

**Subject:** Displacement Power Factor (DPF) Power Response

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## Purpose:

To walk you through the process of enabling the Displacement Power Factor (DPF) power response feature. This feature can be used to help inverters shutting down with high AC voltage.

## What is it?

EnaSolar inverters have the ability to adjust the power factor (leading or lagging) as the inverter increases its power. This can reduce the likelihood of the inverter disconnecting of the grid overvoltage.

**Please note:** These settings should only be adjusted in consultation with the electricity distribution company.

## Why?

Sometimes the electricity distribution company wants the power factor adjusted to assist with voltage stability or power quality.

## How to enable this feature?

1. Turn the inverter AC and DC switches to the OFF position.
2. Undo the four front panel screws and let the front panel hang from its cables supporting it.
3. Connect the USB cable between your PC and the old front panel. Turn the DC switch to the ON position. In the EnaSolar Inverter Configuration Software go to **Advanced Settings** menu, **AC Settings** tab.
4. Set the desired **DPF  $\cos\phi$  at Pn** the displacement factor at full power.  
**Please note:** It defaults to 1 (unity power factor). A setting of 0.95 means that at 100% power, the inverter will be acting as a capacitive load with respect to the grid. The valid ranges are -0.9 to 1 to +0.9.
5. Set the **DPF Start Power Level**  
This is the power level (%) at which the inverter starts to adjust the power factor – it defaults to 50%.

