

Watt & Volt a powerful confusion

Introduction



Watt and volt are two powerful confusions to the user. But both the term is totally different from each other. The Watt is the SI unit of power – Volts times Amperes in direct-current systems, but when dealing with alternating current, if you introduce a reactive (non-resistive) load, Volts and Amps are no longer in phase. Watt is real power and volt ampere is apparent power.

- **What Are Watts Used for?**

These ratings are useful if you must get rid of the heat generated by the device consuming the watts. To combine the real power of multiple dc or ac devices, you can just add up the individual power ratings in watts of each device to get the total power. The real power in watts is the power that performs work or generates heat. Power in watts is the rate at which energy is consumed (or generated). One watt is one joule (energy) per second ($1\text{ W} = 1\text{ J/s}$).

- **What Are Volt-Amperes Used for?**

Volt-amperes provide insight into the amount of current drawn by a product or circuit, assuming you know the voltage. Volt amperes provide insight into the amount of current drawn by a product or circuit, assuming you know the voltage.

- **How to avoid the sizing error:**

To avoid this kind of confusion to select the user in UPS rating will never mentioned into VA (Volt-ampere) term it is easy to verify from the watt rating. If size of wire is mentioned on the equipment name plate, then it is easy for user to identify.

If the user prefers wrong wire size, then it will also affect the performance of the battery. And reduced the run time of the battery. In this condition risk of harm our equipment and appliance also.

Conclusion



Both Watt and VA ratings have a use and purpose. The Watt rating determines the actual power purchased from the utility company and the heat loading generated by the equipment. The VA rating is used for sizing wiring and circuit breakers.