

Conext™ Core XC Series, 0G-XC-BB Inverters: Altitude Derating Application Note

AP-XC-090
Revision A

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, ARC FLASH, AND FIRE

This Application Note is in addition to, and incorporates by reference, the relevant product manuals for each product in the Conext Core XC Series, 0G-XC-BB Inverters. Before reviewing this Application Note you must read the relevant product manuals. Unless specified, information on safety, specifications, installation, and operation is as shown in the primary documentation received with the product. Ensure you are familiar with that information before proceeding.

Failure to follow these instructions will result in death or serious injury.

Altitude Derating

The Conext Core XC Series, 0G-XC-BB Inverter can operate at full power at altitudes up to 1000 m (3281 ft). At certain ambient temperatures above 1000 m (3281 ft), the current will need to be derated according to the values in *Table 1*. Additionally, the PV (photovoltaic) voltage will need to be derated above 2000 m, according to the values in *Table 2*.

Table 1 Altitude current (I) derating specifications

Altitude m (ft)	Ambient 45 °C (113 °F)			Ambient 40 °C (104 °F)			Ambient 35 °C (95 °F)		
	%	Idc (A)	Iac (A)	%	Idc (A)	Iac (A)	%	Idc (A)	Iac (A)
0	100	1280	1040	100	1280	1040	100	1280	1040
1000 (3281 ft)	100	1280	1040	100	1280	1040	100	1280	1040
2000 (6562 ft)	96	1224	995	100	1280	1040	100	1280	1040
2400 (7874 ft)	94	1201	976	100	1200	1040	100	1280	1040

Table 2 Altitude PV voltage (Vpv) derating specifications

Altitude m (ft)	0	1000 (3281 ft)	2000 (6562 ft)	2400 (7874 ft)
Vpv oc (VDC) (maximum array open circuit voltage under any conditions)	1000	1000	1000	961

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Contact Information

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