



DC Brushed Starter Generators

FEATURES AND BENEFITS

- Complete range of DC starter generators from 160 amp to 400 amp
- Digital and analog Generator Control Units (GCU) available
- Improved bearing and brush options to support special mission applications
- Brush life performance up to 2,000 hours to reduce aircraft / engine down time

TECHNICAL PERFORMANCE DATA

Features	MG84 Series	MG94 Series	MG103 Series
Rated Output (amps) Continuous	160-200	325	400
Cooling	Self cooled	Self cooled	Self cooled
Altitude	35,000 ft.	51,000 ft.	51,000 ft.
Temperature	-67°F to 139°F	-67°F to 139°F	-67°F to 139°F
Weight	22 lbs.	32 lbs.	36.9 lbs.
Mounting Interface	Direct or QAD	Direct or QAD	Direct or QAD
Certification	TSO C56a	TSO C56b	TSO C56a

GENERATOR PERFORMANCE

Features	MG84 Series	MG94 Series	MG103 Series
Rated Voltage	30 VDC	30 VDC	30 VDC
RPM - Normal Operation	7,200 - 12,000	6,250 - 12,000	6,750 - 12,000
Overload Current (amps)	400	650	800
Overspeed	14,000	14,000	14,000

APPLICATIONS

- Honeywell: TFE-331, TFE-731
- Pratt & Whitney: PT-6, PW530, PW535, PW600, PW615F, PW617
- Williams International: FJ33, FJ44
- Turbomeca: Arriel
- Honda: HF120
- Rolls-Royce: RR300





Generator Control Unit (GCU)

CG200 SERIES

- Analog
- Automatic starter cutout
- Field weakening control of engine start
- Ground fault protection
- Voltage regulation accuracy to + 0.4/0.7 VDC
- Voltage regulation range of 26 to 30 VDC
- Protective functions
- Equalizer circuit for dual starter generator installations
- Meets B4/04 lightning transient requirements of RTCA/DO-160
- Fully qualified to RTCA/DO-160 environments
- Dual over voltage protection circuits
- Modular design for future capability expansion



CG300 SERIES

- Dual microprocessor
- Software qualified to RTCA/DO-178, level B
- Dual magnetic-latching relays (or trip relays)
 - Individual trip of generator field and line contactor
- Built-in test upon battery power-up
 - Exercises and tests trip relays and over voltage protection
- Communications port for NC maintenance computer
- Maintenance connector for access to fault logs and data records in non-volatile memory
- Shunt-field start control (field weakening)
- Start terminate sequence energizes field to terminate start current and prior to opening start contactor
- No programmable or complex hardware devices
- Protective functions implemented in hardware
- Broken wire detection of the following inputs: power ground, signal ground, bus sense, current sense, point-of-regulation, tachometer input, generator field, contactor driven outputs
- Built in test: field-driver transistor, contactor-drive transistors
- Proactive trip on broken POR wire before over voltage develops
- Proactive trip on shorted field-driver transistor before overvoltage develops
- Dual over voltage protection circuits



AMETEK®
AEROSPACE & DEFENSE
www.ametekaerodefense.com

4550 Southeast Boulevard • Wichita, KS 67210 U.S.A.
 E-mail: aerosales@ametek.com

SALES:
North America
 Tel: +1 316-522-0424 • Fax: +1 316-522-0237

Europe
 Tel: +33 1 30 68 89 12

Asia Pacific
 Tel: +65 6484 2388