



Size: 2.0 x 1.0 x 0.4 inches 50.8 x 25.4 x 10.2 mm

APPLICATIONS

- Battery Operated Equipment
- Telecom
- Industry Control Systems
- Wireless Networks
- Measurement Equipment

FEATURES

- Single and Dual Outputs
- 12 Watts Output Power
- Remote On/Off Control
- 3000VDC I/O Isolation
- High Efficiency up to 87%
- Free Air Convection

- 6 Pin DIP Package with Industry-Standard Footprint
- 2:1 Wide Input Voltage Ranges
- Shielded Metal Case with Insulated Base-plate
- -40°C to +85°C Operating Temperature Range
- Industry Standard 2.0" x 1.0" x 0.4" DIP Package
- Lead Free Design, RoHS Compliant
 Short Circuit, Over Voltage, & Over Load Protection
 - Custom Designs Available

DESCRIPTION

The DCHUB12H series of isolated DC/DC power converters provides 12 Watts of continuous output power in a 2.0" x 1.0" x 0.4" shielded metal case. This series consists of single and dual output models with 2:1 input voltage ranges of 9-18VDC, 18-36VDC, and 36~75VDC. Some features include high efficiency up to 87%, 3000VDC I/O isolation, remote on/off control, and -40°C to +85°C operating temperature range. The DCHUB12H series is RoHS compliant and has short circuit, over load, and over voltage protection. These converters are best suited for use in battery operated equipment, measurement equipment, telecom, wireless networks, industry control systems, and anywhere where isolated, tightly regulated voltages and compact size are required.

MODEL SELECTION TABLE										
	SINGLE OUTPUT MODELS									
Model Number	Input Voltage	Output Voltage	Output Min Load	Current Full Load	Input (No Load	Current Full Load	Output Power	Efficiency	Maximum Capacitive Load	
DCHUB12-12S33H	HUB12-12S33H		0mA	3500mA	10mA	1318mA	11.55W	77%	′% 4700μF	
DCHUB12-12S05H	12 VDC	5 VDC	0mA	2400mA	20mA	1282mA	12W	82%	3300µF	
DCHUB12-12S12H	(9 – 18 VDC)	12 VDC	0mA	1000mA	22mA	1220mA	12W	86%	680µF	
DCHUB12-12S15H	_	15 VDC	0mA	800mA	21mA	1235mA	12W	85%	330µF	
DCHUB12-24S33H		3.3 VDC	0mA	3500mA	11mA	659mA	11.55W	77%	4700µF	
DCHUB12-24S05H	24 VDC	5 VDC	0mA	2400mA	10mA	641mA	12W	82%	3300µF	
DCHUB12-24S12H	(18 – 36 VDC)	12 VDC	0mA	1000mA	13mA	602mA	12W	87%	680µF	
DCHUB12-24S15H	VD0)	15 VDC	0mA	800mA	12mA	610mA	12W	86%	330µF	
DCHUB12-48S33H	48 VDC	3.3 VDC	0mA	3500mA	3mA	325mA	11.55W	78%	3300µF	
DCHUB12-48S05H		5 VDC	0mA	2400mA	6mA	321mA	12W	82%	1680µF	
DCHUB12-48S12H	(36 – 75 VDC)	12 VDC	0mA	1000mA	7mA	301mA	12W	87%	220µF	
DCHUB12-48S15H	VD0)	15 VDC	0mA	800mA	6mA	305mA	12W	86%	147µF	
			DUA		MODELS					
Model Number	Input Voltage	Output Voltage	Output Current		Input Current		Output	Efficiency	Maximum	
			Min Load	Full Load	No Load	Full Load	Power	Enclency	Capacitive Load	
DCHUB12-12D05H	12 VDC	±5 VDC	0mA	±1200mA	19mA	1282mA	12W	82%	±1000µF	
DCHUB12-12D12H	(9 – 18 VDC)	±12 VDC	0mA	±500mA	27mA	1220mA	12W	86%	±220µF	
DCHUB12-12D15H	(3 10 400)	±15 VDC	0mA	±400mA	31mA	1235mA	12W	85%	±200µF	
DCHUB12-24D05H	24 VDC (18 – 36	±5 VDC	0mA	±1200mA	10mA	633mA	12W	83%	±1000µF	
DCHUB12-24D12H		±12 VDC	0mA	±500mA	15mA	602mA	12W	87%	±147µF	
DCHUB12-24D15H	VDC)	±15 VDC	0mA	±400mA	17mA	610mA	12W	86%	±133µF	
DCHUB12-48D05H	48 VDC	±5 VDC	0mA	±1200mA	6mA	316mA	12W	83%	±680µF	
DCHUB12-48D12H	(36 – 75	±12 VDC	0mA	±500mA	8mA	301mA	12W	87%	±68µF	
DCHUB12-48D15H	CHUB12-48D15H VDC)		0mA	±400mA	9mA	305mA	12W	86%	±100µF	

5/17/2019

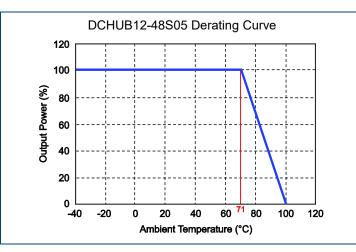
Wall Industries, Inc. • Tel: 603-778-2300 • Toll Free: 888-597-9255 • website: www.wallindustries.com • e-mail: sales@wallindustries.com

