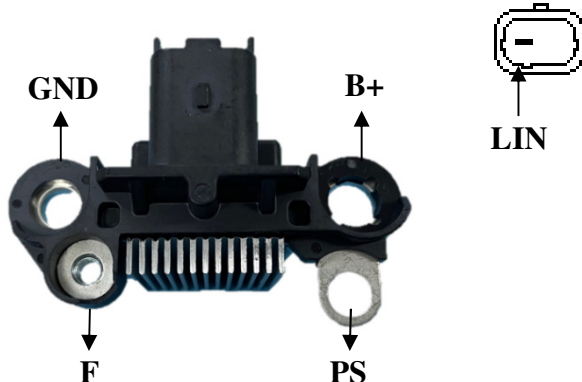


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|------|---------------------------------------|----|-------------|
| NAME | VR-H2009-261 Electrical Specification | NO | VR-1-1-2546 |
|------|---------------------------------------|----|-------------|

| | |
|---|---|
| <p>Regulation System Connection Wire Diagram</p>  | <p>Regulator Features :</p> <ul style="list-style-type: none"> ● Regulation : B – Circuit ● Standby mode ● Leakage current control ● Self mode ● Default mode ● LIN1 (Com) mode(4 BYTE) ● 9600/19200 Baud Rate ● Variable V setting ● Field out duty monitor ● Temperature & Field current |
|---|---|

| PARAMETERS AND CONDITIONS | SPEC | Min. | Type | Max. | SYMBOLS |
|---|---|------|------|------|---------|
| Operating Temperature | Operating Temperature | -30 | --- | 125 | ℃ |
| Switch OFF Leakage Current | Ps < 800rpm , LIN= Low , B+=12.0V | --- | --- | 1 | mA |
| Regulator Set Point | Default Mode | 14.0 | 14.2 | 14.4 | 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 ground | 10 | --- | --- | A |
| Field Control Frequency | 10% < duty cycle < 95% | 150 | 200 | 250 | 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 | 2550 | 3000 | 3450 | 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℃ 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℃ .

| | | | | | | | | |
|-----------------------|-------------------------|---------|-------------|------------------|---------------|-----------|-------------|---------------|
| 2024.09.19 | | 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 |