


Section	Voice Evacuation
Category	PA8500-VES System
Range	Amplifiers / PMD Range
Code	PMD125-V, PMD250-V, PMD500-V
Certificate	 EN 54-16: 2008 n. 0068-CPR-082/2013



Description

Class “D” modular amplifiers

Careful design and a choice of very reliable hi-tech components led to the creation of this range of Class D amplifiers, featuring an extremely compact size and low energy consumption. Each has its own diagnostics card for testing correct operation and checking soundness of the loudspeaker line and a double output circuit with separate controls (A and B) for creating systems featuring line redundancy; if a short-circuit is detected on one of the two outputs, this line is automatically disconnected to enable proper operation of the other. These modular amplifiers require a PMS2001 card-cage for mounting on a 19” rack. PMD amplifiers, connected directly to the **CR8506-V** controller by means of CAT5 shielded cable, can be used to create high-power areas. It is possible to connect up to 16 PMD units in cascade fashion to each of the six output lines (zones) of the CR8506-V. It is possible to configure one amplifier in each group as a stand-by unit. The fact that each amplifier is powered independently makes the system extremely reliable and in line with safety standards.

Special applications

PMD amplifiers can also be used without a PA8500-VES system whenever small layout dimensions combined with great reliability are required. They can be controlled by means of configuring dip-switches on the rear of each unit or by means of a simple RS485 communication protocol, with complete supervision of the loudspeaker line connected to them. The communication protocol is compatible with the PMS2000-VES modular system. In addition to all the operations and/or checks set locally by means of the dip-switches, it will also be possible to view and modify all the parameters, including the following:

- reading of the reference impedance for the test
- minimum and maximum values within which the test is applicable
- reading of the test status
- testing of inputs
- measurement of the temperature of the end transistors
- volume control

Functional features

General features

- Operation on 230 VAC and 24 VDC
- Both stand-alone and remote-controlled operation are possible
- Double RJ45 input socket (for connecting more than one amplifier in parallel)
- Two audio inputs
- Front-panel LEDs indicating the output level or the operational status of the amplifier
- Forced fan cooling with an electronic control and protection circuit
- Output terminal block of the removable bayonet type

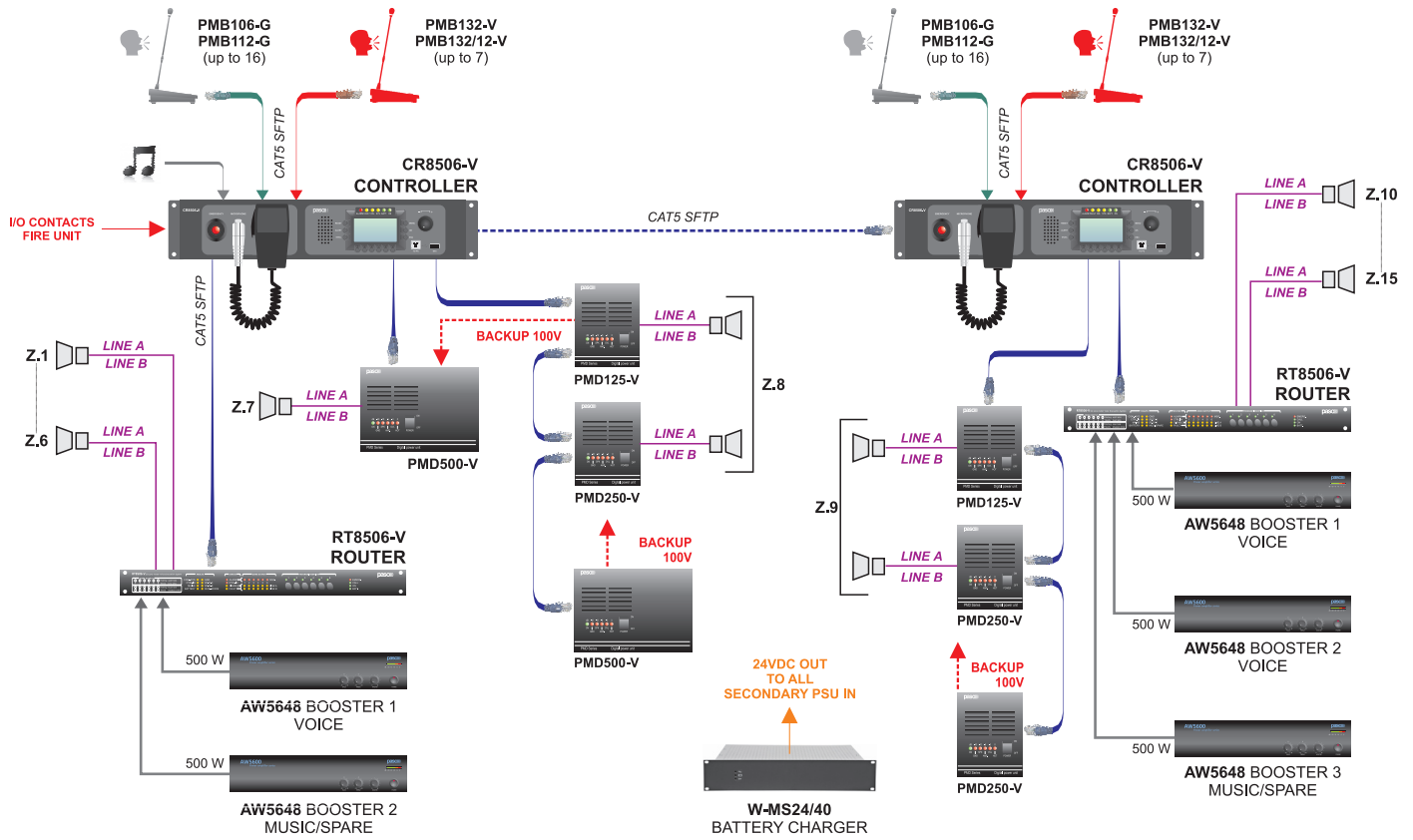
Local controls or via serial communication

