SUN2000-330KTL-H1

Output Charateristics Curve

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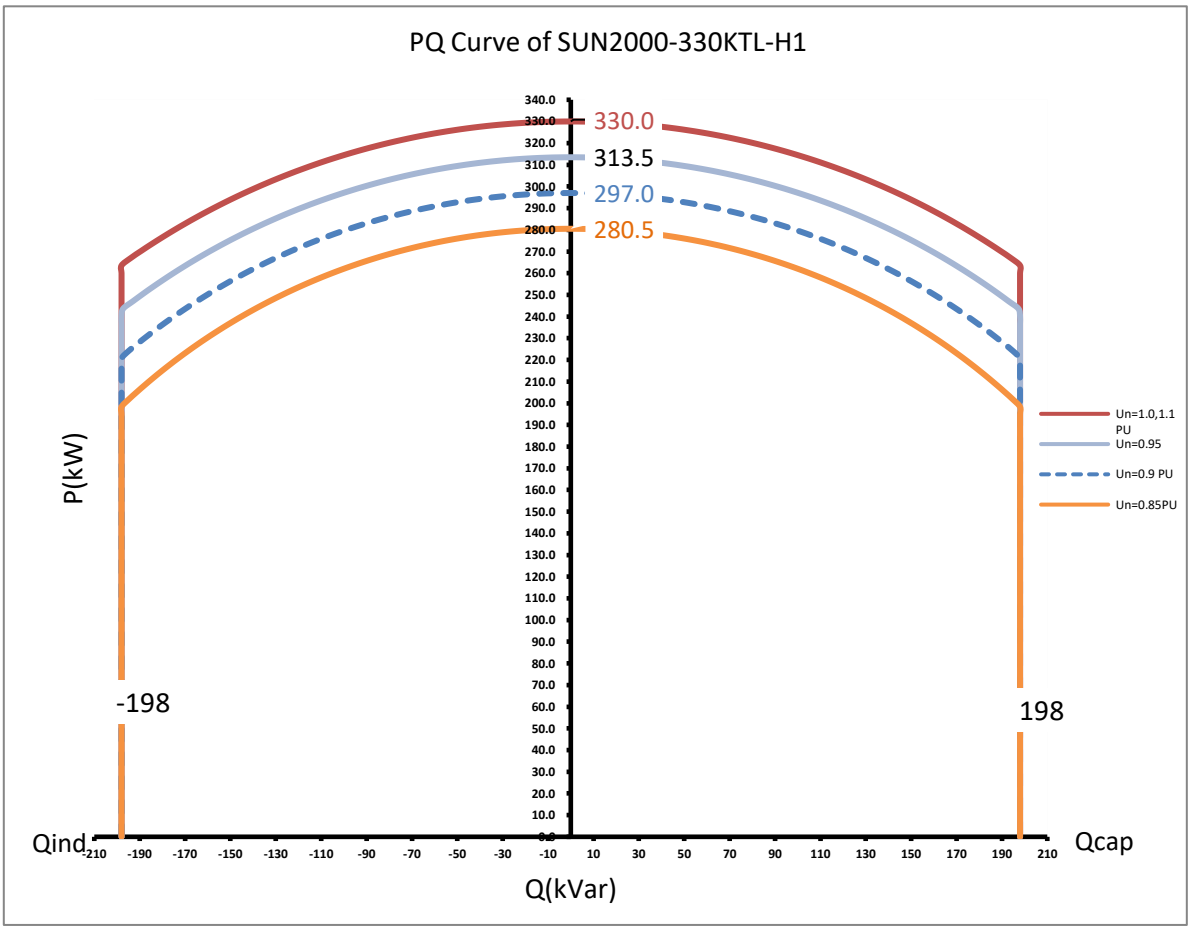
Version	Created by	Date	Remarks
01	Huawei	08/22/2022	preliminary

1. Description

This document describes output characteristics curve of the SUN2000-330KTL-H1, including the P-Q curve, temperature derating curve, and high altitude derating curve.

