

FEATURES

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



DESCRIPTION

The FB series is a high-density full brick converter that incorporates 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 FB series delivers.

SPECIFICATIONS: FB Series

(All specifications apply @ 25°C ambient unless otherwise noted)

INPUT SPECIFICATIONS

Input Voltage Range	18 - 75VDC
Input Filter	1,000 μ F low ESR capacitor recommended
Reflected Ripple Current (nominal Vin and full load)	20mA
Remote ON/OFF	active high or active low
Input Current under Remote Off	1mA

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 (NL to FL)	$\pm 0.2\%$
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	1G Ω min.
Isolation Capacitance	0.01 μ F

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)

PHYSICAL SPECIFICATIONS

Weight	9.88oz (218g)
Dimensions (L x W x H)	4.6 x 2.4 x 0.50 in (117.0 x 61.0 x 12.7 mm)
Case Material	Aluminum alloy
Shielding	six-sided

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

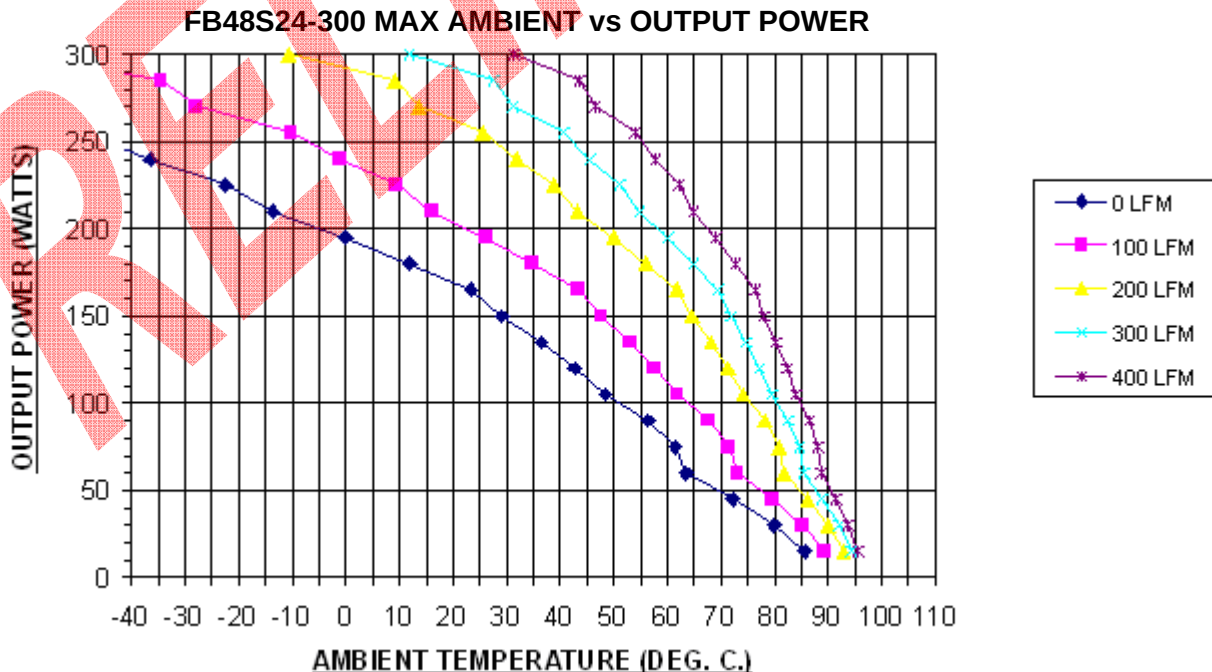
MODEL SELECTION TABLE

Model Number for Threaded Inserts	Model Number for Thru-Hole Inserts	Input Voltage Range	Output Voltage	Output Current	Output Power
FB48S5-300	FB48S5-300TH	48 VDC (18 - 75 VDC)	5 VDC	60A	300W
FB48S12-300	FB48S12-300TH		12 VDC	25A	300W
FB48S15-300	FB48S15-300TH		15 VDC	20A	300W
FB48S20-300	FB48S20-300TH		20 VDC	15A	300W
FB48S24-300	FB48S24-300TH		24 VDC	12.5A	300W
FB48S26-300	FB48S26-300TH		26 VDC	11.538A	300W
FB48S28-300	FB48S28-300TH		28 VDC	10.714A	300W
FB48S43-250	FB48S43-250TH		43 VDC	5.814A	250W
FB48S48-300	FB48S48-300TH		48VDC	6.25A	300W

