

**NM-VRP-8670****Adjustable Voltage Regulator Module****KEY FEATURES AND BENEFITS**

- Input voltage range : 3V to 20VDC
- Output voltage range : 2V to 12V DC
- Power dissipation upto 10W
- Maximum drop out voltage of 1.5V
- Maximum current of 3A

**APPLICATIONS**

- Post regulators for switching supplies
- Battery chargers

**DESCRIPTION**

The adjustable voltage regulator module delivers an output of 2V to 12VDC from an input of 3V to 20VDC. It supports maximum 5W power dissipation without using any heat sink or external cooling. For power dissipation upto 10W a heat sink (NM-RR-XKK-87905) provision is given on the PCB. The module has two LEDs to indicate the presence of input and output voltages. It operates at a maximum dropout voltage of 1.5V at maximum output current. The module has an LDO (Low Dropout) which act as a three terminal constant current regulator.

**BLOCK LEVEL EXPLANATION****CONNECTORS**

The module has three 2-pin screw terminal connectors, out of which two are input connectors and one is output connector. One of the input connectors receives the input voltage from 3V to 20VDC. The other input connector receives the TTL level signal for ON/OFF control. The output connector delivers 2V to 12VDC.

**FILTERS**

The module consists of input filter and output filter to avoid ripples and noise across the inputs and outputs. The output filter has additional option to improve low frequency rejection for generating output voltage.

**LOW DROPOUT (LDO)**

The low dropout allows for a very small input-output differential voltage to improve the efficiency and also lowers the heat dissipation. It guarantees dropout voltage at multiple current levels. The maximum dropout is 1.5V at a maximum output current and decreasing at lower load current. It can operate at a maximum current of 3A.

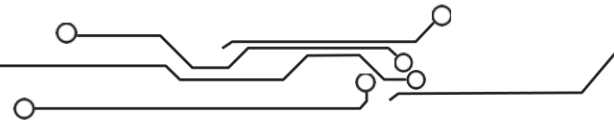
**LIGHT EMITTING DIODE (LED)**

The module consists of two green LEDs to indicate the presence of input voltage and output voltage.

**POTENTIOMETER (POT)**

The variable potentiometer ranges from 0 to 2K. It can be varied by a rotating flat screw.

**Note:** The module has an option for TTL ON/OFF control and full wave bridge AC input voltage.



**NM-VRP-8670**

**SPECIFICATIONS OF NM-VRP-8670**

**INPUT AND OUTPUT SPECIFICATIONS**

Input voltage : 3V to 20VDC  
 Output voltage : 2V to 12VDC  
 Output current : 3A

**MECHANICAL**

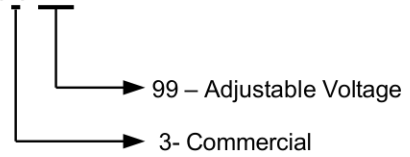
Dimensions (LXBXH) in mm : 60X72X27.8  
 Weight in kg : 0.04

**ENVIRONMENT**

Operating temperature : 0°C to 60°C  
 Storage temperature : -20°C to 80°C

**ORDERING INFORMATION**

NM-VRP-8670-3 XX



**BLOCK DIAGRAM OF NM-VRP-8670**

