

# POWER DISTRIBUTION UNITS 28VDC & 270VDC TEFO

**TEFO Equipment is a TRL8/9 - 28V power distribution unit for critical/essentials loads, based on a modular design.**

TEFO is an Emergency Power Distribution Unit operating at 28Vdc based on a mechanical enclosure with 2 separate busbars 28V1 (EmerBus1) and 28V2 (EmerBus2), with the possibility of being interconnected through a bus tie. TEFO has 2 inputs for 28V1 and 28V2 power supplies, and 2 inputs/outputs for two emergency batteries.

TEFO has 6 outputs which power essential loads from C295 platform: Flight Control Computers, BackUp Control Units, Hydraulic Pumps, Cockpit Display Control Units.



Fig1. TEFO Power Distribution Units

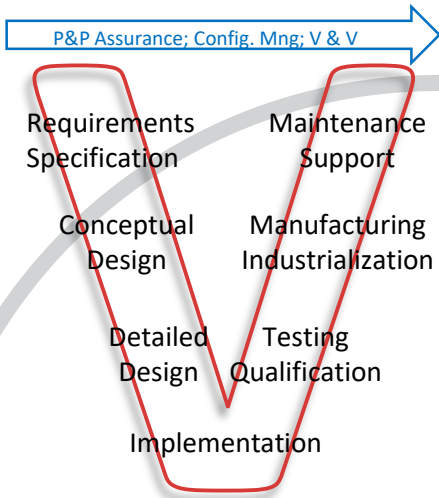


Fig2. Product Life Cycle

**TEFO Flight Equipment is currently qualified under DO-160G (Environmental & EMI/EMC), MIL-STD-704F (Electrical), DO254 (DALB – Complex Electronics) and DO178C (DALC/B – Embedded Software) for C295 platform from Airbus Defence & Space under TRL9.**

- Electrical Power Distribution with modular architecture
- OverCurrent/OverVoltage protections
- Current, temperature and voltage for all inputs and outputs &, status of switching points monitoring
- Built in Test
- Arinc429 reporting
- Redundant Control/Monitor based on 2 CPLDs, Monitoring based on microcontroller

## Technical Specs

## Industrialization & Manufacturing Process POA - EASA PART 21

### • Weight and Dimmensions

- 390x215x201 (with no dampers)
- 427.5x275.5x246 (with dampers)
- 14.41 Kg

### • Functionality

- Distribution
- I2t/Itrip/OverVoltage Protections
- Switch on/off Loads
- Starting/Reconfiguration
- State Machine
- Built-in-Test
- Arinc429 reporting (MIL-STD-1553 available)

- Technology Readiness Level: TRL9

### • RTCA/DO-160 –G/MIL-STD-810 qualification:

Altitude	A1 sect. 4; MLS - 15 Kfeet
Temperature	A1 sect. 4; -40°C; +70°C
Temperature Variation	C sect. 5; -2°C/min
Humidity	A sect. 6
Vibration	S sect. 8; 25,000 hours endurance @ 13.454 Grms
Operational Shock	B sect. 7; 6 transients 6g/11 ms
Crash Safety	B sect. 7
Fluid Susceptibility	F sect. 11
Sand and Dust	Method 510.4 Procedure III
Fungus Resistance	F sect. 13
Salt Spray	S sect. 14
Explosion Proofness	sect. 9 A Env. II Aircraft Zone III
Icing	sect. 24
Flammability	C sect. 26

### • RTCA/DO-160 –G/MIL-STD-810 qualification:

28V electrical	28Vdc
Magnetic Effect	Z sect. 15
Voltage Spikes	A sect. 17
Power Supply Audio Frequency Conducted Susceptibility	R sect. 18
Induced Signal Susceptibility	ZC sect. 19
Radio Frequency Susceptibility (radiated)	F sect. 20
Radio Frequency Susceptibility (conducted)	Y sect. 20
Emission of Radio Frequency Energy (radiated)	M sect. 21
Emission of Radio Frequency Energy (conducted)	M sect. 21
Lightning Induced Transient Susceptibility	Section 22
Electrostatic discharge	A sect. 25

- RTCA/DO-254 DAL B
- RTCA/DO-178 DAL C/B