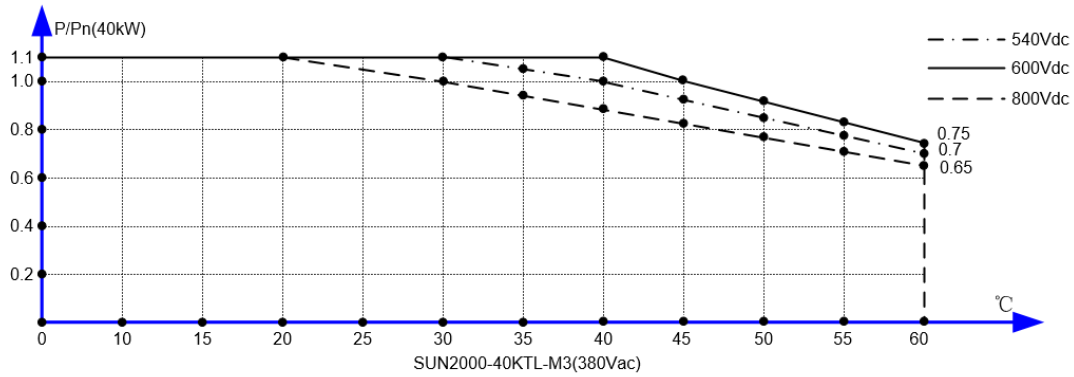
SUN2000-40KTL-M3 Output Characteristics Curve (Preliminary Version)

Huawei Technologies Co., Ltd.

Version	Created by	Date	Remarks
01	Huawei	2020-10-22	

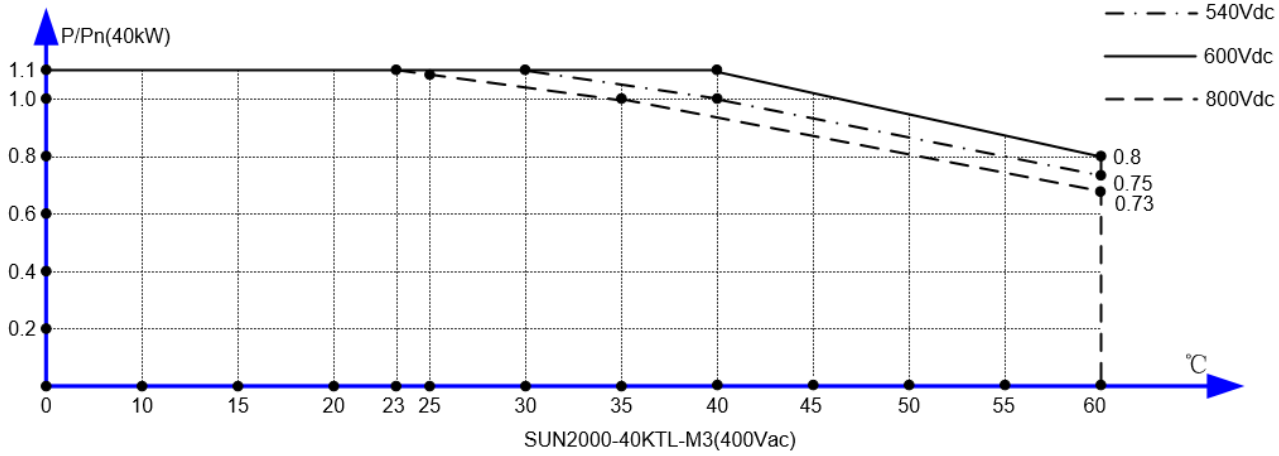
Power De-rating Curve VS. Ambient Temperature

Power De-rating Curve VS. Ambient Temperature of SUN2000-40KTL-M3:



Air speed: 0.5m/s, Grid Voltage：380Vac, PF=1

Model	MPPT Input Voltage	AC Output Power（kVA）						
		25°C	35°C	40°C	45°C	50°C	55°C	60°C
SUN2000-40KTL-M3	540 V	44	42	40	37	34	31	28
	600 V	44	44	44	40.5	37	33.5	30
	800 V	42	37.7	35.3	33	30.7	28.3	26

