# VP-1061/1121/1241/1361 Power Amplifiers 



## DESCRIPTION

TOA models VP-1061/1121/1241/1361 are 1-channel power amplifiers designed exclusively for rack-mount use. They have a compact body design, and are also capable of delivering high output power, which is available in a range of from 60 W to 360 W . These highly-durable amplifiers operate on both AC and DC power, making them ideally suited for PA as well as emergency broadcasting purposes. In priority operation mode, a built-in relay contact allows emergency announcements to go through regardless of volume control settings in the 3 -wire or 4 -wire connection systems.

## FEATURES

- High output power capacity in a compact body design.
- 60W, 120W models: 2 U half-rack size
- 240W, 360W models: 3U full-rack size
- Have passed a rigorous operation test and offer durability suitable for emergency broadcasting.
- Operation on both 230V AC and 24V DC for uninterrupted performance.
- Two each of parallel-connected Program and Priority Inputs.
- Volume level of Program Input can be attenuated whenever the Priority Input receives a signal.
- Attenuation of the volume level is adjustable.
- Relay contact for emergency announcements at any time.
- Fault detection of the amplifier and the speaker line with an optional YA-1000A module.
- Easy connection thanks to removable terminal blocks.
- Output current limiter


## APPEARANCE AND DIMENSIONAL DIAGRAM

VP-1061/1121

unit: mm

VP-1241/1361


Rear View


Front View


Side View
unit: mm

## CHARACTERISTIC DIAGRAMS

## VP-1061



Frenquency Response at $1 / 3$ rated output (load: $167 \Omega$ )


VP-1121


VP-1241

Frenquency Response at $1 / 3$ rated output (load: $167 \Omega$ )


## VP-1361



## BLOCK DIAGRAM



## SPECIFICATIONS

| Model No. | VP-1061 | VP-1121 | VP-1241 | VP-1361 |
| :---: | :---: | :---: | :---: | :---: |
| Power Source | 230 V AC, 50/60Hz or 24 V DC |  |  |  |
| Power Consumption | ```AC: 170W (at rated output), 100W (EN60065), 14W (no-signal) DC: 4.5A (at rated output), 0.1A (no-signal)``` | AC: 320W (at rated output), 160W (EN60065) 19W (no-signal) <br> DC: 8.2 A (at rated output), 0.1 A (no-signal) | AC:537W (at rated output), 240W (EN60065), 21W (no-signal) <br> DC: 14.6 A (at rated output), 0.4 A (no-signal) | ```AC:768W (at rated output), 330W (EN60065), 37W (no-signal) DC: 20.9A (at rated output), 0.5A (no-signal)``` |
| Rated Output | 60W | 120W | 240W | 360W |
| Input | 2 program inputs (parallel), $0 \mathrm{~dB}^{\star}, 20 \mathrm{k} \Omega$, balanced 2 priority inputs (parallel), 0dB*, 20k $\Omega$, balanced |  |  |  |
| Impedance | $167 \Omega$ (100V) | $83 \Omega$ (100V) | $42 \Omega$ (100V) | $28 \Omega$ (100V) |
| S/N Ratio | Over 80dB |  |  |  |
| THD | Under $1 \%$ (at rated output $\mathrm{f}=1 \mathrm{kHz}$ ) |  |  |  |
| Frequency Response | $80-16,000 \mathrm{~Hz}, \pm 3 \mathrm{~dB}$ (at $1 / 3$ rated output) |  |  |  |
| Ventilation | Fan cooling |  |  |  |
| Operating Temperature | $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$ ( $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}$ ) |  |  |  |
| Operating Humidity | Under 90\% RH (no condensation) |  |  |  |
| Finish | Panel: Aluminum, black, alumite |  |  |  |
| Dimensions | 210 (W) ×88.4 (H) × 338.7 (D)mm (8.27" $\left.\times 3.48^{\prime \prime} \times 13.33^{\prime \prime}\right)$ |  | 483.6 (W) $\times 132.6$ (H) $\times 337.8$ (D)mm ( $19.04{ }^{\text {" }} \times 5.22$ " $\times 13.3$ " $)$ |  |
| Weight | 6.9 kg ( 15.21 lb ) | 9.3 kg (20.5 lb) | 13.4 kg (29.54 lb) | 16.6 kg ( 36.6 lb ) |
| Accessories | $\begin{aligned} & \text { Power cable }(2 \mathrm{~m}(6.56 \mathrm{ft})) \times 1, \\ & \text { Removable terminal plug }(2 \text { pins }) \times 2 \text {, } \\ & \text { Removable terminal plug }(3 \text { pins }) \times 2 \\ & \text { Removable terminal plug }(5 \text { pins }) \times 2 \text {, } \\ & \text { Joint plate } \times 1 \text {, } \\ & \text { Joint plate mounting screw } \times 3 \text {, } \\ & \text { Fuse }(1.25 \mathrm{~A}) \times 1 \end{aligned}$ | Power cable $(2 \mathrm{~m}(6.56 \mathrm{ft})) \times 1$, <br> Removable terminal plug ( 2 pins) $\times 2$, <br> Removable terminal plug (3 pins) $\times 2$ <br> Removable terminal plug ( 5 pins) $\times 2$, <br> Joint plate $\times 1$, <br> Joint plate mounting screw $\times 3$, <br> Fuse $(2.5 \mathrm{~A}) \times 1$ | Power cable ( $2 \mathrm{~m}(6.56 \mathrm{ft})) \times 1$, <br> Removable terminal plug ( 2 pins) $\times 2$, <br> Removable terminal plug ( 3 pins) $\times 2$ <br> Removable terminal plug ( 5 pins) $\times 2$, <br> Fuse (4.0A) $\times 1$ | Power cable $(2 \mathrm{~m}(6.56 \mathrm{tt})) \times 1$, Removable terminal plug ( 2 pins) $\times 2$, Removable terminal plug (3 pins) $\times 2$, Removable terminal plug ( 5 pins) $\times 2$, Fuse (6.3A) $\times 1$ |
| Options | Fault detector: YA-1000AHalf width blank panel: MB-25B-BK (for rack mounting one VP-1061/1121 unit)Rack joint bracket: MB-25B-J (for rack mounting two VP-1061/1121 units) |  | Fault detector: YA-1000A |  |

