

ATA-7000 Series High Voltage Amplifier

Maximum output voltage 10kVp-p

Voltage gain adjustable by numerical control (1step/10 step)

Over current and over temperature protection



Technical Index

Bandwidth (-3dB) DC~100kHz

Output voltage up to 10kVp-p (± 5 kVp)

Maximum output current 40mA_p (higher current can be customized)

Introduction

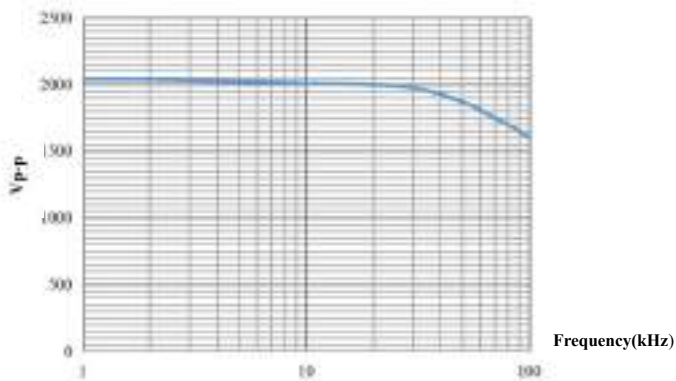
ATA-7000 series is an ideal high voltage amplifier that can amplify AC and DC signals. The Single output is 10kVp-p (± 5 kVp) high voltage, which can drive high-voltage load. The voltage gain can be adjusted by numerical control, and the common settings can be saved with one click.

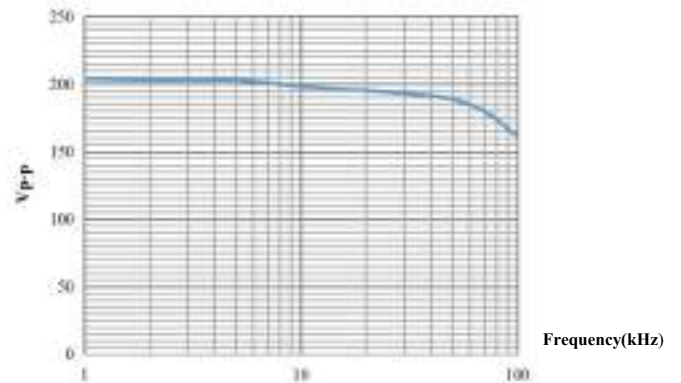
Model	ATA-7010	ATA-7015	ATA-7020
Form of output	Single output	Single output	Single output
Bandwidth (-3dB)	DC~100kHz	DC~80kHz	DC~30kHz
Maximum output voltage	2kVp-p (± 1 kVp)	3kVp-p (± 1.5 kVp)	4kVp-p (± 2 kVp)
Maximum output current	20mA _p (DC~50Hz)	20mA _p (DC~50Hz)	15mA _p (DC~50Hz)
	40mA _p (>50Hz)	40mA _p (>50Hz)	30mA _p (>50Hz)
Maximum output power	40W _p	60W _p	60W _p
Fuse	3A/250V	4A/250V	4A/250V
Voltage gain	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)
Load R _L upper limit	≥ 49.5 k Ω (DC~50Hz)	≥ 74.5 k Ω (DC~50Hz)	≥ 132.33 k Ω (DC~50Hz)
	≥ 24.5 k Ω (>50Hz)	≥ 37 k Ω (>50Hz)	≥ 65.67 k Ω (>50Hz)
Output resistance	500 Ω	500 Ω	1k Ω
Slew rate	≥ 445 V/ μ s	≥ 534 V/ μ s	≥ 267 V/ μ s
Output voltage error	$\leq \pm 1\%$ @ (DC,1kV)	$\leq \pm 1\%$ @ (DC,1.5kV)	$\leq \pm 1\%$ @ (DC,2kV)
Input resistance	10k Ω		
Voltage monitoring	1000: 1		
Input amplitude	0~10Vp-pMAX		
Total harmonic distortion (THD)	$\leq 1\%$ @1kHz, 1kVp-p		

Output voltage zero drift	$\leq \pm 1V$
Output connector	SHV RF connector
Protection	Overcurrent protection
Signal ground	Ground connected with the case and the power line
Supply voltage	AC220V \pm 10%, 50Hz
Operating temperature	0°C~45°C
Storage temperature	-20°C~50°C
Humidity	\leq 80%RH, no condensation
Dimension (W*H*D) :	440*163*565mm

