

GENERATOR REGULATOR CONTROL UNIT (GRCU)

The Generator Regulator Control Unit (GRCU) regulates the voltage of a nominal 28VDC/200A generator-starter conforming to MIL-G-6162 for single or multi-engine powered aircraft. The GRCU provides DC power conforming to limits specified in MIL-STD-704F. The GRCU is designed to share the current load of a second GRCU to regulate a twin-generator 28 VDC electrical power system.

Features

- Easily adaptable for various types of aircraft
- Voltage regulation
- 7-position voltage setting (27.0 to 29.0 VDC)
- Reverse and over current protection
- Overtoltage and under voltage protection
- Line contactor control with short circuit protection
- Generator field control with short circuit protection
- Floating pins detection protection
- Current or load sharing (voltage regulation) in a dual configuration
- Cross-start (current regulation) in a dual configuration
- Fully digital sequencing control
- Gen Out and Degraded indicators outputs
- Over current discrete output
- No scheduled maintenance required



Generator Regulator Control Unit
Model ADI-21600 series

The Generator Regulator Control Unit (GRCU) provides generator field excitation and regulation functions for the main 28 VDC bus system of an aircraft.

The GRCU is designed to operate in harsh vibration as well as harsh electromagnetic environments such as HIRF and severe indirect lightning.

The GRCU functions include twin-engine starter-generator cross-start, voltage regulation, redundant overvoltage protection, and automatic bus switching.

GENERAL SPECIFICATIONS*

Operating Voltage	For 28 VDC generator-starter designed per MIL-G-6162
Weight	2.65 lbs
Finish	Yellow chemical-film per MIL-C-5541, class 3
Mating Connector	J1 connector to mate with D38999/26WJ43SN
Environmental Qualifications	RTCA/DO-160D
Operating Temperature	-55°C to +70°C
Storage Temperature	-55°C to +85°C
Reliability	MTBF greater than 15,000 hours

*Specifications subject to change without notice. Some details may vary with model number.

Outline Drawing

