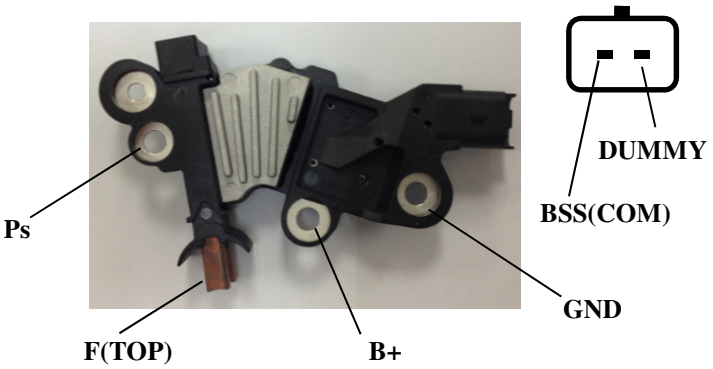
NAME	VR–B135 Electrical Specification	NO	VR-1-1-1603

Regulation System Connection Wire Diagram



Regulator Features :

- Stand by mode& Leakage current control
- Self mode
- Default mode
- BSS (COM) mode
- Variable V setting
- Field out duty monitor
- Temperature & Field current
- Regulation : B – Circuit

Parameters and conditions	Specification	Min.	Type	Max.	SYMBOLS
Switch OFF Leakage Current	Ps ＜ 800rpm , LIN= Low , B+=12.0V	---	---	0.5	mA
Regulator Set Point	Default Mode	14.0	14.2	14. 4	V
	Defined by external ECU/LIN command.	10.7	---	16.0	V
Output Saturation Voltage	I f = 5A	---	---	0.8	V
Field Current Limit	F shorted to ground	7	8.5	10	A
Field Control Frequency	10% ＜ duty cycle ＜ 95%	127.5	150	172.5	Hz
Error Display High Temp. Protection Threshold on board(substrate)	Field output OFF	---	160	---	℃
Self Drive Termination rpm Threshold	Safe mode	725	800	875	rpm
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.
- **Battery Reversal :** Vs = -14 V , 60 sec. from accidental battery reversal 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℃.

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