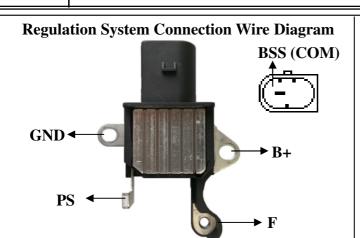
## VR-H2005-274 Electrical Specification

NO

VR-1-1-2526



## **Regulator Features:**

- Regulation: B Circuit
- Standby mode
- Self mode
- Default mode
- BSS (Com) mode
- Variable V setting
- Field out duty monitor
- Temperature & Field current

| Parameters and Conditions  | SPEC  | Min. | Туре | Max. | SYMBOLS |
|--|---|------|------|------|---------|
| Operating Temperature  | Operating Temperature   | -30  |      | 125  | C       |
| Switch OFF Leakage<br>Current  | PS < 1000rpm , BSS = Low , 1  |      |      |      | mA      |
|  | Default Mode  | 14.0 | 14.2 | 14.4 | V       |
| Regulator Set Point  | Defined by external ECU/BSS command.  | 10.6 |      | 16.0 | V       |
| Output Saturation Voltage  | I F = 5A  |      |      | 0.8  | V       |
| Field Current Limit  | F shorted to ground   | 10   |      |      | A       |
| Field Control Frequency  | 10% < Duty cycle < 95%  | 225  | 250  | 275  | Hz      |
| Error Display High Temp.<br>Protection Threshold on<br>Board (Substrate) | Field output OFF  |      | 150  |      | င       |
| Self Drive Initiation RPM<br>Threshold                                   | Safe mode frequency given according to the programmed number of generator poles | 2500 | 3000 | 3500 | 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  $\hat{2}0$  minutes and  $125^{\circ}$ C to  $-30^{\circ}$ C in  $\hat{2}0$  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°C.

| 2024.09.19                  |         | 1              | 王毅賢             | 柯文彬 | 林勝雄 | 林勝雄 |                  |
|-----------------------------|---------|----------------|-----------------|-----|-----|-----|------------------|
| DATE OF<br>FIRST<br>EDITION | REVISED | <b>EDITION</b> | MANU-<br>SCRIPT |     |     |     | COPY'S<br>NUMBER |