

AC Inverter Derating

Thermal Derating

The ambient temperature range of the G7 ASD is from -10 to 40° C. Table 3 provides the derating percentage to be considered when selecting a drive based on the ambient temperature. The derating percentage references the full load capabilities of the drive.

Table 3. Thermal Derating.

Ambient Temperature		Percent Derating (Amps)
40° C	104° F	0%
45° C	113° F	7%
50° C	122° F	14%
55° C	131° F	20%

Altitude Derating

Toshiba inverters are capable of operating at altitudes up to 3,300 feet without requiring an altitude derate. Table 4 provides the derating percentage to be considered when using a drive above 3,300 feet.

Table 4. Altitude Derating.

Altitude		Percent Derating (Amps)
3,300 feet	1006 meters	0%
4,000 feet	1219 meters	2.3%
4,500 feet	1372 meters	4.0%
5,000 feet	1524 meters	5.6%
7,500 feet	2286 meters	13.9%
8,500 feet	2591 meters	19.0%
10,000 feet	3048 meters	22.0%

$14,000'$ $4,270\text{M}$ 34.8% $\rightarrow 14,000' = 25.2\%$
 } $1.7/500'$
 } $1.6/500'$