



After desperate appeals from customers with systems with generator controls which relied on the now obsolete Ross Hill AutoSync module, Zeefax has developed a drop-in replacement module with extra features to extend the serviceable lifetime of valuable legacy assets.

### Engineering Challenge

The AutoSync Module developed by Ross Hill was an enhancement of the original AC Control Module with improved load sharing and diagnostic capabilities. It also incorporated the generator exciter power circuitry into the module footprint.

Zeefax's customers found that manufacture of these modules ceased long ago, while the original AC Control Module remained available. Zeefax therefore decided to support these customers by designing and manufacturing an exact replacement; both in terms of footprint and functionality.

Zeefax realised that the performance could be improved if control logic and timing functions were handled digitally. The analogue voltage and speed control circuits have been retained, except that digitally controlled resistors are used for greater accuracy and flexibility, and digitally regulated reference voltages now provide improved stability and control.

Seizing the opportunity to rectify some of the shortcomings of the original design and incorporate features which would be found on a modern generator control module, Zeefax opted for a digitally controlled approach for better reliability, easier configuration, improved diagnostics and enhanced functionality.

*The result is an excellent product which means that customers with these systems now have an alternative to the costly solution of stripping out their old generator controls and re-fitting with new equipment.*



### Features

- Digitally Controlled Analogue Speed Regulator
- Digitally Controlled Analogue Voltage Regulator
- Automatic KW & KVAR Load Sharing
- Programmable Load and Unload Functions
- Programmable Start and Stop Profile
- Internal Sync Check and Display
- Protective Functions
- Metering Outputs
- Integrated Front Panel Controls
- Simple Configuration
- Exact Replacement for original Ross Hill design

## Specifications

<i>Power Supply</i>	380-690V, three-phase, 50 or 60Hz
<i>Outputs</i>	0-200mA Actuator Control with Programmable Limits 120/240VAC/5A Exciter Control KW, KVAR and Current Meter Outputs Power Limit Output
<i>Speed Control</i>	Digitally Controlled Analogue Governor Control No load to full load regulation +/-1% Load/unload ramp Internal synch check Programmable Idle Speed
<i>Voltage Regulation</i>	Digitally Controlled Analogue Voltage Regulator No load to full load regulation +/-1% of nominal voltage. Internal generator exciter
<i>Load Sharing</i>	Master/slave control isochronous load balance within 5% of rated full load
<i>Temperature Range</i>	0°C - +50°C
<i>Protective Functions</i>	Reverse power Under Frequency Over Frequency Overvoltage Undervoltage Overspeed Idle speed voltage cutback
<i>Front Panel</i>	Engine control switch (OFF – IDLE – RUN MANUAL – RUN AUTO) Master speed adjust Master voltage trim KW Master Indicator (LED) KVAR Master Indicator (LED) Circuit Breaker Close pushbutton and sync indicator Engine Stop pushbutton LCD Matrix diagnostic display and navigation pushbuttons



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