DHFB750 SERIES

750 Watts Full Brick Type
2:1 High Input Voltage
Isolated DC - DC Converters

FEATURES

- Industry Full-Brick Package
- 3000Vac I/O Isolation / Regulated Outputs
- Fixed 200KHz Switching Frequency
- Over Voltage / Current / Temperature Protection
- Input Under Voltage Protection
- Remote On/Off & Single Wire Parallel

SPECIFICATIONS

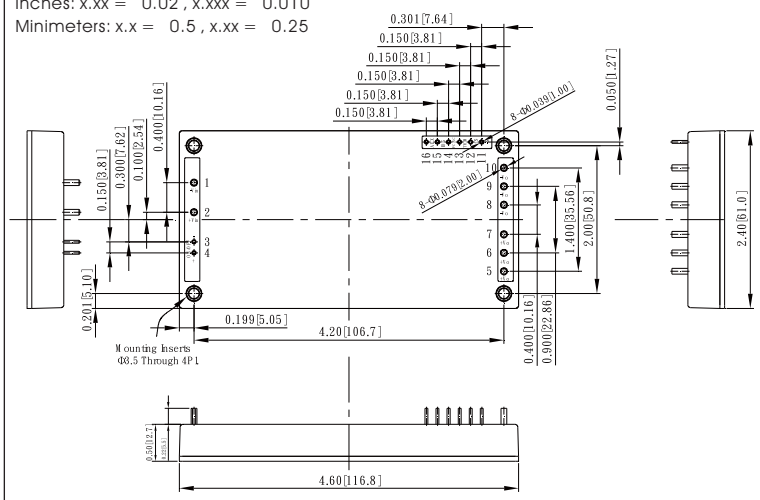
Input Voltage Range.....300V(Range 200-425V)
Under Voltage Lockout ..... power up: 195V / power down: 180V
Positive Logic Remote On/Off Logic .....See note
Input Filter ..... C Type
Voltage Accuracy.....±1% max
External Load Capacitance .....See Model Number Table
External Trim Adj. Range ..... 60~110%
Load Share Accuracy ..... ±10% at 50% to 100% Full Load
Auxiliary Output Voltage/Current ..... 10±3Vdc/20mA max.
R & N (20MHz BW) ..... 12/15V: 150mV RMS, 300mVpK-pK max
24/28V: 300mV RMS, 600mVpK-pK max
36V: 300mV RMS, 650mVpK-pK max
48V: 350mV RMS, 750mVpK-pK max
Temperature Coefficient.....± 0.03%/°C max
Short Circuit Protection.....Continuous
Line Regulation (High Line t Low Line).....± 0.2% max
Load Regulation (Full Load to Zero Load).....± 0.5% max
OVP Trip Range, % Vo Nom. ..... 115~140%
Current Limit .....105%~125% Nominal Output
Isolation Voltage ..... Input to Output 3000Vac
Input to Case 2500Vac
Output to Case 500Vac
Isolation Resistance.....10M Ω min
Operating Case Temperature ..... -40°C To+85°C
Storage Temperature Range.....-55°C To +105°C
Thermal Shutdown case Temperature ..... 95°C
Case Material.....Aluminum Baseplate w/plastic Case

Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	No Load Input Current	EFF. Typ. %	Capacitor Load Max.
DHFB750-C2	200-425	12	62.5	10mA	89	10000μF
DHFB750-C3	200-425	15	50.0	10mA	89	10000μF
DHFB750-C9	200-425	24	31.2	10mA	90	10000μF
DHFB750-C9C	200-425	28	26.7	10mA	90	10000μF
DHFB750-C9A	200-425	36	20.8	10mA	90	8000μF
DHFB750-C9B	200-425	48	15.6	10mA	91.0	8000μF
DHFB750-C2N	200-425	12	62.5	10mA	89	10000μF
DHFB750-C3N	200-425	15	50.0	10mA	89	10000μF
DHFB750-C9N	200-425	24	31.2	10mA	90	10000μF
DHFB750-C9CN	200-425	28	26.7	10mA	90	10000μF
DHFB750-C9AN	200-425	36	20.8	10mA	90	8000μF
DHFB750-C9BN	200-425	48	15.6	10mA	91	8000μF

Note:
1: All Specifications Typical at Nominal Line, Full Load, and 25°C. Unless Otherwise Noted.
2. The Output Terminal Required a Minimum Capacitor 1000uF to Maintain Specified Regulation.
3. Measure at Nominal Input Voltage 300 VDC.
4. Output Ripple & Noise Measured with 1μF Ceramic Capacitor & 1000μF Aluminum Capacitor Across Output
5. The Output Adjustment Circuit and Trim Equations Show as Figure 1 and Figure 2.
6. An External Input Capacitor 300μF for All Models Are Recommended to Reduce Input Ripple Voltage.
7. Remote ON/OFF Logic Compatibility.....Open collector Refer To -V Pin
Suffix = Blank, Positive Remote Logic.
Module ON..... >3.5Vdc to 75Vdc or Open circuit
Module OFF..... 0 to < 1.2Vdc
Suffix = N, Negative Remote Logic.
Module ON..... 0 to < 1.2Vdc
Module OFF..... >3.5Vdc to 75Vdc or Open circuit

MECHANICAL DRAWING (Unit: inch(mm))

Note :
All Dimensions in Inches [mm]
Tolerance
Inches: x.xx = 0.02 , x.xxx = 0.010
Minimeters: x.x = 0.5 , x.xx = 0.25



The output voltage can be determined by below equations:

$$Vf = \frac{1.24 \times \left(\frac{Rt \times 33}{Rt + 33}\right)}{7.68 + \frac{Rt \times 33}{Rt + 33}}$$

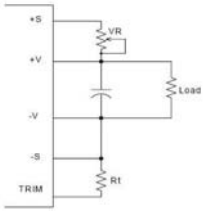
Vout = (Vo + VR) x Vf
Unit: KΩ
Vo: Nominal output voltage

Output voltage = TRIM
Terminal voltage * Nominal output voltage

Pin Connection

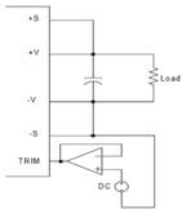
Pin Number	Connection
1	- V Input
2	+ V Input
3	- On / Off
4	+ On / Off
5~7	+ V Output
8~10	- V Output
11	- Sense
12	+ Sense
13	Trim
14	PC
15	IOG
16	AUX

Figure 1.



The schematic of output voltage adjusted by using external resistor and /or variable resistor.

Figure 2.



The schematic of output voltage adjusted by using external DC voltage