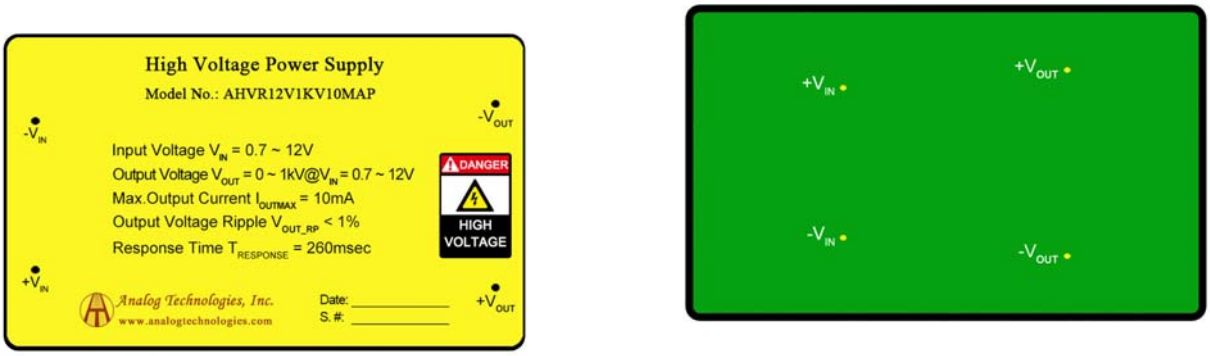

Figure 1. Physical Photos of AHVR12V1KV10MAP

FEATURES

Output Voltage Proportional to Input Voltage

Output Voltage from 0V~1000V

Input Voltage from 0.7V~12V

Low Power Consumption

High Efficiency

High Stability

Low Turn-on Voltage 0.7VDC

Input to Output Isolation

Small Output Ripple, Time Drift, and Temperature Drift

Overload and Short Circuit Protection

Metal Enclosure for Zero EMIS

Easy Control and Installation

APPLICATIONS

This high stability high voltage power supply can be used for capacitor charging, photomultiplier tube, optical measurement, mass spectrometry, electrophoresis, medical equipment, isolation testing, etc.

DESCRIPTION

AHVR12V1KV10MAP comes with a quasi-sine wave oscillator, a fully enclosed transformer, an input and output filter, and a five-sided metal enclosure. These modules present low EMI/RFI, low noise, and low ripple. The input and output are galvanically isolated. Proportional to the input voltage, the output voltage has a typical turn-on voltage as low as 0.7V. It also comes with output short-circuit protection and a wide range of output voltage adjustments. This high voltage power supply also features ultra-small size, light weight, moisture proof, shockproof, metal enclosure, and zero EMIs.

SAFETY PRECAUTIONS

The internal protection circuit is provided in the high voltage power supply, but the high voltage short circuit shall be avoided.

Make sure the circuit is insulated perfectly, especially between the high voltage output and the surroundings so as to avoid electronic shock.

SPECIFICATIONS

Table 1. Characteristics. T_A = 25°C, unless otherwise noted

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit/Note
Input Voltage	V_{IN}		0.7		12	V
Quiescent Input Current	I_{INQQ}	I_{OUT} = 0mA	300	400	500	mA
Full Load Input Current	I_{INFLD}	I_{OUT} = 10mA	1.3	1.4	1.5	A
Output Voltage	V_{OUT}	I_{OUT} = 0 to 10mA	0		1000	V
Maximum Output Current	I_{OUTMAX}	V_{IN} = 12V			10	mA
Load				100		kΩ
Output Voltage Tolerance		At Max V_{OUT}, Full Load		<±5		%
Output voltage ripple	V_{OUT_RP}			<0.1		$\%V_{P-P}$
Response Time	$T_{RESPONSE}$	0 to Max V_{OUT}, Full Load		260		msec
Isolation Voltage: Input to Output				3500		V
Switching Frequency	F_{SW}		25		125	kHz
Full Load Efficiency	η			≥70		%
Output Voltage Temperature Stability		−20 ~ 50°C		<±1		%
Operating Temperature Range	T_{opr}		−10		70	°C
Storage Temperature Range	T_{stg}		−25		90	°C
Humidity		Non-condensing		95		%RH
External Dimensions			71.1 * 43.2 * 21.6			mm
Weight				145		g
				0.32		lbs
				5.11		Oz

