



Wall Industries, Inc.

DCHF30W SERIES

2:1 Input Voltage Range
Single, Dual, and Triple Outputs
30~41.5 Watts Output Power
DC/DC Chassis Mount Power Converters



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
- 30~41.5W Output Power
- Dimensions: 5.08 x 3.86 x 1.57 Inches
- Short Circuit and Over Load Protected

DESCRIPTION

The DCHF30W series of DC/DC power converters offers from 30W to 41.5W of output power in a 5.08" x 3.86" x 1.57" enclosed case. This series has 2:1 input voltage ranges of 10-18VDC, 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 in this series are RoHS compliant.

SPECIFICATIONS: DCHF30W Series						
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	Nom	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage Range	12VDC nominal input models		10	12	18	VDC
	24VDC nominal input models		18	24	36	
	48VDC nominal input models		36	48	72	
	110VDC nominal input models		72	110	144	
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Output Voltage Adjustment Range	Single Output Models		-10		+10	%
	Multi-Output Models: V ₁		-5		+5	
Line Regulation	Full load		≤ -0.5		≤ +0.5	%
Load Regulation	V ₁		≤ -0.5		≤ +0.5	%
	V _{2,3} (with regulators)		≤ -3		≤ +3	
	V _{2,3} (without regulators)		≤ -6		≤ +6	
Output Current			See Table			
Output Power			See Table			
Ripple & Noise			See Table			
PROTECTION						
Over Load Protection			110		150	%
Short Circuit Protection			Yes			
GENERAL SPECIFICATIONS						
Efficiency			See Table			
Withstand Voltage	Input to Output	All for 1 minute	1000			VDC
	Input to FG		1000			
	Output to FG		500			
Isolation Resistance	At 500VDC		> 100			MΩ
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature			-10		+50	°C
Operating Humidity (non-condensing)			20		90	% RH
Storage Temperature			-20		+85	°C
Storage Humidity (non-condensing)			20		95	% RH
Cooling Method			Free air convection			
PHYSICAL SPECIFICATIONS						
Dimensions (L x W x H)			5.08 x 3.86 x 1.57 inches (129 x 98 x 40 mm)			
Weight			11.64oz (330g)			
SAFETY & EMC CHARACTERISTICS						
Safety Standards			Design refer to LVD			
EMC Standards			Design refer to EN55022, EN61000-4			

MODEL SELECTION TABLES

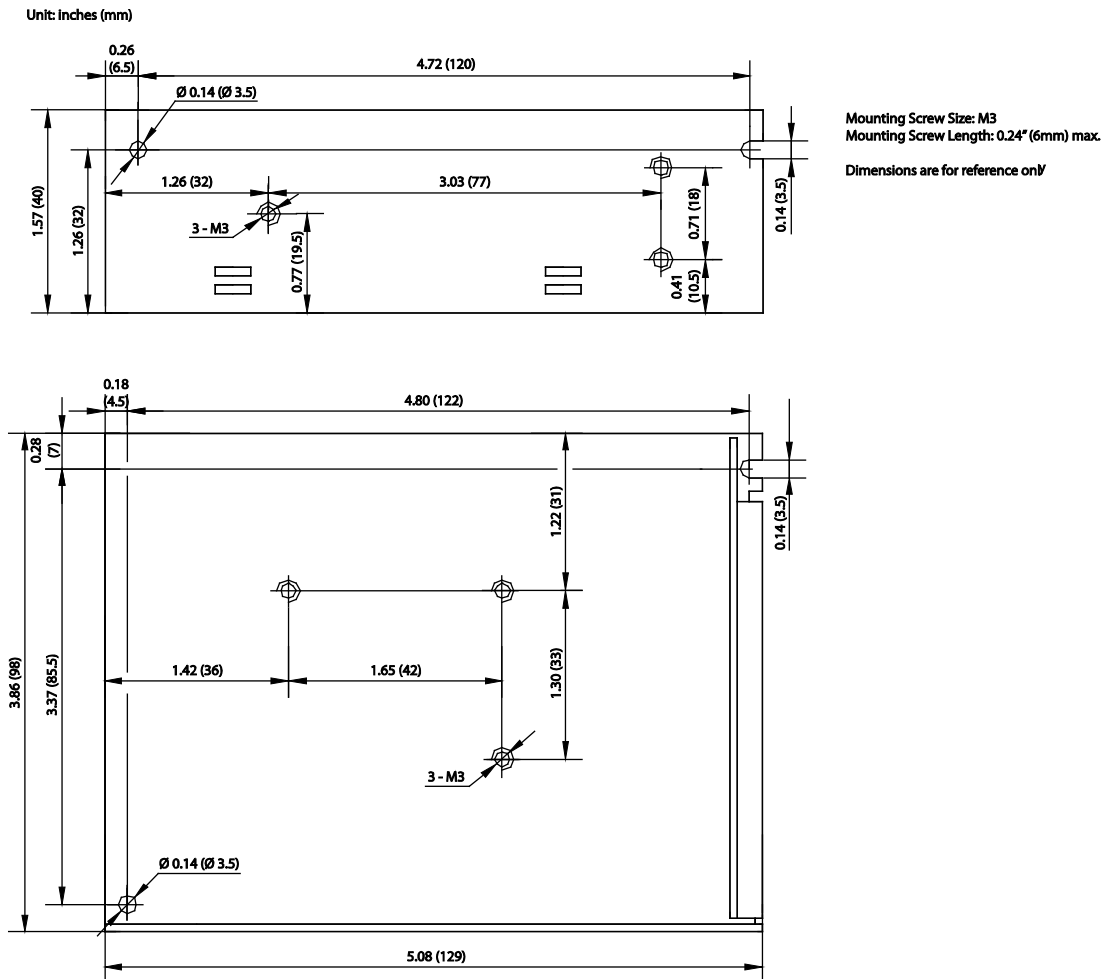
SINGLE OUTPUT MODELS						
Model	Input Voltage	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
DCHF30W-SD12-5	12 VDC (10 – 18 VDC)	5 VDC	6.0 A	80mVp-p	30W	70%
DCHF30W-SD12-12		12 VDC	2.5 A	120mVp-p	30W	72%
DCHF30W-SD12-24		24 VDC	1.3 A	150mVp-p	31.2W	74%
DCHF30W-SD24-5	24 VDC (18 – 36 VDC)	5 VDC	6.0 A	80mVp-p	30W	70%
DCHF30W-SD24-12		12 VDC	2.5 A	120mVp-p	30W	72%
DCHF30W-SD24-24		24 VDC	1.3 A	150mVp-p	31.2W	74%
DCHF30W-SD48-5	48 VDC (36 – 72 VDC)	5 VDC	6.0 A	80mVp-p	30W	70%
DCHF30W-SD48-12		12 VDC	2.5 A	120mVp-p	30W	72%
DCHF30W-SD48-24		24 VDC	1.3 A	150mVp-p	31.2W	74%
DCHF30W-SD110-5	110 VDC (72 – 144 VDC)	5 VDC	6.0 A	80mVp-p	30W	70%
DCHF30W-SD110-12		12 VDC	2.5 A	120mVp-p	30W	72%
DCHF30W-SD110-24		24 VDC	1.3 A	150mVp-p	31.2W	74%

