

Figure 1.1. Top View of AGLHV24VP30KVR5MAW



Figure 1.2. Side View



Figure 1.3. Bottom View



Figure 1.4. Side View



Figure 1.5. Side View



FEATURES

- Input Power Voltage: 24V ± 1V
- No-load current: 160mA
- Full load current: 950mA
- Max. Output Voltage: 30kV
- Max. Output Current: 0.5mA

APPLICATIONS

This power module, AGLHV24VP30KVR5MAW, is designed for achieving DC-DC conversion from low voltage to high voltage as a power supply source which is widely used in scientific research and other fields including:

- X-ray Machine

- Spectral Analysis
- Nondestructive Inspection
- Semiconductor Manufacturing Equipment
- CRT Monitor Test
- Particle Accelerator
- Capillary Electrophoresis
- Nondestructive Detection
- Particles Injection
- Semiconductor Technology
- Physical Vapor Phase Deposition
- Radio Frequency Amplification
- Electrospinning Preparation of Nanofiber
- Glass / Fabric Coating
- DC Reactive Magnetron Sputtering

DESCRIPTION

Figure 2 shows the connecting wires of AGLHV24VP30KVR5MAW, of which their detail information given in Table 1.

Figure 3 Schematic diagram of external connection.

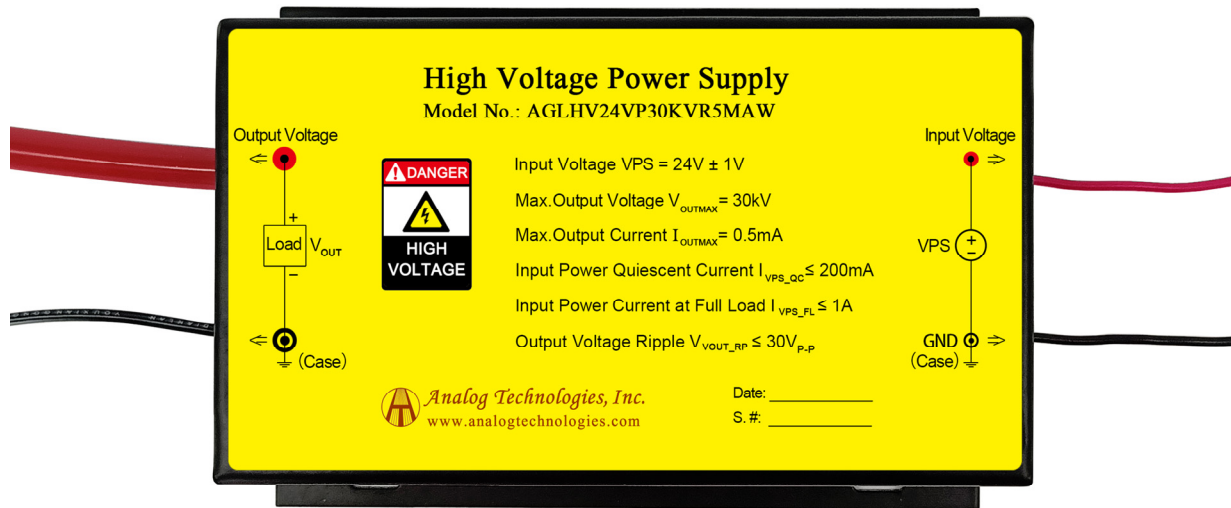


