



Size: 8.46 x 4.53 x 1.97in (215 x 115 x 50mm)

FEATURES

- 2:1 Input Voltage Range
- High Reliability
- $\pm 10\%$ Voltage Adjustment Range
- Forced Air Cooling by Built-In Fan
- 100% Full Load Burn-In Test
- RoHS Compliant
- Over Load, Over Voltage, Over Temperature, and Short Circuit Protection
- Design Refers to GB4943, UL60950, and EN60950 Safety Standards

DESCRIPTION

The DCHF300W series of DC/DC power converters offers 300W output power in an 8.46 x 4.53 x 1.97 enclosed case. This series has 2:1 input voltage ranges of 18~36VDC, 36~72VDC and 72~144VDC and 12VDC, 24VDC, and 48VDC single outputs available. Some features include $\pm 10\%$ output adjustability and built-in fan speed control. These supplies are RoHS compliant and are protected against short circuit, over voltage, over current, and over temperature conditions. The design refers to GB4943, UL60950, and EN60950 safety standards.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Max. Ripple & Noise	Rated Power	Efficiency
DCHF300W-SD24-12	24VDC (18~36VDC)	12V	25A	150mVp-p	300W	83%
DCHF300W-SD24-24		24V	12.5A	150mVp-p	300W	83%
DCHF300W-SD24-48		48V	6.3A	240mVp-p	302.4W	86%
DCHF300W-SD48-12	48VDC (36~72VDC)	12V	25A	150mVp-p	300W	84%
DCHF300W-SD48-24		24V	12.5A	150mVp-p	300W	86%
DCHF300W-SD48-48		48V	6.3A	240mVp-p	302.4W	85%
DCHF300W-SD110-12	110VDC (72~144VDC)	12V	25A	150mVp-p	300W	84%
DCHF300W-SD110-24		24V	12.5A	150mVp-p	300W	88%
DCHF300W-SD110-48		48V	6.3A	240mVp-p	302.4W	89%

SPECIFICATIONS

All specifications are based on 25°C Ambient Temperature, Rated Input Voltage, and Rated Load unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	24VDC Nominal Input Models	18	24	36	VDC
	48VDC Nominal Input Models	36	48	72	
	110VDC Nominal Input Models	72	110	144	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Adjustment Range			± 10		%
Line Regulation ⁽¹⁾	Full Load		± 0.5		%
Load Regulation ⁽²⁾			0.5		%
Voltage Tolerance			± 1		%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise ⁽³⁾		See Table			
Rise Time	@Full Load		50		mS
PROTECTION					
Short Circuit Protection	Hiccup Mode	Automatic Recovery			
Over Load Protection	Hiccup Mode, Automatic Recovery	105		150	%
Over Voltage Protection	Shut Off, Re-power on to recover	115		150	%
Over Temperature Protection		Yes			
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature		-20		50	°C
Storage Temperature		-20		85	°C
Operating Humidity	Non-Condensing	20		93	%RH
Storage Humidity	Non-Condensing	20		95	%RH
Cooling	Full speed when power is on	By Fan			
Vibration	10~150Hz 2G 10min/1cycle, 30min each along X, Y, Z axes				
MTBF		100,000			Hours

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SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
GENERAL SPECIFICATIONS					
Efficiency			See Table		
Withstand Voltage	Input to Output		1.5KVAC/1min		
	Input – PE		1.5KVAC/1min		
	Output – PE		0.5KVAC/1min		
Isolation Resistance	@500VDC	100			MΩ
PHYSICAL SPECIFICATIONS					
Weight			2.89lbs (1.3125kg)		
Dimensions (L x W x H)			8.46in x 4.53in x 1.97in (215mm x 115mm x 50mm)		
Connection			9P/9.5mm screw terminal block		
Packing			16pcs/21kgs/0.045CBM per carton		
SAFETY CHARACTERISTICS					
Safety Standards	Design Refers to		GB4943 UL60950 ⁽⁵⁾ EN60950		
EMC Standards	Design Refers to		GB9254 EN55022 EN61000		Class A

NOTES

- Line regulation is measured from low line to high line at rated load.
- Load regulation is measured from 0% to 100% of rated load for single output models.
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- This power supply is regarded as a component that will be installed into the final equipment. Final equipment must be re-confirmed that it still meets EMC directives.
- This product is Listed to applicable standards and requirements by UL

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

MECHANICAL DRAWINGS

The mechanical drawings show the top and side views of the power converter. The top view indicates a total length of 215mm and a width of 50mm. Key dimensions include a 32.5mm offset for the terminal block and a 4-M4 screw hole. The side view shows a height of 115mm and a terminal block height of 13mm. A 4-M4 screw hole is also indicated on the side view.

Pin No.	Assignment
1, 2, 3	DC OUTPUT +V
4, 5, 6	DC OUTPUT -V
7	PE
8	DC INPUT+V
9	DC INPUT -V

Length of assembly screw: max. 6mm

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.

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