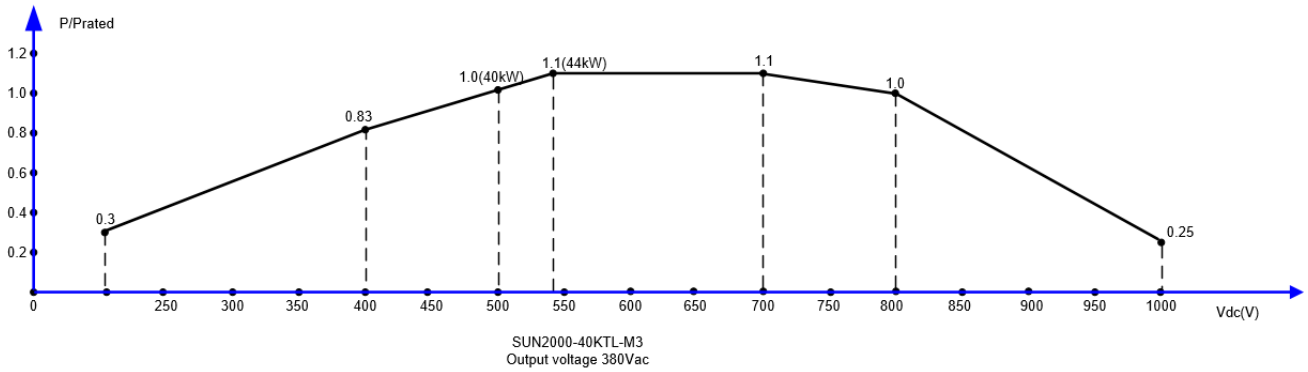


Air speed: 0.5m/s, Grid Voltage：400Vac, PF=1

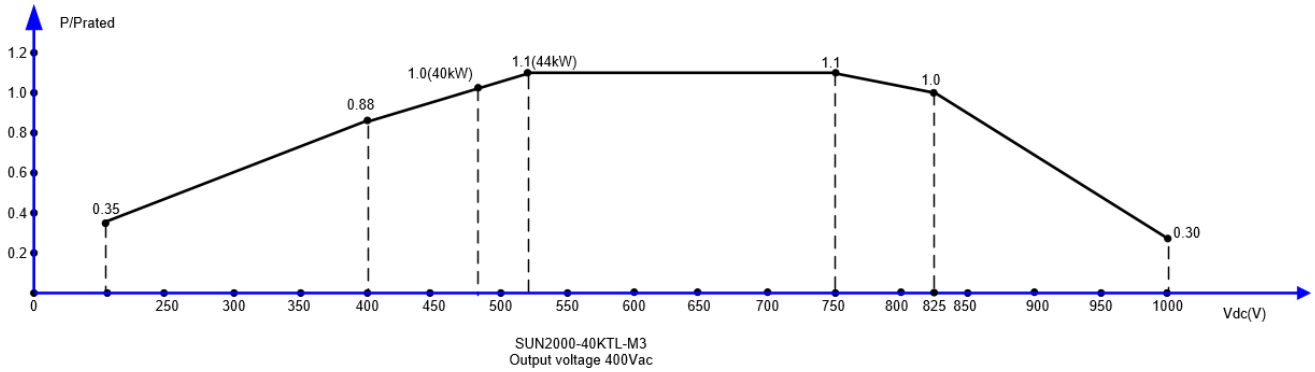
Model	MPPT Input Voltage	AC Output Power（kVA）						
		25°C	35°C	40°C	45°C	50°C	55°C	60°C
SUN2000-40KTL-M3	540 V	44	42	40	37.5	35	32.5	30
	600 V	44	44	44	41	38	35	32
	800 V	43.3	40	37.8	35.7	33.5	31.4	29.2

