

Airborne DC Power Characteristic Test System **PDG 54Cxx Series**



- MIL-STD-704
- RTCA/DO-160
- HB 20326.7
- HB 20326.8
- GJB 181

Features

- > Support harmonics output
- > Support ripple closed-loop test
- > Full-power four-quadrant power supply
- > Adaptive remote compensation function
- > Wide frequency range: DC ~ 200 kHz
- > Max. test current 240 A (higher current ratings are available on request)
- > Max. output power 120 kW (higher current ratings are available on request)
- > Voltage and current monitoring and protection
- > Ethernet RJ45 interfaces for PC remote control and printing test reports
- > Built-in arbitrary waveform generator for any complex waveform editing

Introduction

The PDG 54Cxx Airborne DC Power Characteristic Test System supports DC 14 V, 28 V, 270 V, 540 V test, in compliance with MIL-STD-704F, DO160 S16/S18, HB 20326.7/8, GJB 181-86 and GJB 181A/B. Its total voltage distortion is below 0.3% under all load conditions, with frequency coverage from DC to 200 kHz.

Adopted real-time processor technology, the system is equipped with high-performance PC and Corelab test software. It enables arbitrary waveform editing to simulate complex waveforms, and provides preset waveforms and EMC and aerospace standard test items. The software also supports automatic test report generation.

Application Areas



Technical Parameters

Model	PDG 54C12
DC 270 V and 540 V Test System	
Max. DC Voltage	1,500 V
Output Power	60 kW
Max. DC Current	120 A
DC Voltage Accuracy	$\pm (0.01\% + 0.05\% \text{ F.S.}^{*1})$
DC Current Accuracy	$\pm (0.1\% + 0.2\% \text{ F.S.}^{*1})$
DC 14 V and DC 28 V Test System	
Max. DC Voltage	80 V
Output Power	2.4 kW
Max. DC Current	30 A
DC Voltage Accuracy	$\pm (0.2\% + 0.2\% \text{ F.S.}^{*2})$
DC Current Accuracy	$\pm (0.2\% + 0.5\% \text{ F.S.}^{*2})$
Note:	
*1: F.S. (full scale) refers to max. voltage 1,500 V and max. current 120 A for DC 270 V and 540 V test system.	
*2: F.S. (full scale) refers to max. voltage 80 V and max. current 30 A for DC 14 V and DC 28 V test system.	

Model	PDG 54C24
DC 270 V and 540 V Test System	
Max. DC Voltage	1,500 V
Output Power	120 kW
Max. DC Current	240 A
DC Voltage Accuracy	$\pm (0.01\% + 0.05\% \text{ F.S.}^{*3})$
DC Current Accuracy	$\pm (0.1\% + 0.2\% \text{ F.S.}^{*3})$
DC 14 V and DC 28 V Test System	
Max. DC Voltage	80 V
Output Power	2.4 kW
Max. DC Current	30 A
DC Voltage Accuracy	$\pm (0.2\% + 0.2\% \text{ F.S.}^{*4})$
DC Current Accuracy	$\pm (0.2\% + 0.5\% \text{ F.S.}^{*4})$
Note:	
*3: F.S. (full scale) refers to max. voltage 1,500 V and max. current 240 A for DC 270 V and 540 V test system.	
*4: F.S. (full scale) refers to max. voltage 80 V and max. current 30 A for DC 14 V and DC 28 V test system.	

Voltage/Current Setting Resolution	0.01 V/0.01 A
Voltage/Current Display Resolution	0.01 V/0.01 A
Harmonics Voltage	0 V ~ 20 V
Harmonics Voltage Setting Resolution	0.001 V
Harmonics Voltage Display Resolution	0.001 V
Harmonics Frequency	1 kHz ~ 50 kHz (higher frequencies are available on request)

Technical Parameters

Harmonics Frequency Setting Resolution	0.001 Hz
Harmonics Frequency Display Resolution	0.001 Hz
Total Voltage Harmonic Distortion (THDv)	<0.3%
Ripple Noise @20MHz bandwidth	$V_{PP} \leq 2.4 \text{ V}$ $V_{rms} \leq 0.4 \text{ V}$

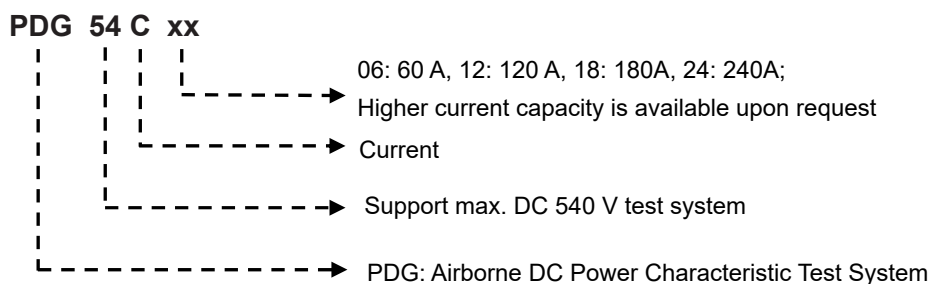
General Parameters

Protection	Overcurrent, overvoltage, undervoltage, overpower, overtemperature protection
Display Screen	15.6" embedded touch screen
Power Input Interface Type	HV shielded plug (orange & black)
Control Port Communication Interface	Ethernet LAN (RJ45 interface)
Working Power	Three phases AC 380 V, 50 Hz/60 Hz
Grounding Connection	Flat grounding cable
Front/Rear Panel Wiring Terminal	32 A banana terminals and 300 A high voltage terminals
Dimension	600 (W)*1,800 (H)*900 (D) mm
Weight	PDG 54C12: Approx. 320 kg PDG 54C24: Approx. 400 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Power Cord, Test Cable, User Manual, Flat Grounding Wire, Fuse

Naming Rules



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