

**Input Reverse Polarity Protection**

There is a MOSFET connected in series to the negative input line. If the input polarity is connected reversely, the MOSFET opens and there will be no output to protect the unit.

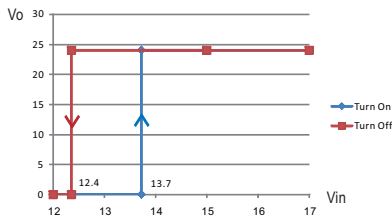
**Input Range and Transient Ability**

The series has a wide range input capability. Within  $\pm 30\%$  of rated input voltage, it can be executed at full-load operation and operate properly; with  $\pm 40\%$  of rated input voltage, it can withstand that for 1 second.

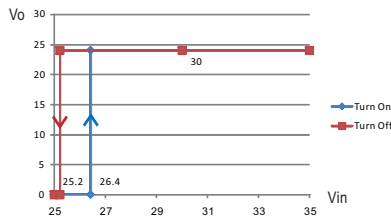
**Input Under-Voltage Protection**

If input voltage drops below  $V_{imin}$ , the internal control IC shuts down and there is no output voltage. It recovers automatically when input voltage reaches above  $V_{imin}$ , please refer to the curve below.

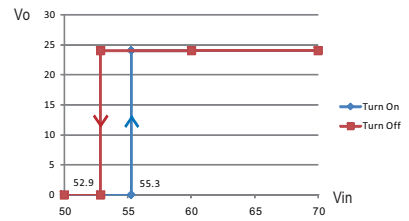
RSD-150B-24



RSD-150C-24



RSD-150D-24



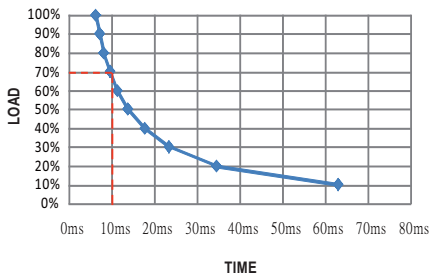
**Inrush Current**

Inrush current is suppressed by a resistor during the initial start-up, and then the resistor is bypassed by a MOSFET to reduce power consumption after accomplishing the start-up.

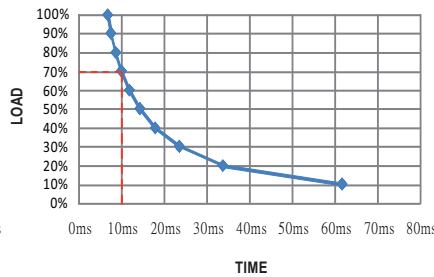
**Hold-up Time**

D type is in compliance with S2 level, while B and C types are in compliance with S1 level at full load output condition. To fulfil the requirements of S2 level, B and C types require de-rating their output load to 70% (except RSD-150B-5 requires de-rating its output load to 60%), please refer to the curve diagrams below.

