



1200W
Powerful
18.8 W/In.³
Small
1.46kg
Light

As a new generation of industrial-grade programmable power supply, AZ1200-HV series has digital design, which makes it have ultra-high programmable accuracy, Comprehensive parameter monitoring, multi-functional analog and digital interfaces, making your power system design more accurate and efficient.

The AZ1200-HV series is designed to comply with IEC/EN62368-1, IEC6061-1, EN55032 and relevant international standards

It empowers high-end industries and medical equipment continuously.

FEATURES:

• Programmable output Voltage (0% ~ 107.5%)

• Programmable output Current (0% ~ 107.5%)

• Analog and digital interface control

• I²C, Modbus, CAN bus communication protocol Selectable

• Constant current function

• Built-in OR-ing Diode

• Selectable 5V,2A or 12V,0.83A auxiliary output

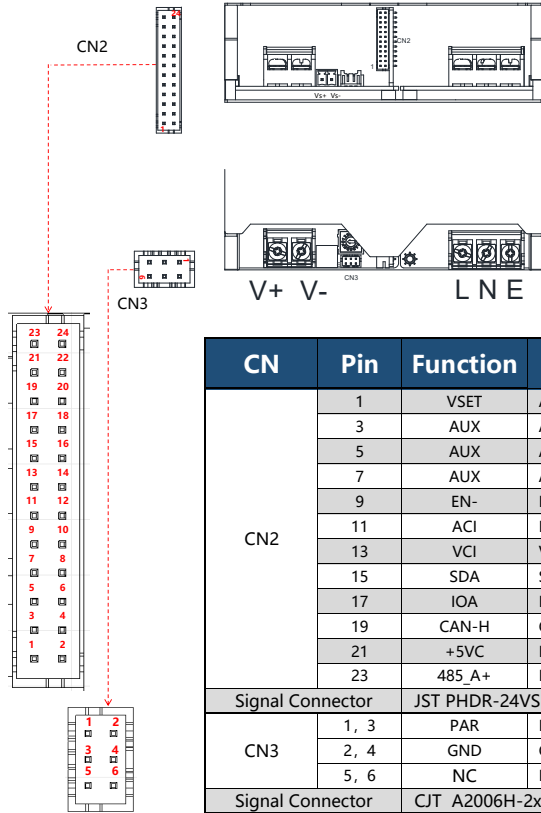
• Intelligent GUI to set and monitoring parameter

MODEL	AZ1200-150	AZ1200-400	AZ1200-650
DC Voltage Rated	150	400	650
Rated Current	8	3	1.85
Rated Power	1200W		
Ripple & Noise(Max.)	750mVp-p	2000mVp-p	3500mVp-p
Efficiency(Typ.)	93.0%	93.5%	93.5%
Note 1.All parameters NOT specially mentioned are measured at 230VAC input, full load,25°C of ambient temperature. 2.De-rating may apply in low input voltage. Please check the de-rating curve for more details.			