Figure 2. The Connecting Lead Wires of AGLHV24VP30KVR5MAW

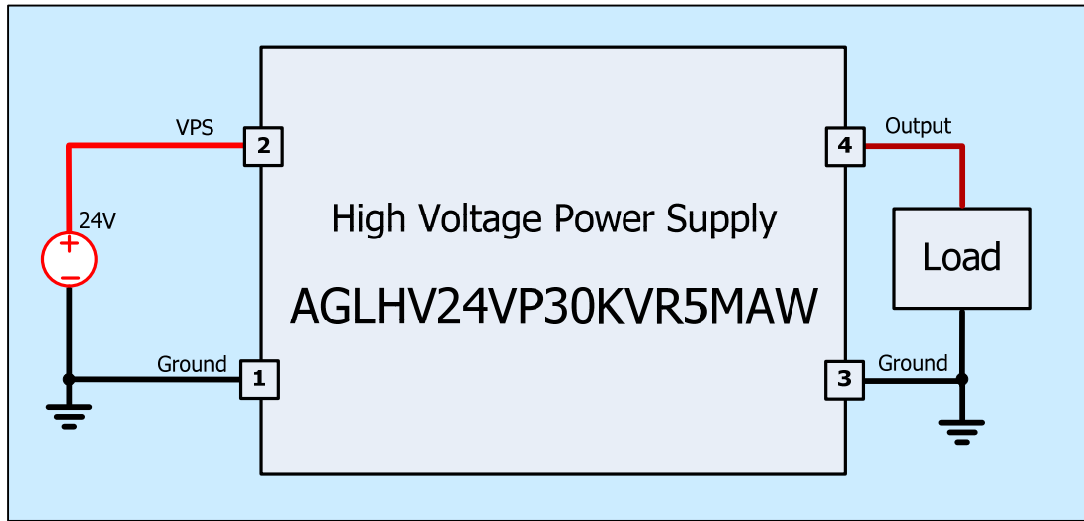


Figure 3. Output to be a Constant Voltage

Table 1. Pin Names, Colors, Functions and Specifications.

No.	Name	Color	Type	Description	Min.	Typ.	Max.
1	GND	Black	●	Ground for analog, digital and power signals.		0V	
2	VPS	Red	●	Power input		24V	
3	GND	Black	●	Power output		0V	
4	VOUT	Brown	●	Power output		30kV	

USING AGLHV24VP30KVR5MAW

This high voltage power supply must be mounted tightly onto a metal plate, ideally, thus expanding its heating sinking capacity of the metal enclosure. Sufficient ventilation must be provided to keep the power supply surface temperature under 55°C.

SAFETY PRECAUTIONS

Although AGLHV24VP30KVR5MAW high voltage power supply comes with an over current protection circuit, a short circuit at the output should always be avoided. Make sure the high voltage wire for connecting VOUT node has sufficient insulation capability with its surrounding objects.



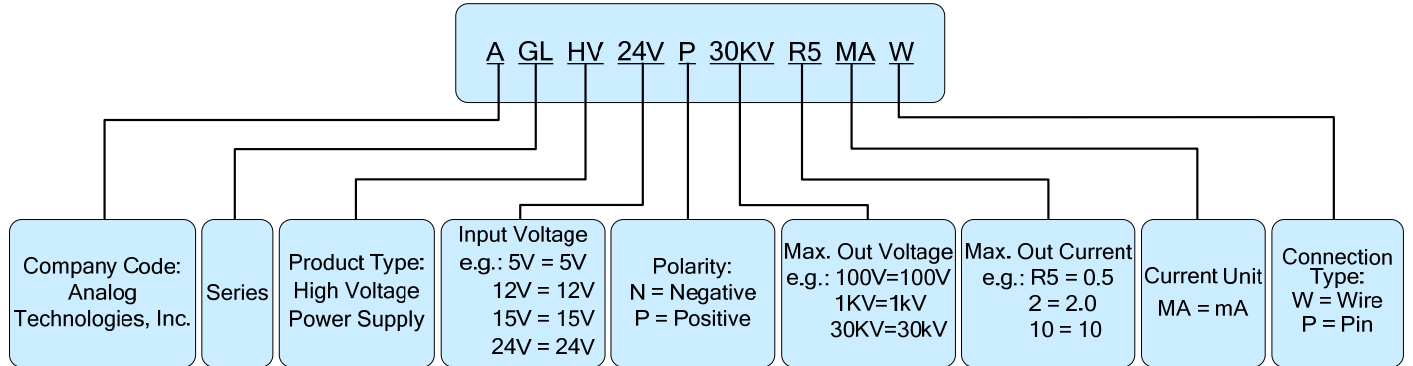
SPECIFICATIONS

Table 2. Characteristics. $T_A = 25^\circ\text{C}$, unless otherwise noted.

