

Application Note

Title: Measurement of voltage and current in a DC load bank application

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Revision: 2nd

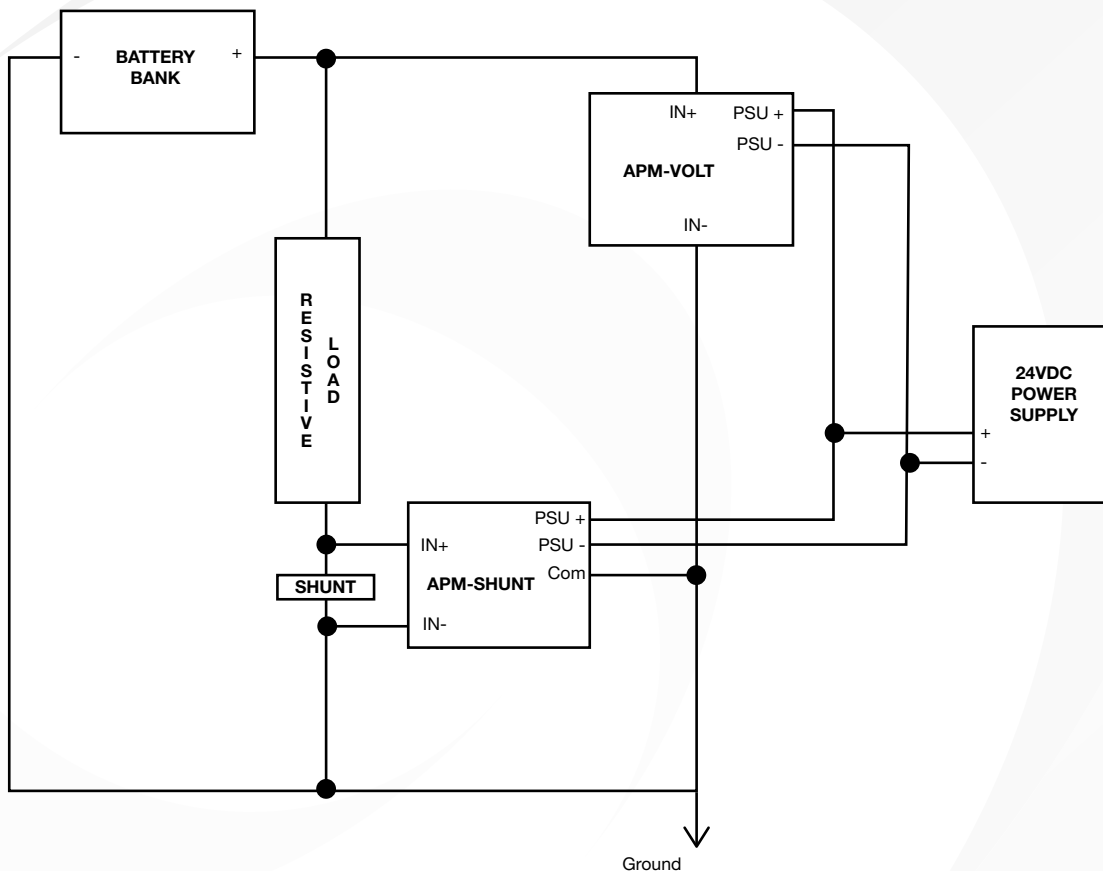
1. Introduction

Most manufacturing facilities use battery powered equipment such as fork lifts and maintenance carts. These facilities will use load banks to test these batteries on a regular basis. Bad batteries can impact productivity and damage equipment.

Manufacturers of load bank equipment usually provide a volt meter and a current meter on each load bank. By monitoring current and voltage at specific resistive load will indicate whether a battery or bank of batteries is good.

The voltage is general measured across the load and the current is measured using a current shunt on the low side of the load. Shunts are typically 50mv or 100mv output.

2. Diagram

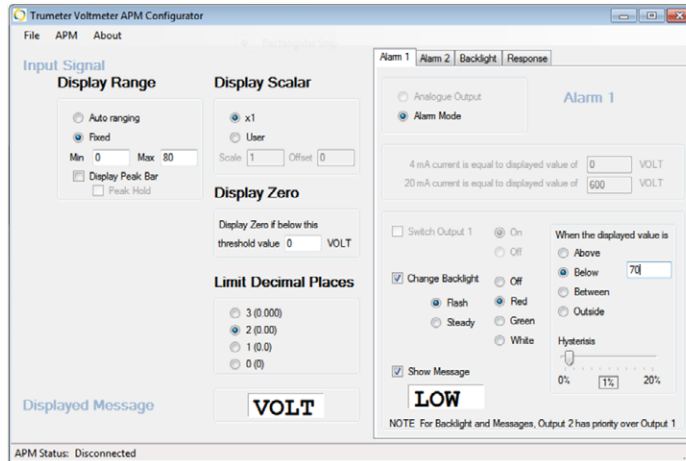


3. Example

The Load Bank tests six 12 volt batteries in series. 72 volts total. Under load, a voltage below 70 volts indicates an issue.

The load is sized to draw 300 amps from the batteries. A current below 290 amps indicates an issue. The system uses a 300 amp to 50mv shunt.

APM-VOLT



APM-SHNT