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MODEL		AZ1200-150	AZ1200-400	AZ1200-650
Output Specifications				
DC Voltage Rated	V	150	400	650
DC Current Rated	A	8	3	1.85
Programming And Readback (I²C,RS485,CAN)				
Vout programming accuracy	--	0.3% of Vset +0.2% of rated output Voltage		
Iout programming accuracy	--	0.3% of Iset +0.2% of rated output current		
Vout programming resolution (Note.1)	--	3mV		
Iout programming resolution	--	3mA		
Vout readback accuracy	--	0.3% of actual +0.2% of rated output Voltage		
Iout readback accuracy (Note.1)	--	0.3% of actual +0.2% of rated output current		
Vout readback resolution	--	1mV		
Iout readback resolution	--	1mA		
Analog Programming And Monitoring (0~5V/0~5KΩ)				
Vout voltage programming	--	0~107.5%, 0~5V,Accuracy and linearity: ±0.5% of rated Vout.		
Iout voltage programming (Note.1)	--	0~107.5%, 0~5V ,Accuracy and linearity: ±1% of rated Iout.		
Vout resistor programming	--	0~107.5%, 0~5Kohm . Accuracy and nonlinearity: ±1% of rated Vout.		
Iout resistor programming	--	0~107.5%, 0~5Kohm .Accuracy and nonlinearity: ±1% of rated Iout.		
Output current monitor	--	0~3.3V user selectable. Accuracy: ±1%.		
Output voltage monitor	--	0~3.3V user selectable. Accuracy: ±1%.		
Constant Voltage Mode				
DC Voltage Rated	V	150	400	650
Programming Voltage Range	V	0~161.25	0~430	0~698.75
Ripple & Noise(P-P),Full load	mVp-p	750mVp-p	2000mVp-p	3500mVp-p
Line Regulation (Note.2) ,Full load	--	±0.2%		
Load Regulation (Note.3)	--	±0.2%		
Remote sense compensation/wire	V	Max 2.5% of rate Vout		
Hold-up time,Full load, 100%~90%	--	16ms		
Constant Current Mode				
DC Current Rated	A	8	3	1.85
Programming Current Range	A	0~8.6	0~3.22	0~1.98
Line regulation (Note.2)	--	±0.2%		
Load regulation	--	±0.2%		
Protective &Alarm Functions				
Input Over-voltage protection	--	AC input over 275VAC shutdown, auto recovery below 260VAC; Reset by AC input or by EN Singal or by communication port.		
Input under-voltage protection	--	AC input under 85VAC shutdown, auto recovery above 90VAC		
AC fail Alarm	--	AC input voltage below 50V for 50ms		
Output Over-voltage protection	--	Shut down, Reset by AC input or by EN Singal or by communication port.		
Over temperature Alarm(OTA)	°C	Ambient temperature over 53°C; auto-recovery under 48°C		
Over temperature protection(OTP)	°C	Heat-sink temperature over 95°C,shut down and auto-recovery under 75°C		
Over current protection(OCP)	--	Constant Current Limit		
Short circuit protection(SCP)	--	shut down and auto-recovery after the short-circuit removed		
Note: 1.Ripple & noise are measured at 20MHz of bandwidth by using 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor 2.At 85~132Vac or 170~265VAC, constant load. 3.From No-Load to Full-Load, constant input voltage. Measured at the sensing point in Remote Sense.				
Function				
Local Remote control	--	By electrical Voltage: 5V/12V or dry contact		
DC-OK signal	--	Open Dragin singal, sink current ≤20mA, max drain voltage 40V		
Parallel operation	--	Possible, up to 16 units with single wire current balance connection.		
Series operation	--	Possible		
Auxiliary Power	--	Selectable +5V/2A or +12V/0.83A auxiliary output		
IOA	--	High speed I/O port (digital signal input/output)		
IOB	--	Low speed I/O port (analog singal input/output)		
Temperature measurement accuracy	°C	1		
Temperature display resolution	°C	0.1		
Input Specifications				
AC Input (Note.1)	Vac	90~264,Normal input 115VRMS/230VRMS		
DC Input	Vdc	127~370		
Input freq	HZ	47~63HZ,50/60HZ Typ		
		360~800,Contact factory for 400Hz application		
Input Current	--	230V/6A; 115V/15A		
Input Fuse	A	20,Each line fused 20A Slow acting		
Inrush Current	A	15A,115VAC; 30A,230VAC; 25°C cold start		

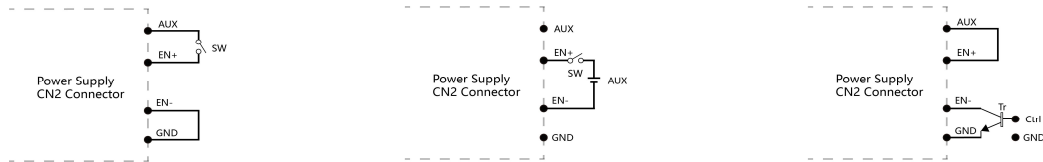
PIN Definition



Pin	Function
L	AC Input L
N	AC Input N
E	AC Input FG
V+	DC Output (+)
V-	DC Output (-)

CN	Pin	Function	Description	Pin	Function	Description
CN2	1	VSET	Aux output setting 5V/12V	2	POK	Power OK
	3	AUX	Auxiliary output positive	4	GND	Ground
	5	AUX	Auxiliary output positive	6	GND	Ground
	7	AUX	Auxiliary output positive	8	EN+	Inhibit ON/OFF (+)
	9	EN-	Inhibit ON/OFF (-)	10	GND	Ground
	11	ACI	I Program	12	GND	Ground
	13	VCI	V Program	14	GND	Ground
	15	SDA	Serial Data Line	16	SCL	Serial Clock Line
	17	IOA	High speed I/O port	18	IOB	Low speed I/O port
	19	CAN-H	Controller Area Network-H	20	CAN-L	Controller Area Network-L
	21	+5VC	Isolation 5V positive	22	GNDI	Isolation 5V Ground
	23	485_A+	RS485_A+	24	485_B-	RS485_B-
	Signal Connector		JST PHDR-24VS or equivalent; JST SPHD-002T-P0.5 or equivalent			
CN3	1, 3	PAR	Parallel operation current share			
	2, 4	GND	Ground			
	5, 6	NC	NC			
Signal Connector		CJT A2006H-2x3P or equivalent; JST SPHD-002T-P0.5 or equivalent				
VS +	Remote sense(+)					
VS -	Remote sense(-)					
Signal Connector		Phoenix Contact MC 1.5/ 2-ST-3.81 Order No.: 1803578 or equivalent				