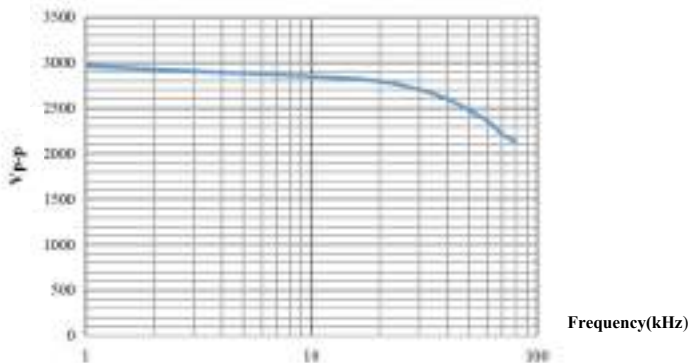
Model	ATA-7025	ATA-7030	ATA-7050
Form of output	Single output	Single output	Single output
Bandwidth (-3dB)	DC~10kHz	DC~5kHz	DC~5kHz
Maximum output voltage	5kVp-p (\pm 2.5kVp)	6kVp-p (\pm 3kVp)	10kVp-p (\pm 5kVp)
Maximum output current	15mA _p (DC~50Hz)	15mA _p (DC~50Hz)	10mA _p (DC~50Hz)
	30mA _p (>50Hz)	30mA _p (>50Hz)	20mA _p (>50Hz)
Maximum output power	75W _p	90W _p	100W _p
Fuse	4A/250V	4A/250V	4A/250V
Voltage gain	x0~1000 (1 step/10 step)	x0~1000 (1 step/10 step)	x0~2000 (1 step/10 step)
Load R _L upper limit	\geq 165.17k Ω (DC~50Hz)	\geq 198.5k Ω (DC~50Hz)	\geq 495k Ω (DC~50Hz)
	\geq 81.8k Ω (>50Hz)	\geq 98.5k Ω (>50Hz)	\geq 245k Ω (>50Hz)
Output resistance	1.5k Ω	1.5k Ω	5k Ω , 200k Ω switchable
Slew rate	\geq 112V/ μ s	\geq 67V/ μ s	\geq 111V/ μ s
Output voltage error	\leq \pm 1% @ (DC,2.5kV)	\leq \pm 1% @ (DC,3kV)	\leq \pm 3%@(DC, 5kV)
Input resistance	10k Ω		
Voltage monitoring	1000: 1		
Input amplitude	0~10V _p -pMAX		
Total harmonic distortion (THD)	\leq 1%@1kHz, 1kV _p -p		
Output voltage zero drift	\leq \pm 1V		
Output Connector	SHV RF connector	high voltage connector	
Protection	Overcurrent protection		
Signal ground	Ground connected with the case and the power line		
Supply voltage	AC220V \pm 10%, 50Hz		

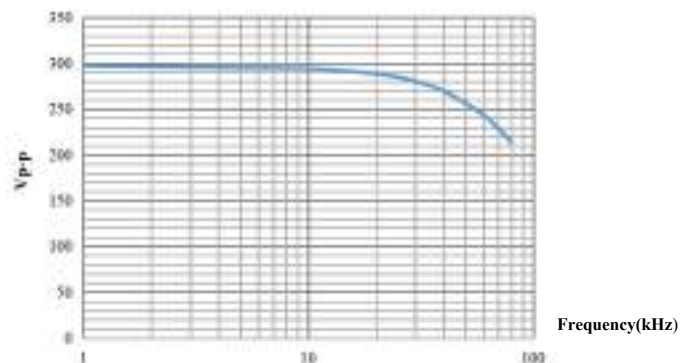
Operating temperature	0°C~45°C
Storage temperature	-20°C~50°C
Humidity	≤80%RH, no condensation
Dimension (W*H*D) :	440*163*565mm

ATA-7010

 Amplitude-frequency characteristic
 (Maximum output voltage V_{p-p})

ATA-7010


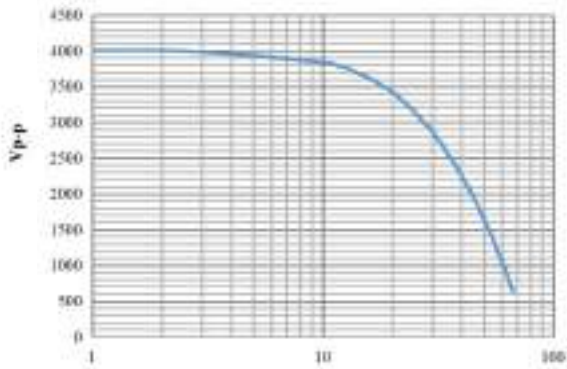
Small signal amplitude-frequency characteristic

ATA-7015

 Amplitude-frequency characteristic
 (Maximum output voltage V_{p-p})

