



Size: 4.76in x 3.79in x 1.44in
(120.9mm x 96.2mm x 36.5mm)

FEATURES

- Wide Operating Voltage Range of 60-118VDC
- C.C. Mode & C.V. Mode
- Constant Current: 12V
- Constant Voltage: 14V
- Built-In ORing Diode
- All Units Pass Burn-In Test at Full Load
- Output Short Circuit, Over Voltage, Over Load, and Over Temperature Protection
- Output Reverse Polarity Protection
- RoHS2 Compliant
- IP67 Waterproof Rating
- Protection Class II

APPLICATIONS

- Outdoor Installations
- EV

DESCRIPTION

The DCVK168 series of DC/DC converters offers 168 watts of output power in a 4.76" x 3.79" x 1.44" package. This series has a wide operating voltage of 60-118VDC as well as constant current of 12V and constant voltage of 14V. This series also offers protection class II and RoHS2 compliance. With its IP67 waterproof rating, built in ORing diode, high efficiency, and high wattage the DCVK168 is ideal for EV and outdoor applications.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Setting Voltage Range ⁽¹⁾	Current	Enable		Ripple & Noise	Output Power
		DC Voltage	I _{max}	DC Voltage	I _{min}		
DCVK168-14S	60-118VDC	14Vo	12A	5~16VDC	1.25mA	200mVp-p	168W

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.

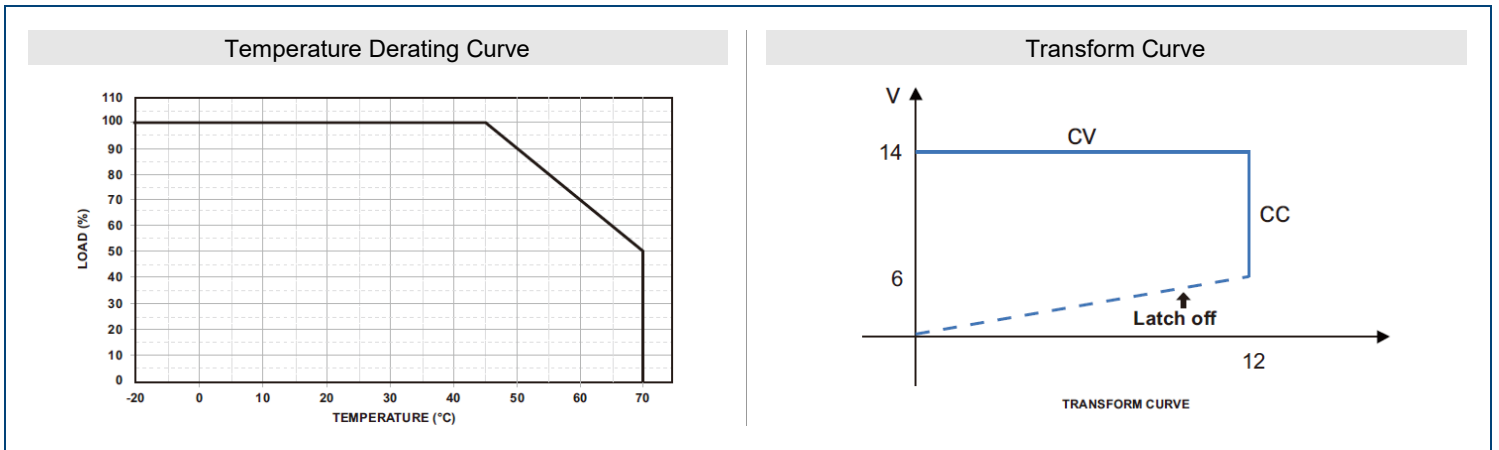
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range		60		118	VDC
Input Current	Low Line, Full Load, Vin=60VDC		3.5		A
	High Line, Full Load, Vin=118VDC		3.1		
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation	Full Load, Vin=70VDC	0.5		1	%
Load Regulation	Vin=100VDC, 10~90% Load Change at Condition			5	%
Total Regulation			±5		%
Output Power				168	W
Output Current		See Table			
Ripple & Noise		See Table			
Temperature Coefficient	Full Load, Vin=70~110VDC			±0.04	%/°C
PROTECTION					
Short Circuit Protection				Latch	
Over Load Protection				Yes	
Over Voltage Protection				Yes	
Over Temperature Protection				Yes	
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derate linearly from 100% load at 45°C to 50% at 70°C	-20		70	°C
Storage Temperature	10~95%RH	-40		85	°C
Operating Humidity	Non-Condensing	0		95	%RH
Storage Humidity		0		95	%RH
MTBF	Operating temperature @Vin=100VDC/Io=7A@25°C, per MIL-HDBK-217F	100,000			H
GENERAL SPECIFICATIONS					
Typ. Efficiency	Full Load, Vin=110VDC		88		%
Dielectric Withstanding Voltage	Primary to Secondary			1500	VAC
PHYSICAL SPECIFICATIONS					
Weight		Approx. 1.68lbs (0.76kg)			
Dimensions (L x W x H)		4.76in x 3.79in x 1.44in (120.9mm x 96.2mm x 36.5mm)			
Cooling		Free Air Convection			
Waterproof Rating ⁽²⁾		IP67			
SAFETY CHARACTERISTICS					
EMC		Meets UN R10			Class B
Electro Static Discharge	Air Discharge, ISO10605			15	kV
	Contact Discharge, ISO10605			20	

