

**FEATURES**

- 100% Burn In
- Chassis Mount
- Synchronizable
- Output Trim  $\pm 10\%$
- 1500VDC Isolation
- Operation to No Load
- Very Low Output Ripple
- Output Current up to 60A
- Fast Transient Response
- Fixed Switching Frequency
- 250-300 Watts Output Power
- Remote Sense Compensation
- Remote ON/OFF (Active High/Low)
- Short Circuit and Over Temperature Protection
- 90% Efficient at Half Load, 88% Efficient at Full Load



**DESCRIPTION**

The CMFA series consists of high-density full brick converters that incorporate the desired features required in today's demanding low voltage bus applications. Its unique dual interleaved phase-shifted topology minimizes both input and output noise. When performance, reliability, and low cost are needed, the CMFA series delivers.

**SPECIFICATIONS: CMFA Series**

*All specifications apply @ 25°C ambient unless otherwise noted*

**INPUT SPECIFICATIONS**

Input Voltage Range.....	10-36VDC
UVLO Turn On at .....	10VDC max
UVLO Turn off at .....	9.5VDC max
Input Surge Voltage (100ms).....	50VDC
Reflected Ripple Current (nominal Vin and full load).....	20mA
Remote ON/OFF .....	See Technical Datasheet
Input Current under Remote Off .....	1mA
Maximum Input Current (Low Line).....	35A
No Load Input Current.....	0.1A

**OUTPUT SPECIFICATIONS**

Output Voltage .....	see table
Voltage Accuracy .....	$\pm 1\%$
Output Adjustability .....	$\pm 10\%$
Output Current .....	see table
Output Power .....	see table
Line Regulation (LL to HL at FL).....	$\pm 0.2\%$
Load Regulation (20% to 100% load) .....	$\pm 0.2\%$
Ripple/Noise (20 MHz BW).....	1% Vout max
Temperature Coefficient.....	$\pm 0.02\%$ / °C max.
Transient Response (50% load step).....	5% total deviation

**PROTECTION SPECIFICATIONS**

Current Limit .....	130%
Short Circuit Protection .....	Continuous, self re-setting
Over Temperature Protection .....	110°C, self re-setting

**GENERAL SPECIFICATIONS**

Efficiency .....	90% typical
Switching Frequency.....	700KHz typ.
Isolation Voltage (Input to Output).....	1500VDC min.
Isolation Resistance .....	1GΩ min.
Isolation Capacitance.....	0.01μF

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature (ambient).....	-40°C ~ +100°C (case)
Storage Temperature .....	-55°C ~ +125°C
Humidity.....	fully potted construction
Cooling .....	heatsink optional (see Note 4)
MTBF.....	2,212,456 hours

**PHYSICAL SPECIFICATIONS**

Weight .....	11 oz
Dimensions of Fixture .....	8.00(L) x 3.40(W) x 0.91(H) inches
Dimensions of DC/DC Converter.....	4.6(L) x 2.4(W) x 0.50(H)
Shielding of DC/DC Converter.....	six-sided