Power- DC Input Voltage Curve

Power-DC Input Voltage Curve of SUN2000-40KTL-M3



SUN2000-40KTL-M3
Output voltage 380Vac

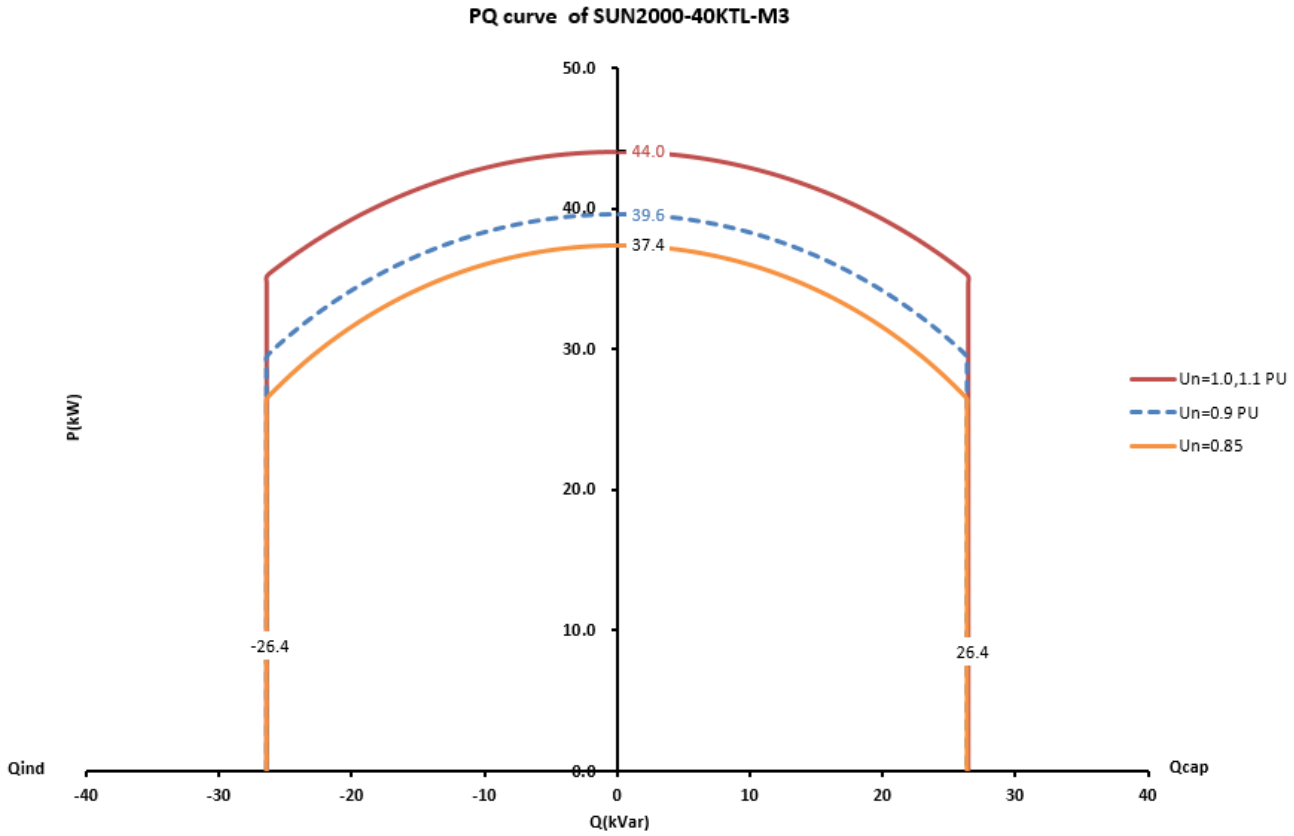


SUN2000-40KTL-M3
Output voltage 400Vac

Note: The power-DC input voltage curve is shaped when PF equals 1.0.

PQ Curve

PQ Curve of SUN2000-40KTL-M3



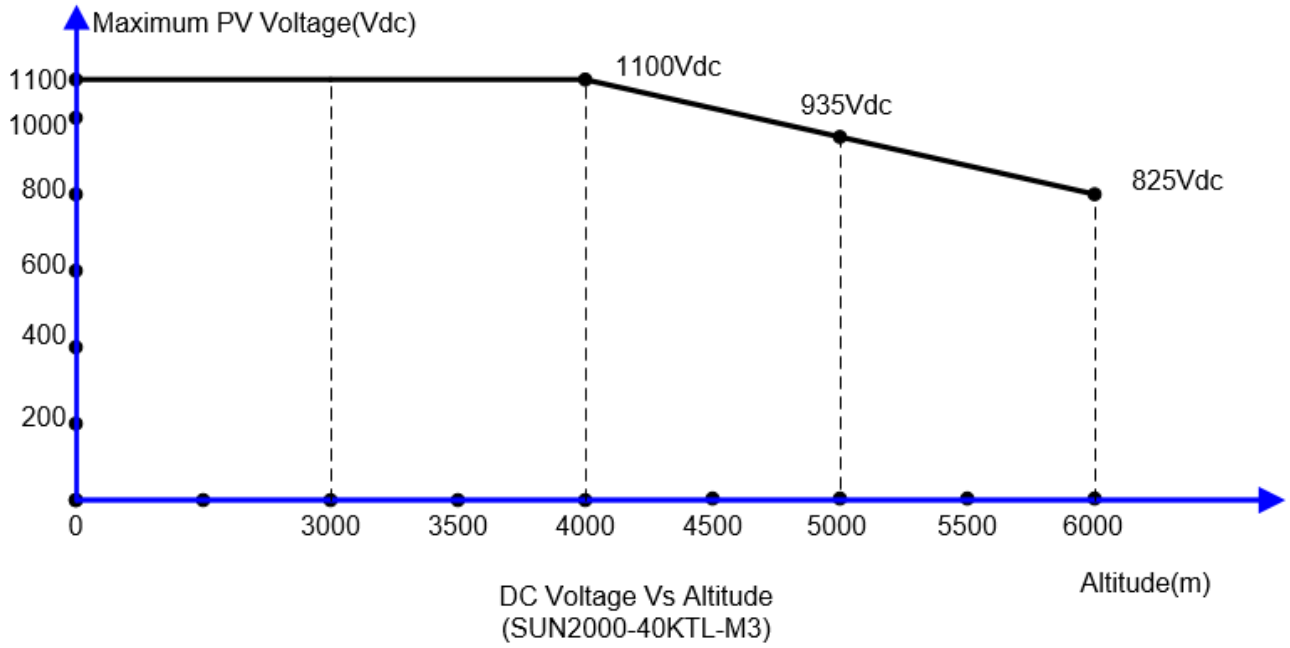
Note: When SUN2000-40KTL-M3 operates at grid voltage 1.0/1.1 p.u., the output power can reach 44kW (when PF=1) or 44kVA.

