

Earthing Requirement for V-Sat in CSC

VSAT PRE-REQUISITES:

- The UPS for the VSAT equipment must be an On-line UPS with full sine wave
- The UPS must be on the same earth, which is used for the VSAT ODU & IDU
- The UPS must have an in built isolation transformer in order to keep the neutral at 0 Volts
- The UPS Output and Input should be on the same earth.
- The voltage between earth & neutral at the UPS O/P must be less than 2 Volts
- The voltage at different points at the UPS O/P must satisfy the following relation $\text{Phase/Earth Voltage} = \text{Phase/Neutral Voltage} + \text{Neutral/Earth Voltage}$

EARTHING REQUIREMENTS:

Below mentioned diagram details about how the earthing should be done, as the VSAT is very power quality sensitive equipment.

- The depth of the earth pit must be at least 10 feet or up to the depth of waterbed.
- An 8-Gauge copper strip should be buried till the wet soil & one copper plate of 60 Cm * 60 Cm * 3 mm must be bolted on the copper strip at the lower end of strip
- The Copper plate must be covered with a mixture of Charcoal, Salt and water
- The earth resistance must be less than 2 Ohms
- A 10-Gauge multistoried copper wire should be connected to the strip & extended to the Outdoor Unit (ODU), UPS & antenna
- The earth pit for the VSAT should be separate from building earth & must be dedicated for the VSAT only
- ODU should be away from high tension electric wires and any other RF interference
- Customer should not place any heavy electrical load/Inductive load on the power source, which is being used for VSAT.

Earthing Diagram: -

