

Volt-Watt Response Mode (%) & Error 014 Settings

Disclaimer

The new **Crystal Series** (SG2KTL-S, SG3KTL-S, SG3KTL-D and SG5KTL-D) in conjunction with eShow V21 complies with the standard AS/NZS 4777.2:2015 related to grid protection requirements. If the line voltage or frequency goes outside pre-determined parameters, the inverter must shut down for safety purposes, which means it is not a faulty inverter in this instance.

Introduction

The average voltage for a 10 min period is set to 255 V by default (as specified by the Standard). The average voltage over a 10-minute period is set to 255 V by default (as specified by the Standard). This means that when the **average voltage** over a **10-minute period exceeds 255 V**, the inverter will disconnect from the grid and the corresponding **status** on the eShow is “**Error 014**”. The customer may increase the voltage threshold **up to 258 V** (the upper limit specified by the Standard). **However, if the problem persists after increasing the voltage threshold, we recommend that the customer may contact the local network operator to inspect the line voltage.**

To reduce the probability of tripping off the inverter (error 014), the volt-watt response mode has been developed according to the standard to restrict the power output of the inverter in response to the AC voltage. The volt-watt response mode can restrict the power output of the inverter in response to the voltage at its terminals (refer to AS/NZS 4777.2:2015, 6.3.2 Volt response modes). The grid voltage at which the inverter output starts to drop/de-rate is set to 250 V by default as required by the Standard. This means that when the **voltage exceeds 250 V**, the **inverter power limit** in the bottom left corner of the home screen displays as **less than 100%** of the rated power. The customer may increase the voltage threshold **up to 255 V** (the upper limit specified by the Standard).

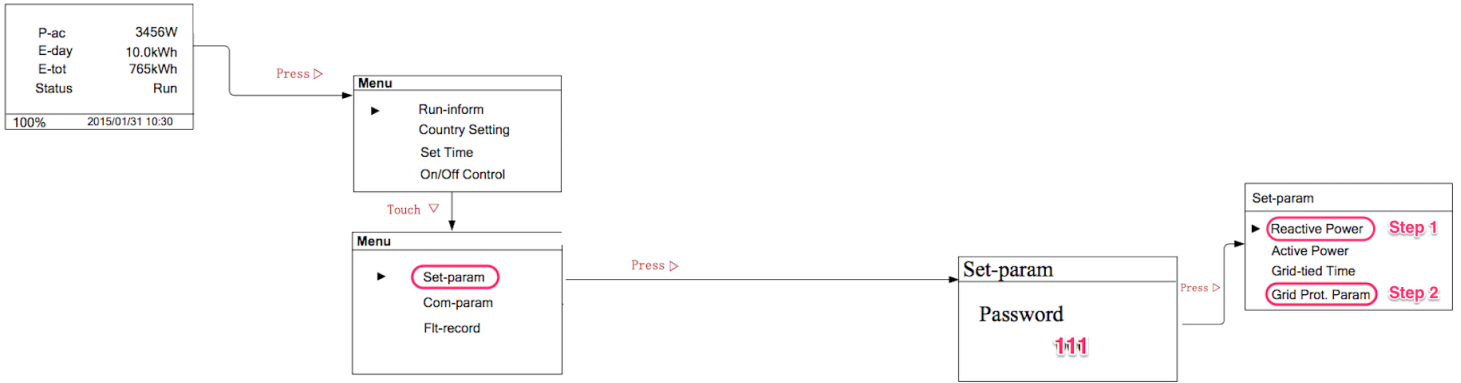


Figure 1: Menu Tree

10 Minutes Overvoltage Setting: To modify the sustained operation for voltage variations setting. Navigate to **Set-param** (Figure 1) → Enter **111** → Navigate to **Grid Prot. Param** → Select **ON** → Adjust the **10 min Vtg** to **258.0 V** (Figure 2) → **Setting completed** will then be displayed on the screen (Figure 3).



Figure 2 10-minute overvoltage limit

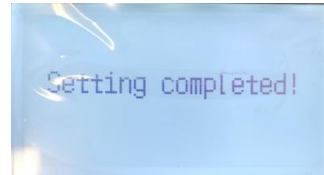


Figure 3 Setting completed

Volt-Watt Response Mode: To modify the volt-watt response mode setting, navigate to **Set-param** (Figure 1) → Enter **111** → Select **Active Power** → Select **Volt-watt** (Figure 4) → Select **ON** → Adjust **V3 Ref.** value to **255.0 V** (Figure 5) → **Setting completed** will then display (Figure 6).

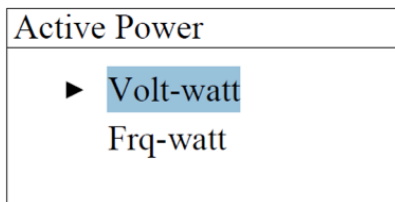


Figure 4: Volt-watt response

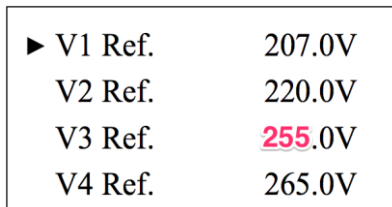


Figure 5: V3 reference

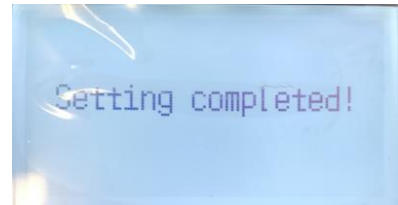


Figure 6: Setting completed