2. Output Charateristics Curve

2.1 P-Q curve

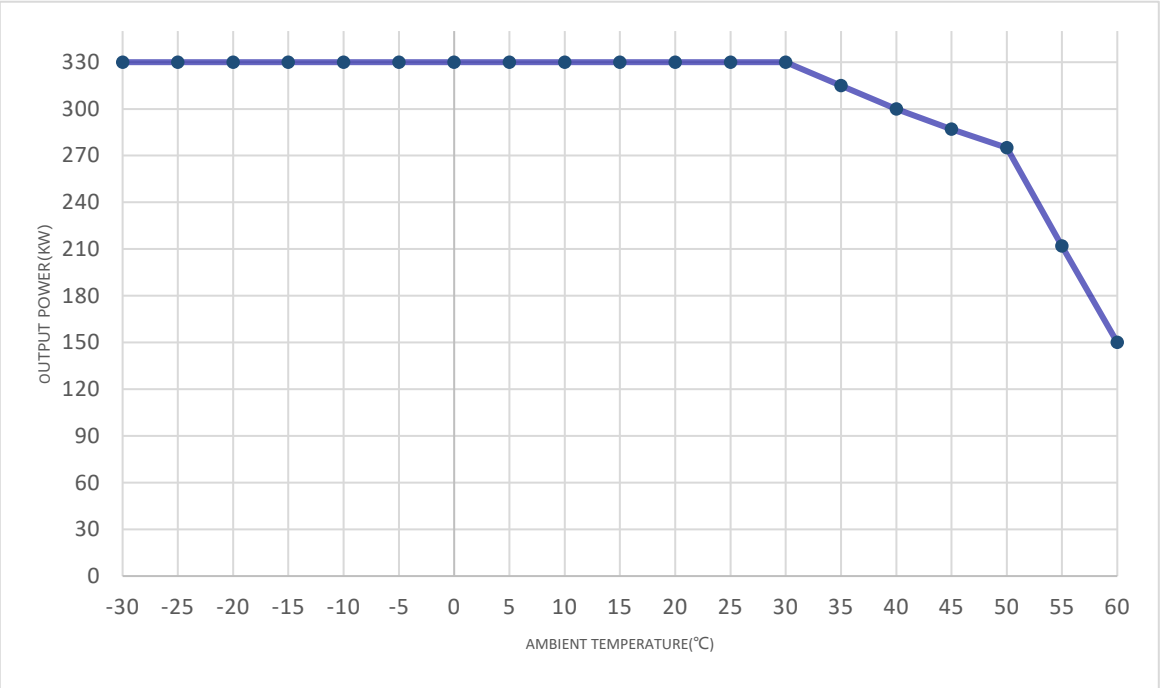


For SUN2000-330KTL-H1 inverter, its rated AC active power is 300kW and maximum AC active power is 330kW, maximum apparent active power is 330kVA,maximum reactive power range is -198kVar~+198kVar.

2.2 Power De-rating Curve VS. Ambient Temperature

When the ambient temperature is high, the inverter reduces the output power to ensure product safety and service life. The following figure shows the temperature derating curve of the SUN2000-330KTL-H1.

Power De-rating Curve VS. Ambient Temperature of SUN2000-330KTL-H1



Grid Voltage:800Vac,PF=1

Model	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C	15°C
SUN2000-330KTL-H1	330 kW	330 kW	330 kW	330 kW	330 kW	330 kW	330 kW	330 kW	330 kW	330 kW
	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	
	330 kW	330 kW	330 kW	315 kW	300 kW	287 kW	275 kW	212 kW	150 kW	

2.3 DC Voltage Curve VS. Altitude

As the altitude increases, the air density decreases and the heat dissipation effect of the inverter decreases. In addition, the air density decreases, the free travel of electrons increases, the kinetic energy increases which may cause easier breakdown and ionization. Therefore, to ensure product safety, the maximum input voltage of the inverter needs derating. In actual applications, PV modules should be properly configured in high-altitude scenarios to prevent improper high voltage at the DC side of the inverter. The altitude derating curve is as follows:

DC Voltage Curve VS. Altitude of SUN2000-300KTL-H1