Size: 2.28in x 2.4in x 0.50in
(57.9mm x 61mm x 12.7mm)

FEATURES

- Soft Start
- 100% Burn In
- High Reliability
- **Made in the USA**
- Optional Heat Sink Available (Call Factory)
- Up to 89% Efficiency
- Optional Encapsulation for Added Ruggedness
- Remote ON/OFF
- Cost Efficient Solution
- Fast Transient Response
- Fixed Switching Frequency
- 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 LV series is a high density, low input voltage, isolated converter with a wide input voltage range. Low input voltage converters are uncommon in the industry and the LV series offers the flexibility of operation with both 12V and 24V busses, this state-of-the-art converter's 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.

MODEL SELECTION TABLE

Model Number	Model Number for Thru-Hole Inserts	Output Voltage	Output Current	Output Power	Input Voltage Range
LV12S8-100	LV12S8-100TH	8V	12.5A	100W	
LV12S12-100	LV12S12-100TH	12V	8.3A	100W	
LV12S12-120	LV12S12-120TH	12V	10.0A	120W	
LV12S12-150	LV12S12-150TH	12V	12.5A	150W	
LV12S15-50	LV12S15-50TH	15V	3.3A	50W	
LV12S15-100	LV12S15-100TH	15V	6.6A	100W	
LV12S15-125	LV12S15-125TH	15V	8.3A	125W	
LV12S15-150	LV12S15-150TH	15V	10.0A	150W	
LV12S18-150	LV12S18-150TH	18V	8.33A	150W	
LV12S20-100	LV12S20-100TH	20V	5.0A	100W	
LV12S24-50	LV12S24-50TH	24V	2.1A	50W	
LV12S24-150	LV12S24-150TH	24V	6.25A	150W	
LV12S26-150	LV12S26-150TH	26V	5.76A	150W	
LV12S28-150	LV12S28-150TH	28V	5.35A	150W	
LV12S28-200	LV12S28-200TH	28V	7.14A	200W	
LV12S48-150	LV12S48-150TH	48V	3.125A	150W	

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range		9		36	VDC
UVLO Turn On At				8.6	VDC
UVLO Turn Off At				8.5	VDC
Input Filter		See Technical Datasheet			
Input Reflected Ripple Current			22		mA
Input Surge Voltage	For 100ms			50	VDC
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy			±1		%
Line Regulation	LL to HL at FL		±0.2		%
Load Regulation	20% to 100% Load		±0.2		%
Remote Sense Compensation			10		%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise (20MHz bandwidth)			1.5		%
Transient Response	50% Load Step		250		mS
REMOTE ON/OFF CONTROL[1]					
No Suffix		Open/High=ON Low=OFF			
"R" Suffix[6]		Open/High=OFF Low=ON			
PROTECTION					
Short Circuit Protection		Continuous			
Current Limit		110-140%			
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature		-40		+100	ºC
Storage Temperature		-50		+125	ºC
Humidity				95	%
Temperature Coefficient			±0.2		%/ºC
MTBF		2,563,116			Hours
GENERAL SPECIFICATIONS					
Efficiency				89	%
Switching Frequency			400		KHz
Isolation Voltage	Input to Output		1500		VDC
	Input to Case		500		
	Output to Case		500		
Isolation Resistance		10			MΩ
PHYSICAL SPECIFICATIONS					
Weight		4oz			
Dimensions (L x W x H)		2.28in x 2.4in x 0.50in (57.9mm x 61mm x 12.7mm)			
Case Material		Thick, Aluminum Alloy			