ATA-7015


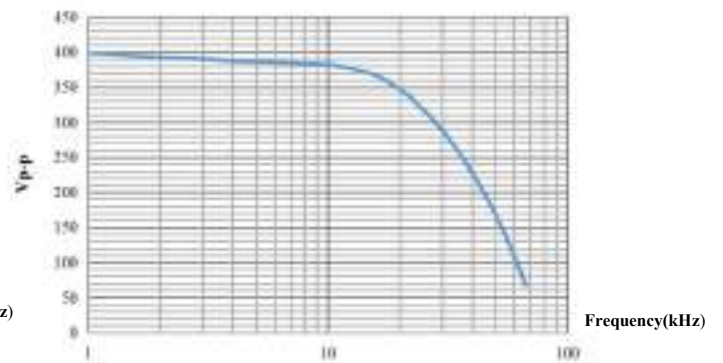
Small signal amplitude-frequency characteristic

ATA-7020



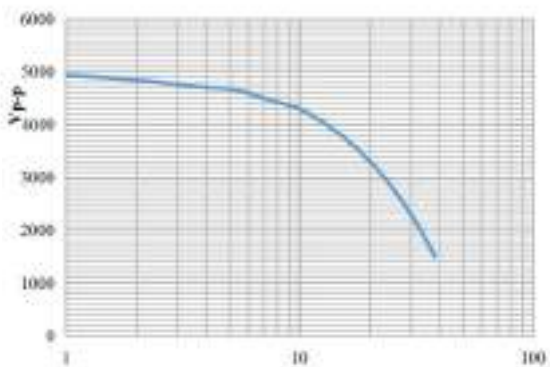
Amplitude-frequency characteristic
(Maximum output voltage V_{p-p})

ATA-7020



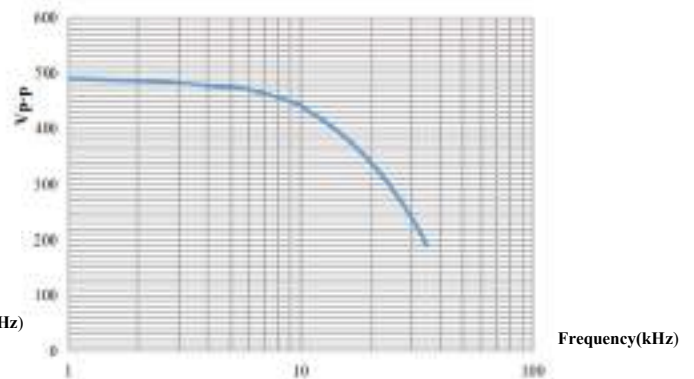
Small signal amplitude-frequency characteristic

ATA-7025



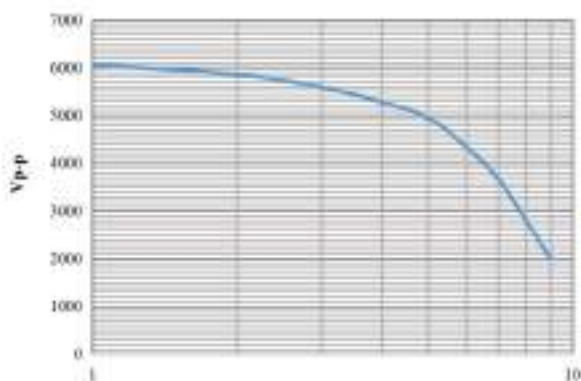
Amplitude-frequency characteristic
(Maximum output voltage V_{p-p})

ATA-7025



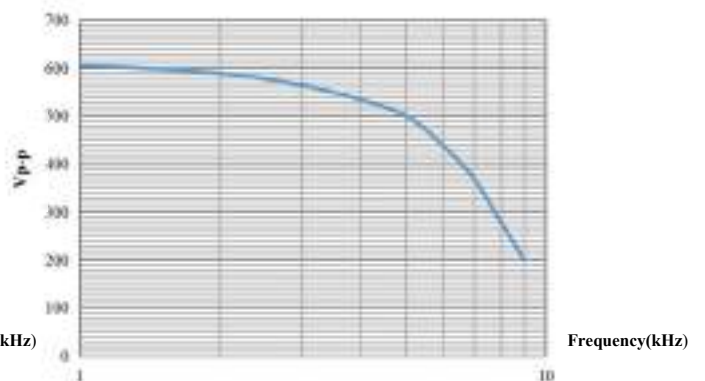
Small signal amplitude-frequency characteristic

