

<b>NAME</b>	<b>VR-H2005-240 Electrical Specification</b>	<b>NO</b>	<b>VR-1-1-2031</b>
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<p align="center"><b>Regulation System Connection Wire Diagram</b></p>	<p><b>Regulator Features :</b></p> <ul style="list-style-type: none"> <li>● Regulation : B – Circuit</li> <li>● Stand by mode</li> <li>● Leakage current control</li> <li>● Default mode</li> <li>● LIN (Com) mode</li> <li>● 9600&amp;19200 Baud rate (4byte)</li> <li>● Variable V setting</li> <li>● Field out duty monitor</li> <li>● Temperature &amp; Field current</li> </ul>
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PARAMETERS AND CONDITIONS	SPEC	Min.	Type	Max.	SYMBOLS
Switch OFF Leakage Current	Ps < 800rpm , LIN= Low , B+=12.0V	---	0.06	1	mA
Regulator Set Point	Default Mode	13.5	13.7	13.9	V
	Defined by external ECU/LIN command.	10.7	---	16.0	V
Output Saturation Voltage	I F = 5A	---	---	0.5	V
Field Current Limit	F shorted to GND	8	---	12	A
Field Control Frequency	10% < duty cycle < 95%	---	220	---	Hz
Error Display High Temp. Protection Threshold on board (substrate)	Field output OFF	---	160	---	°C
Self Drive Termination rpm Threshold Safe mode	Safe mode	504	560	620	rpm
Self Drive Initiation rpm Threshold	Safe mode Frequency given according to the programmed number of generator poles	2550	3000	3550	rpm

**Safety Characteristics:**

- **Over voltage :** Vs = 24 V , 60 sec. from the ignition SW. is turned ON/OFF without failure.
- **Battery Reversal :** Vs = -14 V , 60 sec. from accidental battery reversal without failure.
- **Short Circuit Protection :** The regulator shall stand **short circuit on Field** without failure and return normal operation within 2 seconds once short condition is removed.
- **Repetitive Thermal Shock :** The Regulator shall be designed to withstand 500 cycles of -30°C to 125°C in 20 minutes and 125°C to -30°C in 20 minutes.
- **High Temperature Test :** The regulator shall be designed to operate reliably at the load from 80% to 100% of the alternator rated current and at 6000 rpm ( shaft speed ) for a minimum of 10 hours at 125°C.

2020.08.19		1	張家豪	陳建文	陳建文	MOBILETRON
Date of first edition	Date of revised edition	Edition	Manu-script	Review	Approval	Aug.24.2020
						Release