TESTING DATA

High voltage power supply testing data (Test condition: the load is 100kΩ)

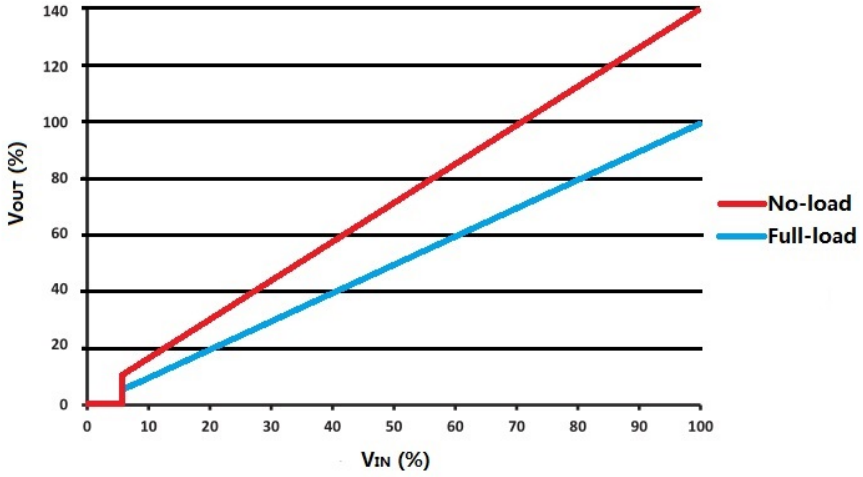

Figure 2. V_{IN} vs. V_{OUT}

THE CONNECTION DIAGRAM OF MODULE'S PERIPHERAL CIRCUIT

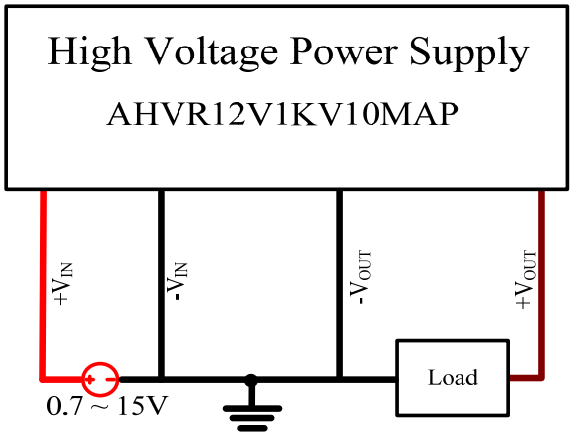

Figure 3. Constant Output Voltage

Naming instructions

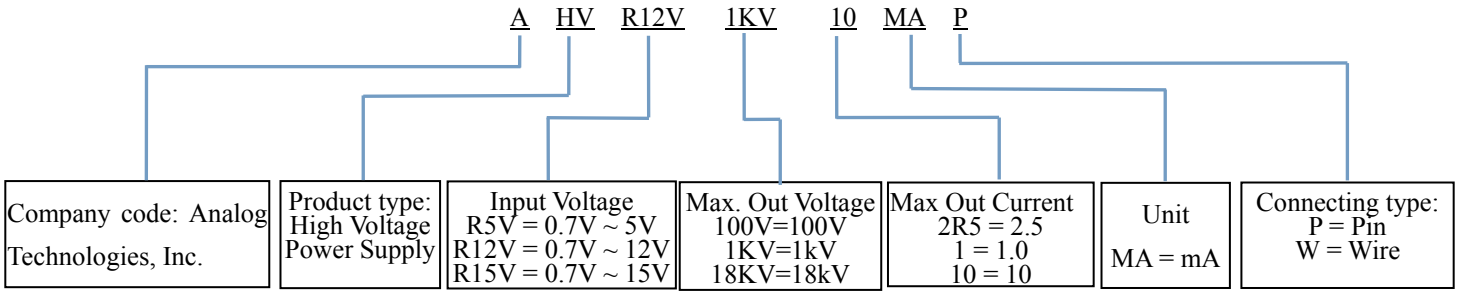

Figure 4. Naming Rules of AHVR12V1KV10MAP