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

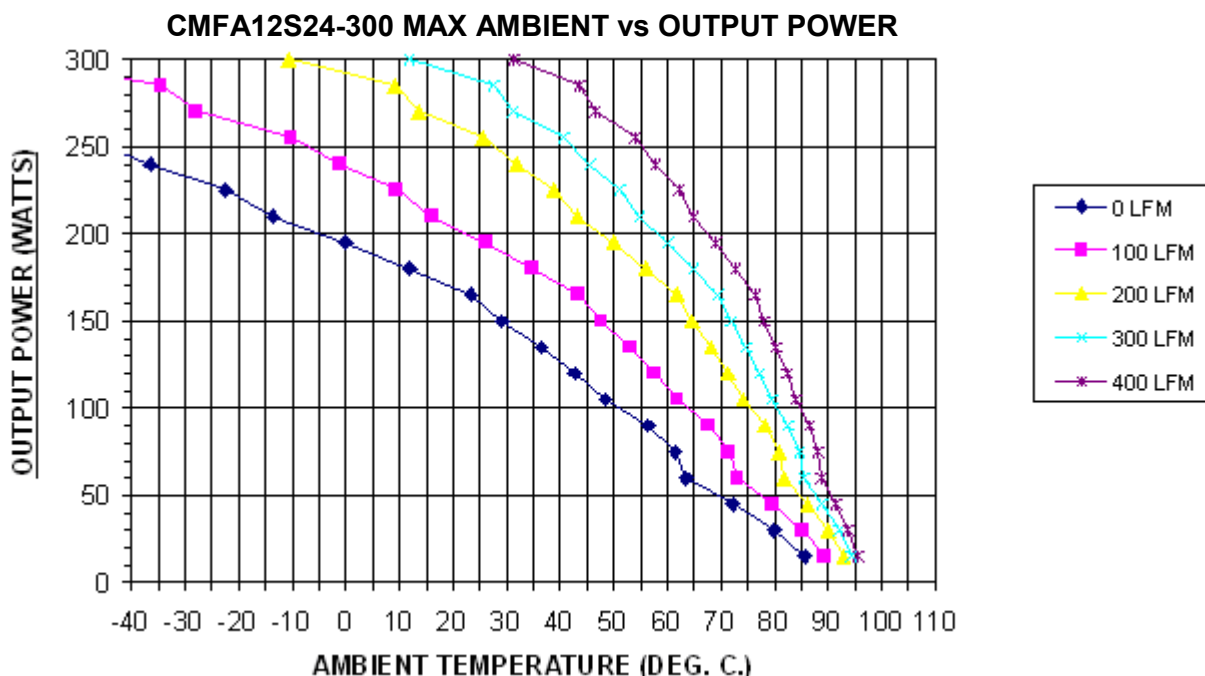
### MODEL SELECTION TABLE

Model Number for Threaded Inserts	Model Number for Thru-Hole Inserts	Input Voltage Range	Output Voltage	Output Current	Output Power
CMFA12S5-300	CMFA12S5-300TH	12/24 VDC (10 – 36 VDC)	5 VDC	60A	300W
CMFA12S12-300	CMFA12S12-300TH		12 VDC	25A	300W
CMFA12S15-300	CMFA12S15-300TH		15 VDC	20A	300W
CMFA12S20-300	CMFA12S20-300TH		20 VDC	15A	300W
CMFA12S24-300	CMFA12S24-300TH		24 VDC	12.5A	300W
CMFA12S26-300	CMFA12S26-300TH		26 VDC	11.538A	300W
CMFA12S28-300	CMFA12S28-300TH		28 VDC	10.714A	300W
CMFA12S43-250	CMFA12S43-250TH		43 VDC	5.814A	250W
CMFA12S48-250	CMFA12S48-250TH		48 VDC	5.208A	250W

