



Size: 5.08in x 3.86in x 1.57in

**FEATURES**

- Single, Dual, and Triple Outputs
- RoHS Compliant
- Output Voltage Adjustability
- Free Air Convection
- 2:1 Input Voltage Range
- High Reliability
- Built-in EMI Filter
- 38.4~47.5W Output Power
- Short Circuit and Over Load Protection
- 100% Full Load Burn-In Tested

**DESCRIPTION**

The DCHF40W series of DC/DC power converters offers from 38.4W to 47.5W of output power in a 5.08" x 3.86" x 1.57" enclosed case. This series has 2:1 input voltage ranges of 18-36VDC, 36-72VDC, and 72-144VDC. This series also has single, dual, and triple output models available. Some features include output adjustability, a built-in EMI filter, and short circuit and over load protection. All models are RoHS compliant.

**MODEL SELECTION TABLE**

Single Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Load Regulation	Output Power	Voltage Tolerance	Efficiency
DCHF40W-SD24-5	24 VDC (18-36VDC)	5VDC	8.0A	80mVp-p	0.5%	40W	±2%	75%
DCHF40W-SD24-12		12VDC	3.3A	120mVp-p	0.5%	39.6W	±1%	79%
DCHF40W-SD24-24		24VDC	1.6A	150mVp-p	0.5%	38.4W	±1%	84%
DCHF40W-SD48-5	48 VDC (36-72 VDC)	5VDC	8.0A	80mVp-p	0.5%	40W	±2%	77%
DCHF40W-SD48-12		12VDC	3.3A	120mVp-p	0.5%	39.6W	±1%	81%
DCHF40W-SD48-24		24VDC	1.6A	150mVp-p	0.5%	38.4W	±1%	85%
DCHF40W-SD110-5	110 VDC (72-144 VDC)	5VDC	8.0A	80mVp-p	0.5%	40W	±2%	77%
DCHF40W-SD110-12		12VDC	3.3A	120mVp-p	0.5%	39.6W	±1%	81%
DCHF40W-SD110-24		24VDC	1.6A	150mVp-p	0.5%	38.4W	±1%	85%

**MODEL SELECTION TABLE**

Dual Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
DCHF40W-DD24-A	24 VDC (18-36VDC)	V1 5VDC	0.5~4.0A	100mVp-p	44W	70%
		V2 12VDC	0~2.0A	150mVp-p		
DCHF40W-DD24-B	24 VDC (18-36VDC)	V1 15VDC	0.2~2.0A	150mVp-p	52.5W	70%
		V2 -15VDC	0~1.5A	150mVp-p		
DCHF40W-DD48-A	48 VDC (36-72 VDC)	V1 5VDC	0.5~4.0A	100mVp-p	44W	70%
		V2 12VDC	0~2.0A	150mVp-p		
DCHF40W-DD48-B	48 VDC (36-72 VDC)	V1 15VDC	0.2~2.0A	150mVp-p	52.5W	70%
		V2 -15VDC	0~1.5A	150mVp-p		
DCHF40W-DD110-A	110 VDC (72-144 VDC)	V1 5VDC	0.5~4.0A	100mVp-p	44W	70%
		V2 12VDC	0~2.0A	150mVp-p		
DCHF40W-DD110-B	110 VDC (72-144 VDC)	V1 15VDC	0.2~2.0A	150mVp-p	52.5W	70%
		V2 -15VDC	0~1.5A	150mVp-p		

**MODEL SELECTION TABLE**

Triple Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
DCHF40W-TD24-A	24 VDC (18-36VDC)	V1 5VDC	0.5~3.5A	100mVp-p	47.5W	67%
		V2 12VDC	0.1~1.5A	150mVp-p		
		V3 -12VDC	0.1~1.0A	150mVp-p		
DCHF40W-TD48-A	48 VDC (36-72 VDC)	V1 5VDC	0.5~3.5A	100mVp-p	47.5W	67%
		V2 12VDC	0.1~1.5A	150mVp-p		
		V3 -12VDC	0.1~1.0A	150mVp-p		
DCHF40W-TD110-A	110 VDC (72-144 VDC)	V1 5VDC	0.5~3.5A	100mVp-p	47.5W	67%
		V2 12VDC	0.1~1.5A	150mVp-p		
		V3 -12VDC	0.1~1.0A	150mVp-p		

