

NAME	VR – H2005-208 Electrical Specification	NO	VR-1-1-1887
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<p align="center">Regulation System Connection Wire Diagram</p> <p>The diagram shows a green PCB with four terminals labeled IG, S, L, and FR(M). To the right is a physical regulator with four terminals labeled GND, Ps, F, and B+.</p>	<p>System Regulator Type:</p> <ul style="list-style-type: none"> ● Voltage Set Point :14.4V ● Regulation : A – Circuit ● Inactive Lamp ● Soft Start ● Short Circuit Protection ● FR Terminal connected to Computer ● S Open Lamp On
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PARAMETERS AND CONDITIONS	SYMBOLS	MIN.	TYP.	MAX.	UNITS
Operating Temperature Range	T_{OP}	-30	---	125	°C
Field	I_F	---	5	---	A
Voltage Set Point (2500 RPM, at 20A load)	V_{SET}	14.20	14.40	14.60	V
Secondary Set Point (2500 RPM ,at 20A load)	V_{SET2}	14.40	14.60	14.80	V
Speed Regulation (2000 RPM to 6000 RPM ,at load = 15A)	V_{SR}	---	-0.1	-0.3	V
Load Regulation (10% to 95% ,at Speed = 6000 RPM)	V_{LR}	---	-0.3	-0.5	V
Saturation Voltage @ 5A, 12Volts	V_{SAT}	---	0.4	0.5	V
Standby Current (Key off, $V_{BAT} = 12.6V$)	I_{SB}	---	---	2.0	mA
Temperature Coefficient	T_C	-6	-3	0	mV/ °C
Over voltage Indication	V_{OV}	---	---	---	V
Under voltage Indication	V_{UV}	9.5	10.0	10.5	V
Soft-Start Duty	D_{SS}	22	27	32	%
LRC Delay Time	T_{LRC}	---	---	---	Sec
Cut-in Speed	R_{CIS}	---	---	1400	RPM

Safety Characteristics:

- **Over voltage :** $V_s = 24 V$, 60 sec. from the ignition SW. is turned ON/OFF without failure..
- **Short Circuit Protection :** The regulator stands short circuit of Field without failure.
- **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 reliability at the rated current of alternator is 80% to 100% and at 6000 rpm (shaft speed) for a minimum of 10 hours at 125 °C.

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