

NAME	VR – H2005-283B Electrical Specification	NO	VR-1-1-2605
-------------	---	-----------	--------------------

<p align="center">Regulation System Connection Wire Diagram</p> <p>The diagram shows a physical regulator with several terminals. A connector labeled 'S I G L' is shown to the left. The main regulator has terminals labeled 'GND' (top left), 'GND' (middle left), 'Ps' (bottom left), 'F' (bottom left), and 'B+' (bottom right).</p>	<p>System Regulator Type:</p> <ul style="list-style-type: none"> ● Voltage Set Point : 28.3V ● Regulation : A – Circuit ● Inactive Lamp ● Short Circuit Protection ● S Open Lamp On ● IG Open Lamp Off
--	---

PARAMETERS AND CONDITIONS	SYMBOLS	MIN.	TYP.	MAX.	UNITS
Operating Temperature Range	T_{OP}	-30	---	125	°C
Field	I_F	---	5	---	A
Voltage Set Point (2500 RPM, at 20A load)	V_{SET}	28.0	28.3	28.6	V
Secondary Set Point (2500 RPM ,at 20A load)	V_{SET2}	28.5	29.0	29.5	V
Speed Regulation (2000 RPM to 6000 RPM ,at load = 15A)	V_{SR}	---	-0.1	-0.3	V
Load Regulation (10% to 95% ,at Speed = 6000 RPM)	V_{LR}	---	-0.8	-1.0	V
Saturation Voltage @ 5A, 24Volts	V_{SAT}	---	0.6	0.8	V
Standby Current (Key off, $V_{BAT} = 25.2V$)	I_{SB}	---	---	2.0	mA
Temperature Coefficient	T_C	-6	-3	0	mV/ °C
Over voltage Indication	V_{OV}	---	---	---	V
Under voltage Indication	V_{UV}	18.8	19.3	19.8	V
Soft-Start Duty	D_{SS}	15	30	45	%
LRC Delay Time	T_{LRC}	---	---	---	Sec
Cut-in Speed	R_{CIS}	---	---	1700	RPM

Safety Characteristics:

- **Over voltage :** $V_s = 48 V$, 60 sec. from the ignition SW. is turned ON/OFF without failure.
- **Short Circuit Protection :** The regulator stands short circuit of Field without failure.
- **Repetitive Thermal Shock :**
The Regulator shall be designed to withstand 500 cycles of -30°C to 125 °C in 20 minutes and 125 °C to -30 °C in 20 minutes.
- **High Temperature Test :**
The Regulator shall be designed to operate reliability at the rated current of alternator is 80% to 100% and at 6000 rpm (shaft speed) for a minimum of 10 hours at 125 °C.

2025.03.19		1	張家豪	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