Parameter		Symbol	Test Conditions	Min.	Typ.	Max.	Unit/Note
Input Power Voltage		V_{VPS}		23	24	25	V
Input Power Quiescent Current		I_{VPS_QC}	$I_{VOUT} = 0\text{mA}$	160	180	200	mA
Input Power Current at Full Load		I_{VPS_FL}	$I_{VOUT} = 0.5\text{mA}$	900	950	1000	mA
Output Voltage		V_{VOUT}	$I_{VOUT} = 0.5\text{mA}$			30000	V
Output Current Range		$I_{VOUTMAX}$	$V_{VPS} = 23\text{V} \sim 25\text{V}$			0.5	mA
Output Load Range				60		∞	M Ω
Output Voltage Ripple		V_{VOUT_RP}	Bandwidth = 1MHz $R_{LOAD} = 60\text{M}\Omega$	≤ 30			V _{P-P}
Output Voltage Temperature Coefficient		TCV_{VOUT}	$T_A = -10^\circ\text{C} \sim 55^\circ\text{C}$		≤ 0.1		%/ $^\circ\text{C}$
Output Voltage Range v.s. Temperature		$V_{VOUT}(T)$	$V_{VOUT} = 30\text{kV}$ $I_{VOUT} = 0.5\text{mA}$ $T_A = -10^\circ\text{C} \sim 55^\circ\text{C}$	$0.99V_{VOUT}$	V_{VOUT}	$1.01V_{VOUT}$	V
Output Voltage Drift	Short Term Drift		$V_{VOUT} = 30\text{kV}$ $I_{VOUT} = 0.5\text{mA}$ $T_A = -10^\circ\text{C} \sim 55^\circ\text{C}$		≤ 0.1		%/min
	Long Term Drift				≤ 0.2		%/h
Instantaneous Short Circuit Current at the Output		I_{VOUT_SC}			≤ 300		mA
Load Regulation			$R_{LOAD} = 0 \sim 60\text{M}\Omega$		≤ 0.05		%/mA
Full Load Efficiency		η	$V_{VOUT} = 30\text{kV}$ $I_{VOUT} = 0.5\text{mA}$		≥ 70		%
Operating Temperature Range		T_{opr}		-10		55	$^\circ\text{C}$
Storage Temperature Range		T_{stg}		-20		85	$^\circ\text{C}$
External Dimensions					140×100×55		mm
					5.51×3.93×2.17		inch
Weight					1100		g
					2.43		lbs
					38.81		Oz



