


NAME	VR – B2012B Electrical Specification	NO	VR-1-1-2654
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<p align="center">Regulation System Connection Wire Diagram</p> 	<p>System Regulator Type:</p> <ul style="list-style-type: none"> ● Standby mode ● Leakage current control ● Default mode ● LIN (COM) mode ● 9600/19200 Baud Rate (4byte) ● Variable V setting ● Regulation : B – Circuit
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PARAMETERS AND CONDITIONS	SYMBOLS	MIN.	TYP.	MAX.	UNITS
Operating Temperature	Operating Temperature	-40	---	125	°C
Regulator Set Point	Default Mode	28.15	28.40	28.65	V
	Defined by external ECU/LIN command.	22.00	---	32.00	V
Output Saturation Voltage	$I_f = 5A$	---	---	2.0	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}	---	-0.4	-0.5	V
Soft-Start Duty	D_{SS}	8	---	15	%

Safety Characteristics:

- **Over voltage :** $V_s = 48 V$, 60 sec. from the ignition SW. is turned ON/OFF without failure.
- **Short Circuit Protection :** The regulator stands short circuit of Field and Lamp 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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