NOTES

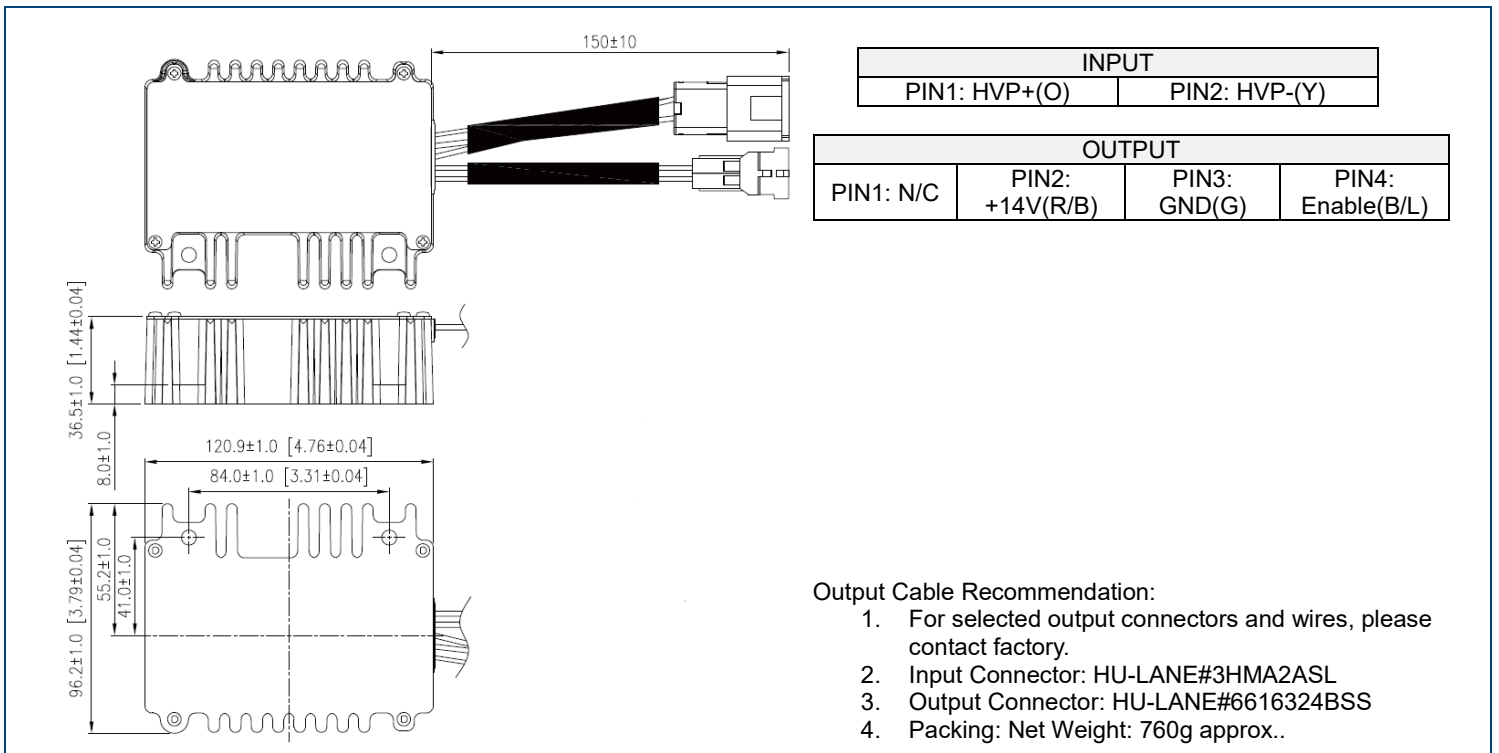
1. Factory setting, cannot be adjusted.
2. It is normal for a small amount of water to run in, but product can still operate normally.
3. Output can provide up to peak load when the power supply starts up. Continually staying in ore than the rated load is not allowed.
4. At factory, in 60% rated load conditions, each output is checked to be within voltage accuracy.
5. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
6. Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
7. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz (measured at output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor).
8. Efficiency is measured at rated load and nominal line.

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

CHARACHTERISTIC CURVES



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: 2015 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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