NAMING PRINCIPLE



Naming Principle of AGLHV24VP30KVR5MAW

DIMENSIONS

Connecting Lead Wire Sizes and Lengths

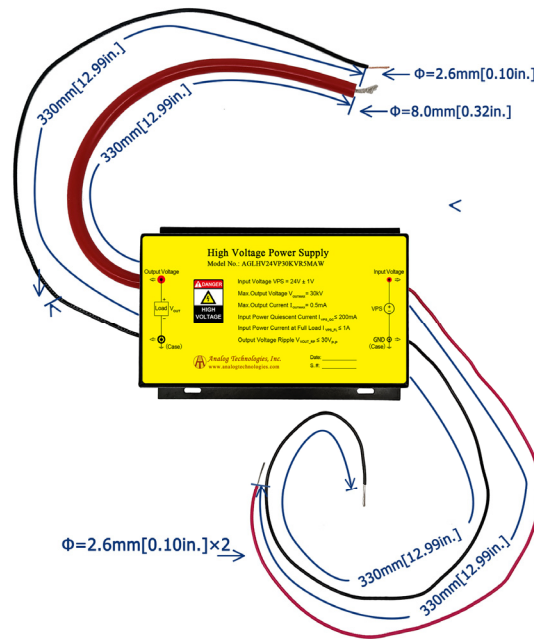


Figure 13. Connecting Lead Wires of AGLHV24VP30KVR5MAW

Lead Wires	Diameter		Length	
	mm	inch	mm	inch
Thick brown lead wire	8.0	0.315	300 ± 1	11.811 ± 0.039
Red and black lead wires	2.6	0.102	300 ± 1	11.811 ± 0.039



Outline Dimensions

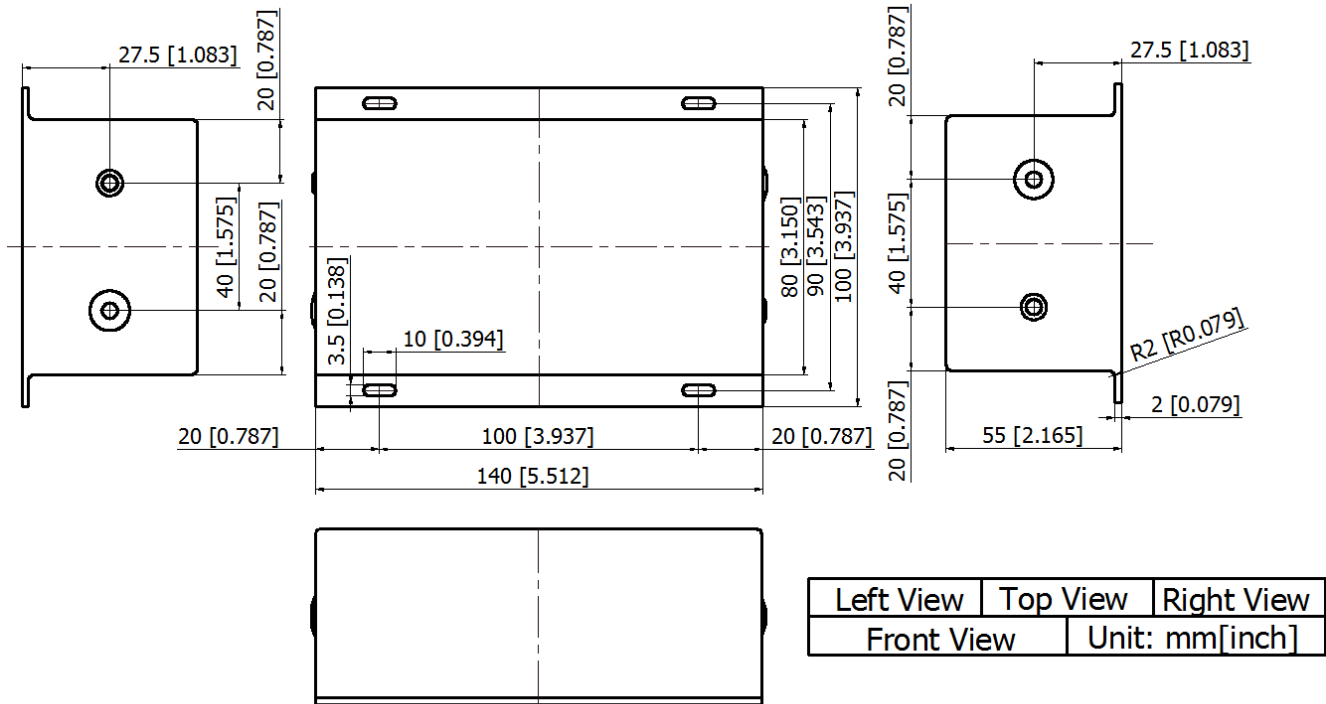


Figure 14. Outline Dimensions

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