

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

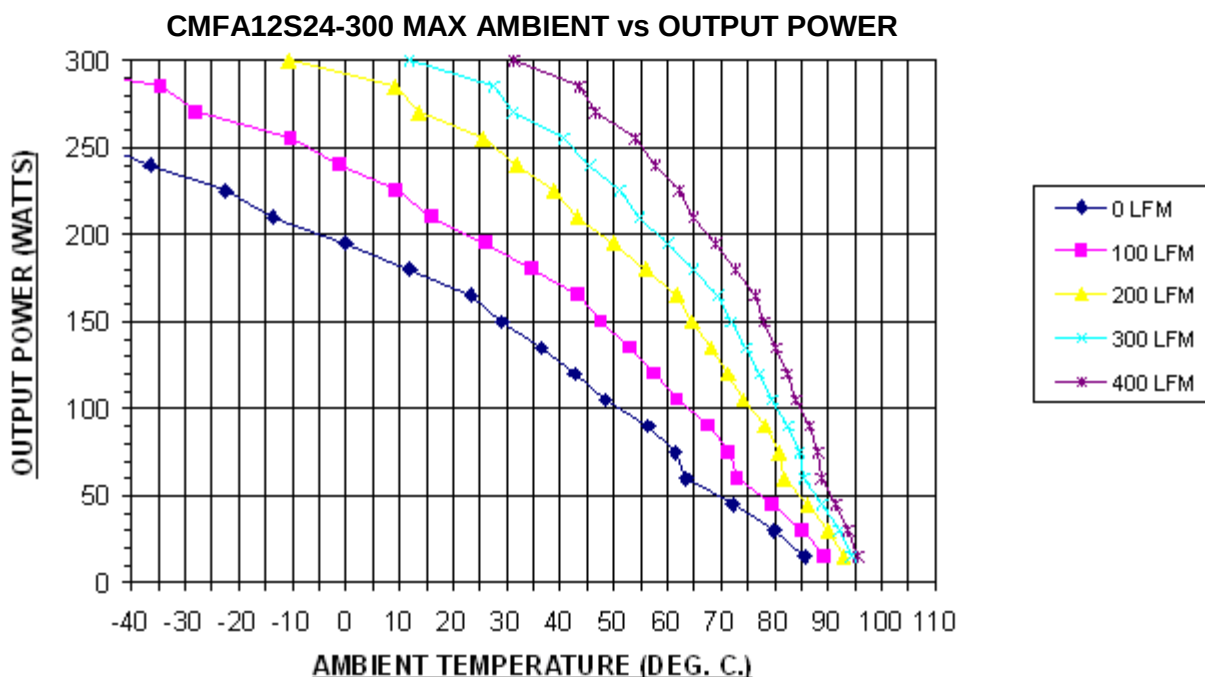
MODEL SELECTION TABLE

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

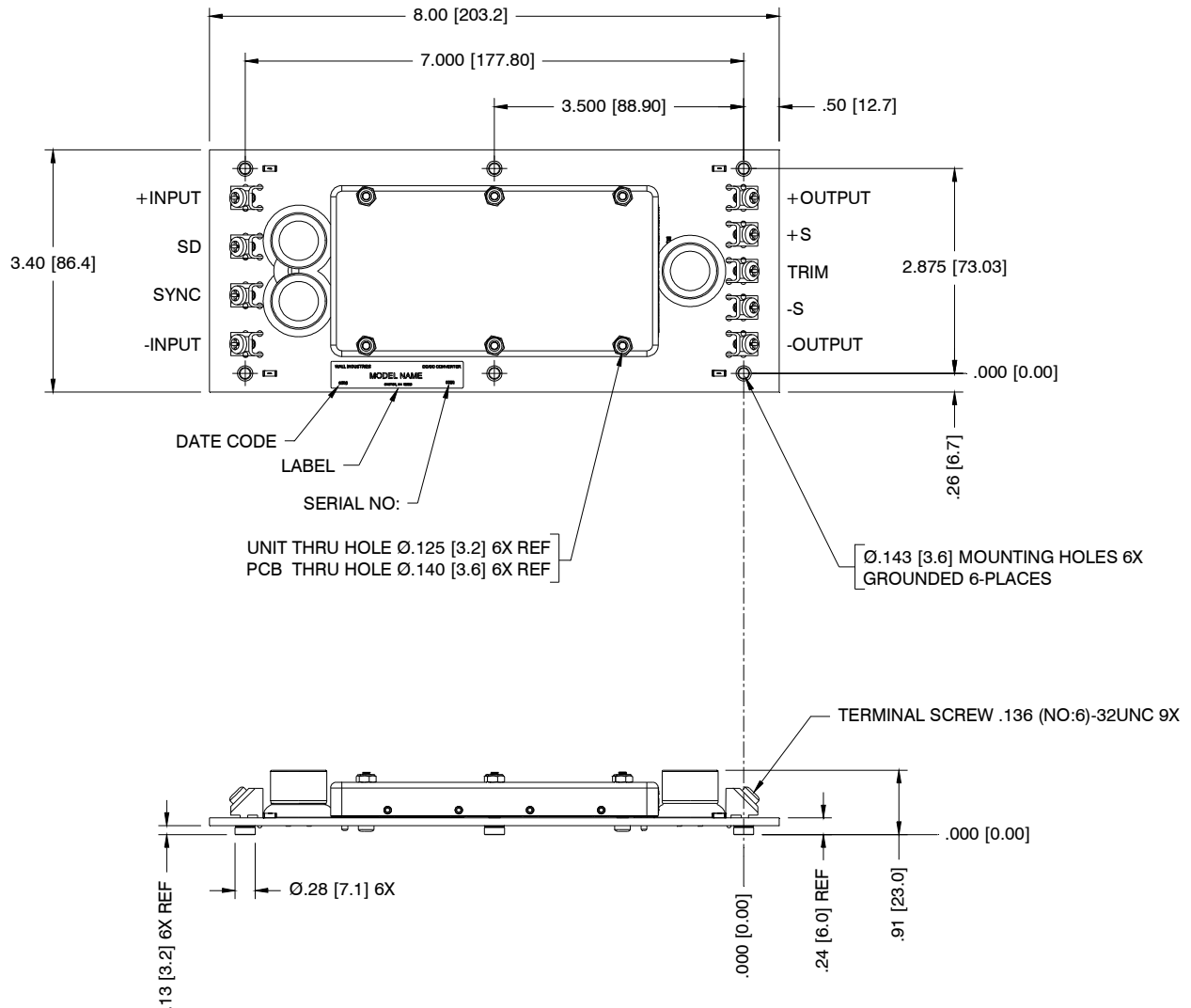
1. Pin to pin tolerance $\pm 0.01"$ [$\pm 0.3\text{mm}$]. Pin diameter tolerance $\pm 0.005"$ [$\pm 0.13\text{mm}$].
2. Case material of the DC/DC converter: 0.040" [1.02mm] thick, aluminum alloy 3003-0, Per: QQA 250/2.
3. Unit comes with either 3M x 0.5 threaded thru inserts for the chassis mount board or for Ø.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

