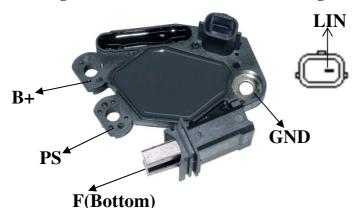
## **Regulation System Connection Wire Diagram**



## **Regulator Features:**

- Voltage Set Point : 14.3V (Default Vset )
- Regulation : B Circuit
- Standby mode
- Leakage current control
- Self mode
- Default mode
- ●LIN2 (Com) mode
- 9600&19200 Baud rate (4byte)
- Variable V setting
- Field out duty monitor
- Temperature & Field current
- Field open indicator

| PARAMETERS AND CONDITIONS   | SPEC  | Min.      | Туре | Max. | SYMBOLS |
|---|---|-----------|------|------|---------|
| Operating Temperature   | Operating Temperature   | -30       |      | 125  | ဗ       |
| Switch OFF Leakage Current  | Ps < 800rpm , LIN= Low , B+=12.0V   |           |      | 2.0  | 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  |           |      | 0.8  | v       |
| Field Current Limit   | F shorted to B+   | 10        |      |      | A       |
| Field Control Frequency   | 10% < duty cycle < 95%  | 175 200 2 |      | 225  | Hz      |
| Error Display High Temp.<br>Protection Threshold on<br>board(substrate) | Field output OFF  |           | 160  |      | °C      |
| Self Drive Initiation rpm<br>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°C to 125°C in 20 minutes and  $125^{\circ}$ C to  $-30^{\circ}$ 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°C.

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|------------|-------------------------------|----------------|--------|-----|------------------|---------------|----------------|------------------|
| FIRST      | DATE OF<br>REVISED<br>EDITION | <b>EDITION</b> | SCRIPT | ,   | SECOND<br>REVIEW | APP-<br>ROVAL | ISSUED<br>MARK | COPY'S<br>NUMBER |