



# Altitude Corrections per IEEE C57.12.01

These guidelines are based on IEEE C57.12.01 which covers low and medium voltage transformers. IEEE C57.12.01 is referenced in NEMA ST20:2014 section 5.3.2. An altitude of 1000 meters or less is considered a standard altitude. For operation at higher altitudes, a deration factor is applied for the kVA rating and dielectric strength.

- Dielectric strength is a measure of the voltage a transformer can withstand
- kVA is the measure of power a transformer can supply

HPS transformers are designed to meet all nameplate values at the nameplate's specified altitude. The nameplate will list an altitude and the values for the kVA and BIL are the derated values, unless specifically stated otherwise. HPS has experience in designing units to meet the full nameplate ratings for installations above 1000 meters upon request.

Altitude Correction Factors			
Altitude		Dielectric Strength Correction	kVA Derating Factor*
3300	1000	1	1
4000	1200	0.98	0.994
5000	1500	0.95	0.985
6000	1800	0.92	0.976
7000	2100	0.89	0.967
8000	2400	0.86	0.958
9000	2700	0.83	0.949
10000	3000	0.80	0.940
12000	3600	0.75	0.922
14000	4200	0.70	0.904
15000	4500	0.67	0.895

\*Derating at 30°C average ambient air temperature