DIMENSIONS

I. Pin layout

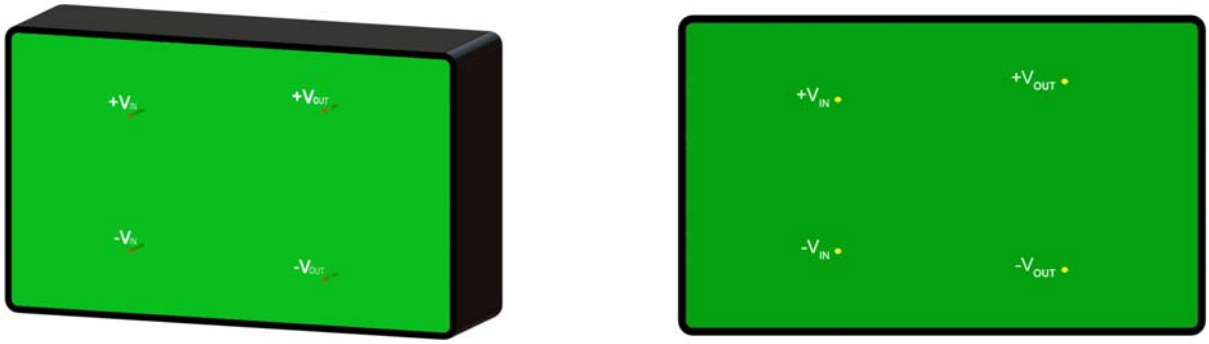

Figure 5. Pin Layout for AHVR12V1KV10MAP

II. Dimensions of AHVR12V1KV10MAP

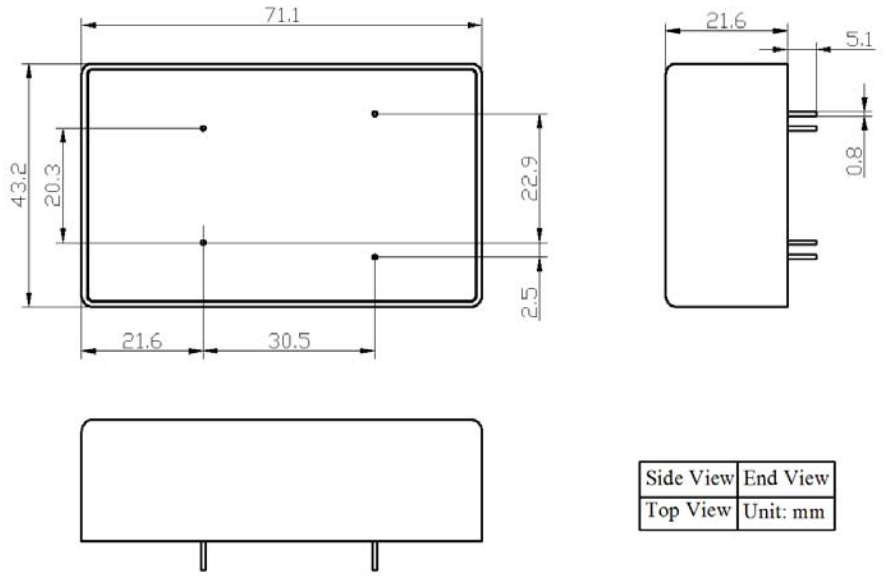

Figure 6. Dimensions for AHVR12V1KV10MAP

PRICES

Quantity	1~9pcs	10~49pcs	50~99pcs	≥100pcs
AHVR12V1KV10MAP	$129	$119	$109	$99

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