SPECIFICATION TEST CONDITIONS Min Nom Max Unit INPUT SPECIFICATIONS 12 VDC nominal input models 9 12 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 24 18 25 100 mAp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 11 11		e reserve the right to change specifications based on technological ac	lvances.			
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HeyDC nominal input models 36 46 75 Input Sige Voltage (100ms max) 24VDC nominal input models 25 50 VDC Input Sige Voltage (100ms max) 24VDC nominal input models 20 100 Noput Released Relea	Input Voltage Range	24VDC nominal input models	18	24	36	VDC
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Ripple & Noise 20MHz bandwidth Image: Market of the sector of the secto		Unbalanced load 25% to full load	-5		+5	
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PROTECTION 3.3VDC output models 5VDC output models 12VDC output models 15VDC output models 15VDC output models Zener Diode Clamp 6.2 15 18 3.9 6.2 15 18 Short Circuit Protection % of full load at nominal input Continuous, automatic recovery Over Load Protection % of full load at nominal input 150 Short Circuit Protection % of full load at nominal input See Table Isolation Voltage (Input to Output) Input to Output 3000 VDC Isolation Resistance (Input to Output) Input to Output 3000 FFE Switching Frequency 500VDC 1 GΩ ENVIRONMENTAL SPECIFICATIONS 200 KHz Operating Temperature With derating (see derating curve) -40 +85 °C Maximum Case Surface Temperature Vith derating (see derating curve) -55 +105 °C Relative Humidity 5 95 % Ri Cooling Free air convection PHYSICAL SPECIFICATIONS 7.98 1.980,000 hours 1.980,000 hours 1.980,000 hours PHYSICAL SPECIFICATIONS 2.0 × 1.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0 × 0.0	Transient Response Settling Time	50% load step change		2000		μs
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Potting Material Silicon rubber (UL94V-0) Weight 1.06oz (30g) 2.0 × 1.0 × 0.4 inches	Case Material			Nickel-coa	ated copper	•
Potting Material Silicon rubber (UL94V-0) Weight 1.06oz (30g) 2.0 × 1.0 × 0.4 inches	Base Material		No	n-conducti	ve black pla	astic
Weight 1.06oz (30g)	Potting Material					
	Weight					
	Dimensions (L x W x H)					

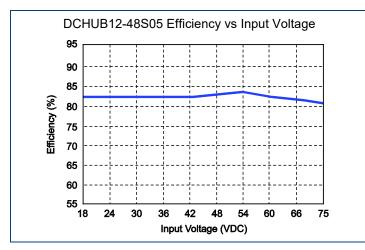
*Due to advances in technology, specifications subject to change without notice.



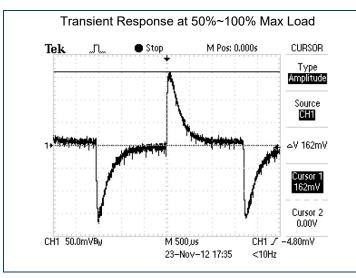
DERATING-

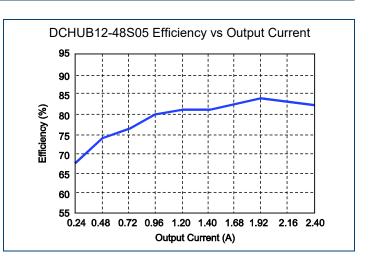


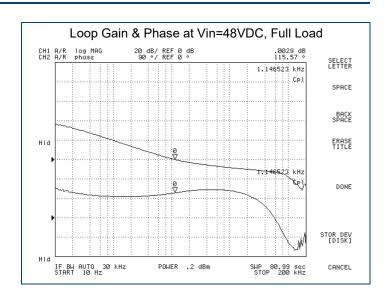
EFFICIENCY-



CHARACTERISTICS -





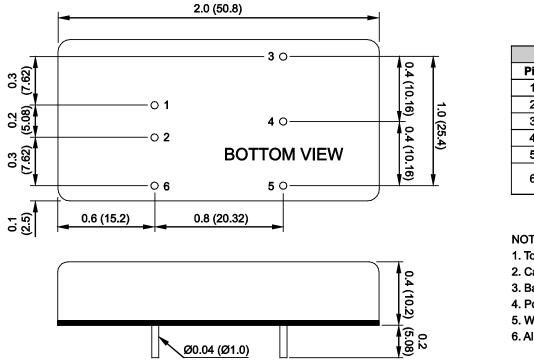




Rev B

MECHANICAL DRAWING





PIN CONNECTIONS					
Pin	Single	Dual			
1	+Vin	+Vin			
2	-Vin	-Vin			
3	+Vout	+Vout			
4	No Pin	Common			
5	-Vout	-Vout			
6	Remote On/Off (Optional)	Remote On/Off (Optional)			

NOTES

1. Tolerance: ±0.02 (±0.5)

2. Case Material: nickel-coated copper

3. Base Material: non-conductive black plastic

4. Potting Material: silicon rubber (UL94V-0)

5. Weight: 1.06oz (30g)

6. All dimensions are for reference only

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:



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