

Manual voltage regulator kit #300-3713 (K939)

> Specification sheet

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Description

The Cummins Power Generation manual voltage regulator (MVR) is powered independently by the permanent magnet generator (PMG). The MVR is a manually set, but automatically controlled, constant current system where output is independent of generator voltage or frequency.

The independence provides flexibility and operational stability. There is no interaction between generator voltage and exciter field current. Reliable build-up and sustained short circuit current capability are built in.

Manual control in the event of a power failure is not practical, but can be used to permit a hand-controlled machine to “trail” in parallel with the main generator’s automatic voltage regulator (AVR). Manual control can also be useful for providing a controlled short-circuit current to dry out windings or to set protective devices.

Technical specifications

Input (from PMG): 150-220 VAC, 678-120 Hz
3-phase.

Output: 0.25 - 2.0 A DC into 20 ohms minimum.

Operation/storage: -40 °C to +60 °C/-55 °C to +80 °C.

Power dissipation: 6 watts maximum.

Permissible vibration: 80 mm/second at 20-100 Hz
5 g at 0.10 to 2000 Hz.

Humidity: 95% (relative) maximum at 0-60 °C.

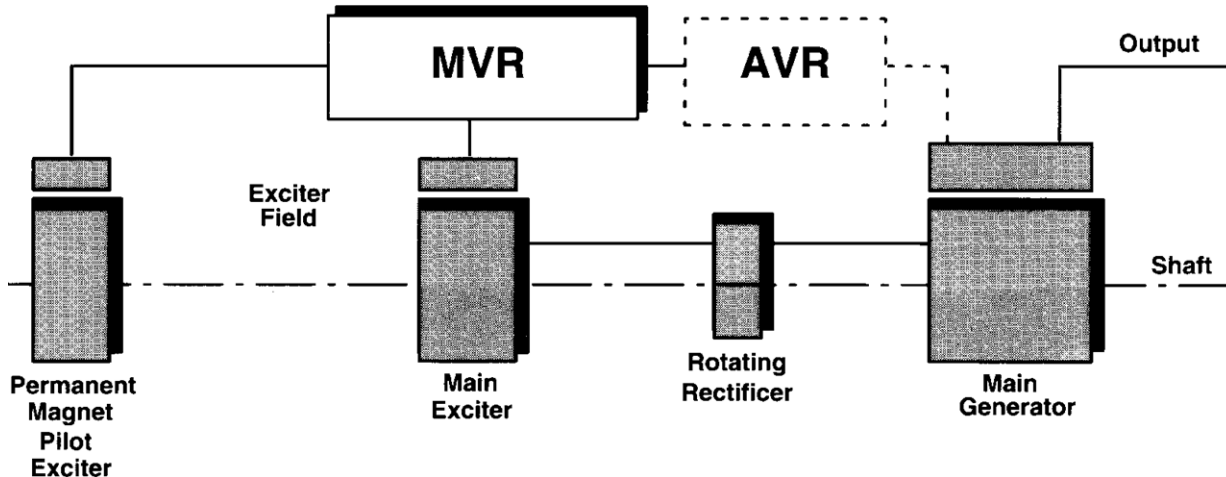
Connections: Five* to generator and five to automatic voltage regulator (all 5 A nominal).

* The MVR unit is designed for switchboard to generator set mounting.

Features and benefits

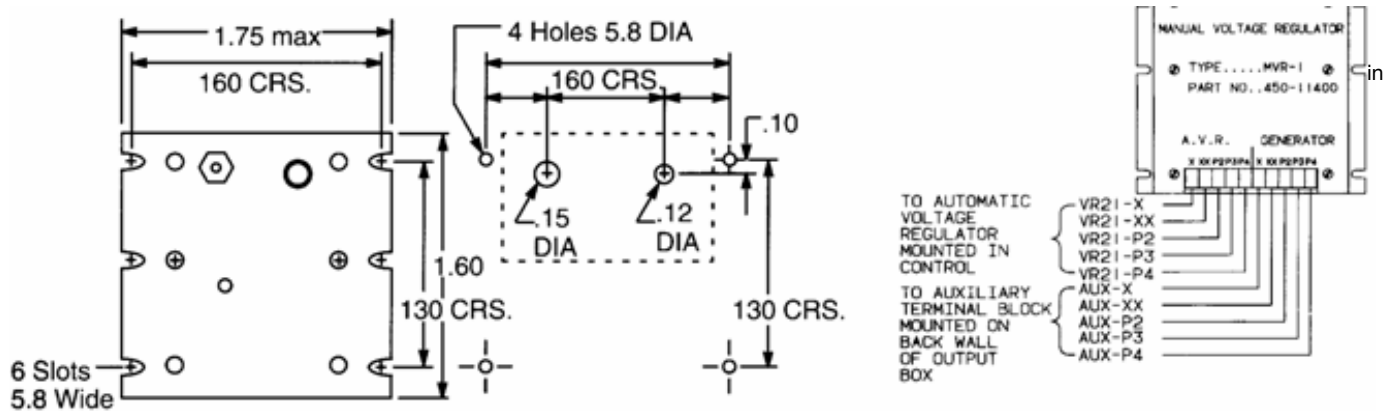
- Durable and reliable solid-state electronics.
- Manually set automatic field current control.
- Dependable power feed from the PMG.
- Compact design for switchboard mounting.
- Three switch selectable operational modes:
Manual - Operator set automatically maintained.
Off - Zero field current.
Auto - Normal automatic voltage control in circuit and maintaining a pre-set terminal voltage.

Installation schematic



Note: An external lamp or relay can (if required) be connected across two of the terminals of an interconnected AVR to indicate that the unit is switched into the AVR operating mode.

Dimensions



Certification:



ISO9001 - This product was designed and manufactured in facilities certified to ISO9001.

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Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect generator sets to any building electrical system except through an approved device or after building main switch is open.

Warning: For professional use only. Must be installed by a qualified service technician. Improper installation presents hazards of electrical shock and improper operation, resulting in severe personal injury and/or property damage.

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