses. These state-of-the-art converters' features include fast transient response, short circuit protection, over current protection, soft start, and many other features that are required for today's demanding applications.

SPECIFICATIONS: *CMLV Series*

All specifications apply @ 25°C ambient unless otherwise noted

INPUT SPECIFICATIONS

Input Voltage Range	10-36VDC
UVLO Turn On at	9.6VDC max
UVLO Turn off at	9.5VDC max
Input Filter	See Technical Datasheet
Remote ON/OFF	Logic Enable referenced to -Vin,
No suffix	Open/High=ON, Low=OFF
"R" suffix	Open/High=OFF, Low=ON
Input Reflected Ripple current	225mA typ.
Input Surge Voltage	50VDC max for 100ms

OUTPUT SPECIFICATIONS

Output Voltage	see table
Voltage Accuracy	±1%
Output Adjustability	±10%
Output Current	see table
Output Power	see table
Line Regulation (LL to HL at FL)	±0.2%
Load Regulation (20% to 100% load)	±0.2%
Ripple/Noise (20 MHz BW)	1.5%
Remote Sense Compensation	10%
Transient Response (50% load step)	250ms

PROTECTION SPECIFICATIONS

Current Limit	110-140%
Short Circuit Protection	Continuous

GENERAL SPECIFICATIONS

Efficiency	To 89%
Switching Frequency	400KHz typ.
Isolation Voltage	
Input to Output	1500VDC
Input to Case	500VDC
Output to Case	500VDC
Isolation Resistance	10MΩ min.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature (case)	-40°C ~ +100°C
Storage Temperature	-50°C ~ +125°C
Humidity	To 95%
Temperature Coefficient	±0.2% / °C
MTBF	2,563,116 hours

PHYSICAL SPECIFICATIONS

Weight	7.52oz (213g)
Dimensions (L x W x H)	5.70 x 3.40 x 1.34 inches 144.8 x 86.4 x 34 mm
Case Material	thick, aluminum alloy

Due to advances in technology, specifications subject to change without notice

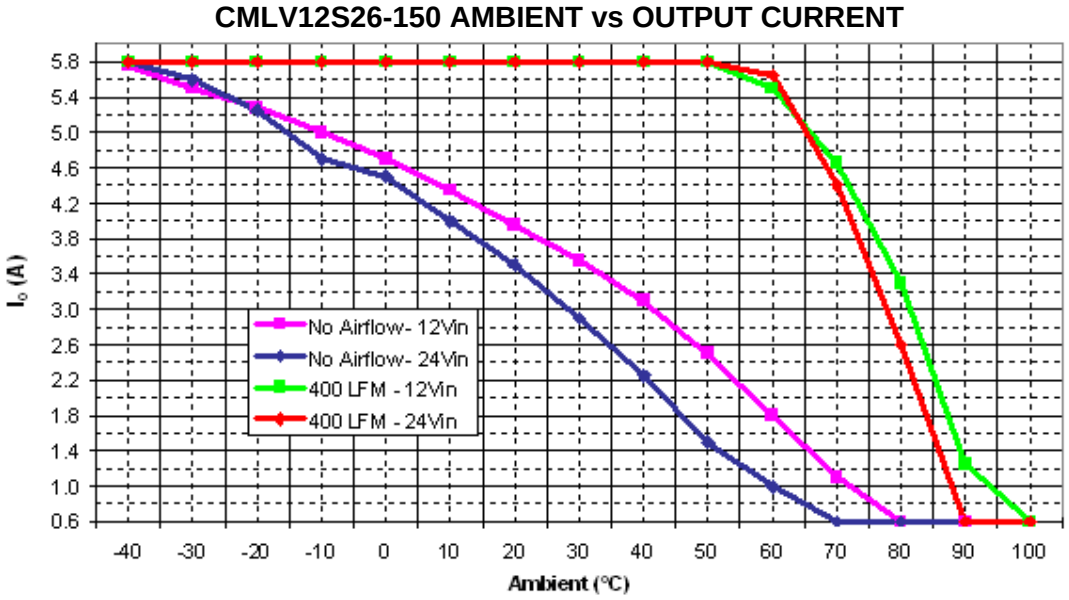
MODEL SELECTION GUIDE

Model Number for Threaded Inserts	Model Number for Thru-Hole Inserts	Input Voltage Range	Output Voltage	Output Current	Output Power
CMLV12S3.3-75	CMLV12S3.3-75TH	12/24 VDC (10 - 36 VDC)	3.3 VDC	21.4A	75W
CMLV12S5-100	CMLV12S5-100TH		5 VDC	20.0A	100W
CMLV12S8-100	CMLV12S8-100TH		8 VDC	12.5A	100W
CMLV12S12-100	CMLV12S12-100TH		12 VDC	8.3A	100W
CMLV12S12-120	CMLV12S12-120TH		12 VDC	10.0A	120W
CMLV12S12-150	CMLV12S12-150TH		12 VDC	12.5A	150W
CMLV12S15-50	CMLV12S15-50TH		15 VDC	3.3A	50W
CMLV12S15-100	CMLV12S15-100TH		15 VDC	6.6A	100W
CMLV12S15-125	CMLV12S15-125TH		15 VDC	8.3A	125W
CMLV12S15-150	CMLV12S15-150TH		15 VDC	10.0A	150W
CMLV12S18-150	CMLV12S18-150TH		18 VDC	8.33A	150W
CMLV12S20-100	CMLV12S20-100TH		20 VDC	5.0A	100W
CMLV12S24-150	CMLV12S24-150TH		24 VDC	6.25A	150W
CMLV12S26-150	CMLV12S26-150TH		26 VDC	5.76A	150W
CMLV12S28-150	CMLV12S28-150TH		28 VDC	5.35A	150W
CMLV12S48-150	CMLV12S48-150TH		48VDC	3.125A	150W

