

# Voltage Correction Factor for Mono Crystalline and Multicrystalline Silicon PV Modules

The Correction Factor for Ambient Temperatures Below 25 °C (77 °F).

Multiply the rated Voltage Open Circuit (**VOC**) as indicated on the PV

Panels specifications table By the appropriate correction factor

shown below . For the lowest recorded temp at the PV Panels location

Ambient Temp °C Celcius	Correction Factor	Ambient Temp °F Farenhiet
24 to 20	<b>1.02</b>	76 to 68
19 to 15	<b>1.04</b>	67 to 59
14 to 10	<b>1.06</b>	58 to 50
9 to 5	<b>1.08</b>	49 to 41
4 to 0	<b>1.10</b>	40 to 32
-1 to -5	<b>1.12</b>	31 to 23
-6 to -10	<b>1.14</b>	22 to 14
-11 to -15	<b>1.16</b>	13 to 5
-16 to -20	<b>1.18</b>	4 to -4
-21 to -25	<b>1.20</b>	-5 to -13
-26 to -30	<b>1.21</b>	-14 to -22
-31 to -35	<b>1.23</b>	-23 to -31
-36 to -40	<b>1.25</b>	-32 to -40

Document Compiled by Prism Solar from data in Table 690.7 NEC

**NB** . On cold mornings the PV panels will put out full voltage even before you can see the sun !

Ambient light may not have much current behind it but it does have voltage, exceeding the possible voltage limits that will destroy the Solar Charge Controller. The fact that there is no power behind the output voltage means that the controller will not be able to turn on and drag the panels down from VOC to max power voltage. VMP.