DUAL OUTPUT MODELS							
Model		Input Voltage	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
DCHF30W-DD24-A	V1	24 VDC (18 – 36 VDC)	5 VDC	0.5 ~ 4.0 A	100mVp-p	38W	70%
	V2		12 VDC	0 ~ 1.5 A	150mVp-p		
DCHF30W-DD24-B	V1		15 VDC	0.2 ~ 1.5 A	150mVp-p	37.5W	70%
	V2		-15 VDC	0 ~ 1.0 A	150mVp-p		
DCHF30W-DD48-A	V1	48 VDC (36 – 72 VDC)	5 VDC	0.5 ~ 4.0 A	100mVp-p	38W	70%
	V2		12 VDC	0 ~ 1.5 A	150mVp-p		
DCHF30W-DD48-B	V1		15 VDC	0.2 ~ 1.5 A	150mVp-p	37.5W	70%
	V2		-15 VDC	0 ~ 1.0 A	150mVp-p		
DCHF30W-DD110-A	V1	110 VDC (72 – 144 VDC)	5 VDC	0.5 ~ 4.0 A	100mVp-p	38W	70%
	V2		12 VDC	0 ~ 1.5 A	150mVp-p		
DCHF30W-DD110-B	V1		15 VDC	0.2 ~ 1.5 A	150mVp-p	37.5W	70%
	V2		-15 VDC	0 ~ 1.0 A	150mVp-p		

TRIPLE OUTPUT MODELS							
Model		Input Voltage	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
DCHF30W-TD24-A	V1	24 VDC (18 – 36 VDC)	5 VDC	0.5 ~ 3.5 A	100mVp-p	41.5W	67%
	V2		12 VDC	0.1 ~ 1.2 A	150mVp-p		
	V3		-12 VDC	0.1 ~ 0.8 A	150mVp-p		
DCHF30W-TD48-A	V1	48 VDC (36 – 72 VDC)	5 VDC	0.5 ~ 3.5 A	100mVp-p	41.5W	67%
	V2		12 VDC	0.1 ~ 1.2 A	150mVp-p		
	V3		-12 VDC	0.1 ~ 0.8 A	150mVp-p		
DCHF30W-TD110-A	V1	110 VDC (72 – 144 VDC)	5 VDC	0.5 ~ 3.5 A	100mVp-p	41.5W	67%
	V2		12 VDC	0.1 ~ 1.2 A	150mVp-p		
	V3		-12 VDC	0.1 ~ 0.8 A	150mVp-p		

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

MECHANICAL DRAWING



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 ISO9001-2008 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:

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