NOTES

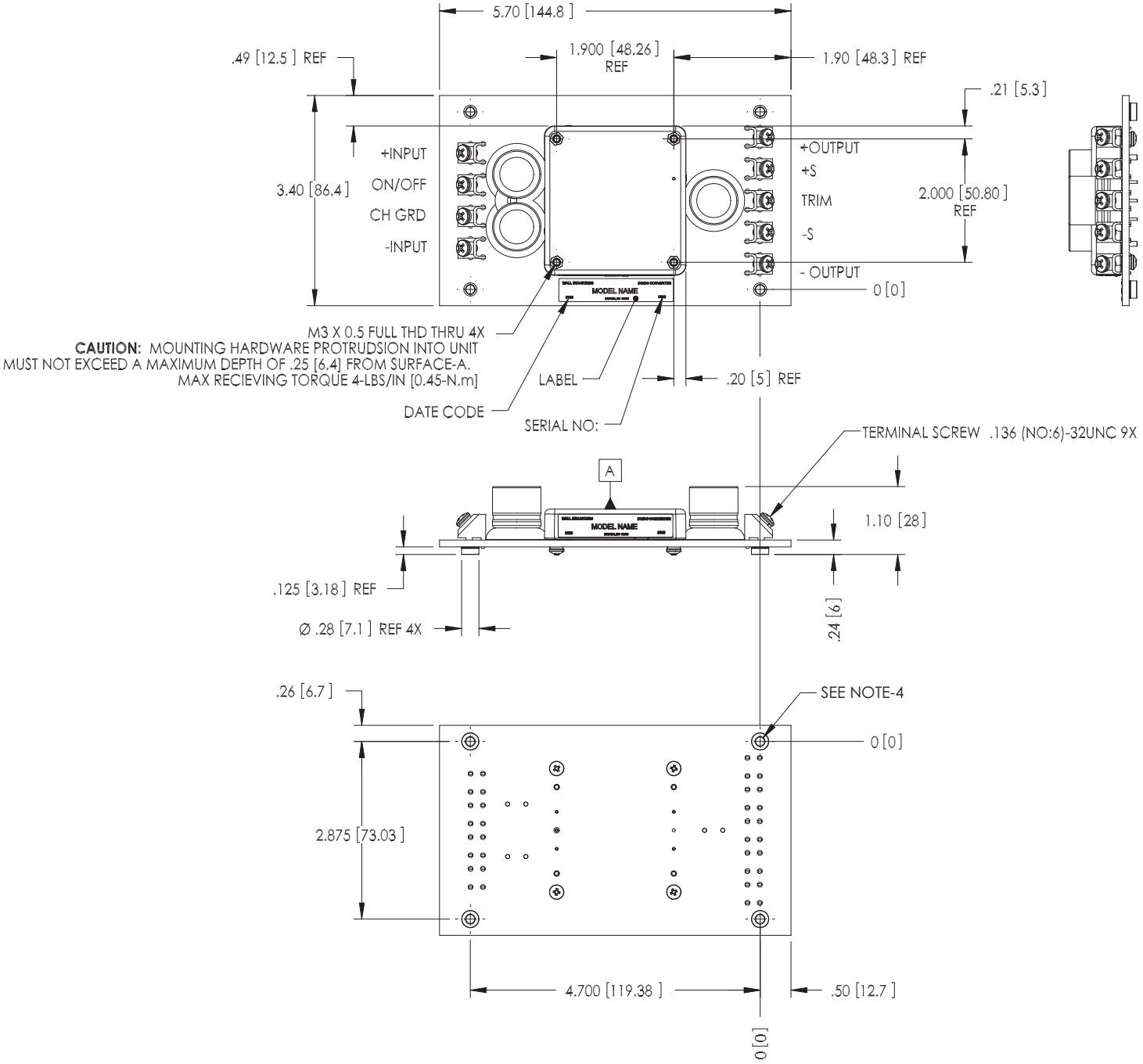
1. Pin to pin tolerance: ±0.01" [± 0.3mm], pin diameter tolerance: ± 0.005" [± 0.13mm].
2. Case material of the DC/DC converter: 0.040" [1.02mm] thick, aluminum alloy 3003-0, per: QQA 250/2.
3. Unit comes with either 3M x 0.5 threaded thru inserts or for Ø.125 thru-hole for the chassis mount board add "TH" suffix to model part number (Ex: CMLV12S15-100TH).
4. Active high enable is standard; for active low enable add the suffix “R” to the part number (Ex: CMLV12S15-100R).

DERATING CURVE



MECHANICAL DRAWING

Unit: inches [mm]



NOTES:

1. PIN TO PIN TOLERANCE ± 0.01 [±0.3], PIN DIAMETER TOLERANCE: ±0.005 [±0.13].
2. CASE MATERIAL OF THE CONVERTER: Ø.040 [1.02] THICK, ALUMINUM ALLOY 3003-0, PER: QQA 250/2.
3. UNLESS OTHERWISE SPECIFIED.

TO ORDER:

4. UNIT COMES WITH EITHER .112 (NO.4)-4OUNC-2B THREADED THRU INSERTS OR FOR Ø.125 THRU-HOLE FOR THE CHASSIS MOUNT BOARD ADD: “TH” SUFFIX TO MODEL PART NUMBER.
   EXAMPLE: CMLV12S15-100TH