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## ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

## VP-1061/VP-1121

The amplifier shall be 1-channel power amplifier which operates on 230 V AC $50 / 60 \mathrm{~Hz}$ or 24 V DC power. The specified product shall be 2 U half-rack size rack-mount type, fan-cooled power amplifier. Two program inputs and two priority inputs, (both parallel, $0 \mathrm{~dB}, 20 \mathrm{k} \Omega$, balanced) shall be provided. The amplifier shall meet the following performance criteria: Power output shall be VP-1061: $60 \mathrm{~W}, \mathrm{VP}-1121: 120 \mathrm{~W}$ at less than $1 \%$ THD (rated output, $f=1 \mathrm{kHz}$ ). Power consumption shall be VP-1061: 100W, VP-1121: 160W at 1/3 rated output. An output current limiter shall be provided. Frequency response shall be 80 Hz to 16 kHz at $1 / 3$ rated output $( \pm 3 \mathrm{~dB})$, with an $\mathrm{S} / \mathrm{N}$ ratio of over 80 dB . Impedance shall be VP-1061: $167 \Omega(100 \mathrm{~V})$, VP-1121: $83 \Omega(100 \mathrm{~V})$. The adjustable volume level of the program input shall be attenuated whenever the priority input receives a signal. A relay contact for immediate emergency announcements shall be provided. Removable terminal blocks shall be provided for easy connection. The panel shall be black aluminum, alumite. Dimensions shall be $210(\mathrm{~W}) \times 88.4(\mathrm{H}) \times 338.7$ (D) mm and weight VP-1061: $6.9 \mathrm{~kg}, \mathrm{VP}-1121: 9.3 \mathrm{~kg}$. The operating temperature shall be $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$. Supplied accessories shall be: 2 m power cable $\times 1$, 2 -pin removable terminal plug $\times 2$, 3-pin removable terminal plug $\times 2$, 5 -pin removable terminal plug $\times 2$, joint plate $\times 1$, joint plate mounting screw $\times 3$, fuse (VP-1061: 1.25 A, VP-1121: $2.5 \mathrm{~A}) \times 1$. Fault detection of the amplifier and the speaker line shall be possible with an optional YA-1000A module. Optional rack mounting panels shall be the MB-25B-BK half-width blank panel for one amplifier unit, and the MB-25-J rack joint bracket for two units.
The power amplifier shall be TOA model VP-1061/VP-1121.

## VP-1241/VP-1361

The amplifier shall be 1-channel power amplifier which operates on 230 V AC $50 / 60 \mathrm{~Hz}$ or 24 V DC power. The specified product shall be 3 U fullrack size rack-mount, fan-cooled power amplifier. Two program inputs and two priority inputs, (both parallel, $0 \mathrm{~dB}, 20 \mathrm{k} \Omega$, balanced) shall be provided. The amplifier shall meet the following performance criteria: Power output shall be VP-1241: 240 W, VP-1361: 360W at less than $1 \%$ THD (rated output, $f=1 \mathrm{kHz}$ ). Power consumption shall be VP-1241: 240 W, VP-1361: 330 W at 1/3 rated output. An output current limiter shall be provided. Frequency response shall be 80 Hz to 16 kHz at $1 / 3$ rated output ( $\pm 3 \mathrm{~dB}$ ), with an $\mathrm{S} / \mathrm{N}$ ratio of over 80 dB . Impedance shall be VP-1241: $42 \Omega(100 \mathrm{~V})$, VP-1361: $28 \Omega(100 \mathrm{~V})$. The adjustable volume level of the program input shall be attenuated whenever the priority input receives a signal. A relay contact for immediate emergency announcements shall be provided. Removable terminal blocks shall be provided for easy connection. The panel shall be black aluminum, alumite. Dimensions shall be $483.6(\mathrm{~W}) \times 132.6(\mathrm{H}) \times 337.8$ (D) mm and weight VP-1241: $13.4 \mathrm{~kg}, \mathrm{VP}-1361: 16.6 \mathrm{~kg}$. The operating temperature shall be $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$. Supplied accessories shall be: 2 m power cable $\times 1$, 2-pin removable terminal plug $\times 2$, 3-pin removable terminal plug $\times 2$, 5 -pin removable terminal plug $\times 2$, fuse (VP-1241: 4.0 A, VP-1361: 6.3 A) $\times 1$. Fault detection of the amplifier and the speaker line shall be possible with an optional YA-1000A module.
The power amplifier shall be TOA model VP-1241/VP-1361.

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[^0]:    *0dB = 1V

