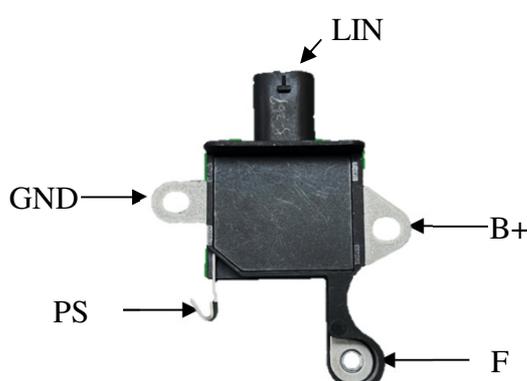


NAME	VR-H2005-267 Electrical Specification	NO	VR-1-1-2447
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<p style="text-align: center;">Regulation System Connection Wire Diagram</p>  <p>The diagram shows a rectangular regulator with five terminals: LIN at the top, GND on the left, PS at the bottom left, B+ on the right, and F at the bottom right.</p>	<p>Regulator Features :</p> <ul style="list-style-type: none"> ● Regulation : B – Circuit ● Standby mode ● Leakage current control ● Default mode ● LIN1 (COM) mode ● 9600&19200 Baud rate (4byte) ● Variable V setting ● Field out duty monitor ● Temperature & Field current
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PARAMETERS AND CONDITIONS	SPEC	Min.	Type	Max.	SYMBOLS
Operating Temperature Range	T_{OP}	-30	---	125	℃
Switch OFF Leakage Current	$P_s < 800rpm$, LIN= Low , B+=12.0V	---	---	1	mA
Regulator Set Point	Default Mode	14.1	14.3	14.5	V
	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 B+	10	---	---	A
Field Control Frequency	$10\% < \text{duty cycle} < 95\%$	---	200	---	Hz
Error Display High Temp. Protection Threshold on board (substrate)	Field output OFF	---	160	---	℃
Self Drive Initiation rpm Threshold	Safe mode Frequency given according to the programmed number of generator poles	2500	3000	3500	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 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℃ to 125℃ in 20 minutes and 125℃ to -30℃ 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℃.

2024.05.16		1	王毅賢	柯文彬	林勝雄	林勝雄		
DATE OF FIRST EDITION	DATE OF REVISED EDITION	EDITION	MANU-SCRIPT	ORI-GINAL REVIEW	SECOND REVIEW	APP-ROVAL	ISSUED MARK	COPY'S NUMBER