Remote ON/OFF



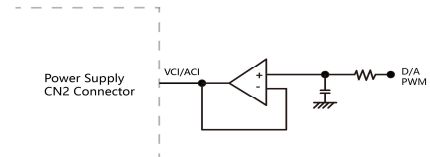
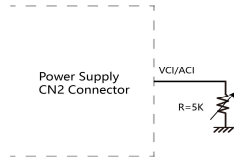
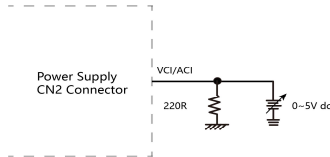
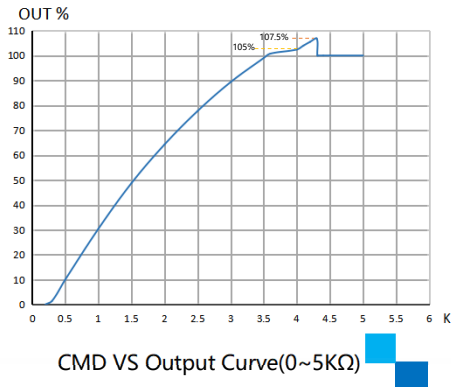
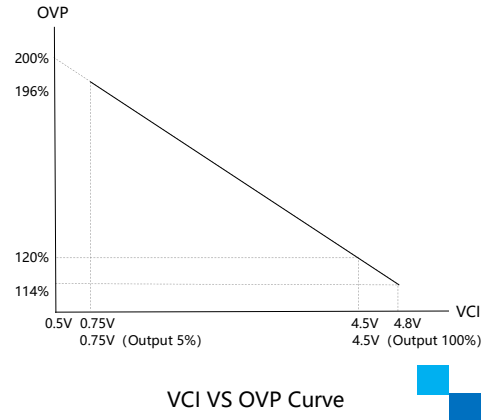
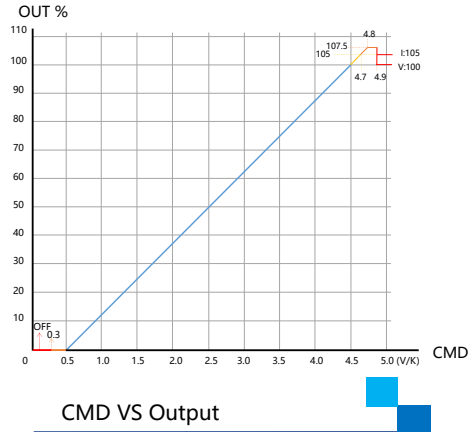
(a) Using internal 5V auxiliary source (Default Setting)

(b) Using external voltage source

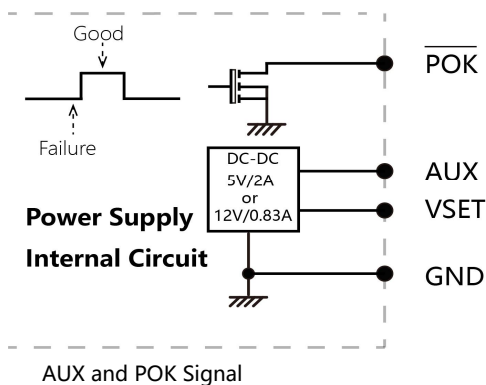
(c) ON / OFF Control by NPN transistor

Note:
GND shown in above diagram is referring to the GND of CN2, not the Grounding from main power(V-).

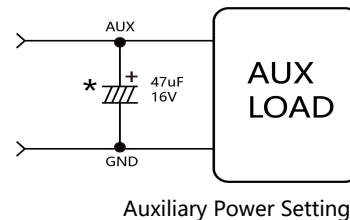
Output Voltage/Current Programming



Power OK Signal & Auxiliary Power Setting



Do not exceed 5V/2A or 12V/0.83A



The grounding of "AUX" power and P.OK signals should be connected to "GND" port. If "V-" is connected as Grounding, make sure to short the GND and V- ports.