**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.

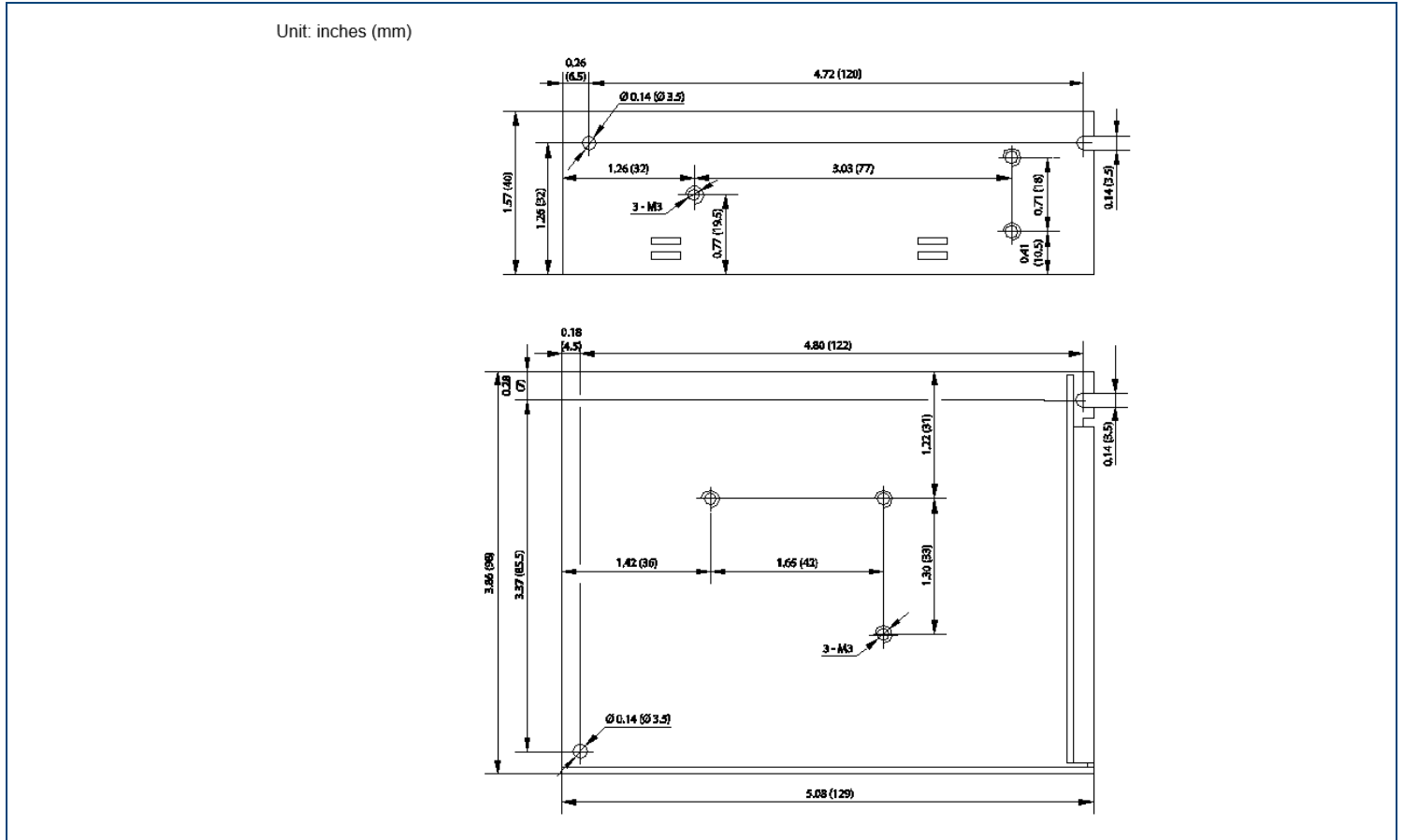
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage Range	24VDC Nominal Input Models	18		36	VDC
	48VDC Nominal Input Models	36		72	
	110VDC Nominal Input Models	72		144	
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage			See Table		
Output Voltage Adjustment Range			±10		%
Line Regulation <sup>(1)</sup>	Full Load		±5		%
Load Regulation <sup>(2)</sup>			See Table		
Rise Time	@Full Load		50		ms
Output Current			See Table		
Output Power			See Table		
Ripple & Noise (20MHz bandwidth) <sup>(3)</sup>			See Table		
<b>PROTECTION</b>					
Short Circuit Protection	Hiccup mode, auto recovery				
Over Load Protection	Hiccup mode, auto recovery	105		150	%
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature		-20		50	°C
Storage Temperature		-20		85	°C
Operating Humidity	Non-Condensing	20		93	%RH
Storage Humidity	Non-Condensing	20		95	%RH
Vibration	2G 10min/1cycle, 30min each along X,Y,Z axes				
Cooling			Convection		
MTBF			>100,000		Hrs.
<b>GENERAL SPECIFICATIONS</b>					
Efficiency			See Table		
Withstand Voltage	I/P-O/P		1.5KVAC/1min		
	I/P-PE		1.5KVAC/1min		
	O/P-PE		1.5KVAC/1min		
Isolation Resistance	@500VDC		>100		MΩ
<b>PHYSICAL SPECIFICATIONS</b>					
Weight			11.64oz (330g)		
Dimensions (L x W x H)			5.08in x 3.86in x 1.57in (129mm x 98mm x 40mm)		
Connection			5P/9.5mm screw terminal block		
Packing			0.34kgs, 42pcs/16.5kgs/0.035CBM per carton		
<b>SAFETY &amp; EMC CHARACTERISTICS</b>					
Safety Standards		Design refers to	GB4943, UL60950 <sup>(5)</sup> , EN60950		
EMC Standards <sup>(4)</sup>		Design refers to	GB9254, EN55022 Class A, EN61000		

**NOTES**

- (1) Line Regulation is measured from low line to high line at rated load.
- (2) Load Regulation is measured from 0% to 100% of rated load for single output models. For multi-output models, it is measured from 20% to 100% of rated load, and other output at 60% rated load.
- (3) Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.
- (4) The power supply is regarded as a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
- (5) This product is Listed to applicable standards and requirements by UL.

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

MECHANICAL DRAWINGS



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:

Phone: ☎(603)778-2300  
 Toll Free: ☎(888)597-9255  
 Fax: ☎(603)778-9797  
 E-mail: [sales@wallindustries.com](mailto:sales@wallindustries.com)  
 Web: [www.wallindustries.com](http://www.wallindustries.com)  
 Address: 37 Industrial Drive  
 Exeter, NH 03833

©2019 Wall Industries, Inc. Specifications subject to change without notice. Wall Industries is not responsible for typographical errors. The information contained herein is for informational purposes only. This information is provided by Wall Industries and we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this document for any purpose. All product and manufacturer names are trademarks or registered trademarks of their respective companies.