- Output volume control
- Selection of the amplifier input
- Activation of the LOW-CUT filter

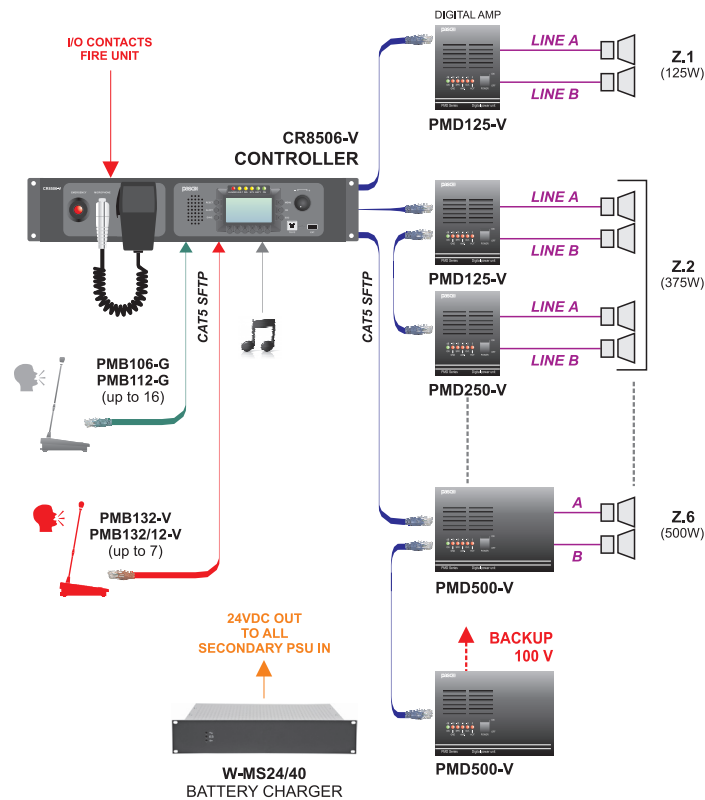
Diagnostics

- Diagnostics of the main functions of the amplifier
- Checking and measurement of the impedance of the loudspeaker line (A and B)
- Check and exclusion of short-circuited loudspeaker lines
- Check of earth connections (GND FAULT)

