

## Elevation

An additional factor that affects the motor's ability to dissipate heat is the density of the surrounding air. With higher air density, more heat can be transferred. Generally the density of air at a specific location is very constant, but air density does vary with elevation; thus, when motors are installed at locations where the elevation is substantially above sea level, consideration must be given to this factor.

Standard motors will operate successfully within their normal temperature rating at elevations up to 1000 meters (3300 ft.) above sea level. When motors are to be operated above this altitude, the motor design should be checked for its suitability at the required elevation. Contact TWMC Round Rock for evaluation. When required, motor designs can be modified to make them suitable for high elevation operation.

<b>Altitude (Feet)</b>	<b>HP De-rating Factor</b>
3,301 – 5,000	0.97
5,001 – 6,600	0.94
6,601 – 8,300	0.90
8,301 – 9,900	0.86
9,901 – 11,500	0.82
11,501 – 13100	0.78
13,101 – 14,700	0.74
14,701 – 16,300	0.70