Airborne AC/DC Power Characteristic Test System PPS 45C20

- MIL-STD-704
- RTCA/DO-160
- HB 20326
- GJB 181

Features

> Support harmonics output
> Support closed-loop test
> Full-power four-quadrant power supply
> Adaptive remote compensation function
> Wide frequency range: DC ~ 200 kHz
> Max. test current 210 A (higher current ratings are available on request)
> Max. output power 40 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 waveforms editing

Introduction

The PPS 45C20 Airborne AC/DC Power Characteristic Test System features wide voltage and current dynamic range, in compliance with MIL-STD-704F, DO160 S16/S18, HB 20326, GJB 181-86 and GJB 181A/B. Its output voltage distortion is below 0.3% under all load conditions, with frequency coverage from DC to 200 kHz. It supports tests for DC systems as well as AC system.

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

AC Test System	
Max. AC Voltage	L-N/0 V ~ 450 V L-L/0 V ~ 779 V @0.001 Hz ~ 200.00 Hz L-N/0 V ~ 400 V L-L/0 V ~ 692 V @0.001 Hz ~ 400.00 Hz L-N/0 V ~ 300 V L-L/0 V ~ 519 V @0.001 Hz ~ 1000.00 Hz
Max. AC Current	Single-phase: 210 A; Three-phase: 70 A
Output Power	40 kW
AC Voltage Accuracy	± (0.01% + 0.05% F.S.*1)
AC Current Accuracy	± (0.1% + 0.2% F.S.*1)
DC 270 V Test System	
Max. DC Voltage	636 V
Max. DC Current	210 A
Output Power	40 kW
DC Voltage Accuracy	± (0.01% + 0.05% F.S.*2)
DC Current Accuracy	± (0.1% + 0.2% F.S.*2)
DC 14 V and DC 28 V Test System	
Max. DC Voltage	80 V
Max. DC Current	30 A
Output Power	2.4 kW
DC Voltage Accuracy	± (0.2% + 0.2% F.S.*3)
DC Current Accuracy	± (0.2% + 0.5% F.S.*3)

Note:
*1: F.S. (full scale) refers to max. voltage 450 V and current 210 A for AC test system.
*2: F.S. (full scale) refers to max. voltage 636 V and current 210 A for DC 270 V test system.
*3: F.S. (full scale) refers to max. voltage 80 V and 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)
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}≤ 2.4 V Vrms≤ 0.4 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 Supply	Three phases AC 380 V, 50 Hz/60 Hz
Grounding Connection	Dual independent grounding, flat grounding cable
Front/Rear Panel Wiring Terminal	32 A banana terminals and 300 A solid terminals
Dimension	600 mm (W)*1,800 mm (H)*900 mm (D)
Weight	Approx. 340 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, Grounding Cable, Network Cable

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