

EAM100 to CUMMINS EFC Interface Module

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1 OVERVIEW

EAM100 is EAM116 is an electronic interface module that allows GAC Load Sharing Modules and Auto Synchronizers to operate with the Cummins EFC electronic speed controls (Cummins part numbers 3044196 or 3037359).

Combining the EAM116 with the Cummins modules allows you to assemble sophisticated generator paralleling systems to control EFC equipped Cummins engines.

The GAC EAM100 module requires four connections to the EFC speed control: the positive lead from the battery supply, signal ground from Terminal 11 (not battery ground), the reference sensing, and an output to the speed control to adjust its speed setting.

The EAM100 draws less than one microamp from the speed control, assuring no adverse effects on the system.

The other terminal block on the EAM100 accepts connections from an external speed trim pot (GAC TP501 or TP503) and from a GAC Load Sharing Module.



2 WIRING AND PLACEMENT

The wiring for typical generator paralleling systems is shown in Section 4. Examples of the following wiring are available:

- EAM100 with LSM672 and SYC6714
- EAM100 with SYC6714 and LSM100
- EAM100 with SYC6714 and LSM201

Instructions on the operation of the GAC LSM100, LSM201 or LSM672 Load Sharing Modules. and the SYC6714 Synchronizer are available online at www.Governors-America.com.

- The signal ground reference is Terminal 11 of the EAM100. All ground connections must be made at this terminal.
- Terminal D of the EAM100 has the same sensitivity as Terminal R of the ESC63C Series speed control units, 104 hz/volt.
- Terminal B of the EAM100 has the same sensitivity as Terminal J of the ESC63C Series speed control units, 40 hz/ volt.

2 WIRING AND PLACEMENT

EAM100



3 WIRING EXAMPLES

EAM100 with LSM672 and SYC6714



4 WIRING EXAMPLES (CONTINUED)

EAM100 with SYC6714 and LSM100



EAM100 with SYC6714 and LSM201



4 TROUBLESHOOTING

Once the units are installed:

- 1. Apply 24 V DC to Terminals 1 (+) and 11 (-).The voltage measured between Terminals E and 11 should be 10.0 ± 0.5 V DC.
- 2. Connect a 25K Ω resistor between Terminals 7 and E. Connect a speed trimpot to Terminals A.B and C as shown in Diagram 1. The voltage measured between Terminals C and 11 should be 7.5 ± 0.35 V DC.
- 3. Measure the voltage between Terminals 8 (+) and 11 (-) while adjusting the frequency trim pot from end to end. The voltage should change 0.2 V DC from 3.7 to 3.9 ± 0.1 V DC.
- 4. If the above measurements are correct, the EAM100 meets its specifications. See the troubleshooting documents for each of the other products for further testing.