



In response to numerous customer requests, **Zeefax** has developed a drop-in replacement for the now obsolete Ross Hill AutoSync module. This new digital module is intended to be used by rig operators who wish to upgrade their controls and at the same time, wish to extend the serviceable life of existing valuable legacy assets.

### Engineering Challenge

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

Production of these modules ceased some time 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** engineers realised that the performance could be improved if control logic and timing functions were handled digitally. The reliable 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 and kVAr load sharing
- ❖ Programmable load and unload functions
- ❖ Internal Sync Check and Display
- ❖ Protective Functions
- ❖ Metering Outputs
- ❖ Integrated Front Panel Controls
- ❖ Simple Configuration
- ❖ Exact Replacement for original Ross Hill design

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## Specifications

Power Supply	380-690 V, three-phase, 50-60 Hz
Outputs	0-200mA Actuator Control with Programmable Limits 120/240 VAC / 5A Exciter Control kW, kVAr and Current Meter Outputs Power Limit Output
Speed Control	Digitally Controlled Analogue Voltage Regulator No Load to full load regulation $\pm 1\%$ Load/Unload Ramp Internal Sync check Programmable Idle Speed
Voltage Regulation	Digitally Controlled Analogue Voltage Regulator No Load to full load regulation $\pm 1\%$ of nominal voltage Internal generator exciter
Load Sharing	Master/Slave control isochronous load balance within 5% of rated full load.
Temperature Range	0°C to +50°C
Protective Functions	Reverse Power Under Frequency Over Frequency Under Voltage Over Voltage Over Speed Idle Speed Voltage Cutback
Front Panel	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.

## Contact us

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