

Smart-UPS fan operation parameters

Issue:

When does the fan run on my Smart-UPS

Product Line:

Smart-UPS

Environment:

All models, All Serial Numbers

Cause:

A fan is included on any Smart-UPS 1400 VA higher and on all "XL" models.

Heat is the number one cause of premature battery failure in a UPS. Fan operation is tuned to ensure that the UPS remain as cool as possible.

This is a commercial grade UPS designed for business environments. If you are operating the UPS in an overly quiet environment, such as a bedroom, or recording studio, you may find the fan to be too loud. This is normal and to be expected with this type of UPS. We offer Back-UPS and AV product lines which may be more suitable for your environment. See your local APC reseller or APC.COM for more information.

Resolution:

All "**SU**" model units and earlier "**SUA**" units utilize a single speed fan. The fan will only be on during the following scenarios:

1. The UPS is on battery.
2. The UPS is charging the battery.
3. The UPS has a load greater than 75%.
4. The internal temperature of the UPS has reached greater than 140 degrees F (60 degrees C). *Note, for 4th Generation units (model number begins with **SUA**) the temperature range has changed. For these models, the internal temperature will have to be greater than 104 degrees F (40 degrees C)*

Later "**SUA**" model units utilize a 2 Speed fan. On these units the fan will always be on in low speed mode, and will switch to high speed mode should one of the following events occur:

1. The UPS is on battery.
2. The UPS is charging the battery.
3. The UPS has a load greater than 75%.
4. The internal temperature of the UPS has reached greater than 104 degrees F (40 degrees C).

All "**SURT**" and "**SRT**" model units utilize a fan which is always on and should be spinning regardless of UPS operation or internal temperature.

"**SMT**" and "**SMX**" models use a variable speed fan. The speed is determined by multiple factors such as operating temperature, mode of operation, and load.

This operation may vary depending on the model and firmware revision of the UPS.

Ensure your UPS has the most recent firmware revision installed for optimal fan operation.

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