

Features

- Support Customized Output Current
- Constant Voltage Output
- High Efficiency (Up to 90%)
- IP54
- All-Around Protection: SCP, and Anti-reverse Protection
- Non Isolated and Share the same Ground



Description

The *DHV-003S012SS* operates from a 14~ 60 Vdc input range. It is designed to be highly efficient and reliable. Features include short circuit, anti-reverse and over load protections.

Model List

Output Current	Input Voltage Range	Output Voltage	Max. Output Power	Efficiency (1)	Model Number
200 mA	14~ 60 Vdc	12 V	2.4 W	90%	DHV-003S012SS

Note: (1) Measured in 14Vdc input at full load.

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage Range	14 Vdc	-	60 Vdc	
Input DC Current	-	-	0.2 A	Measured at full load

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage	-	12 V	-	
Output Voltage Tolerance	-5%	-	5%	
Output Current Range	0 A	-	0.2 A	
Output Voltage Ripple			480 mV	Measured at full load
Line Regulation	-	-	±5%	
Load Regulation	-	-	±5%	
Turn-on Delay Time	-	0.5 s	1.0 s	Measured at @14 Vdc input

Note: All specifications are typical at 25 °C unless otherwise stated.

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Current Protection	-	-	1200mA	Measured at @14 Vdc input
Short Circuit Protection	Hiccup. The power supply shall be self-recovery when the fault condition is removed.			

General Specifications

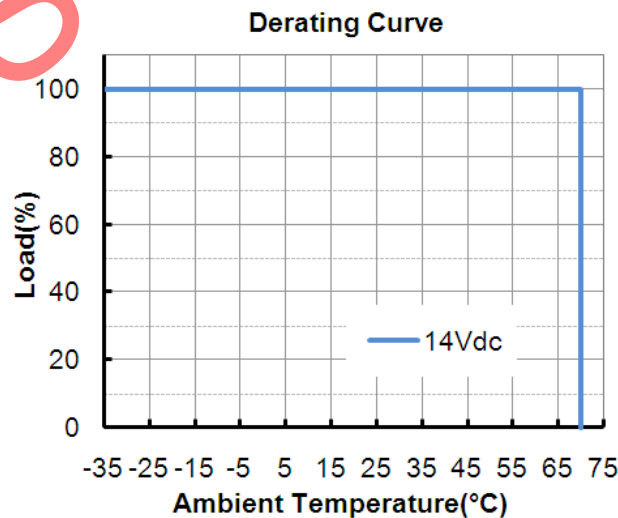
Parameter	Min.	Typ.	Max.	Notes
Efficiency	84%	87%	-	Measured at full load @30 Vdc
No Load Power Dissipation	-	-	0.1 W	
MTBF	-	1,778,000 Hours	-	Measured at 60Vdc input, 100%load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	-	119,300 Hours	-	Measured at 60Vdc input, 100%load and 60°C Case temperature ; See life time vs. Tc curve for the details
Dimensions Inches (LxW x H) Millimeters (LxW x H)	1.06x 0.83 x 0.71 27x 21x18			
Net Weight		20 g		

Note: All specifications are typical at 25 °C unless otherwise stated.

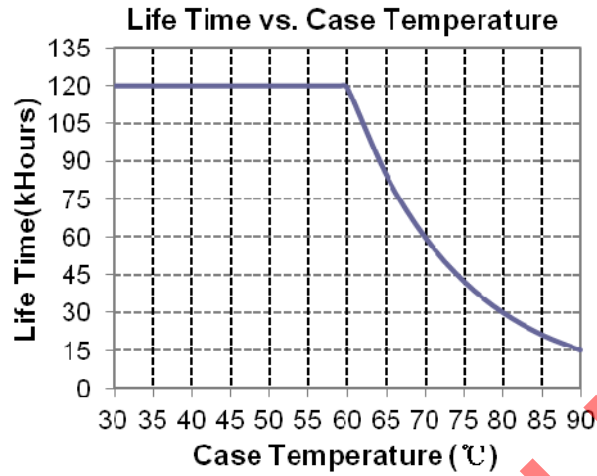
Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-35°C	-	+70 °C	Humidity: 10% RH to 90% RH. See Derating Curve for more details
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 90% RH