### NOTES

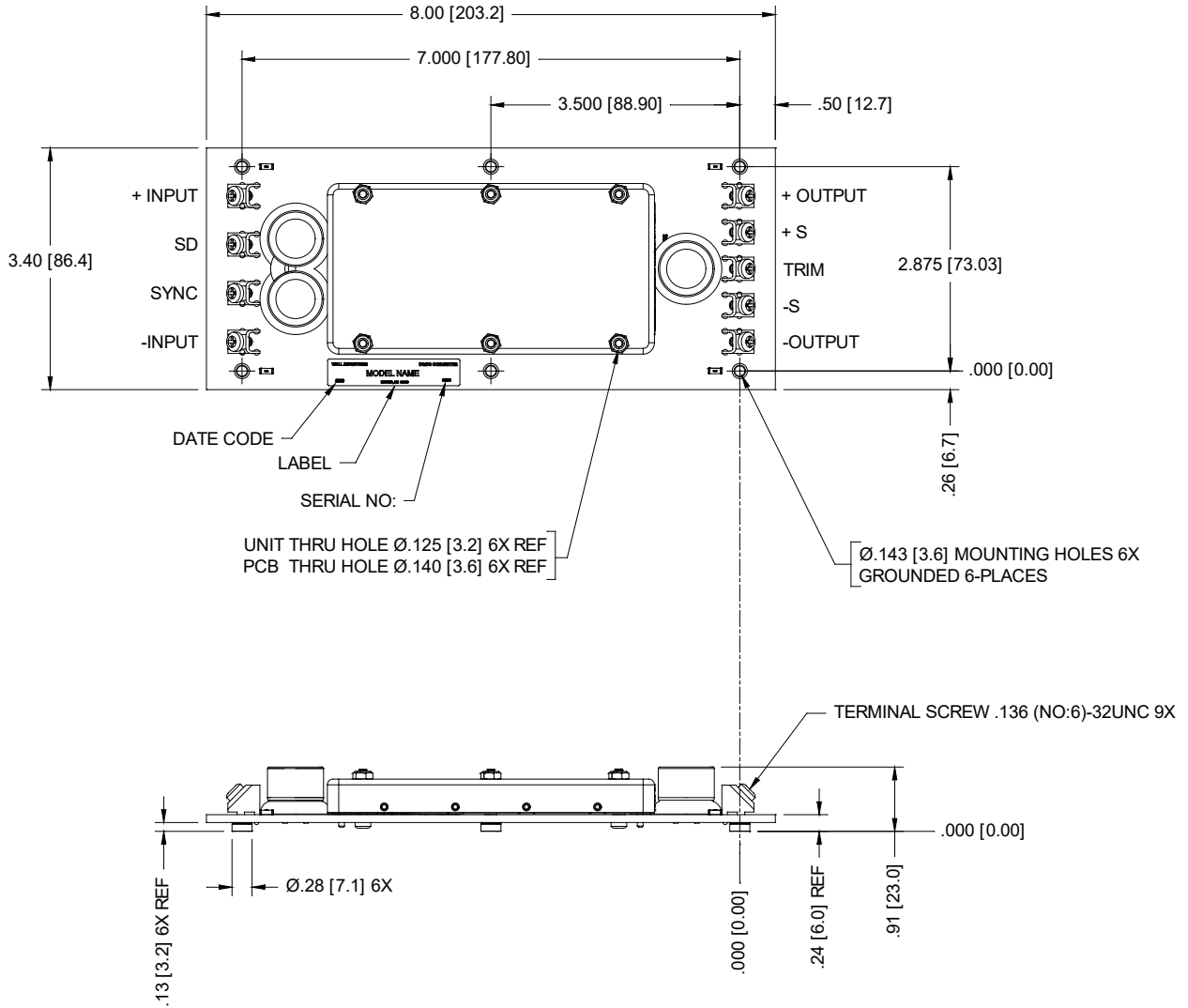
1. Pin to pin tolerance  $\pm 0.01"$  [ $\pm 0.3\text{mm}$ ]. Pin diameter tolerance  $\pm 0.005"$  [ $\pm 0.13\text{mm}$ ].
2. Case material of the DC/DC converter: 0.040" [1.02mm] thick, aluminum alloy 3003-0, Per: QQA 250/2.
3. Unit comes with either 3M x 0.5 threaded thru inserts for the chassis mount board or for  $\varnothing.125$  thru-hole for the chassis mount board add the suffix "TH" to the model part number. Ex: CMFA12S24-300TH.
4. For Heat sink add "HS" suffix to the model part number. Ex: CMFA12S24-300HS.
5. Active High Enable is standard; for Active Low Enable add "R" suffix to the model number. Ex: CMFA12S24-300R.

### DERATING CURVE



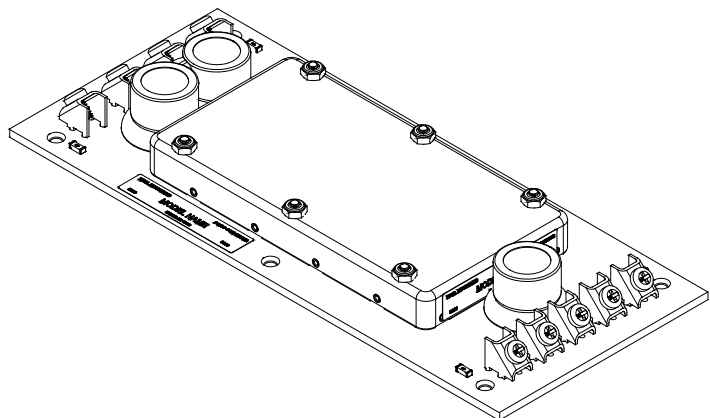
**MECHANICAL DRAWING**

Unit: inches [mm]



**TO ORDER**

1. Unit comes with either 6-32x.281 threaded thru inserts for the chassis mount board or for Ø.125 thru-hole for the chassis mount board add the suffix "TH" to the model part number. Ex: CMFA12S24-300TH.
2. For Heat Sink Add "HS" suffix to model part number. Ex: CMFA12S24-300HS





Wall Industries, Inc.

Rev F

CMFA Series  
Full Brick  
250-300 Watt, Single Output  
Chassis Mount DC/DC Converter

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## 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 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.

Contact **Wall Industries** for further information:

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