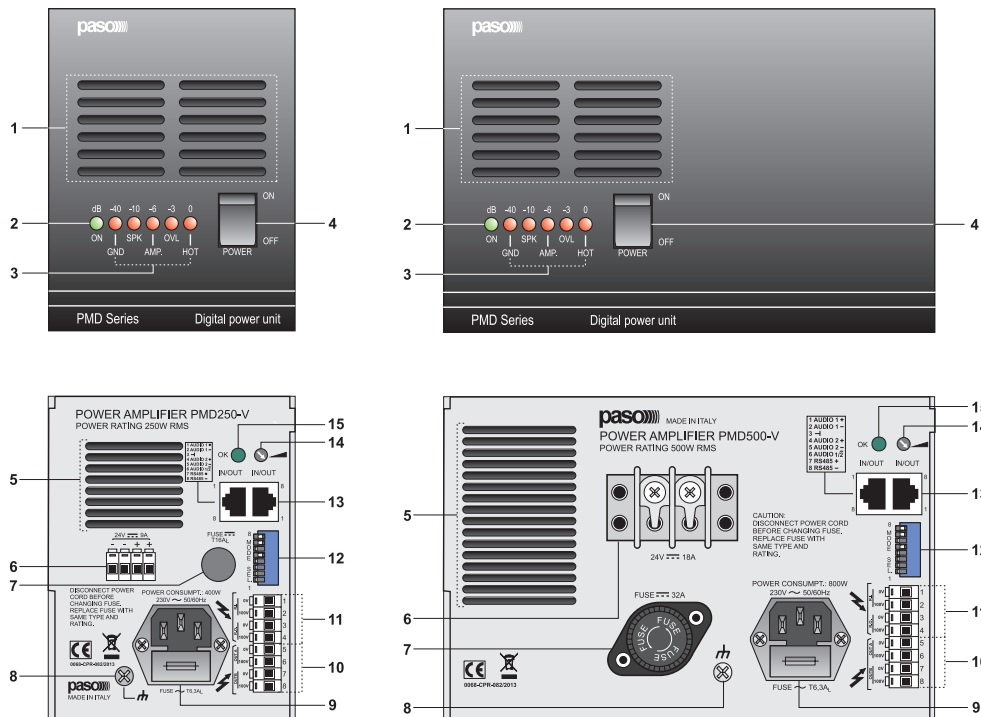
PA8500-VES | System featuring a mixed configuration



CR8506-V controllers and digital amplifiers of the PMD range



References



- (1) Front ventilation slits.
- (2) ON/OFF signalling lamp.
- (3) LED display.
- (4) Mains switch.
- (5) Rear ventilation slits.
- (6) Terminal strip for external DC power supply.
- (7) Fuse for external DC power supply.
- (8) Frame connection.
- (9) Mains plug with built-in fuse.
- (10) Terminal strip for loudspeaker lines.
- (11) Terminal strip for spare amplifier connection.
- (12) Dip-switch.
- (13) Sockets for audio input and serial communication.
- (14) Output volume controller.
- (15) LED for acquisition settings confirmation.

Technical data

MODEL	PMD125-V	PMD250-V	PMD500-V
Rated power @230 VAC / 27 Vdc	125 W RMS D≤0,5%	250 W RMS D≤3%	500 W RMS D≤2,5%
Power outputs	100 V A/B		
Distortion @230 VAC @P _{NOM} /100	< 0,05 %		
Inputs	AUDIO 1 / AUDIO 2		
Sensitivity	770 mV		
S/N ratio (20÷20.000 Hz)	≥ 90 dB		≥ 85 dB
S/N ratio (A)	≥ 93 dB		≥ 88 dB
Frequency response	90Hz ±10Hz ÷ 20kHz ±1kHz	90Hz ±10Hz ÷ 18 kHz±1kHz	90Hz ±10Hz ÷ 19 kHz±1kHz
LOW CUT filter (- 3dB)	330 Hz		
Operating conditions			
Mains power supply	230 Vca 50/60 Hz ±10%	230 Vca 50/60 Hz ±10%	230 Vca 50/60 Hz ±10%
Max consumption at RMS rated power	195 W	410 W	740 W
Secondary power supply @24Vdc	24 Vcc (22÷28V)	24 Vcc (22÷28V)	24 Vcc (22÷28V)
Max consumption @24Vdc (@28Vdc)	4,4 A (5,2 A)	7,6 A (9,4 A)	16,3 A (18,9 A)
Operating/storage temperature	-10°C ÷ +45°C / -40°C ÷ +70°C		
Relative humidity	< 95%		
Dimensions (W x H x D)	101 x 133 x 395 mm		202 x 133 x 395 mm
Net weight	8,4 kg	9,2 kg	14,8 kg