

PA 180 DM

Power amplifier



Applications

- ✓ modal testing shakers
- ✓ environmental testing systems
- ✓ calibration systems



Range of Use

- ✓ research and development departments in industry
- ✓ environment testing laboratories
- ✓ calibration laboratories
- ✓ universities and research institutes



Features

- ✓ frequency range DC... 100 kHz
- ✓ high reliability operation
- ✓ switch between voltage and current mode
- ✓ phase shift (0° or 180°)
- ✓ variable gain control
- ✓ current limit control
- ✓ temperature protection
- ✓ multifunction OLED display



Specification

The Power Amplifier PA 180 DM has been developed to drive any type of exciter requiring a 180 VA power amplifier with a load impedance of 0.8 Ω . It has a useable frequency range from 40 Hz to 20 kHz at full power or from DC to 100 kHz small signal; the harmonic distortion is very small. The power amplifier can tolerate temperature and supply line variations while maintaining excellent

stability. Thereby, the product can be used as a voltage generator with low output impedance and a flat voltage frequency response, or as a current generator with high output impedance and a flat current frequency response. The maximum RMS output-current limit is adjustable. For standard applications, we recommend using the product in voltage mode.

Technical data

General			
Power output, max.	180 VA into a 0.8 Ω resistive load		
Rated load	0.8 Ω resistive load		
Voltage output, max.	12 V RMS		
Current output, max.	5 A ($\pm 0,5$ A)		DC
	14 A Peak	0.1 Hz ... 10 Hz	AC signal
	12 A RMS	10 Hz ... 40 Hz	sine
	15 A RMS	40 Hz ... 20 kHz	sine
Input voltage	< 3 V		
Input impedance	> 10 k Ω		
Power supply (adjustable)	100 V / 120 V / 230 V ± 5 %, 50 Hz / 60 Hz by adjusting the fuse, single phase, AC mains supply, 580 VA power consumption		
Monitor output	Voltage monitor:	0.1 V/V ± 3 %	5 Hz ... 20 kHz
	Current monitor:	0.1 V/A ± 3 %	5 Hz ... 20 kHz
Dimensions (H x W x L)	88 mm x 482 mm x 290 mm (3.5 in x 19 in x 11.4 in)		
Weight	8 kg (17.6 lbs)		



Technical data

Voltage Mode			
	Range	Tolerance	Conditions
Frequency Range	0.1 Hz...20 Hz	-3 dB	sine
	20 Hz...20 kHz	-0.5 dB	sine
	20 kHz...100 kHz	-20 dB	small signal (-20 dB)
Gain	Range	Value	
	nominal	4.8 V/V	
Total Harmonic Distortion	Range	Value	Conditions
	40 Hz...5 kHz	< 0.1 %	
	5 kHz...20 kHz	< 0.2 %	
Signal-to-Noise Ratio	Range	Value	Conditions
	full power	> 100 dB	-0.5 dB
Current Mode			
	Range	Tolerance	Conditions
Frequency Range @ 0.8 Ω resistive load	0.1 Hz...20 Hz	-3.0 dB	sine
	20 Hz...15 kHz	-0.5 dB	sine
Gain	Range	Value	
	nominal	6 A/V	
Total Harmonic Distortion	Range	Value	Conditions
	40 Hz...5 kHz	< 0.2 %	
	5 kHz...15 kHz	< 0.8 %	
Signal-to-Noise Ratio	Range	Value	Conditions
	full power	> 90 dB	-0.5 dB

All specifications are at room temperature unless otherwise specified.