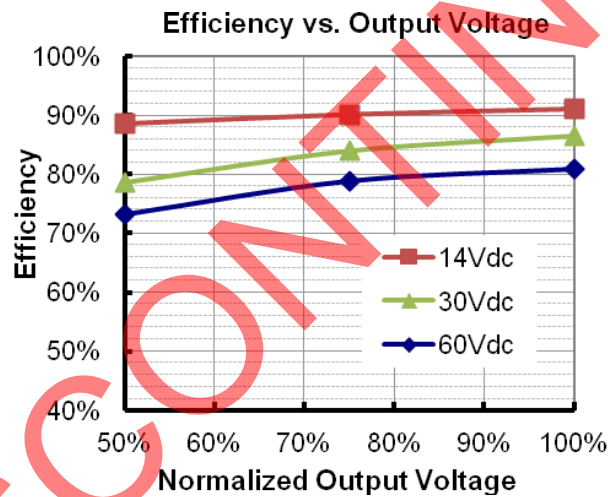
Derating Curve



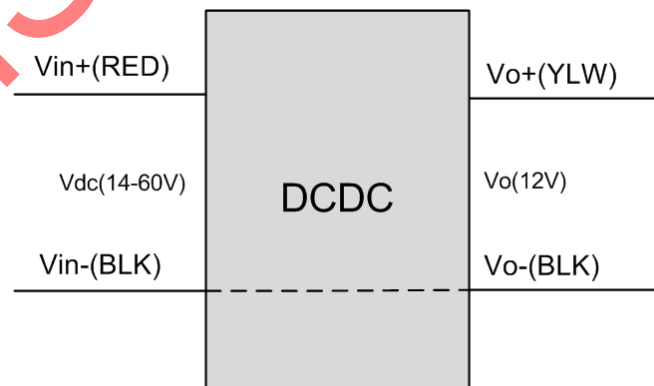
Life Time vs. Case Temperature Curve



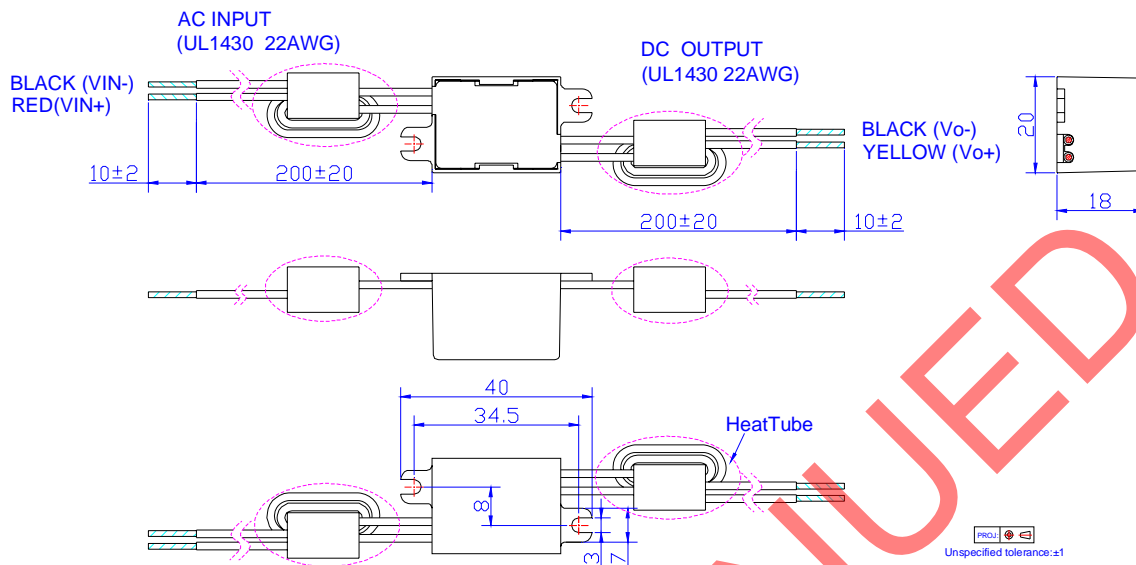
Efficiency vs. Output Voltage Curve



Input and Output Implementation



Mechanical Outline



RoHS Compliance

Our products comply with the European Directive 2011/65/EC, calling for the elimination of lead and other hazardous substances from electronic products.

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Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2012-07-27	A	Datasheet Release	/	/
2012-10-18	B	Typical MTBF and Life time Value	/	Added
		Life time Curve	/	Updated
2012-11-23	C	Input-output Implementation	/	Added
		One feature-Shares the same GND	/	Added
		Mechanical Outline	/	Updated
2013-04-01	D	UL Certificate	/	Added
		Life time	223,600 Hours @60°C Tc	119,300 Hours @60°C Tc
		Life time curve	/	Updated
		Product Picture	/	Updated
		Mechanical Outline	/	Updated
2013-08-28	E	IP Grade-IP54	/	Added

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