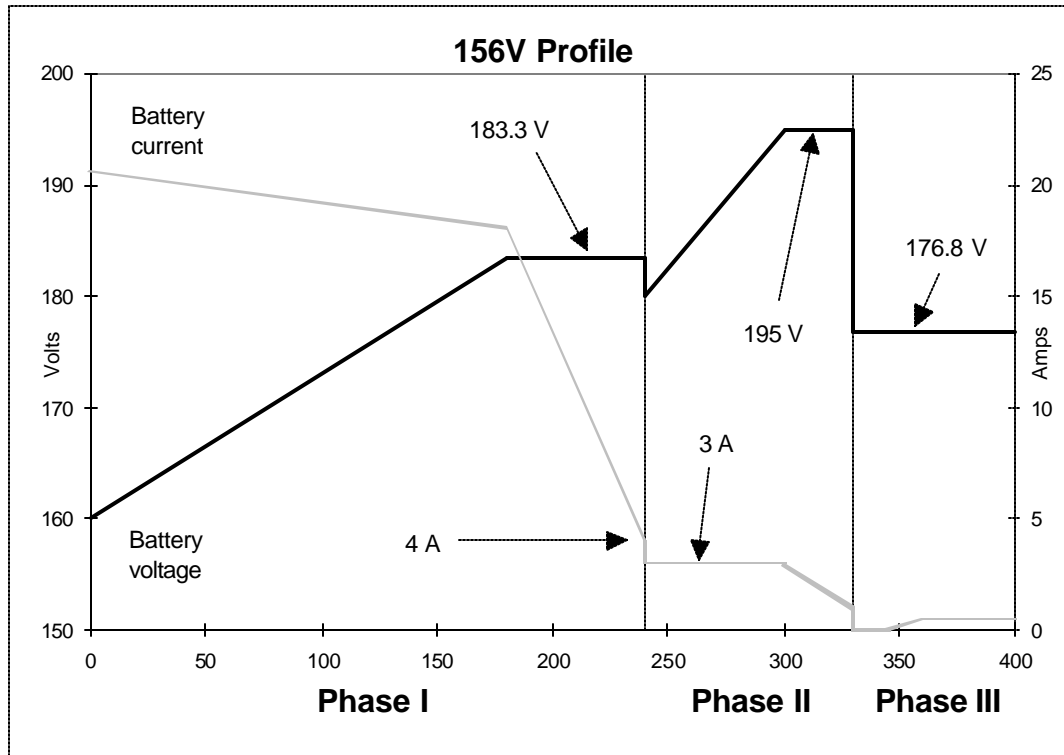


Azure Dynamics/Solectria 156 V Charging Profile



All phases:

Implement temperature compensation of $-0.2\% / ^\circ\text{C}$. The zero compensation temperature is 30°C . Disable the charger if the batteries reach 55°C . Limit amp-hours for the whole charge to 70Ah for safety.

Phase I:

Phase I is the bulk charge. The charger should charge at maximum power until the battery reaches a maximum voltage of 183.3V. When the battery current decreases below 4 A, Phase II should begin. During Phase I, LED1 should be lit.

Phase II:

Phase II is the overcharge. The charger should put out a maximum of 3 A and 195 V. During Phase II the charger should provide 12% of the amp-hours provided in Phase I, i.e. if the bulk charge provided 40 Ah, the overcharge should provide another 4.8 Ah. After the 12% has been provided, Phase III should begin. The maximum amp-hours provided in Phase II should be 8 Ah for safety. During Phase II, LED2 should be lit.

Phase III:

Phase III is an unlimited float. The charger should hold the battery at 176.8 V. The charger should be able to put out up to 10A in this mode, in case the driver uses the heater to warm the car while the car is still plugged in. During Phase III, the Done LED should be lit.