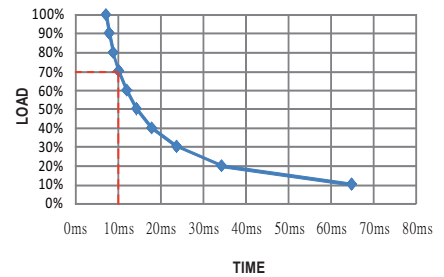
RSD-150B-5



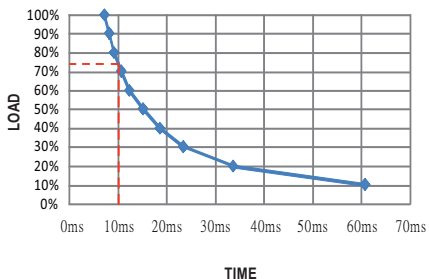
RSD-150B-12



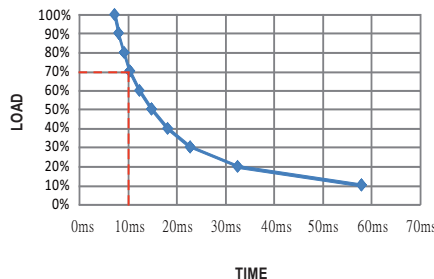
RSD-150B-24



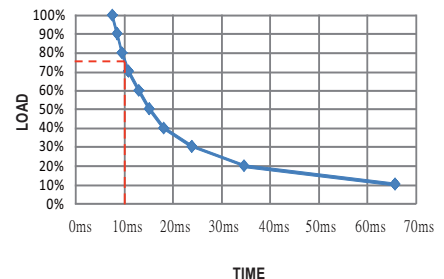
RSD-150C-5



RSD-150C-12



RSD-150C-24

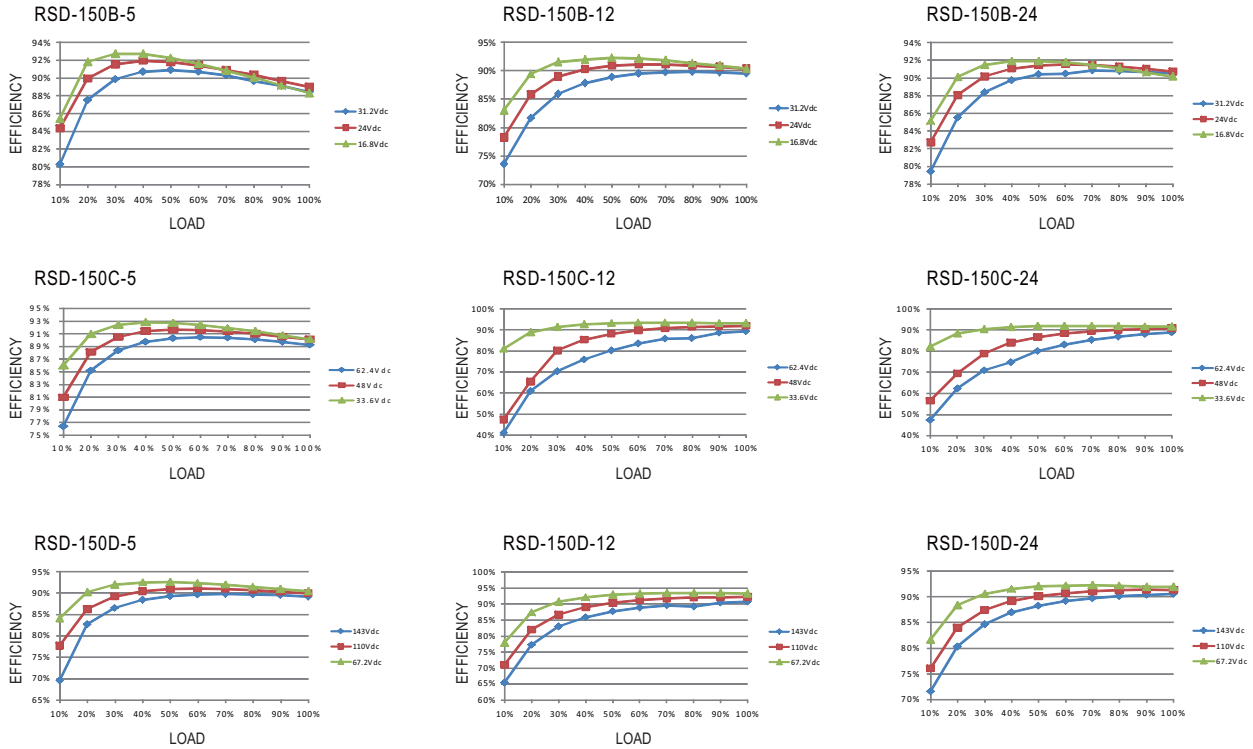


**Output Voltage Adjustment**

This function is optional, which the standard product does not have it. If you do need the function, please contact MW for details.

## Efficiency vs Load & Vin Curve

The efficiency vs load & Vin curves of each model are shown as below.

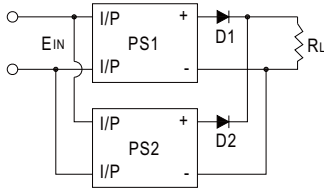


## Parallel and Series Connection

### A. Operation in Parallel

Since RSD-150 series don't have built-in parallel circuit, it can only use external circuits to achieve the redundant operation but not increase the current rating.

1. Add a diode at the positive-output of each power supply (as shown as below), the current rating of the diode should be larger than the maximum output current rating and attached to a suitable heat sink. This is only for redundant use (increase the reliability of the system) and users have to check suitability of the circuit by themselves.



2. When using S.P.S. in parallel connection, the leakage current will increase at the same time. This could pose as a shock hazard for the user. So please contact the supplier if you have this kind of application.

### B. Operation in Series

RSD-150 can be operated in series. Here are the methods of doing it:

1. Positive and negative terminals are connected as shown as below. According to the connection, you can get the positive and negative output voltages for your loads.

