

Volt-watt Mode

The new SH5K inverter complies with the AS/NZS 4777.2:2015 standard. The new standard introduced the volt-watt response mode to 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 grid voltage exceeds 250 V, the maximum output of the inverters will be restricted (as required by the standard).** The maximum output decreases by approximately 5 % for every volt beyond 250 V (refer to Figure 1), down to 20% of the nominal output when the voltage reaches 265 V.

Table 1: Description of Power Derating Parameters

Parameter	Explanation	Default	Range
V1 Ref.	Grid voltage reference value 1	207.0 V	Not applicable
V2 Ref.	Grid voltage reference value 2	220.0 V	216 V–230 V
V3 Ref.	Grid voltage reference value 3	250.0 V	235 V–255 V
V4 Ref.	Grid voltage reference value 4	265.0 V	244 V–265 V

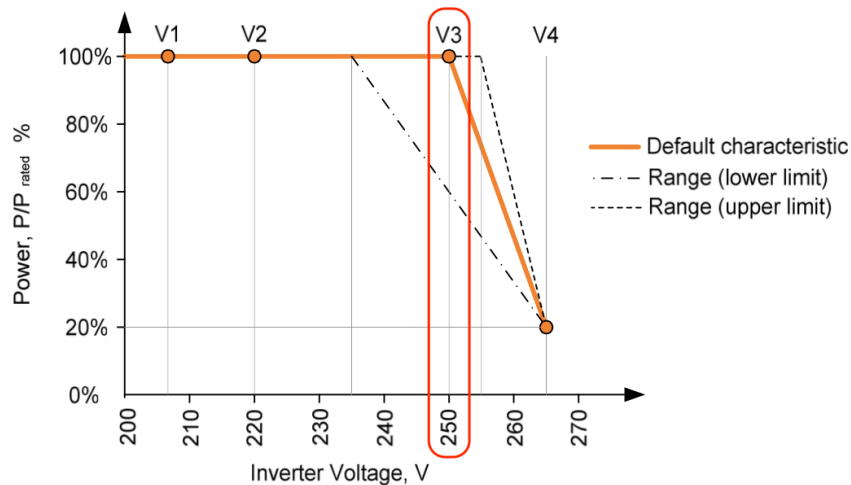


Figure 1: Volt-Watt response curve

The customer may increase the voltage threshold **up to 255 V** (the upper limit required by the standard) by following the procedures below. 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.

Procedures: Navigate to *Setting (111)* → Navigate to **Active Power** (Figure 2) → Select Volt-watt (Figure 3) → Adjust **V3 Ref.** value to **255.0 V** (Figure 4) → Shall see **Setting completed** (Figure 5)

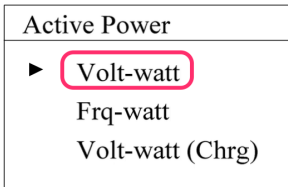


Figure 2 Menu Tree

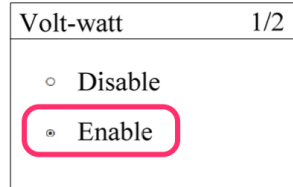


Figure 3 Volt-watt mode

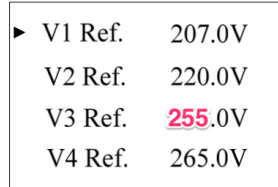


Figure 4 V3 Ref. Parameter

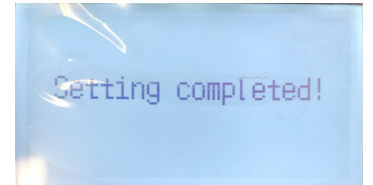


Figure 5 Setting completed