## **VR-H2005-276** Electrical Specification

NO

VR-1-1-2565

## Regulation System Connection Wire Diagram LIN Ps F

## **Regulator Features:**

- Regulation : B Circuit
- Standby mode
- Leakage current control
- Default mode
- LIN (COM) mode
- 9600&19200 Baud rate (4byte)
- Variable V setting
- Field out duty monitor
- Temperature & Field current

PARAMETERS AND CONDITIONS	SPEC	Min.	Туре	Max.	SYMBOLS
Operating Temperature	Operating Temperature	-30		125	င
Switch OFF Leakage Current	Ps < 800rpm , LIN= Low , B+=12.0V		1	mA	
	Default Mode	14.1	14.3	14.5	V
Regulator Set Point	Defined by external ECU/LIN command.	10.6		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 Initiation rpm Threshold	Safe mode Frequency given according to the programmed number of generator poles	2450	3000	3550	rpm

## **Safety Characteristics:**

- ➤ Over voltage: Vs = 24 V, 60 sec. from the ignition SW. is turned ON/OFF 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  $125^{\circ}$ C.

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