NOTES

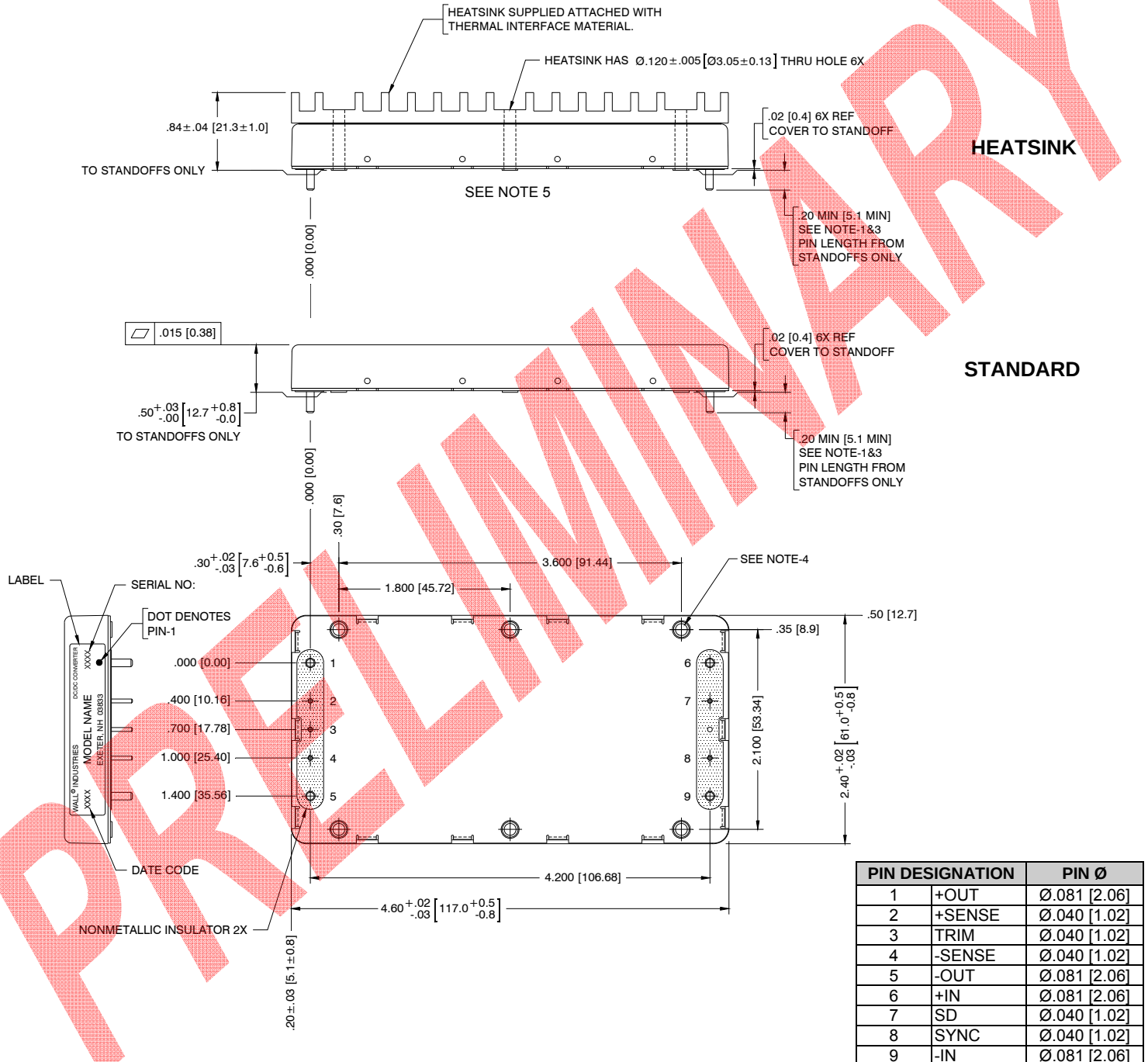
1. Pin to pin tolerance $\pm 0.01"$ [$\pm 0.3\text{mm}$]. Pin diameter tolerance $\pm 0.005"$ [$\pm 0.13\text{mm}$].
2. Case material: 0.040" [1.02mm] thick, aluminum alloy 3003-0, Per: QQA 250/2.
3. Unit comes with either 3M x 0.5 threaded thru inserts or for 0.125 thru-hole add "TH" suffix to the model part number. Ex: FB48S48-300TH.
4. For Heat sink add "HS" suffix to the model part number. Ex: FB48S48-300HS.
5. Active High Enable is standard; for Active Low Enable add "R" suffix to the model number. Ex: FB48S48-300R.
6. Chassis mount version also available. Please call factory for ordering details.

DERATING CURVE



MECHANICAL DRAWING

Unit: inches [mm]



NOTES:

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

TO ORDER:

- UNIT COMES WITH EITHER 3M x 0.5 THREADED THRU INSERTS OR FOR $\varnothing.125$ THRU-HOLE ADD: "TH" SUFFIX TO MODEL PART NUMBER.
EXAMPLE: FB48S48-300TH
- FOR HEAT SINK ADD: "HS" SUFFIX TO MODEL PART NUMBER. EXAMPLE: FB48S48-300HS.
- OPTIONAL CHASSIS MOUNT VERSION AVAILABLE.

OPTIONAL CHASSIS MOUNT VERSION *(Call factory for ordering details)*

Unit: inches [mm]