When SUN2000-40KTL-M3 operates at grid voltage 0.9 p.u., the output power can reach 39.6kW (when PF=1) or 39.6kVA.

When SUN2000-40KTL-M3 operates at grid voltage 0.85 p.u., the output power can reach 37.4kW (when PF=1) or 37.4kVA.

DC Voltage Curve Vs Altitude

DC Voltage Curve of SUN2000-40KTL-M3:



Note:

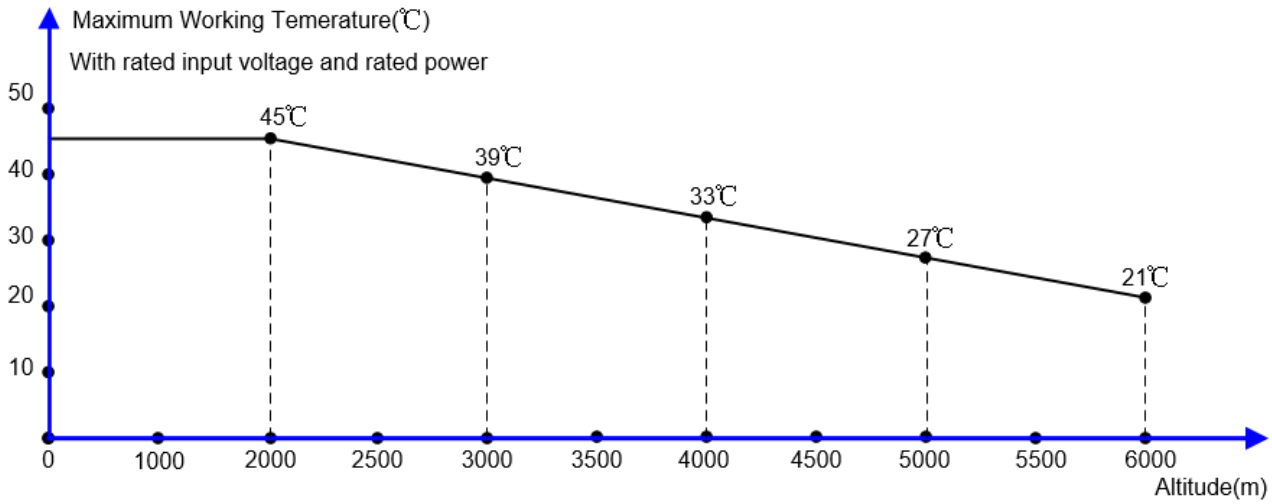
The power of SUN2000 inverter doesn't derate when altitude ≤ 4000m.

When altitude > 4000 m, DC voltage derating of SUN2000 inverter should be taken into consideration and DC voltage derates in accordance with 19.5V/100m.

The rated AC voltage of the SUN2000 inverter will not be affected by the altitude.

Maximum Working Temperature Vs Altitude

Maximum Working Temperature Vs Altitude SUN2000-40KTL-M3:



Maximum Working Temperature Vs Altitude (SUN2000 Series Inverter)

Note:

The maximum working temperature is the ambient temperature below which SUN2000 can output rated power without de-rating.

When the altitude rises, the cooling capacity of the inverters derates. So the internal temperature of inverters in the high altitude area will be higher and severer than that in the low altitude area.

When altitude > 2000m, the maximum working temperature of SUN2000 should derate by altitude, and it derates in accordance with 6℃/1000m.