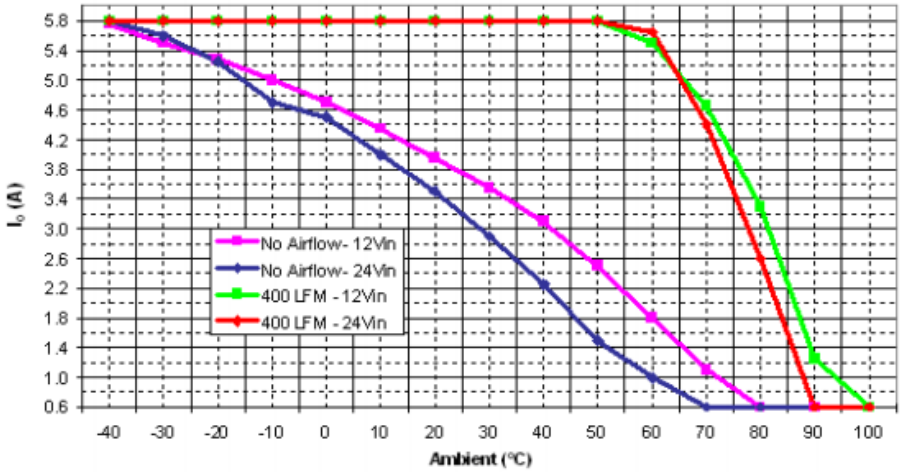
NOTES

1. Logic Enable referenced to -Vin.
2. Pin to pin: ±0.01" [±0.3mm], pin diameter tolerance: ±0.005" [0.13mm].
3. Case material: 0.040" [1.02mm] thick, aluminum alloy 3003-0, per: QQA 250/2.
4. Unit comes with either 3M x 0.5 threaded thru inserts or for 0.125 thru-hole add "TH" suffix to model part number.
5. Consult factory for optional heat sink.
6. Active high enable is standard; for active low enable add the suffix "R" to the part number (Ex: LV12S15-100R)

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

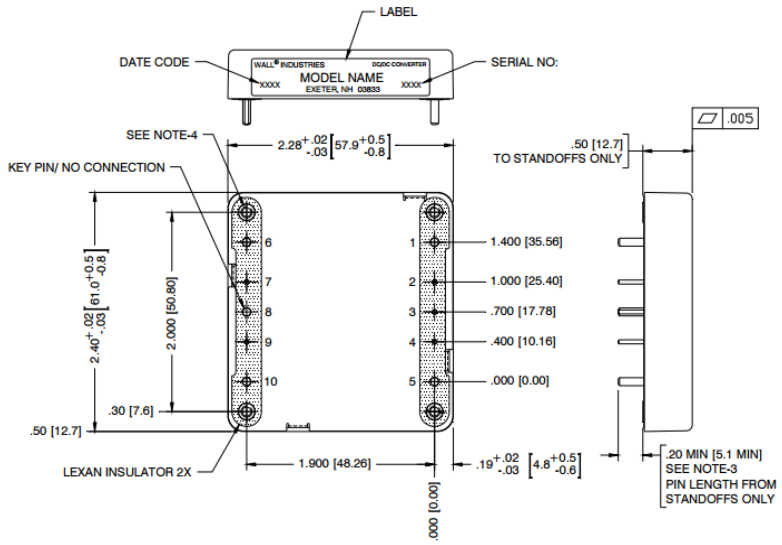
DERATING CURVES

LV12S26-150 Ambient vs. Output Current



MECHANICAL DRAWINGS

Unit: inches [mm]



PIN DESIGNATION		PIN Ø
1	-OUTPUT	Ø.081
2	-SENSE	Ø.040
3	TRIM	Ø.040
4	+SENSE	Ø.040
5	+OUT	Ø.081
6	-Vin	Ø.081
7	CASE GRD	Ø.040
8	KEY PIN/NC	Ø.081
9	ON/OFF	Ø.040
10	+Vin	Ø.081

NOTES:
1. PIN TO PIN TOLERANCE ±.01 [±0.3]
   PIN DIAMETER TOLERANCE: ±.005 [±0.13]
2. CASE MATERIAL: .040 [1.02] THICK, ALUMINUM ALLOY 3003-0, PER: QQA 250/2.
3. UNLESS OTHERWISE SPECIFIED

TO ORDER:
4. UNIT COMES WITH EITHER 3M x 0.5 THREADED THRU INSERTS OR FOR Ø.125 THRU-HOLE ADD: “TH” SUFFIX TO MODEL PART NUMBER. EXAMPLE: LV12S15-100TH
5. CONSULT FACTORY FOR OPTIONAL HEATSINK.

COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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