ATA-7030

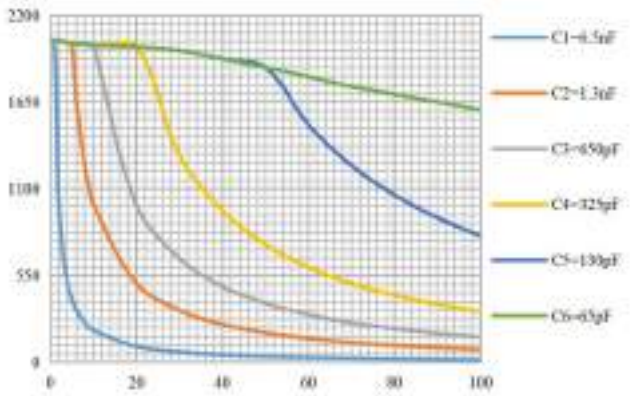


Amplitude-frequency characteristic
(Maximum output voltage V_{p-p})

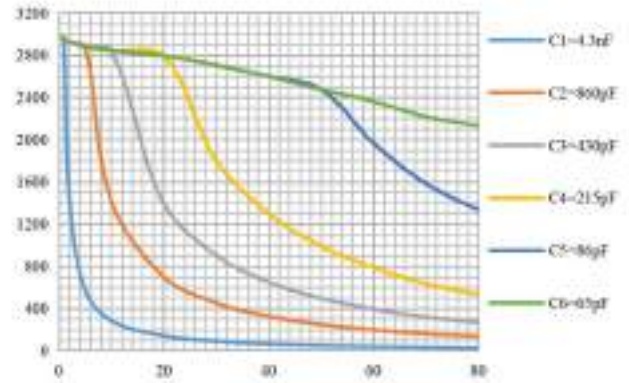
ATA-7030



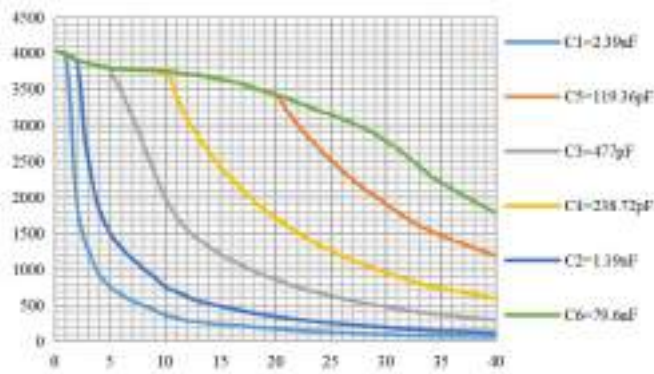
Small signal amplitude-frequency characteristic

ATA-7010


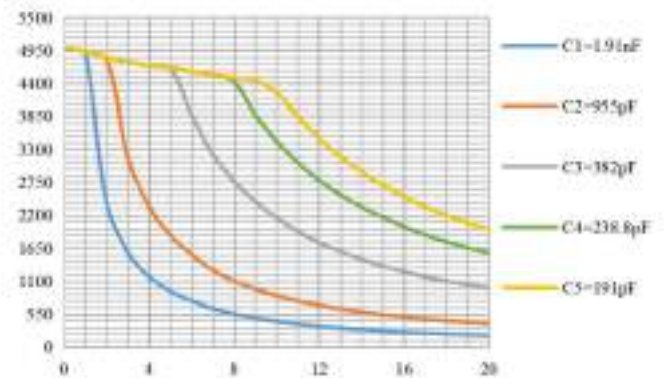
ATA-7010 Capacitive loads curve

ATA-7015


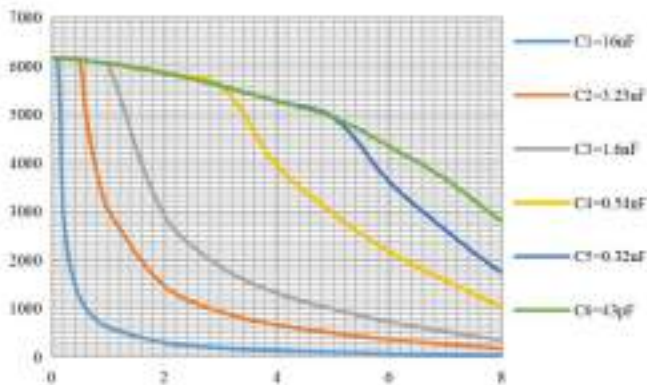
ATA-7015 Capacitive loads curve

ATA-7020


ATA-7020 Capacitive loads curve

ATA-7025


ATA-7025 Capacitive loads curve

ATA-7030


ATA-7030 Capacitive loads curve