

# PDS-3R Power Distribution System



The PDS-3 is a power distribution system designed for use with power sensitive instrumentation requiring either 28 volts or 12 volts DC. It provides a safe distribution of aircraft power to meet the requirements of complex Geophysical systems. Each output is protected by individual circuit breakers to provide protection to the aircraft power system as well as the installed equipment. The system provides six 24 Vdc outputs with each output protected by a separate 10 Amp Circuit breaker and one 12 Vdc output powered from a 75-Watt regulator; no more than 6 amps can be drawn by the 12-volt output. The entire system is rated at 15 amps and will trip at 17.5 amps. The 12v outputs are all powered from a 75-Watt regulator; therefore no more than 6 amps can be drawn by the 12-volt output.

## Benefits

- Master switch (30 AMP rated) for auxiliary power supply and aircraft bus.
- Individual circuit breaker protection for each load
- Six individual 10-amp switch breakers for protection of each load, and load distribution
- Allows auto switching from external power to aircraft power without system shutdown.
- The PDS-3R provides six (6) 28VDC outputs and one (1) 12 VDC output

## Key Figures

24VDC

↳ Six 24VDC Outputs

12VDC

↳ One 12 Vdc output

Pilot Emergency Shutoff

## Product description

The PDS-3R is a rack mountable Power Distribution system for the use in Geophysical Survey aircraft. The system is designed with safety in mind, providing protection for sensitive Instrumentation such as Magnetometers, Spectrometers, Gravity meters, and ancillary equipment (GPS, Radar Alt, etc.). The PDS-3R has two inputs, Aircraft power, which is the primary power input and an Auxiliary input that can be used to connect a ground power supply. This allows the system to be powered while on the ground without starting up the aircraft. The unit automatically detects when power is connected and will automatically switch to ground power (if connected) when the aircraft is powered down. This allows for continuous power for sensitive equipment like Gravity meters that must always remain on power.

The unit also has a remote shut down switch that will allow the pilot to disconnect all power to the equipment immediately in the event of an emergency. It is controlled via a master switch which is installed in the cockpit within easy reach of the pilot.

Will not allow the user to select a power source outside of the acceptable voltage range of 23 Vdc to 32 Vdc.