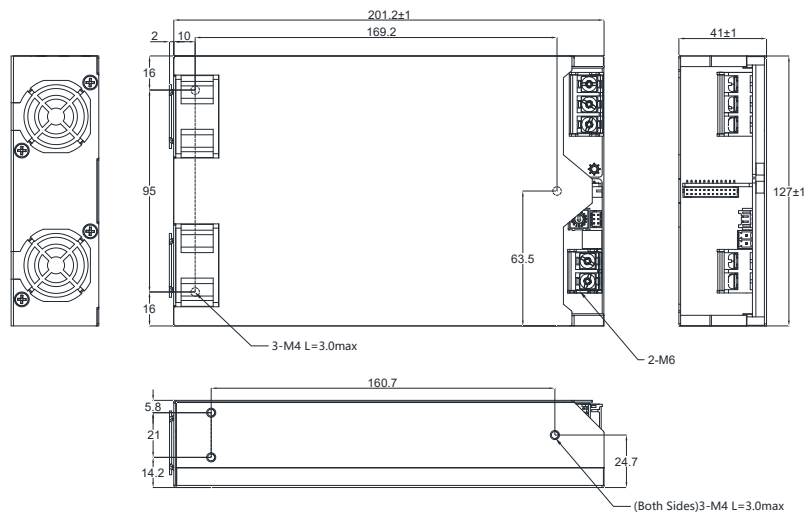
*Place an additional capacitor to have a better performance of auxiliary power operation.

Note: GND shown in above diagram is referring to the GND of CN2, not the Grounding from main power(V-).

LED status indication

mode	Description	LED Signal	LED Slow=750ms; Fast=250ms
Local mode	Power Standby		Slow Blink (Green)
	Power OK		Solid (Green)
Remote mode	Power Standby		Slow Blink (Orange)
	Power OK		Solid (Orange)
Local/Remote mode	AC Failure		Alternating flicker (Red&Green)
	FAN Failure		
	OTA		
	AC Input Over /Under Voltage Protection		Fast Blink (Red)
	BUS Over Voltage Protection (OVP)		Intermittent Blink (Red)
	Over Load Protection (OLP)		Interlace Blink (Red)
	Over Temperature Protection (OTP)		Slow Blink (Red)
DC Output Over Voltage Protection (OVP)		Solid (Red)	

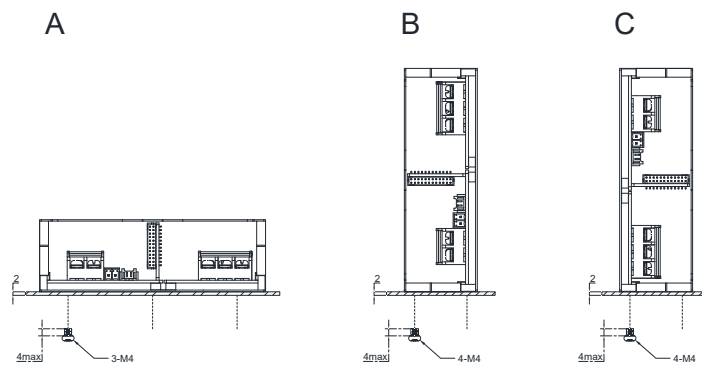
Mechanical Drawings



- Notes:
- 1, Input terminal block type. M4 screw torque value of 16kgf·cm using wire gauge 18-10 (13mm centers)
 - 2, Output terminal block. M6 screw in 2 positions, torque 3.5N·m (35kgf·cm)

Installation precautions

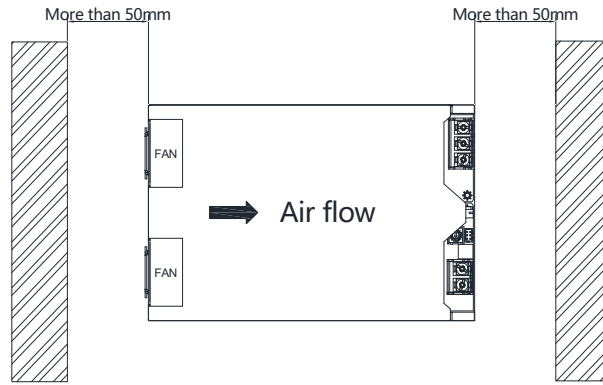
unit:mm



- Notes:
- 1, Recommended standard mounting methods A, B, C
 - 2, The Maximum allowable penetration of screw is 4mm. Incomplete threading should not be penetrated

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Installation precautions



Notes:
There are ventilating holes on the front and back side panels, do not obstruct; allow 50mm at least for air flow.